INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: October 11, 2012

RE: Louis Dreyfus Agricultural Industries LLC / 085-31979-00102

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

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this permit modification is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) 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.

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Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of a Title V operating permit or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impractible to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20406

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
FNTV-PMOD.doc 3/27/08

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Mr. Doug Lopshire
Louis Dreyfus Agricultural Industries LLC
7344 State Road 15 South
Claypool, IN 46510-9746

October 11,2012

Re: 085-31979-00102
Significant Permit Modification to
Part 70 Renewal No.: T085-29197-00102

Dear Mr. Lopshire:

Louis Dreyfus Agricultural Industries LLC was issued a Part 70 Operating Permit Renewal on November 22, 2011 for a stationary refined bleached soybean oil (RB Oil), soybean salad oil, soybean meal, and biodiesel manufacturing plant. A letter requesting changes to this permit was received on May 29, 2012. Pursuant to the provisions of 326 IAC 2-7-12, a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document. The requested changes are summarized below:

Soybean Oil Extraction Plant

(a) The unfiltered exhaust from the Meal Loadout Bins (G130000 and G070000) will be redirected from Baghouse AF-2 to a new 1,250 cfm collector. The new collector will be identified as Meal Loadout Bin Filter #1 (G071000).

(b) Flaker #4 (C040000) and Flaker #7 (C040000) will be replaced with new units that will increase the hourly production capacity for each unit from 20.3 tons per hour to 22.9 tons per hour.

(c) A new meal hammer mill, identified as Meal Hammer Mill #5 (E230000), will be installed. This unit will have a capacity of 74 tons per hour and will exhaust to the existing Meal Grinding Baghouse. A supporting conveyor, identified as Meal Hammer Mill Feeder #5 (E230200), and a supporting bin, identified as Meal Hammer Mill Bin #5 (E230100), will also be installed, each with a capacity of 74 tons per hour.

(d) The existing aspiration system for the day tank will be replaced with a larger unit, identified as Day Tank Aspirator (A160500). This unit will have an air flow rate of 6,000 cfm and will exhaust to the Dehulling Baghouse (AF-5).

(e) As a result of the changes described above, the hourly processing capacity of several emission units at the plant will increase above levels currently described in the permit as follows:

(1) The capacity of the following emission units will be changed to 17.0 tons per hour: Hull Collection Conveyor (B030900), Secondary Hull Collection L-Path (B440000), Secondary Hull Collection Conveyor (B430000), 4 Hour Hull Tank (E070300), Pellet Cooler (E080000), Pellet Cooler Cyclone (E090000), Hull Hammer Mill Feeder (E050200), Hull Hammer Mill (E050000), Hull Hammer Mill Plenum (E050100), Pelleted Hulls Leg (G050100), Pelleted Hulls Storage

Conveyor (G050300), Hulls Addition Screw Collection Conveyor (E050400), Pellet Hulls Conveyor to Loadout (G160000), and Hull Overflow Tank;

(2) The capacity of the following emission units will be changed to 264 tons per hour: Bean Weigh Scale (B011300), VSC Feed Leg (B011200), Screener (A060000), Screener Feed Conveyor (A060400), Whole Bean Aspirator No. 1 (B010100), Whole Bean Aspirator No. 2 (B020100), Whole Bean Aspirator Cyclone (B010900), Conditioned Bean Feed Conveyor (B030800), Conditioned Bean Conveyor (B010300), Soybean Extractor (D010000), VSC Air Heater (B010500), VSC Leg Feed Conveyor (A160300), and Day Tank (A160000);

(3) The capacity of the following emission units will be changed to 247 tons per hour: Flaker Feed Loop Conveyor (C200100) and Flaker Collection Conveyor (C010600);

(4) The capacity of the following emission units will be changed to 66 tons per hour: Hulloosenator No. 1 (B040000), Hulloosenator No. 2 (B080100), Hulloosenator No. 3 (B130000), Hulloosenator No. 4 (B170000), Cascade Dryer No. 1 (B050000), Cascade Dryer No. 2 (B090000), Cascade Dryer No. 3 (B140000), Cascade Dryer No. 4 (B180000), Cracking Roll No. 1 (B060000), Cracking Roll No. 2 (B100000), Cracking Roll No. 3 (B150000), Cracking Roll No. 4 (B190000), Cascade Conditioner No. 1 (B070000), Cascade Conditioner No. 2 (B110000), Cascade Conditioner No. 3 (B160000), and Cascade Conditioner No. 4 (B200000);

(5) The capacity of the following emission units will be changed to 198 tons per hour: Grinding Discharge Conveyor (E020300), Hammer Mill Mixing Conveyor (E020400), Meal L-Path Conveyor (E010100), Meal Hammer Mill Feed Conveyor (E010300), Meal Leg (G010300), Meal Conveyor to Loadout (G150000), Meal Bin No. 1 (G010000), Meal Bin No. 2 (G020000), Meal Bin No. 3 (G030000), Meal Bin No. 4 (G040000), and Meal Bin No. 5 (G050000);

(6) The capacity of the following emission units will be changed to 132 tons per hour: VSC No. 1 (B010000), VSC No. 2 (B020000), Jet Dryer No. 1 (B120000), and Jet Dryer No. 2 (B030000); and

(7) The capacity of the following emission units will be changed to 208 tons per hour: DC Deck 1 (D310000-1), DC Deck 2 (D310000-2), DC Deck 3 (D310000-3), and DC Deck 4 (D310000-4).

(f) As a result of the changes described above, the source requests that the annual production limit for the extraction plant be increased from 1,686,300 tons per year to 2,251,836 tons per year. Consequently, LDAI also requests a re-evaluation of the BACT determination for the soybean oil extraction plant to include this increase in production.

<u>Biodiesel Production Plant</u>

(g) A new methanol/sodium methylate unloading pump will be installed, allowing the unloading rate for the methanol tanks and sodium methylate tanks to increase.

For your convenience, the entire Part 70 Operating Permit as modified will be provided at issuance.

This decision is subject to the Indiana Administrative Orders and Procedures Act – IC 4-21.5-3-5. If you have any questions on this matter, please contact John Haney, OAQ, 100 North Senate Avenue, MC 61-53 1003 IGCN, Indianapolis, Indiana, 46204-2251, or call at (800) 451-6027, and ask for John Haney or extension 4-5328, or dial (317) 234-5328.

Sincerely,

Jenny Acker, Section Chief
Permits Branch
Office of Air Quality

JLA/jeh

cc: File – Kosciusko County
Kosciusko County Health Department
U.S. EPA, Region V
Northern Regional Office

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Part 70 Operating Permit Renewal
OFFICE OF AIR QUALITY

Louis Dreyfus Agricultural Industries LLC
7344 State Road 15 South
Claypool, Indiana 46510-9746

(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.: T085-29197-00102	
Issued by: Original signed by: Matthew Stuckey, Chief Permits Branch Office of Air Quality	Issuance Date: November 22, 2011 Expiration Date: November 22, 2016

Significant Permit Modification No.: 085-31343-00102, issued on April 18, 2012.
Administrative Amendment No.: 085-31787-00102, issued on May 23, 2012.

Significant Permit Modification No.: 085-31979-00102	
Issued by: Jenny Acker Jenny Acker, Section Chief Permits Branch Office of Air Quality	Issuance Date: October 11, 2012 Expiration Date: November 22, 2016

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Attachment D: 40 CFR Part 60.660, Subpart NNN – NSPS for Volatile Organic Compound (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations.

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Attachment G: 40 CFR Part 63.2430, Subpart FFFF - NESHAP: Miscellaneous Organic Chemical Manufacturing

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Attachment J: 40 CFR 63.7480, Subpart DDDDD, NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters

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(14)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary refined bleached soybean oil (RB Oil), soybean salad oil, soybean meal, and biodiesel manufacturing plant.

Source Address:	7344 State Road 15 South, Claypool, Indiana 46510-9746
General Source Phone Number:	(574) 566-2100
SIC Code:	2075, 2079 & 2869
County Location:	Kosciusko
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD Rules Major Source, under Section 112 of the Clean Air Act Nested Source with chemical process plant (biodiesel), as 1 of 28 Source Categories, within a non-listed source

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(14)]

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

(a)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
A030000	Truck Dump No. 1 *2006	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A020000	Truck Dump No. 2 *2006	600	Grain Receiving Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A030100	Discharge Conveyor No. 1 *2006	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A020100	Discharge Conveyor No. 2 *2006	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A040000	Bean Receiving Leg No. 1 *2006	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A050000	Bean Receiving Leg No. 2 *2006	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
A010000	Rail Dump and Rail Collection Conveyor *2006	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A010100	Rail Scale Discharge Conveyor *2006	360	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A150100	Cross Bin No 1 thru 3 *2006	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A120100	Cross Bin No 4 thru 6 *2006	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A151000	Discharge Bin No 1 thru 3 *2006	360	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A121000	Discharge Bin No 4 thru 6 *2006	360	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A153000	Day Bin Leg *2006	360	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
AF-2 A200000	Grain Receiving/Meal Loadout Baghouse *2006, **2010	38,000 acfm @ 0.005 grain/acf outlet gr loading		Stack AF-2	Yes under NSPS DD
A152000	West Bin Cross Conveyor 1-3 *2006, **2010 and 2011	360	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A122000	East Bin Cross Conveyor 4-6 *2006, **2010	360	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A130100	West Bin Feed Conveyor *2006, **2010	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A100100	East Bin Feed Conveyor *2006, **2010	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
G020500	Meal Storage Feed Conveyor *2006, **2010 and **2011	200	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
G070300	Truck Meal Loadout Feed Conveyor *2006, **2010	300	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G290000	Truck Collection Conveyor *2010	300	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G280000	Truck Loader No.1 *2010	330	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G270000	Truck Loader No.2 *2010	330	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G080000	Truck Pelleted Hull Loadout Bin *2006, **2010	148	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G070000	Truck Meal Loadout Bin *2006, **2010 and 2012	300	Meal Loadout Bin Filter	Stack MLBF-1	Yes under NESHAP GGGG
G180000	Rail Pelleted Hull Loadout Bin *2010	148	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G130000	Rail Meal Loadout Bin *2006, **2010 and 2012	300	Meal Loadout Bin Filter	Stack MLBF-1	Yes under NESHAP GGGG
G160000	Pellet Hulls Conveyor to Loadout *2006, **2010 and 2012	17.0	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G170000	Rail Car Collection Conveyor *2006, **2010	300	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G220000	Rail Car Loadout *2010	330	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G010100	Meal Reclaim Conveyor *2006, **2010	200	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes NESHAP GGGG
G010200	Meal Reclaim Leg *2010	200	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NESHAP GGGG
A060000	Screener *2006, **2011 and 2012	264	Prep Exhaust Baghouse	Stack AF-3	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
A160300	VSC Leg Feed Conveyor *2006, **2010 and 2012	264	Prep Exhaust Baghouse	Stack AF-3	Yes under NESHAP GGGG
A170000	Screenings Tank *2006	5	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
A170300	Screenings Recycle Leg *2006	5	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B011300	Bean Weigh Scale *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B310000	Screenings Weight Belt *2006	5	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
AF-7	Pod Grinder/Screener Baghouse *2011	5,000 acfm		Stack AF-7	Yes under NESHAP GGGG
B310200	Pod Grinder/Destoner *2006, **2010	5	Pod Grinder/ Screener Baghouse	Stack AF-7	Yes under NESHAP GGGG
B011200	VSC Feed Leg *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
A060400	Screener Feed Conveyor *2010, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
B010100	Whole Bean Aspirator No 1 *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B020100	Whole Bean Aspirator No 2 *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B010900	Whole Bean Aspirator Cyclone *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B030800	Conditioned Bean Feed Conveyor *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
B030900	Hull Collection Conveyor *2006, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E130000	Hull Screener No.1 *2006	9.6	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E150000	Hull Screener No.2 *2006	9.6	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
B440000	Secondary Hull Collection L-Path *2010, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
B430000	Secondary Hull Collection Conveyor *2010, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E070300	4 Hour Hull Tank *2006, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E080000	Pellet Cooler *2006, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E090000	Pellet Cooler Cyclone *2006, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E050200	Hull Hammer Mill Feeder *2006, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E050000	Hull Hammer Mill *2006, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E050100	Hull Hammer Mill Plenum *2006, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
G050100	Pelleted Hulls Leg *2006, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
G050300	Pelleted Hulls Storage Conveyor *2006, **2010 and 2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E050400	Hulls Addition Screw *2011, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
B010300	Conditioner Bean Loop Path *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
AF-3 G100000	Prep exhaust baghouse *2006	28,900 acfm @ 0.005 grain/acf outlet grain loading		Stack AF-3	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
	Bean Storage Bin No. 1 thru 4 *2006	600 tons/hr and each Bin has a maximum storage capacity of 500,000 bushels	None	None	Yes under NSPS DD
	Bean Storage Silo No. 1 thru 2 *2008	600 tons/hr and each Bin has a maximum storage capacity of 500,000 bushels	None	None	Yes under NSPS DD

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

(b)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
Piles #1 and #2 *2008	Two (2) covered seasonal grain storage piles	each with a maximum storage capacity of 1,000,000 bushels of soybeans	None	None	Yes under NSPS DD

Note *Approved in the year indicated above for construction.

(c)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
C200100	Flaker Feed Loop Conveyor *2010, **2012	247	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C010600	Flake Collection Conveyor (12 flakers) *2006, **2010 and 2012	247	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C010000	Flaking Roll No. 1 *2006	20.3	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C020000	Flaking Roll No. 2 *2006	22.9	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C030000	Flaking Roll No. 3 *2006	22.9	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C040000	Flaking Roll No. 4 *2012	22.9	***Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
C050000	Flaking Roll No. 5 *2006	22.9	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C060000	Flaking Roll No. 6 *2006	22.9	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C070000	Flaking Roll No. 7 *2012	22.9	***Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C080000	Flaking Roll No. 8 *2006	22.9	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C090000	Flaking Roll No. 9 *2006	22.9	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C100000	Flaking Roll No. 10 *2010, **2011	20.3	***Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C0110000	Flaking Roll No. 11 *2009	22.9	***Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C0120000	Flaking Roll No. 12 *2009	22.9	***Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
AF-4 C110000	Flaker aspiration baghouse *2006	24,000 acfm @ 0.005 grain/acf outlet grain loading		Stack AF-4	Yes under NESHAP GGGG
B040000	Hulloosenator No. 1 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B080100	Hulloosenator No. 2 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B130000	Hulloosenator No. 3 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B170000	Hulloosenator No. 4 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B050000	Cascade Dryer No. 1 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B090000	Cascade Dryer No. 2 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B140000	Cascade Dryer No. 3 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B180000	Cascade Dryer No. 4 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
B210000	CCD Cyclone *2006, **2010	42,000 cfm	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B060000	Cracking Roll No.1 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B100000	Cracking Roll No.2 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B150000	Cracking Roll No.3 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B190000	Cracking Roll No.4 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B070000	Cascade Conditioner No. 1 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B110000	Cascade Conditioner No. 2 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B160000	Cascade Conditioner No. 3 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B200000	Cascade Conditioner No. 4 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B230000	CCC Cyclone *2006, **2010	42,000 cfm	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
E130100	Secondary Aspirator No 1 *2006, **2010	9.6	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
E150100	Secondary Aspirator No 2 *2006, **2010	9.6	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
E160000	Secondary Aspirator Cyclone *2006, **2010	9.6	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
A160100	Feed Day Tank Conveyor *2006	600	Hot dehulling baghouse	Stack AF-5	Yes under NSPS DD
A160000	Day Tank *2006, **2010 and 2012	264	Hot dehulling baghouse	Stack AF-5	Yes under NSPS DD
AF-5 B260000	Hot dehulling baghouse *2006	43,000 acfm @ 0.005 grain/acf outlet grain loading		Stack AF-5	Yes under NESHAP GGGG
E020300	Grinding Discharge Conveyor *2011, **2012	198	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
E020400	Hammer Mill Mixing Conveyor *2006, **2011 and 2012	198	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E010100	Meal L-Path Conveyor *2006, **2012	198	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E010300	Meal Hammer Mill Feed Conveyor *2006, **2012	198	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E020200	Meal Hammer Mill Feeder No. 1 *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E030200	Meal Hammer Mill Feeder No. 2 *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E040200	Meal Hammer Mill Feeder No. 3 (switch) *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E020000	Meal Hammer Mill No. 1 *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E030000	Meal Hammer Mill No. 2 *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E040000	Meal Hammer Mill No. 3 (switch) *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E020100	Meal Hammer Mill Bin No. 1 *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E030100	Meal Hammer Mill Bin No. 2 *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E040100	Meal Hammer Mill Bin No. 3 (switch) *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E230200	Meal Hammer Mill Feeder No. 5 *2012	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E230000	Meal Hammer Mill No. 5 *2012	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E230100	Meal Hammer Mill Bin No. 5 *2012	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
G010300	Meal Leg *2006, **2010 and 2012	198	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
G150000	Meal Conveyor to Loadout *2006, **2012	198	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
AF-6 E110000	Mill Grinding Baghouse *2006	18,000 acfm @ 0.005 grain/acf outlet grain loading		Stack AF-6	Yes under NESHAP GGGG
B010000	VSC No. 1 *2006, **2012	132	VSC Cyclone	Stack S-1	Yes under NESHAP GGGG
B020000	VSC No. 2 *2006, **2012	132	VSC Cyclone	Stack S-1	Yes under NESHAP GGGG
B010500	VSC Air Heater *2006, **2012	264	VSC Cyclone	Stack S-1	Yes under NESHAP GGGG
B010700	VSC Cyclone *2006, **2010	42,000 cfm		Stack S-1	Yes under NESHAP GGGG
B120000	Jet Dryer No. 1 *2006, **2010 and 2012	132	Jet Dryer Baghouse AF-8	Stack S-1	Yes under NESHAP GGGG
B030000	Jet Dryer No. 2 *2006, **2012	132	Jet Dryer Baghouse AF-9	Stack S-1	Yes under NESHAP GGGG
B120100A	Jet Dryer Baghouse AF-8	74,000 acfm		Stack S-1	Yes under NESHAP GGGG
B120100B	Jet Dryer Baghouse AF-9	74,000 acfm		Stack S-1	Yes under NESHAP GGGG

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.
Note ***The Flaker aspiration baghouse has been determined to be integral to the process for this unit.

(d)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
D010000	Soybean oil extractor *2006, **2010 and 2012	264	Mineral oil absorber	Stack S-4	Yes under NESHAP GGGG
	One (1) set of evaporators *2006		Mineral oil absorber	Stack S-4	Yes under NESHAP GGGG
D020000	One (1) Desolventizer/toaster *2006, **2010		Mineral oil absorber	Stack S-4	Yes under NESHAP GGGG
	One (1) set of water separators *2006		Mineral oil absorber	Stack S-4	Yes under NESHAP GGGG
D060000	Main Vent Condenser *2006		Mineral oil absorber	Stack S-4	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
	Five (5) hexane storage tank *2006 for original tank, and 2010 for other tanks **2010 for original tank	20,690 gallons each	Mineral oil absorber	Stack S-4	Yes under NESHAP GGGG
I220000	One (1) soybean oil pre-treat Tank *2010	35,170 gallons			Yes under NESHAP GGGG
	Three (3) soybean oil storage tank (Degummed Oil Tanks #1 and #2 and Crude Oil Tank #3) *2006 for original tank and 2010 for other tanks, **2010 for original tank	725,000 gallons each			Yes under NESHAP GGGG
D070000	Mineral oil absorber *2006			Stack S-4	Yes under NESHAP GGGG
D310000-1	DC Deck No. 1 *2006, **2010 and 2012	208	DC Deck Cyclone No. 1	Stack S-2	Yes under NESHAP GGGG
D310000-2	DC Deck No. 2 *2006, **2010, 2011, and 2012	208	DC Deck Cyclone No. 2	Stack S-2	Yes under NESHAP GGGG
D310000-3	DC Deck No. 3 *2006, **2010 and 2012	208	DC Deck Cyclone No. 3	Stack S-2	Yes under NESHAP GGGG
D310000-4	DC Deck No. 4 *2006, **2010 and 2012	208	DC Deck Cyclone No. 4	Stack S-2	Yes under NESHAP GGGG
D310700	DC Deck Cyclone No. 1 *2006, **2010 and 2011	18,000 scfm		Stack S-2	Yes under NESHAP GGGG
D310800	DC Deck Cyclone No. 2 *2006, **2010 and 2011	18,000 scfm		Stack S-2	Yes under NESHAP GGGG
D310900	DC Deck Cyclone No. 3 *2010, ** 2011	18,000 scfm		Stack S-2	Yes under NESHAP GGGG
D311000	DC Deck Cyclone No. 4 *2010, **2011	18,000 scfm		Stack S-2	Yes under NESHAP GGGG

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

(e)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
CL-5045	1st Primary Transester Column *2006, **2007 and 2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
CL-5046	1st Secondary Transester Column *2006, **2007 and 2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
CL-5063	2nd Primary Transester Column *2006, **2007 and 2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
CL-5064	2nd Secondary Transester Column *2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
R-8171	Esterification Reactor *2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
VU010000	Vacuum group package *2006, **2007 and 2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS VV, and NESHAP FFFF
	Biodiesel Mineral Oil Absorber *2010			Stack S-5	Yes under NSPS VV, and NESHAP FFFF
	Biodiesel Water Absorber *2006, **2007	0.448 gpm		Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I040000	Biodiesel Storage Tank #4 *2006, **2007	725,000 gals			Yes under NSPS VV, and NESHAP FFFF
I050000	Biodiesel Storage Tank #5 *2006, **2007	725,000 gals			Yes under NSPS VV, and NESHAP FFFF
1060000	Biodiesel Storage Tank #6 *2009	325,000			Yes under NSPS VV, and NESHAP FFFF
I070000	Biodiesel Storage Tank #7 *2006, **2007	325,000 gals			Yes under NSPS VV, and NESHAP FFFF
I080000	Biodiesel Storage Tank #8 *2006, **2007	325,000 gals			Yes under NSPS VV, and NESHAP FFFF
I090000	Biodiesel Storage Tank #9 *2006, **2007	325,000 gals			Yes under NSPS VV, and NESHAP FFFF

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
I100000	Biodiesel Storage Tank #10 *2006, **2007	325,000 gals			Yes under NSPS VV, and NESHAP FFFF
I110000	Biodiesel Storage Tank #11 *2007	325,000 gals			Yes under NSPS VV, and NESHAP FFFF
1140000	Biodiesel Storage Tank #0 *2009	735,000			Yes under NSPS VV, and NESHAP FFFF
I120000	Glycerin Tank #12 *2006, **2010	360,000 gals			Yes under NSPS VV, and NESHAP FFFF
I130000	Glycerin Tank #13 *2006, **2010	360,000 gals			Yes under NSPS VV, and NESHAP FFFF
I250000	Methanol Storage Tank #1 *2006, **2007 and **2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I260000	Methanol Storage Tank #2 *2006, **2007 and 2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I270000	Methanol Storage Tank #3 *2006, **2007 and 2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I280000	Methanol Storage Tank #4 *2006, **2007 and 2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I290000	Methanol Storage Tank #5 *2006, **2007 and 2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I300000	Methanol Storage Tank #6 *2007	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I230000	Sodium Methylate (catalyst) Storage Tank #1 *2006, **2007 and 2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I240000	Sodium Methylate (catalyst) Storage Tank #2 *2007, **2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
Rail Rack	Loading Rack (Rail) *2006, **2007, **2010 and **2011	500 gallons per minute			Yes under NSPS VV, and NESHAP FFFF
Truck Rack #1	Loading Rack (Truck) *2006, **2007, **2010 and **2011	430 gallons per minute			Yes under NSPS VV, and NESHAP FFFF
Truck Rack #2	Loading Rack (Truck) *2011	430 gallons per minute			Yes under NSPS VV, and NESHAP FFFF

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

(f)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
B-1	Main Boiler, natural gas fired and #2 fuel oil as back up fuel *2006	220 MMBtu/hr	Low NOx burner and Flue gas recirculation	Stack S-3	Yes under NSPS Db and NESHAP DDDDD

Note *Approved in the year indicated above for construction.

(g)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
G010000	Meal Bin No. 1*** *2006, **2010, 2011, and 2012	198	Meal Bin Filter No. 1	Stack MBF-1	Yes under NESHAP GGGG
G020000	Meal Bin No. 2*** *2006, **2010, 2011, and 2012	198	Meal Bin Filter No. 2	Stack MBF-2	Yes under NESHAP GGGG
G030000	Meal Bin No. 3*** *2006, **2010, 2011, and 2012	198	Meal Bin Filter No. 3	Stack MBF-3	Yes under NESHAP GGGG
G040000	Meal Bin No. 4*** *2006, **2010, 2011, and 2012	198	Meal Bin Filter No. 4	Stack MBF-4	Yes under NESHAP GGGG
G050000	Meal Bin No. 5*** *2010, **2011 and 2012	198	Meal Bin Filter No. 5	Stack MBF-5	Yes under NESHAP GGGG

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.
Note ***There are five meal bins. However, the plant is only physically capable of loading one meal bin at a time. Thus, the PTE for these units is calculated at a rate of 198 tons/hr for all five meal bins combined.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(14)]

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

Description	Capacity (gallons)	Control	Affected Facility?
Kaolin Receiving Tank [326 IAC 2-2] [326 IAC 6-3-2] *2006, **2010	10,800 and 40 tons per hour	Bin Filter	
Hull Overflow Tank [326 IAC 2-2] [326 IAC 6-3-2] *2006, **2010 and 2012	13,900 cu. ft and 17 tons per hour	None	
diesel/#2 fuel oil storage tank [326 IAC 2-2] *2006, **2011	44,839 gallons	None	
Cooling tower with a maximum drift rate of 0.005% *2006	11,000 gpm	None	
Three (3) Diesel Fire Pumps [326 IAC 2-2] *2006	575 BHP each	None	Yes under NSPS IIII and NESHAP ZZZZ
Paved roads and parking lots with public access [326 IAC 2-2] *2006		None	
Diatomaceous Earth (DE) Storage Bin [326 IAC 6-3-2] *2009, **2011	767 tons per year	Filter	

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

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

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

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

(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]

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)]

(a) This permit, T085-29197-00102, 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]

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]

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)]

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)]

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)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

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

B.8 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

(a) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:

(1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(34), and

(2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) A "responsible official" is defined at 326 IAC 2-7-1(34).

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

(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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(12)] [326 IAC 1-6-3]

(a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

(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 Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(d) 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]

(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, or Northern Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Northern Regional Office phone: (574) 245-4870; fax: (574) 245-4877.

(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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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)(8) 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.

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 T085-29197-00102 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)]

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 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]

(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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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.16 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 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 does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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.18 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12(b)(2)]

(a) No Part 70 permit revision or notice 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.19 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b) or (c) without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any 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) or (c). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1) and (c)(1).

(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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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.20 Source Modification Requirement [326 IAC 2-7-10.5]

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

B.21 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-30-3-1] [IC 13-17-3-2]

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.22 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

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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.23 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.24 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 5-1-1 (Applicability) and 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

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

C.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). 326 IAC 6-4-2(4) is not federally enforceable.

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. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.

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 that meets the requirements of 326 IAC 2-7-6(1) by a "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]

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

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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]

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)] [40 CFR 64] [326 IAC 3-8]

(a) Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or of initial start-up, whichever is later, to begin such monitoring. If due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance or the date of initial startup, whichever is later, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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.

(b) For monitoring required by CAM, at all times, the Permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(c) For monitoring required by CAM, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

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

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

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

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

C.12 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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

(a) The Permittee shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.

(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.13 Risk Management Plan [326 IAC 2-7-5(11)] [40 CFR 68]

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

C.14 Response to Excursions or Exceedances [40 CFR 64] [326 IAC 3-8] [326 IAC 2-7-5] [326 IAC 2-7-6]

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

(a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to normal or usual manner of operation.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall record the reasonable response steps taken.

(II)

(a) CAM *Response to excursions or exceedances.*

(1) Upon detecting an excursion or exceedance, subject to CAM, the Permittee shall restore operation of the pollutant-specific emissions unit (including the 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. 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). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or 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.

(2) 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, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

(b) If the Permittee identifies a failure to achieve compliance with an emission limitation, subject to CAM, or standard, subject to CAM, for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the IDEM, OAQ and, if necessary, submit a proposed significant permit modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the

frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

(c) Based on the results of a determination made under paragraph (II)(a)(2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a QIP. The Permittee shall develop and implement a QIP if notified to in writing by the EPA or IDEM, OAQ.

(d) Elements of a QIP:
The Permittee shall maintain a written QIP, if required, and have it available for inspection. The plan shall conform to 40 CFR 64.8 b (2).

(e) If a QIP is required, the Permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the IDEM, OAQ if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.

(f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(a)(2) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:

(1) Failed to address the cause of the control device performance problems; or

(2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(g) Implementation of a QIP shall not excuse the Permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.

(h) *CAM recordkeeping requirements.*

(1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to paragraph (II)(a)(2) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements

C.15 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 submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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.16 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]

In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), starting in 2004 and every three (3) years thereafter, the Permittee shall submit by July 1 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

(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. Support information includes the following:

(AA) All calibration and maintenance records.

(BB) All original strip chart recordings for continuous monitoring instrumentation.

(CC) Copies of all reports required by the Part 70 permit.

Records of required monitoring information include the following:

(AA) The date, place, as defined in this permit, and time of sampling or measurements.

(BB) The dates analyses were performed.

(CC) The company or entity that performed the analyses.

(DD) The analytical techniques or methods used.

(EE) The results of such analyses.

(FF) The operating conditions as existing at the time of sampling or measurement.

These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

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

C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [40 CFR 64] [326 IAC 3-8]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

On and after the date by which the Permittee must use monitoring that meets the requirements of 40 CFR Part 64 and 326 IAC 3-8, the Permittee shall submit CAM reports to the IDEM, OAQ.

A report for monitoring under 40 CFR Part 64 and 326 IAC 3-8 shall include, at a minimum, the information required under paragraph (a) of this condition and the following information, as applicable:

(1) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

(2) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

(3) A description of the actions taken to implement a QIP during the reporting period as specified in Section C-Response to Excursions or Exceedances. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

The Permittee may combine the Quarterly Deviation and Compliance Monitoring Report and a report pursuant to 40 CFR 64 and 326 IAC 3-8.

(b) The address for report submittal is:

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

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

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

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
A030000	Truck Dump No. 1 *2006	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A020000	Truck Dump No. 2 *2006	600	Grain Receiving Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A030100	Discharge Conveyor No. 1 *2006	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A020100	Discharge Conveyor No. 2 *2006	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A040000	Bean Receiving Leg No. 1 *2006	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A050000	Bean Receiving Leg No. 2 *2006	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A010000	Rail Dump and Rail Collection Conveyor *2006	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A010100	Rail Scale Discharge Conveyor *2006	360	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A150100	Cross Bin No 1 thru 3 *2006	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A120100	Cross Bin No 4 thru 6 *2006	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
A151000	Discharge Bin No 1 thru 3 *2006	360	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A121000	Discharge Bin No 4 thru 6 *2006	360	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A153000	Day Bin Leg *2006	360	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
AF-2 A200000	Grain Receiving/Meal Loadout Baghouse *2006, **2010	38,000 acfm @ 0.005 grain/acf outlet gr loading		Stack AF-2	Yes under NSPS DD
A152000	West Bin Cross Conveyor 1-3 *2006, **2010 and 2011	360	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A122000	East Bin Cross Conveyor 4-6 *2006, **2010	360	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A130100	West Bin Feed Conveyor *2006, **2010	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A100100	East Bin Feed Conveyor *2006, **2010	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
G020500	Meal Storage Feed Conveyor *2006, **2010 and **2011	200	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NESHAP GGGG
G070300	Truck Meal Loadout Feed Conveyor *2006, **2010	300	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G290000	Truck Collection Conveyor *2010	300	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
G280000	Truck Loader No.1 *2010	330	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G270000	Truck Loader No.2 *2010	330	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G080000	Truck Pelleted Hull Loadout Bin *2006, **2010	148	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G070000	Truck Meal Loadout Bin *2006, **2010 and 2012	300	Meal Loadout Bin Filter	Stack MLBF-1	Yes under NESHAP GGGG
G180000	Rail Pelleted Hull Loadout Bin *2010	148	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G130000	Rail Meal Loadout Bin *2006, **2010 and 2012	300	Meal Loadout Bin Filter	Stack MLBF-1	Yes under NESHAP GGGG
G160000	Pellet Hulls Conveyor to Loadout *2006, **2010 and 2012	17.0	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G170000	Rail Car Collection Conveyor *2006, **2010	300	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G220000	Rail Car Loadout *2010	330	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G010100	Meal Reclaim Conveyor *2006, **2010	200	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes NESHAP GGGG
G010200	Meal Reclaim Leg *2010	200	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NESHAP GGGG
A060000	Screener *2006, **2011 and 2012	264	Prep Exhaust Baghouse	Stack AF-3	Yes under NESHAP GGGG
A160300	VSC Leg Feed Conveyor *2006, **2010 and 2012	264	Prep Exhaust Baghouse	Stack AF-3	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
A170000	Screenings Tank *2006	5	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
A170300	Screenings Recycle Leg *2006	5	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B011300	Bean Weigh Scale *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B310000	Screenings Weight Belt *2006	5	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
AF-7	Pod Grinder/Screener Baghouse *2011	5,000 acfm		Stack AF-7	Yes under NESHAP GGGG
B310200	Pod Grinder/Destoner *2006, **2010	5	Pod Grinder/ Screener Baghouse	Stack AF-7	Yes under NESHAP GGGG
B011200	VSC Feed Leg *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
A060400	Screener Feed Conveyor *2010, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
B010100	Whole Bean Aspirator No 1 *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B020100	Whole Bean Aspirator No 2 *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B010900	Whole Bean Aspirator Cyclone *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B030800	Conditioned Bean Feed Conveyor *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
B030900	Hull Collection Conveyor *2006, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E130000	Hull Screener No.1 *2006	9.6	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E150000	Hull Screener No.2 *2006	9.6	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
B440000	Secondary Hull Collection L-Path *2010, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
B430000	Secondary Hull Collection Conveyor *2010, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E070300	4 Hour Hull Tank *2006, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E080000	Pellet Cooler *2006, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E090000	Pellet Cooler Cyclone *2006, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E050200	Hull Hammer Mill Feeder *2006, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E050000	Hull Hammer Mill *2006, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E050100	Hull Hammer Mill Plenum *2006, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
G050100	Pelleted Hulls Leg *2006, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
G050300	Pelleted Hulls Storage Conveyor *2006, **2010 and 2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E050400	Hulls Addition Screw *2011, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
B010300	Conditioner Bean Loop Path *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
AF-3 G100000	Prep exhaust baghouse *2006	28,900 acfm @ 0.005 grain/acf outlet grain loading		Stack AF-3	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
	Bean Storage Bin No. 1 thru 4 *2006	600 tons/hr and each Bin has a maximum storage capacity of 500,000 bushels	None	None	Yes under NSPS DD
	Bean Storage Silo No. 1 thru 2 *2008	600 tons/hr and each Bin has a maximum storage capacity of 500,000 bushels	None	None	Yes under NSPS DD

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

(b)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
Piles #1 and #2 *2008	Two (2) covered seasonal grain storage piles	each with a maximum storage capacity of 1,000,000 bushels of soybeans	None	None	Yes under NSPS DD

Note *Approved in the year indicated above for construction.

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

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

D.1.1 PSD Minor Limit for Particulate [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 not applicable, the Permittee shall comply with the following PM, PM_{10}, and $PM_{2.5}$ limits:

(a) The amount of soybeans processed shall be less than 2,251,836 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The PM, PM_{10}, and $PM_{2.5}$ emissions from the following Processes shall be less than the emission limits listed in the table below:

Process	Control	PM Limit (lbs/hour)	PM_{10} Limit (lbs/hour)	$PM_{2.5}$ Limit (lbs/hour)
Grain Receiving/Meal Loadout	Baghouse AF-2	1.64	1.64	1.64
Meal Loadout Bins	Meal Loadout Bin Filter MLBF-1	0.054	0.054	0.054
Prep Area	Baghouse AF-3	1.26	1.26	1.26

(c) The PM, PM_{10}, and $PM_{2.5}$ emissions from the following Process shall be less than the emission limits listed in the table below:

Process	Control	PM Limit (lbs/hour)	PM_{10} Limit (lbs/hour)	$PM_{2.5}$ Limit (lbs/hour)
Pod Grinder/Destoner	Pod Grinder/ Screener Baghouse	1.5	1.5	1.5

Compliance with the soybean usage limit in Condition D.1.1(a) in combination with the PM, PM_{10}, and $PM_{2.5}$ emission limits in Conditions D.1.1(b), D.1.1(c), D.2.1, D.3.1, D.5.1, D.6.1 and D.7.1 and with the potential to emit PM, PM_{10}, and $PM_{2.5}$ from other emission units at the source, shall limit the PM, PM_{10}, and $PM_{2.5}$ emissions from the entire source to less 250 tons per twelve (12) consecutive month period and render the requirements of 326 IAC 2-2 Prevention of Significant Deterioration (PSD) not applicable.

D.1.2 Particulate Emissions Limitations [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2, the particulate emissions from each of the following processes shall not exceed the pound per hour limitations specified in the following table:

Emission unit ID	Emissions Units	[1]Baghouse ID	Maximum Process Weight (tons/hour) for each unit	326 IAC 6-3 Limit (lbs/hr) for each unit
G160000	Pellet Hulls Conveyor to Loadout	AF-2	17.0	27.36
B030900	Hull Collection Conveyor	AF-3	17.0	27.36
E130000 and E150000	Hull Screener No. 1 and No. 2	AF-3	9.6	18.66
B430000	Secondary Hull Collection Conveyor	AF-3	17.0	27.36
B440000	Secondary Hull Collection L-Path	AF-3	17.0	27.36
E080000	Pellet Cooler	AF-3	17.0	27.36
E050000, E050200, and E050100	Hull Hammer Mill, Hull Hammer Mill Feeder, and Hull Hammer Mill Plenum	AF-3	17.0	27.36
G050100	Pelleted Hulls Leg	AF-3	17.0	27.36
G050300 and E050400	Pelleted Hulls Storage Conveyor and Hulls Addition Screw	AF-3	17.0	27.36
B310200	Pod Grinder/Destoner	AF-7	5.0	12.05

Note 1: For emission units that exhaust through the same stack, the source will need to demonstrate compliance with 326 IAC 6-3-2 during normal operations using the most stringent limit (e.g. calculated from the emission unit operating at the lowest process weight in ton/hr).

The particulate emissions limitations from the above table shall be calculated using the following equation:

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

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

(b) Pursuant to 326 IAC 6-3-2, the particulate emissions from each of the following processes shall not exceed the pound per hour limitations specified in the following table:

Emission unit ID	Emissions Units	[1]Baghouse ID	Maximum Process Weight (tons/hour) for each unit	326 IAC 6-3 Limit (lbs/hr) for each unit
A030000 and A020000	Truck Dumps No. 1 and No. 2	AF-2	600	71.16
A030100, A020100, A040000, A050000, A130100, and A100100	Discharge Conveyors No. 1 and No. 2, Bean Receiving Legs No. 1 and No. 2, and East and West Bin Feed Conveyors	AF-2	600	71.16
A010000	Rail Dump and Rail Collection Conveyor	AF-2	600	71.16
A150100 and A120100	Cross Bins No 1 thru 6	AF-2	600	71.16
A153000, A010100, A151000, A121000, A152000, and A122000	Day Bin Leg, Rail Scale Discharge Conveyor, Discharge Bin No 1 thru 6, West Bin Cross Conveyor 1-3, and East Bin Cross Conveyor 4-6	AF-2	360.0	65.09
G280000 and G270000	Truck Loader No.1 and No. 2	AF-2	330	64.09
G220000	Rail Car Loadout (Pellets/Hulls)	AF-2	330	64.09
G130000 and G070000	Rail Meal Loadout Bin and Truck Meal Loadout Bin	MLBF-1	300	63.00
G020500	Meal Storage Feed Conveyor	AF-2	200	58.51
G170000 and G290000	Rail Car Collection Conveyor and Truck Collection Conveyor	AF-2	300	63.00
G070300	Truck Meal Loadout Feed Conveyor	AF-2	300	63.00
G010100 and G010200	Meal Reclaim Conveyor and Meal Reclaim Leg	AF-2	200	58.51

Emission unit ID	Emissions Units	[1]Baghouse ID	Maximum Process Weight (tons/hour) for each unit	326 IAC 6-3 Limit (lbs/hr) for each unit
Piles #1 and #2	Two (2) covered seasonal grain storage piles, identified as Piles #1 and #2	N/A	360	65.09
A060000	Screener	AF-3	264	61.56
B011300	Bean Weigh Scale	AF-3	264	61.56
B011200, A160300, B060400 and B030800	VSC Feed Leg, VSC Leg Feed Conveyor, Screener Feed Conveyor and Conditioned Bean Feed Conveyor	AF-3	264	61.56
B010100 and B020100	Whole Bean Aspiration No. 1 and No. 2	AF-3	264	61.56
B010300	Conditioner Bean Loop Path	AF-3	264	61.56
	Bean Storage Bin No. 1 thru 4	N/A	600	71.16
	Bean Storage Silo No. 1 thru 2	N/A	600	71.16

Note 1: For emission units that exhaust through the same stack, the source will need to demonstrate compliance with 326 IAC 6-3-2 during normal operations using the most stringent limit (e.g. calculated from the emission unit operating at the lowest process weight in ton/hr).

The particulate emissions limitations from the above table shall be calculated using the following equation:

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

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

(c) Pursuant to 326 IAC 6-3-2(e)(3), when the process weight exceeds 200 tons per hour, the maximum allowable emissions may exceed the emission limits shown paragraph (a), provided the concentration of particulate matter in the gas discharged to the atmosphere is less than 0.10 pounds per 1,000 pounds of gases.

D.1.3 Significant Source Modification Avoidance Limit [326 IAC 2-7-10.5(f)]

Pursuant to Minor Source Modification (MSM) No. 085-24676-00102, issued on April 28, 2008, in order to render the requirements of 326 IAC 2-7-10.5(f) not applicable, the Permittee shall comply with the following PM, PM_{10}, and $PM_{2.5}$ limits:

(a) The emissions for PM shall not exceed 0.061 pound/Ton of material for the two (2) Storage Bean Piles #1 and #2;

(b) The emissions for PM_{10} shall not exceed 0.034 pound/Ton of material for the two (2) Storage Bean Piles #1 and #2;

(c) The emissions for $PM_{2.5}$ shall not exceed 0.0058 pound/Ton of material for the two (2) Storage Bean Piles #1 and #2; and

(d) The soybean throughput to the two (2) Storage Bean Piles #1 and #2 shall be less than 8,000,000 bushels per twelve (12) consecutive month period with compliance determined at the end of each month.

D.1.4 Preventive Maintenance Plan [326 IAC 1-6-3]

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

Compliance Determination Requirements

D.1.5 Particulate Control

(a) In order to comply with Conditions D.1.1(b) and D.1.1(c), baghouses AF-2, AF-3, and AF-7 shall be in operation and control emissions from all emission units exhausting to stacks AF-2, AF-3, and AF-7 at all times when an emission unit that the baghouses control are in operation.

(b) In order to comply with Condition D.1.2, Baghouse AF-2 shall be in operation and control emissions from Truck Dumps No. 1 and No. 2 and Truck Loader No. 1 and No. 2 at all times the Truck Dumps No. 1 and No. 2 and Truck Loader No. 1 and No. 2 are in operation.

(c) In order to comply with Conditions D.1.1(b) and D.1.2, Meal Loadout Bin Filter MLBF-1 shall be in operation and control emissions from the Rail Meal Loadout Bin and Truck Meal Loadout Bin at all times the Rail Meal Loadout Bin and Truck Meal Loadout Bin are in operation.

(d) In order to comply with Condition D.1.2, baghouse AF-3 shall be in operation and control emissions from the Hull Hammer Mill, Hull Hammer Mill Feeder, and Hull Hammer Mill Plenum at all times the Hull Hammer Mill, Hull Hammer Mill Feeder, and Hull Hammer Mill Plenum are in operation.

(e) 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.1.6 Testing Requirements [326 IAC 2-1.1-11]

(a) No later than five (5) years after the most recent valid compliance demonstration, the Permittee shall conduct PM, PM_{10}, and $PM_{2.5}$ testing on baghouse AF-2 (associated with the grain receiving/meal loadout system) to verify compliance with Conditions D.1.1(b), D.1.2, and E.2.2 (40 CFR 60.302(b)(1)), utilizing methods as approved by the Commissioner. PM_{10} and $PM_{2.5}$ include filterable and condensable PM. These tests shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration.

(b) No later than five (5) years after the most recent valid compliance demonstration but no later than 180 days after startup of the extraction plant new units as permitted by Significant Source Modification No. 085-31960-00102, the Permittee shall conduct PM, PM_{10}, and $PM_{2.5}$ testing on baghouse AF-3 (associated with the prep system) to verify compliance with Conditions D.1.1(b), D.1.2, and E.2.2 (40 CFR 60.302(b)(1)), utilizing methods as approved by the Commissioner. PM_{10} and $PM_{2.5}$ include filterable and condensable PM. These tests shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration.

(c) No later than 180 days after initial startup of Meal Loadout Bin Filter #1, the Permittee shall conduct PM, PM_{10}, and $PM_{2.5}$ testing on meal loadout bin filter MLBF-1 (associated with the meal loadout bins) to verify compliance with Conditions D.1.1(b) and D.1.2, utilizing methods as approved by the Commissioner. PM_{10} and $PM_{2.5}$ include filterable

and condensable PM. These tests shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures).

Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

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

D.1.7 Visible Emissions Notations

(a) Pursuant to 40 CFR 64 (CAM), visible emission notations of the stacks AF-2, AF-3, and AF-7 exhausts shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) Visible emission notations of the stack MLBF-1 exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(c) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(d) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(e) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(f) If abnormal emissions are observed, the Permittee shall take a reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response shall be considered a deviation from this permit.

D.1.8 Parametric Monitoring [40 CFR 64]

The Permittee shall record pressure drop across baghouses AF-2, and AF-3, used in conjunction with the grain receiving/meal loadout system and prep system, at least once per day when the grain receiving/meal loadout system and prep system are in operation. When for any one reading, the pressure drop across Baghouses AF-2 and AF-3 is outside the normal range established during the latest stack test, the Permittee shall take a reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every twelve (12) months or more frequently if recommended by the instrument manufacture's specifications.

D.1.9 Broken or Failed Bag Detection [40 CFR 64]

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shutdown immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

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

D.1.10 Record Keeping Requirements

(a) To document the compliance status with Condition D.1.1(a), the Permittee shall maintain records of the quantity of soybeans processed.

(b) To document the compliance status with Condition D.1.3, the Permittee shall maintain monthly records of the soybean throughput in the two (2) Storage Bean Piles #1 and #2. Records necessary to demonstrate compliance shall be available no later than 30 days of the end of each compliance period.

(c) To document the compliance status with Condition D.1.7 the Permittee shall maintain a daily record of visible emission notations of the stack exhaust from Stacks AF-2, MLBF-1, AF-3, and AF-7. 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).

(d) To document the compliance status with Condition D.1.8 the Permittee shall maintain a daily record of the pressure drop across baghouses AF-2 and AF-3, used to control the grain receiving and prep system. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

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

D.1.11 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.1.1(a), and Condition D.1.3 shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee’s obligation with regard to the reporting required by this condition. The reports submitted by the Permittee do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official,” as defined by 326 IAC 2-7-1 (34).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(c)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
C200100	Flaker Feed Loop Conveyor *2010, **2012	247	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C010600	Flake Collection Conveyor (12 flakers) *2006, **2010 and 2012	247	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C010000	Flaking Roll No. 1 *2006	20.3	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C020000	Flaking Roll No. 2 *2006	22.9	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C030000	Flaking Roll No. 3 *2006	22.9	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C040000	Flaking Roll No. 4 *2012	22.9	***Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C050000	Flaking Roll No. 5 *2006	22.9	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C060000	Flaking Roll No. 6 *2006	22.9	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C070000	Flaking Roll No. 7 *2012	22.9	***Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C080000	Flaking Roll No. 8 *2006	22.9	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C090000	Flaking Roll No. 9 *2006	22.9	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C100000	Flaking Roll No. 10 *2010, **2011	20.3	***Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C0110000	Flaking Roll No. 11 *2009	22.9	***Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C0120000	Flaking Roll No. 12 *2009	22.9	***Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
AF-4 C110000	Flaker aspiration baghouse *2006	24,000 acfm @ 0.005 grain/acf outlet grain loading		Stack AF-4	Yes under NESHAP GGGG
B040000	Hulloosenator No. 1 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B080100	Hulloosenator No. 2 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B130000	Hulloosenator No. 3 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B170000	Hulloosenator No. 4 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B050000	Cascade Dryer No. 1 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B090000	Cascade Dryer No. 2 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B140000	Cascade Dryer No. 3 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B180000	Cascade Dryer No. 4 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B210000	CCD Cyclone *2006, **2010	42,000 cfm	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B060000	Cracking Roll No.1 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B100000	Cracking Roll No.2 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B150000	Cracking Roll No.3 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B190000	Cracking Roll No.4 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B070000	Cascade Conditioner No. 1 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
B110000	Cascade Conditioner No. 2 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B160000	Cascade Conditioner No. 3 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B200000	Cascade Conditioner No. 4 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B230000	CCC Cyclone *2006, **2010	42,000 cfm	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
E130100	Secondary Aspirator No 1 *2006, **2010	9.6	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
E150100	Secondary Aspirator No 2 *2006, **2010	9.6	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
E160000	Secondary Aspirator Cyclone *2006, **2010	9.6	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
A160100	Feed Day Tank Conveyor *2006	600	Hot dehulling baghouse	Stack AF-5	Yes under NSPS DD
A160000	Day Tank *2006, **2010 and 2012	264	Hot dehulling baghouse	Stack AF-5	Yes under NSPS DD
AF-5 B260000	Hot dehulling baghouse *2006	43,000 acfm @ 0.005 grain/acf outlet grain loading		Stack AF-5	Yes under NESHAP GGGG
E020300	Grinding Discharge Conveyor *2011, **2012	198	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E020400	Hammer Mill Mixing Conveyor *2006, **2011 and 2012	198	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E010100	Meal L-Path Conveyor *2006, **2012	198	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E010300	Meal Hammer Mill Feed Conveyor *2006, **2012	198	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E020200	Meal Hammer Mill Feeder No. 1 *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E030200	Meal Hammer Mill Feeder No. 2 *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
E040200	Meal Hammer Mill Feeder No. 3 (switch) *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E020000	Meal Hammer Mill No. 1 *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E030000	Meal Hammer Mill No. 2 *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E040000	Meal Hammer Mill No. 3 (switch) *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E020100	Meal Hammer Mill Bin No. 1 *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E030100	Meal Hammer Mill Bin No. 2 *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E040100	Meal Hammer Mill Bin No. 3 (switch) *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E230200	Meal Hammer Mill Feeder No. 5 *2012	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E230000	Meal Hammer Mill No. 5 *2012	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E230100	Meal Hammer Mill Bin No. 5 *2012	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
G010300	Meal Leg *2006, **2010 and 2012	198	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
G150000	Meal Conveyor to Loadout *2006, **2012	198	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
AF-6 E110000	Mill Grinding Baghouse *2006	18,000 acfm @ 0.005 grain/acf outlet grain loading		Stack AF-6	Yes under NESHAP GGGG
B010000	VSC No. 1 *2006, **2012	132	VSC Cyclone	Stack S-1	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
B020000	VSC No. 2 *2006, **2012	132	VSC Cyclone	Stack S-1	Yes under NESHAP GGGG
B010500	VSC Air Heater *2006, **2012	264	VSC Cyclone	Stack S-1	Yes under NESHAP GGGG
B010700	VSC Cyclone *2006, **2010	42,000 cfm		Stack S-1	Yes under NESHAP GGGG
B120000	Jet Dryer No. 1 *2006, **2010 and 2012	132	Jet Dryer Baghouse AF-8	Stack S-1	Yes under NESHAP GGGG
B030000	Jet Dryer No. 2 *2006, **2012	132	Jet Dryer Baghouse AF-9	Stack S-1	Yes under NESHAP GGGG
B120100A	Jet Dryer Baghouse AF-8	74,000 acfm		Stack S-1	Yes under NESHAP GGGG
B120100B	Jet Dryer Baghouse AF-9	74,000 acfm		Stack S-1	Yes under NESHAP GGGG

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.
Note ***The Flaker aspiration baghouse has been determined to be integral to the process for this unit.

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

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

D.2.1 PSD Minor Limit for Particulate [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 not applicable, the Permittee shall comply with the following PM, PM_{10}, and $PM_{2.5}$ limits:

The PM, PM_{10}, and $PM_{2.5}$ emissions from the following Processes shall be less than the emission limits listed in the table below:

Process	Control	PM Limit (lbs/hour)	PM_{10} Limit (lbs/hour)	$PM_{2.5}$ Limit (lbs/hour)
Jet Dryer/VSC	VSC cyclone and Jet Dryer Baghouses AF-8 and AF-9	4.93	3.35	3.35
Hot Dehulling	Baghouse AF-5	2.56	2.56	2.56
Flaker Aspiration	Baghouse AF-4	1.03	1.03	1.03
Meal Grinding	Baghouse AF-6	0.945	0.945	0.945

Compliance with the above limits, in combination with the soybean usage limit in Condition D.1.1(a) and with the PM, PM_{10}, and $PM_{2.5}$ emission limits in Conditions D.1.1(b), D.1.1(c), D.3.1, D.5.1, D.6.1 and D.7.1, and with the potential to emit PM, PM_{10}, and $PM_{2.5}$ from other emission units at the source, shall limit the PM, PM_{10}, and $PM_{2.5}$ emissions from the entire source to less 250 tons per twelve (12) consecutive month period and render the requirements of 326 IAC 2-2 Prevention of Significant Deterioration (PSD) not applicable.

D.2.2 Particulate Emissions Limitations [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2, the particulate emissions from each of the following processes shall not exceed the pound per hour limitations specified in the following table:

Emission unit ID	Emissions Units	[1]Baghouse ID	Maximum Process Weight (tons/hour) for each unit	326 IAC 6-3 Limit (lbs/hr) for each unit
E130100 and E150100	Secondary Aspirator No 1, and No. 2	AF-5	9.6	18.66
C010000	Flaking Roll No. 1	AF-4	20.3	30.82
C020000, C030000, C050000, C060000, C080000, and C090000	Flaking Rolls No. 2, 3, 5, 6, 8, and 9	AF-4	22.9	33.41

Note 1: For emission units that exhaust through the same stack, the source will need to demonstrate compliance with 326 IAC 6-3-2 during normal operations using the most stringent limit (e.g. calculated from the emission unit operating at the lowest process weight in ton/hr).

The particulate emissions limitations from the above table shall be calculated using the following equation:

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

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

(b) Pursuant to 326 IAC 6-3-2, the particulate emissions from each of the following processes shall not exceed the pound per hour limitations specified in the following table:

Emission unit ID	Emissions Units	[1]Baghouse ID	Maximum Process Weight (tons/hour) for each unit	326 IAC 6-3 Limit (lbs/hr) for each unit
B120000 and B030000	Jet Dryer No. 1 and No. 2	Jet Dryer Baghouses AF-8 and AF-9	132	54.11
B010500	VSC Air Heater	VSC Cyclone	264	61.56
B010000 and B020000	Vertical Seed Conditioner (VSC) No. 1 and No. 2	VSC Cyclone	132	54.11

Emission unit ID	Emissions Units	[1]Baghouse ID	Maximum Process Weight (tons/hour) for each unit	326 IAC 6-3 Limit (lbs/hr) for each unit
B040000, B080100, B130000, and B170000	Hulloosenator No. 1, No. 2, No. 3, and No. 4	AF-5	66.0	47.20
B050000, B090000, B140000, and B180000	Cascade Dryer No. 1, No. 2, No. 3 and No. 4	AF-5	66.0	47.20
B060000, B100000, B150000, and B190000	Cracking Roll No.1, No. 2, No. 3 and No. 4	AF-5	66.0	47.20
B070000, B110000, B160000, and B200000	Cascade Conditioner No. 1, No. 2, No. 3 and No. 4	AF-5	66.0	47.20
C200100 and C010600	Flaker Feed Loop Conveyor and Flake Collection Conveyor	AF-4	247	60.82
E020300, E020400, E010100, and E010300	Grinding Discharge Conveyor, Hammer Mill Mixing Conveyor, Meal L-Path Conveyor, and Meal Hammer Mill Feed Conveyor	AF-6	198	58.40
E020200, E030200, E040200, E020000, E030000, and E040000	Meal Hammer Mill Feeders No. 1, No. 2 and No. 3, Meal Hammer Mills No. 1, No. 2 and No. 3	AF-6	74	48.30
E230200 and E230000	Meal Hammer Mill Feeder No. 5 and Meal Hammer Mill No. 5	AF-6	74.0	48.30
G010300, and G150000	Meal Leg, and Meal Conveyor to Loadout	AF-6	198	58.40
E020100, E030100, and E040100	Meal Hammer Mill Bins No. 1, No. 2 and No. 3	AF-6	74	48.30
E230100	Meal Hammer Mill Bin No. 5	AF-6	74.0	48.30
A160100	Feed Day Tank Conveyor	AF-5	600	71.16
A160000	Day Tank	AF-5	264	61.56

Note 1: For emission units that exhaust through the same stack, the source will need to demonstrate compliance with 326 IAC 6-3-2 during normal operations using the most stringent limit (e.g. calculated from the emission unit operating at the lowest process weight in ton/hr).

The particulate emissions limitations from the above table shall be calculated using the following equation:

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

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

D.2.3 Preventive Maintenance Plan [326 IAC 1-6-3]

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

Compliance Determination Requirements

D.2.4 Particulate Control

(a) In order to comply with Conditions D.2.1, baghouses AF-4, AF-5, AF-6, the VSC cyclone, and jet dryers baghouses AF-8 and AF-9 shall be in operation and control emissions from all emission units exhausting to stacks, AF-4, AF-5, AF-6, AF-8, AF-9, and S-1 at all times when an emission unit that the baghouses or the cyclones control is in operation.

(b) In order to comply with Conditions D.2.2, baghouse AF-4 shall be in operation and control emissions from the Flaker Feed Loop Conveyor and Flake Collection Conveyor at all times the Flaker Feed Loop Conveyor and Flake Collection Conveyor are in operation.

(c) In order to comply with Conditions D.2.2, baghouse AF-5 shall be in operation and control emissions from the Hulloosenators No. 1, No. 2, No. 3, and No. 4 and Cracking Rolls No.1, No. 2, No. 3 and No. 4 at all times the Hulloosenators No. 1, No. 2, No. 3, and No. 4, Cracking Rolls No.1, No. 2, No. 3 and No. 4 are in operation.

(d) In order to comply with Conditions D.2.2, baghouse AF-6 shall be in operation and control emissions from the Meal Hammer Mill Feeders No. 1, No. 2, No. 3, and No. 5 and Meal Hammer Mills No. 1, No. 2, No. 3, and No. 5 at all times the Meal Hammer Mill Feeders No. 1, No. 2, No. 3, and No. 5 and Meal Hammer Mills No. 1, No. 2, No. 3, and No. 5 are in operation.

(e) 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.2.5 Testing Requirements [326 IAC 2-1.1-11]

(a) No later than five (5) years after the most recent valid compliance demonstration but no later than 180 days after startup of the extraction plant new units as permitted by Significant Source Modification No. 085-31960-00102, the Permittee shall conduct PM, PM_{10}, and $PM_{2.5}$ testing on baghouses AF-4, AF-5, AF-6, AF-8, and AF-9 and VSC cyclone (associated with the flaking system, dehulling system, meal grinding/conveying, and VSC system) to verify compliance with Condition D.2.1 and Condition D.2.2, utilizing methods as approved by the Commissioner.

(b) No later than 180 days after the issuance date of Significant Source Modification No. 085-29971-00102 and Part 70 Operating Permit Renewal No. T085-29197-00102, the Permittee shall conduct PM, PM_{10}, and $PM_{2.5}$ testing on baghouses AF-8 and AF-9 (associated with the jet drying) to verify compliance with Condition D.2.1 and Condition D.2.2, utilizing methods as approved by the Commissioner.

These tests shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by these conditions. PM_{10} and $PM_{2.5}$ include filterable and condensable PM.

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

D.2.6 Visible Emissions Notations [40 CFR 64]

(a) Visible emission notations of the stacks AF-4, AF-5, AF-6, and S-1 exhausts shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take a reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response shall be considered a deviation from this permit.

D.2.7 Parametric Monitoring [40 CFR 64]

The Permittee shall record the pressure drop across baghouses AF-4, AF-5, AF-6, AF-8, and AF-9 used in conjunction with the flaking system, dehulling system, and meal grinding system, at least once per day when the flaking system, dehulling system, and meal grinding system are in operation. When for any one reading, the pressure drop across Baghouses AF-4 and AF-6 is outside the normal range established during the latest stack test, the Permittee shall take reasonable response steps. When for any one reading, the pressure drop across Baghouses AF-8 and AF-9 is outside the normal range of 0.5 to 8.0 inches of water or a range established during the latest stack test, the Permittee shall take a reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated or replaced at least once every twelve (12) months or more frequently if recommended by the instrument manufacture's specifications.

D.2.8 Broken or Failed Bag Detection [40 CFR 64]

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shutdown immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

D.2.9 Cyclone Failure Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

In the event that cyclone failure has been observed:

The feed to the process shall be shut down immediately until the failed units have been repaired or replaced. The emission units shall be shut down no later than the completion of the processing of the material in the emission unit. 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). Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to response steps required by this condition. Failure to take response steps shall be considered a deviation of this permit.

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

D.2.10 Record Keeping Requirements

(a) To document the compliance status with Condition D.2.6, the Permittee shall maintain a daily record of visible emission notations of the stack exhaust from Stacks AF-4, AF-5, AF-6, and S1. 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).

(b) To document the compliance status with Condition D.2.7 the Permittee shall maintain a daily record of the pressure drop across baghouses, AF-4, AF-5, AF-6, AF-8 and AF-9 used to control loadout, flaking, dehulling system, and meal grinding. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

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

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(d)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
D010000	Soybean oil extractor *2006, **2010 and 2012	264	Mineral oil absorber	Stack S-4	Yes under NESHAP GGGG
	One (1) set of evaporators *2006		Mineral oil absorber	Stack S-4	Yes under NESHAP GGGG
D020000	One (1) Desolventizer/toaster *2006, **2010		Mineral oil absorber	Stack S-4	Yes under NESHAP GGGG
	One (1) set of water separators *2006		Mineral oil absorber	Stack S-4	Yes under NESHAP GGGG
D060000	Main Vent Condenser *2006		Mineral oil absorber	Stack S-4	Yes under NESHAP GGGG
	Five (5) hexane storage tank *2006 for original tank, and 2010 for other tanks **2010 for original tank	20,690 gallons each	Mineral oil absorber	Stack S-4	Yes under NESHAP GGGG
I220000	One (1) soybean oil pre-treat Tank *2010	35,170 gallons			Yes under NESHAP GGGG
	Three (3) soybean oil storage tank (Degummed Oil Tanks #1 and #2 and Crude Oil Tank #3) *2006 for original tank and 2010 for other tanks, **2010 for original tank	725,000 gallons each			Yes under NESHAP GGGG
D070000	Mineral oil absorber *2006			Stack S-4	Yes under NESHAP GGGG
D310000-1	DC Deck No. 1 *2006, **2010 and 2012	208	DC Deck Cyclone No. 1	Stack S-2	Yes under NESHAP GGGG
D310000-2	DC Deck No. 2 *2006, **2010, 2011, and 2012	208	DC Deck Cyclone No. 2	Stack S-2	Yes under NESHAP GGGG
D310000-3	DC Deck No. 3 *2006, **2010 and 2012	208	DC Deck Cyclone No. 3	Stack S-2	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
D310000-4	DC Deck No. 4 *2006, **2010 and 2012	208	DC Deck Cyclone No. 4	Stack S-2	Yes under NESHAP GGGG
D310700	DC Deck Cyclone No. 1 *2006, **2010 and 2011	18,000 scfm		Stack S-2	Yes under NESHAP GGGG
D310800	DC Deck Cyclone No. 2 *2006, **2010 and 2011	18,000 scfm		Stack S-2	Yes under NESHAP GGGG
D310900	DC Deck Cyclone No. 3 *2010, ** 2011	18,000 scfm		Stack S-2	Yes under NESHAP GGGG
D311000	DC Deck Cyclone No. 4 *2010, **2011	18,000 scfm		Stack S-2	Yes under NESHAP GGGG

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

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

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

D.3.1 PSD Minor Limits for Particulate [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 not applicable, the Permittee shall comply with the following PM, PM_{10}, and $PM_{2.5}$ limits:

The PM, PM_{10}, and $PM_{2.5}$ emissions from the following Processes shall be less than the emission limits listed in the table below:

Process	Control	PM Limit (lbs/hour)	PM_{10} Limit (lbs/hour)	$PM_{2.5}$ Limit (lbs/hour)
DC Decks	DC Deck Cyclone No. 1 DC Deck Cyclone No. 2 DC Deck Cyclone No. 3 DC Deck Cyclone No. 4	10.74	7.28	7.28

Compliance with the above limits, in combination with the soybean usage limit in Condition D.1.1(a) and with the PM, PM_{10}, and $PM_{2.5}$ emission limits in Conditions D.1.1(b), D.1.1(c), D.2.1, D.5.1, D.6.1 and D.7.1, and with the potential to emit PM, PM_{10}, and $PM_{2.5}$ from other emission units at the source, shall limit the PM, PM_{10}, and $PM_{2.5}$ emissions from the entire source to less 250 tons per twelve (12) consecutive month period and render the requirements of 326 IAC 2-2 Prevention of Significant Deterioration (PSD) not applicable.

D.3.2 PSD Minor Limit for VOC [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 not applicable, the VOC emissions from the following Processes shall be less than the emission limits in the table below:

Process	Control	VOC Limit (lbs/hour)
Soybean oil extractor system Normal operation	Mineral oil absorber	9.3
DC Decks Normal operation	DC Decks Cyclones	32.8

Compliance with the above VOC emission limits, the VOC emission limits in Condition D.4.1, the VOC emission limit in Condition D.5.2, the VOC emission limits in Condition D.7.2, and the potential to emit VOC from other units at the source shall limit the VOC emissions from the entire source to less 250 tons per twelve (12) consecutive month period and render the requirements of 326 IAC 2-2 Prevention of Significant Deterioration (PSD) not applicable.

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

Pursuant to 326 IAC 6-3-2, the particulate emissions from each of the following processes shall not exceed the pound per hour limitations specified in the following table:

Emission unit ID	Emissions Units	Cyclone ID	Maximum Process Weight (tons/hour) for each unit	326 IAC 6-3 Limit (lbs/hr) for each unit
D310000-1, D310000-2, D310000-3, and D310000-4	DC Decks No. 1, No. 2, No. 3, and No. 4	DC Deck Cyclones No. 1 through 4	208	58.93

The particulate emissions limitations from the above table shall be calculated using the following equation:

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

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

D.3.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Significant Source Modification No. 085-31960-00102 revised the BACT requirements pursuant to 326 IAC 8-1-6 as follows:

(a) The VOC emissions from the combined condenser and mineral oil scrubber system for the extractor vent system shall not exceed 0.048 pounds per ton of soybean processed and shall not exceed 9.3 pounds per hour.

(b) The VOC emissions from the meal dryers and meal cooler (DC Decks No. 1, No. 2, No. 3, and No. 4) shall not exceed 0.03 gallons of VOC per ton of soybean processed and shall not exceed 32.8 pounds per hour.

(c) The overall solvent loss ratio shall not exceed 0.141 gallons per ton of soybean crushed from the whole plant per twelve (12) consecutive month period, with compliance determined at the end of each month. The Permittee shall also follow the leak detection and repair program as part of BACT.

(d) The maximum annual throughput of soybeans processed shall not exceed 1,686,300 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(e) BACT for the fugitive hexane loss shall include an enhanced inspection, maintenance, and repair program (LDAR Program). No later than 60 days of achieving full production, but in no case later than 180 days after initial startup, the Permittee shall institute the following enhanced inspection, maintenance, and repair program for equipment in VOC service located in the solvent extraction portion of the installation. Equipment in vacuum service is exempt from this monitoring requirement pursuant to 40 CFR Part 60.482-1(d).

Table 1

Equipment	Leak Standard
Pumps	500 ppm
Valves	500 ppm
Pressure relief Devices	500 ppm
Flanges, Connectors, and Seals	10,000 ppm

(1) The Permittee shall determine compliance with the standards in Table 1 by using the procedures of 40 CFR Part 60, Appendix A, Method 21. The instrument shall be calibrated before each day of its use by the procedures as specified in Method 21. A leak is defined as an instrument reading of 500 ppm above background or greater, except for flanges, and connectors where a leak is defined as 10,000 ppm above background.

(2) The Permittee shall immediately tag all detected leaks with a weatherproof, and readily visible, identification tag with a distinct number. Once a leaking component is detected, first-attempt repairs must be done no later than five days and be completed no later than 15 days of detecting the leaking components. If the repair cannot be accomplished no later than 15 days, then the Permittee shall send a notice of inability to repair to the OAQ no later than 20 days of detecting the leak. The notice must be received by the Compliance and Enforcement Branch, Office of Air Quality, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251, no later than 20 days after the leak was detected. At a minimum the notice shall include the following:

(A) Equipment, operator, and instrument identification number;

(B) Date of leak detection;

(C) Measured concentration (ppm) and background (ppm);

(D) Leak identification number associated with the corresponding tag; and

(E) Reason of inability to repair no later than 5 to 15 days of detection.

(3) The Permittee shall maintain records of the following to verify compliance with the enhanced inspection, maintenance, and repair program:

(A) equipment inspected;

(B) date of inspection; and

(C) determination of whether a leak was detected.

(4) If a leak is detected, the Permittee shall record the following information to verify compliance with the enhanced inspection, maintenance, and repair program:

(A) the equipment, operator, and instrument identification number;

(B) measured concentration;

(C) leak identification number associated with the corresponding tag;

(D) date of repair;

(E) reason for non-repair if unable to repair no later than 5 to 15 days of detection; and

(F) maintenance recheck if repaired-date, concentration, background.

(5) Definitions contained in 40 CFR Part 60, Subpart VV shall be utilized where necessary to implement this program.

D.3.5 Preventive Maintenance Plan [326 IAC 1-6-3]

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

Compliance Determination Requirements

D.3.6 Particulate Control

In order to comply with Conditions D.3.1, and D.3.3, DC Deck Cyclones No. 1, No. 2, No. 3, and No. 4 shall be in operation and control emissions from the DC Decks No. 1, No. 2, No. 3, and No. 4 at all times the DC Decks No. 1, No. 2, No. 3, and No. 4 are in operation.

D.3.7 Volatile Organic Compounds (VOC)

In order to comply with Conditions D.3.2 and D.3.4(a), the mineral oil absorber system and the soybean oil stripper shall be in operation and control emissions from the oil extractor process at all times the oil extractor process is in operation.

D.3.8 Testing Requirements [326 IAC 2-1.1-11]

(a) No later than five (5) years after the most recent valid compliance demonstration but no later than 180 days after startup of the extraction plant new units as permitted by Significant Source Modification No. 085-31960-00102, the Permittee shall conduct PM, PM_{10}, and $PM_{2.5}$ testing on stack S-2 (associated with the meal dryers and cooler) to verify compliance with Conditions D.3.1 and D.3.3, utilizing methods as approved by the Commissioner. PM_{10} and $PM_{2.5}$ include filterable and condensable PM. This test shall be repeated at least every five (5) years from the date of the most recent valid compliance demonstration.

(b) No later than five (5) years after the most recent valid compliance demonstration but no later than 180 days after startup of the extraction plant new units as permitted by Significant Source Modification No. 085-31960-00102, the Permittee shall perform VOC testing on the mineral oil absorber stack (stack S-4) and determine the mineral oil absorber's mineral oil flow rate and the temperature of mineral oil to the absorber to verify compliance with Conditions D.3.2 and D.3.4(a), utilizing methods as approved by the Commissioner. This test shall be repeated at least once five (5) years from the date of the most recent valid compliance demonstration.

(c) No later than five (5) years after the most recent valid compliance demonstration but no later than 180 days after startup of the extraction plant new units as permitted by Significant Source Modification No. 085-31960-00102, the Permittee shall perform VOC testing on the meal dryers and cooler cyclones stack (stack S-2) to verify compliance with Conditions D.3.2 and D.3.4(b), utilizing methods as approved by the Commissioner. This test shall be repeated at least once five (5) years from the date of the most recent valid compliance demonstration.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures).

Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by these conditions.

D.3.9 Leak Detection and Repair (LDAR) Program [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6, the following is required to demonstrate compliance with the requirements of Condition D.3.4(c):

(a) For pumps

(i) For the first year:

(A) Weekly visual check for leakage; and

(B) Semi-annual organic vapor analyzer inspection (leak definition = 500 ppm above background concentrations).

(ii) After the first year:

(A) Weekly visual check for leakage;

(B) Annual organic vapor analyzer inspection (leak definition = 500 ppm above background concentrations).

(iii) When a unit has a leak detected during an annual organic vapor analyzer inspection, the frequency of organic vapor analyzer inspections shall become semi-annual;

(iv) When that unit has no leak detected for two (2) consecutive semi-annual vapor analyzer inspections, the frequency of the inspections shall return to annual.

(b) For valves

(i) For the first year:

(A) Semi-annual organic vapor analyzer inspection (leak definition = 500 ppm above background concentrations).

(ii) After the first year:

(A) Annual organic vapor analyzer inspection (leak definition = 500 ppm above background concentrations);

(B) When a unit has a leak detected during an annual organic vapor analyzer inspection, the frequency of organic vapor analyzer inspections shall become semi-annual; and

(C) When that unit has no leak detected for two (2) consecutive semi-annual vapor analyzer inspections, the frequency of the inspections shall return to annual.

(c) For pressure relief devices:

(i) No later than five (5) calendar days after a pressure release, the pressure release device shall be monitored to confirm conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background concentrations or a calibrated LEL Monitor reading of less than 3%. Any pressure relief device that is equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device is exempt from the above requirement.

(d) For connectors, flanges, and seals, the annual organic vapor analyzer inspections shall be made (leak definition = 10,000 ppm above background concentrations).

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

D.3.10 Visible Emissions Notations [40 CFR 64]

(a) Visible emission notations of Stack S-2 exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take a reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response shall be considered a deviation from this permit.

D.3.11 Monitoring for Mineral Oil Absorber and Mineral Oil Stripping Column [40 CFR 64]

(a) The Permittee shall monitor and record the mineral oil flow rate to the mineral oil absorber at least once per day.

(b) A continuous monitoring system shall be calibrated, maintained, and operated on the mineral oil absorber for measuring operating temperature. For purposes of this condition continuous shall mean temperature measurement no less than once per minute. The output of this system shall be recorded as a 3-hour block average. The Permittee shall operate the mineral oil absorber at or below the 3-hour block average temperature as determined from the most recent valid stack test.

(1) The Permittee shall determine the 3-hour block average temperature from the most recent valid stack test that demonstrates compliance with the limits in conditions D.3.2 and D.3.4(a).

(2) On and after the date the stack test results are available, the Permittee shall maintain the temperature of the mineral oil to the absorber at or below the 3-hour block average temperature as observed during the compliant stack test.

(c) A continuous monitoring system shall be calibrated, maintained, and operated on the mineral oil stripper for measuring the temperature of mineral oil to the stripper. For purposes of this condition continuous shall mean temperature measurement no less than once per minute. The output of this system shall be recorded as a 3-hour block average. The Permittee shall operate the mineral oil stripper at or above the 3-hour block average temperature as determined from the most recent valid stack test.

(1) The Permittee shall determine the 3-hour block average temperature from the most recent valid stack test that demonstrates compliance with limits in condition D.3.2.

(2) On and after the date the stack test results are available, the Permittee shall operate the mineral oil stripper at or above the 3-hour block average temperature as observed during the compliant stack test.

(d) If any of the following operating conditions occur, the Permittee shall take a reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

(1) When the mineral oil flow rate reading is below the minimum mineral oil flow rate for any one reading. The minimum mineral oil flow rate to the mineral oil absorber will be as recommended by the manufacturer or the minimum flow rate established during the latest stack test.

(2) When the 3-hour block average temperature reading of the mineral oil to the absorber is above the temperature for any 3-hour block average. The 3-hour block average temperature of the mineral oil to the absorber will be as recommended by the manufacturer or the maximum temperature established during the latest stack test.

(3) When the 3-hour block average temperature reading of the mineral oil to the stripper is below the minimum temperature for any 3-hour block average. The minimum temperature of the mineral oil to the stripper will be as recommended by the manufacturer or the minimum temperature established during the latest stack test.

Operating conditions above or below the values specified in (1) through (3) above shall not be considered a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

(e) The instruments used for determining the flow rate and temperature readings shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months.

(f) The gauge employed to take the mineral oil flow to the mineral oil absorber shall have a scale such that the expected normal reading shall be no less than 20 percent of full scale and be accurate within + 10% of full scale reading. The instrument shall be quality assured and maintained as specified by the vendor.

D.3.12 Scrubber Failure Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [40 CFR 64]

In the event that scrubber failure has been observed:

The feed to the process shall be shut down immediately until the failed units have been repaired or replaced. The emission units shall be shut down no later than the completion of the processing of the material in the emission unit. 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). Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to response steps required by this condition. Failure to take response steps shall be considered a deviation of this permit.

D.3.13 Cyclone Failure Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [40 CFR 64]

In the event that cyclone failure has been observed:

The feed to the process shall be shut down immediately until the failed units have been repaired or replaced. The emission units shall be shut down no later than the completion of the processing of the material in the emission unit. 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). Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to response steps required by this condition. Failure to take response steps shall be considered a deviation of this permit.

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

D.3.14 Record Keeping Requirements

(a) To document the compliance status with Condition D.3.10, the Permittee shall maintain a daily record of visible emission notations of the stack exhaust from Stack S-2. 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).

(b) To document the compliance status with Condition D.3.11, the Permittee shall maintain a daily record of the mineral oil flow rate, the 3-hour block average temperatures of the mineral oil to the absorber, and the 3-hour block average temperatures of the mineral oil to the stripping column. The Permittee shall include in its daily record when a parametric notation is not taken and the reason for the lack of parametric notation (e.g. the process did not operate that day).

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

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(e)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
CL-5045	1st Primary Transester Column *2006, **2007 and 2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
CL-5046	1st Secondary Transester Column *2006, **2007 and 2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
CL-5063	2nd Primary Transester Column *2006, **2007 and 2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
CL-5064	2nd Secondary Transester Column *2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
R-8171	Esterification Reactor *2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
VU010000	Vacuum group package *2006, **2007 and 2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS VV, and NESHAP FFFF
	Biodiesel Mineral Oil Absorber *2010			Stack S-5	Yes under NSPS VV, and NESHAP FFFF
	Biodiesel Water Absorber *2006, **2007	2.2 gpm		Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I040000	Biodiesel Storage Tank #4 *2006, **2007	725,000 gals			Yes under NSPS VV, and NESHAP FFFF
I050000	Biodiesel Storage Tank #5 *2006, **2007	725,000 gals			Yes under NSPS VV, and NESHAP FFFF
1060000	Biodiesel Storage Tank #6 *2009	3250,000			Yes under NSPS VV, and NESHAP FFFF
I070000	Biodiesel Storage Tank #7 *2006, **2007	325,000 gals			Yes under NSPS VV, and NESHAP FFFF

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
I080000	Biodiesel Storage Tank #8 *2006, **2007	325,000 gals			Yes under NSPS VV, and NESHAP FFFF
I090000	Biodiesel Storage Tank #9 *2006, **2007	325,000 gals			Yes under NSPS VV, and NESHAP FFFF
I100000	Biodiesel Storage Tank #10 *2006, **2007	325,000 gals			Yes under NSPS VV, and NESHAP FFFF
I110000	Biodiesel Storage Tank #11 *2007	325,000 gals			Yes under NSPS VV, and NESHAP FFFF
1140000	Biodiesel Storage Tank #0 *2009	735,000			Yes under NSPS VV, and NESHAP FFFF
I120000	Glycerin Tank #12 *2006, **2010	360,000 gals			Yes under NSPS VV, and NESHAP FFFF
I130000	Glycerin Tank #13 *2006, **2010	360,000 gals			Yes under NSPS VV, and NESHAP FFFF
I250000	Methanol Storage Tank #1 *2006, **2007 and **2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I260000	Methanol Storage Tank #2 *2006, **2007 and 2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I270000	Methanol Storage Tank #3 *2006, **2007 and 2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I280000	Methanol Storage Tank #4 *2006, **2007 and 2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I290000	Methanol Storage Tank #5 *2006, **2007 and 2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I300000	Methanol Storage Tank #6 *2007	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I230000	Sodium Methylate (catalyst) Storage Tank #1 *2006, **2007 and 2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I240000	Sodium Methylate (catalyst) Storage Tank #2 *2007, **2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
Rail Rack	Loading Rack (Rail) *2006, **2007, **2010 and **2011	500 gallons per minute			Yes under NSPS VV, and NESHAP FFFF
Truck Rack #1	Loading Rack (Truck) *2006, **2007, **2010 and **2011	430 gallons per minute			Yes under NSPS VV, and NESHAP FFFF
Truck Rack #2	Loading Rack (Truck) *2011	430 gallons per minute			Yes under NSPS VV, and NESHAP FFFF

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

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

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

D.4.1 PSD Minor Limits for VOC [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 not applicable, the Permittee shall comply with the following:

(a) The VOC emissions from the following Processes shall be less than the emission limits listed in the table below:

Process	Control	VOC (lbs/hour)	Limit
Biodiesel manufacturing process Normal operation	Mineral Oil Absorber and Water absorber	0.30	
Biodiesel manufacturing process with methanol tank loading	Mineral Oil Absorber and Water absorber	0.63	1,000 hours per twelve (12) consecutive months.
Biodiesel manufacturing process upset operation	Mineral Oil Absorber and Water absorber	29.4	24 hours per twelve (12) consecutive months.
Glycerin storage tanks	None	0.0011	
Biodiesel wastewater	None	0.77	
Biodiesel fugitive emissions	LDR as required by 40 CFR 60, Subpart VV	0.64	

(b) The amount of purchased seed oil shall be less than 80 million gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(c) The amount of seed oil processed to manufacture biodiesel shall be less than 110,000,000 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(d) The VOC emissions from the loading racks shall be less than 0.02 lbs/kgal.

(e) The maximum biodiesel loadout throughput rate for the loading racks shall be less than 110,000,000 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with the purchased seed oil limit in Condition D.4.1(b), in combination with the above VOC emission limits in Condition D.4.1 shall limit the potential to emit of VOC from the biodiesel process to less than 100 tons per twelve (12) consecutive month period and render the requirements of 326 IAC 2-2 Prevention of Significant Deterioration (PSD) not applicable.

Compliance with the purchased seed oil limit in Condition D.4.1(b), in combination with the above VOC emission limits in Condition D.4.1, the VOC emission limits in Condition D.3.2, the VOC emission limit in Condition D.5.2, the VOC emission limits in Condition D.7.2, and the potential to emit from other units at the source, shall limit the VOC emissions from the entire source to less 250 tons per twelve (12) consecutive month period and render the requirements of 326 IAC 2-2 Prevention of Significant Deterioration (PSD) not applicable.

D.4.2 Preventive Maintenance Plan [326 IAC 1-6-3]

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

Compliance Determination Requirements

D.4.3 Volatile Organic Compounds (VOC)

In order to comply with Condition D.4.1(a), the mineral oil absorber and water absorber shall be in operation and control emissions from the biodiesel manufacturing process and the methanol tank unloading at all times the biodiesel manufacturing process and the methanol tank unloading process are in operation.

D.4.4 Testing Requirements [326 IAC 2-1.1-11]

No later than 180 days after initial startup of the Mineral Oil Absorber that replaced the Soy Oil Absorber, the Permittee shall perform VOC testing on the outlet of the Mineral Oil Absorber and Water Absorber with methanol unloading and without methanol unloading; and determine the Mineral Oil Absorber's mineral oil flow rate and water absorber's water flow rate in order to demonstrate compliance with Condition D.4.1(a), utilizing methods as approved by the Commissioner. The seed oil with the highest VOC content as approved by IDEM shall be used in all VOC testing. These tests shall be repeated at least once every five years from the date of the most recent valid compliance demonstration.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures).

Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by these conditions.

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

D.4.5 Monitoring for mineral oil absorber and water absorber [40 CFR 64]

(a) The Permittee shall monitor and record the mineral oil flow rate for the mineral oil absorber at least once per day.

(b) The Permittee shall monitor and record the water flow rate for the water absorber at least once per day.

(c) A continuous monitoring system shall be calibrated, maintained, and operated on the mineral oil absorber for measuring the temperature of the mineral oil to the mineral oil absorber. For purposes of this condition continuous shall mean temperature measurement no less than once per minute. The output of this system shall be recorded as a 3-hour average. The Permittee shall operate the mineral oil absorber at or below the 3-hour average temperature as determined from the most recent valid stack test.

(1) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with the limits in condition D.4.1(a).

(2) On and after the date the stack test results are available, the Permittee shall operate the mineral oil absorber at or below the 3-hour average temperature as observed during the compliant stack test.

(d) A continuous monitoring system shall be calibrated, maintained, and operated for measuring the temperature of the water to the water absorber. For purposes of this condition continuous shall mean temperature measurement no less than once per minute. The output of this system shall be recorded as a 3-hour average. The Permittee shall operate the water absorber at or below the 3-hour average temperature as determined from the most recent valid stack test.

(1) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in condition D.4.1(a).

(2) On and after the date the stack test results are available, the Permittee shall operate the water absorber at or below the 3-hour average temperature as observed during the compliant stack test.

(e) If any of the following operating conditions occur, the Permittee shall take a reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

(1) When the mineral oil flow rate reading is below the minimum flow rate for any one reading. The minimum flow rate for the mineral oil absorber will be 1.5 gpm or the minimum mineral oil flow rate established during the latest stack test.

(2) When the water flow rate reading is below the minimum flow rate for any one reading. The minimum flow rate for the water absorber will be 2.2 gpm or the minimum water flow rate established during the latest stack test.

(3) When the mineral oil absorber 3-hour average temperature reading is above the temperature for any 3-hour average. The 3-hour average temperature for the mineral oil absorber will be as recommended by the manufacturer or the maximum temperature established during the latest stack test.

(4) When the water absorber 3-hour average temperature reading is above the 3-hour average temperature for any one reading. The 3-hour average temperature for the water absorber will be as recommended by the manufacturer or the maximum temperature established during the latest stack test.

Operating conditions above or below the values specified in (1) through (4) above shall not be considered a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

(f) The instruments used for determining the flow rate and temperature reading shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

(g) The gauges employed to take the mineral oil flow and water flow across the mineral oil absorber or water absorber, respectively, shall have a scale such that the expected normal reading shall be no less than 20 percent of full scale and be accurate within + 10% of full scale reading. The instrument shall be quality assured and maintained as specified by the vendor.

D.4.6 Scrubber Failure Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [40 CFR 64]

In the event that scrubber failure has been observed:

The feed to the process shall be shut down immediately until the failed units have been repaired or replaced. The emission units shall be shut down no later than the completion of the processing of the material in the emission unit. 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). Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to response steps required by this condition. Failure to take response steps shall be considered a deviation of this permit.

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

D.4.7 Record Keeping Requirements

(a) To document the compliance status with Condition D.4.1 (b), the Permittee shall maintain records of the amount of the purchased seed oil.

(b) To document the compliance status with Condition D.4.1(c), the Permittee shall maintain records of the amount of the seed oil used to manufacture biodiesel.

(c) To document the compliance status with Condition D.4.1(a), the Permittee shall maintain records of the operating hours for the biodiesel manufacturing process during the following operating scenarios:

(1) Normal operation with methanol tank loading.

(2) Upset conditions.

(d) To document the compliance status with Condition D.4.1(e), the Permittee shall maintain records of the amount of the biodiesel loaded out through the biodiesel loading racks.

(e) To document the compliance status with Conditions D.4.5(a) and (b), the Permittee shall maintain a daily record of the mineral oil flow rate of the mineral oil absorber, and the water flow rate of the water absorber. The Permittee shall include in its daily record when a parametric notation is not taken and the reason for the lack of a parametric notation (e.g. the process did not operate that day).

(f) To document the compliance status with Condition D.4.5(c) and (d), the Permittee shall maintain a daily record of the 3-hour average operating temperatures of the mineral oil scrubber and water scrubber. The Permittee shall include in its daily record when a parametric notation is not taken and the reason for the lack of parametric notation (e.g. the process did not operate that day).

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

D.4.8 Reporting Requirements

A quarterly summary of the information to document the compliance status with Conditions D.4.1(b), (c), and (e) shall be submitted using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The reports submitted by the Permittee do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1 (34).

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(f)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
B-1	Main Boiler, natural gas fired and #2 fuel oil as back up fuel *2006	220 MMBtu/hr	Low NOx burner and Flue gas recirculation	Stack S-3	Yes under NSPS Db and NESHAP DDDDD

Note *Approved in the year indicated above for construction.

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

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

D.5.1 PSD Minor Limit for Particulate [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 not applicable, the Permittee shall comply with the following PM, PM_{10}, and $PM_{2.5}$ limits:

The PM, PM_{10}, and $PM_{2.5}$ emissions from the main boiler shall be less than the emission limits listed in the table below:

Process	Control	PM Limit (lbs/hour)	PM_{10} Limit (lbs/hour)	$PM_{2.5}$ Limit (lbs/hour)
Main Boiler	None	3.14	5.19	5.19

Compliance with the above limits, in combination with the soybean usage limit in Condition D.1.1(a), in combination with the PM, PM_{10}, and $PM_{2.5}$ emission limits in Conditions D.1.1(b), D.1.1(c), D.2.1, D.3.1, D.6.1 and D.7.1, and with the potential to emit PM, PM_{10}, and $PM_{2.5}$ from other emission units at the source, shall limit the PM, PM_{10}, and $PM_{2.5}$ emissions from the entire source to less 250 tons per twelve (12) consecutive month period and render the requirements of 326 IAC 2-2 Prevention of Significant Deterioration (PSD) not applicable.

D.5.2 PSD Minor Limit for VOC [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 not applicable, the Permittee shall comply with the following VOC limit:

The VOC emissions from the Boiler shall be less than the emission limits listed in the table below:

Process	Control	VOC (lbs/hour)
Boiler	None	1.19

Compliance with the above limits, in combination with the purchased seed oil limit in Condition D.4.1(b), the VOC emission limits in Condition D.3.2, the VOC emission limits in Condition D.4.1, the VOC emission limits in Condition D.7.2, and the potential to emit VOC from other units at the source, shall limit the VOC emissions from the entire source to less 250 tons per twelve (12) consecutive month period and render the requirements of 326 IAC 2-2 Prevention of Significant Deterioration (PSD) not applicable.

D.5.3 PSD Minor Limit for SO_2 and CO_2e [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 not applicable, the Permittee shall comply with the following:

(a) The amount of #2 fuel oil combusted at the entire source shall not exceed 7,000,000 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) SO2 emissions shall not exceed the value of the one hundred forty-two (142) times the percent (%) sulfur content by weight of the #2 fuel oil being used, expressed in pounds of SO_2 per thousand gallons of #2 fuel oil (lbs/kgal) used, as shown in the following equation:

$E_{SO2} = 142.0 \times S$, *where*

E_{SO2} is the calculated SO_2 emissions for #2 fuel oil used;

142 is the factor applied as found in AP-42 Table 1.3-1; and
S is the % sulfur content by weight of the #2 fuel oil used.

(c) The CO_2 emissions from #2 fuel oil combustion shall not exceed 22,300.0 pounds of CO_2 per thousand gallons of fuel oil (lbs/kgal).

(d) The Methane emissions from #2 fuel oil combustion shall not exceed 0.216 pounds of Methane per thousand gallons of fuel oil (lbs/kgal).

(e) The N_2O emissions from #2 fuel oil combustion shall not exceed 0.26 pounds of N_2O per thousand gallons of fuel oil (lbs/kgal).

(f) The total amount of natural gas combusted at the entire source shall not exceed 1,654.0 million standard cubic feet of gas (MMSCF) per twelve (12) consecutive month period, with compliance determined at the end of each month.

(g) The CO_2 emissions from natural gas combustion shall not exceed 120,000 pounds of CO_2 per million standard cubic feet of gas (lbs/MMSCF).

(h) The Methane emissions from natural gas combustion shall not exceed 2.3 pounds of Methane per million standard cubic feet of gas (lbs/MMSCF).

(i) The N_2O emissions from natural gas combustion shall not exceed 0.64 pounds of N_2O per million standard cubic feet of gas (lbs/MMSCF).

(j) CO2e emissions from both #2 fuel oil and natural gas from the entire source shall not exceed 99,444.0 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with the above limits, combined with the potential to emit SO_2 from other units at the source shall limit the SO_2 emissions from the entire source to less than 250 tons per twelve (12) consecutive month period and render the requirements of 326 IAC 2-2 (PSD) not applicable.

In addition, compliance with the above limits, combined with the potential to emit CO_2e from other units at the source shall limit the CO_2e emissions from the entire source to less than 100,000 tons per twelve (12) consecutive month period and render the requirements of 326 IAC 2-2 (PSD) not applicable.

D.5.4 Particulate [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emissions for Source of Indirect Heating), the total particulate emissions from the boiler shall be less than 0.265 pounds per million British thermal units (lb/MMBtu) heat input.

D.5.5 Sulfur Dioxide (SO_2) [326 IAC 7-1.1-2] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1-2 (SO_2 Emissions Limitations), the SO_2 emissions from the boiler shall be less than five tenths (0.5) pounds per MMBtu heat input when combusting #2 fuel oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

D.5.6 Preventive Maintenance Plan [326 IAC 1-6-3]

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

Compliance Determination Requirements

D.5.7 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Condition D.5.5 shall be determined using one of the following options:

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pound per million Btu heat input by:

(1) Providing vendor analysis of fuel delivered, if accompanied by a vendor 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.

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boiler 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.5.8 CO_2e Emissions

(a) To document the compliance status with Condition D.5.3(j) when both #2 fuel oil and natural gas have been combusted at the entire source per any twelve (12) consecutive month period, the Permittee shall use the following equation to calculate the CO2e emissions from the usage of both #2 fuel oil and natural gas in the entire source:

$$\text{Emissions}_{(CO2,\ CH4\ \text{and}\ N2O)} = \sum L(EF_{CO2}) + \sum L(EF_{CH4}) + \sum L(EF_{N2O}) + \sum G(EF_{CO2}) + \sum G(EF_{CH4}) + \sum G(EF_{N2O})$$

$\text{Emissions}_{CO2e} = \sum CO_2$ Emissions ton/yr x CO_2 GWP (1) + $\sum CH_4$ Emissions ton/yr x CH_4 GWP (21) + $\sum N_2O$ Emissions ton/yr x N_2O GWP (310).

Where:
L = usage, in kilogallons, of #2 fuel oil used at the entire source in previous 12 months;
EF_{CO2} = Emission Factor for #2 fuel oil used at the entire source in previous 12 months;
EF_{CH4} = Emission Factor for #2 fuel oil used at the entire source in previous 12 months;
EF_{N2O} = Emission Factor for #2 fuel oil used at the entire source in previous 12 months;

G = usage, in million cubic feet of natural gas used at the entire source in previous 12 months;
EF_{CO2} = emission factor for natural gas used at the entire source in previous 12 months;

EF_{CO2} = emission factor for natural gas used at the entire source in previous 12 months;
EF_{CO2} = emission factor for natural gas used at the entire source in previous 12 months;
GWP= Greenhouse Warming Potentials (GWP) found in Table A-1 of 40 CFR Part 98 Subpart A.

Emission Factors:

FUEL	[1]SO_2	CO_2	CH_4	N_2O
Liquid	(lbs/kgal)	(lbs/kgal)	(lbs/kgal)	(lbs/kgal)
No. 2 Fuel Oil	71.0	22,300.0	0.216	0.26
Gaseous	(lbs/MMCF)	(lbs/MMCF)	(lbs/MMCF)	(lbs/MMCF)
Natural Gas	0.6	120,000	2.3	0.64

Note 1 : The #2 fuel oil emission factor of 71.0 lbs/kgal SO2 is calculated assuming 0.5% Weight Sulfur in the #2 fuel oil.

(b) If only # 2 fuel oil is combusted at the entire source per any twelve (12) consecutive month period, then compliance with the #2 fuel oil usage limit specified in D.5.3(a), combined with the potential to emit CO_2e from other units at the source shall limit the CO_2e emissions from the entire source to less than 100,000 tons per twelve (12) consecutive month period and render the requirements of 326 IAC 2-2 (PSD) not applicable.

(c) If only natural gas is combusted at the entire source per any twelve (12) consecutive month period, then compliance with the natural gas usage limit specified in D.5.3(f) combined with the potential to emit CO_2e from other units at the source shall limit the CO_2e emissions from the entire source to less than 100,000 tons per twelve (12) consecutive month period and render the requirements of 326 IAC 2-2 (PSD) not applicable.

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

D.5.9 Visible Emissions Notations

(a) Visible emission notations of the boiler stack S-3 exhaust shall be performed once per day during normal daylight operations while combusting fuel oil. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response shall be considered a deviation from this permit.

D.5.10 Continuous Emission Monitoring [326 IAC 3-5]

(a) Pursuant to 326 IAC 3-5-1(c)(2)(A) (Continuous Monitoring of Emissions), continuous emission monitoring systems (CEMS) and related equipment for the boiler shall be calibrated, maintained, and operated for measuring NO_X, in accordance with applicable federal regulations and 326 IAC 3-5.

(b) The CEMS shall be operated at all times, except during CEMS malfunctions, reasonable periods of necessary CEMS calibration or CEMS maintenance activities. CEMS calibration and maintenance activities shall be properly documented and shall be conducted pursuant to the standard operating procedures under 326 IAC 3-5-4(a).

(c) The Permittee shall keep records in accordance with 326 IAC 3-5-6(b) that includes the following:

(1) All documentation relating to:

(A) design, installation, and testing of all elements of the monitoring system; and

(B) required corrective action or compliance plan activities.

(2) All maintenance logs, calibration checks, and other required quality assurance activities.

(3) All records of corrective and preventive action.

(4) A log of plant operations, including the following:

(A) Date of facility downtime.

(B) Time of commencement and completion of each downtime.

(C) Reason for each downtime.

(d) In accordance with 326 IAC 3-5-7(5), the Permittee shall submit reports of continuous monitoring system instrument downtime, except for zero (0) and span checks, which shall be reported separately. The reports shall include the following:

(1) Date of downtime.

(2) Time of commencement.

(3) Duration of each downtime.

(4) Reasons for each downtime.

(5) Nature of system repairs and adjustments.

(e) Except where permit conditions streamline similar applicable requirements pursuant to 326 IAC 2-7-24, nothing in this permit shall excuse the Permittee from complying with 326 IAC 3-5.

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

D.5.11 Record Keeping Requirements

(a) To document the compliance status with Conditions D.5.3(a), D.5.3(f) and D.5.3(j), the Permittee shall maintain monthly records of the amount of fuel combusted in the entire source.

(b) To document the compliance status with Condition D.5.5, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO_2 emission limit established in Condition D.5.5.

(1) Calendar dates covered in the compliance determination period;

(2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;

(3) 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 alternate fuels 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; and

(6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

(c) To document the compliance status with Condition D.5.8, the Permittee shall maintain records of visible emission notations of the boiler stack S-3 exhaust while combusting fuel oil. 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).

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

D.5.12 Reporting Requirements

A quarterly summary of the information to document the compliance status with Conditions D.5.3(a), D.5.3(f) and D.5.3(j), shall be submitted using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee’s obligation with regard to the reporting required by this condition. The reports submitted by the Permittee do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official,” as defined by 326 IAC 2-7-1 (34).

SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(g)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
G010000	Meal Bin No. 1*** *2006, **2010, 2011, and 2012	198	Meal Bin Filter No. 1	Stack MBF-1	Yes under NESHAP GGGG
G020000	Meal Bin No. 2*** *2006, **2010, 2011, and 2012	198	Meal Bin Filter No. 2	Stack MBF-2	Yes under NESHAP GGGG
G030000	Meal Bin No. 3*** *2006, **2010, 2011, and 2012	198	Meal Bin Filter No. 3	Stack MBF-3	Yes under NESHAP GGGG
G040000	Meal Bin No. 4*** *2006, **2010, 2011, and 2012	198	Meal Bin Filter No. 4	Stack MBF-4	Yes under NESHAP GGGG
G050000	Meal Bin No. 5*** *2010, **2011 and 2012	198	Meal Bin Filter No. 5	Stack MBF-5	Yes under NESHAP GGGG

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.
Note ***There are five meal bins. However, the plant is only physically capable of loading one meal bin at a time. Thus, the PTE for these units is calculated at a rate of 198 tons/hr for all five meal bins combined.

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

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

D.6.1 PSD Minor Limit for Particulate [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 not applicable, the Permittee shall comply with the following:

The PM, PM_{10} and $PM_{2.5}$ emissions from the following Processes shall be less than the emission limits listed in the table below:

Process	Control	PM Limit (lbs/hour)	PM_{10} Limit (lbs/hour)	$PM_{2.5}$ Limit (lbs/hour)
Meal Bin No. 1	Meal Bin Filter No. 1	0.93	0.93	0.93
Meal Bin No. 2	Meal Bin Filter No. 2	0.93	0.93	0.93
Meal Bin No. 3	Meal Bin Filter No. 3	0.93	0.93	0.93
Meal Bin No. 4	Meal Bin Filter No. 4	0.93	0.93	0.93
Meal Bin No. 5	Meal Bin Filter No. 5	0.93	0.93	0.93

Compliance with the above limits, in combination with the soybean usage limit in Condition D.1.1(a) and with the PM, PM_{10} and $PM_{2.5}$ emission limits in Conditions D.1.1(b), D.1.1(c), D.3.1, D.5.1, D.6.1 and D.7.1, and with the potential to emit PM, PM_{10} and $PM_{2.5}$ from other emission units at the source, shall limit the PM, PM_{10} and $PM_{2.5}$ emissions from the entire source to less 250 tons per twelve (12) consecutive month period and render the requirements of 326 IAC 2-2 Prevention of Significant Deterioration (PSD) not applicable.

D.6.2 Particulate Emissions Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the particulate emissions from each of the following processes shall not exceed the pound per hour limitations specified in the following table:

Emission unit ID	Emissions Units	Control	Maximum Process Weight (tons/hour) for each unit	326 IAC 6-3 Limit (lbs/hr) for each unit
G010000, G020000, G030000, G040000 and G050000	Meal Bins No. 1 thru 5	Meal Bin Filters No. 1 thru No. 5	198	58.40

The particulate emissions limitations from the above table shall be calculated using the following equation:

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

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

D.6.3 Preventive Maintenance Plan [326 IAC 1-6-3]

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

Compliance Determination Requirements

D.6.4 Particulate Control

(a) In order to comply with Condition D.6.1, Meal Bin Filters No. 1 thru No. 5 shall be in operation and control emissions from the Meal Bins No. 1 thru 5 at all times the Meal Bins No. 1 thru 5 are in operation.

(b) 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.

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

D.6.5 Visible Emissions Notations

(a) Visible emission notations of Stack exhausts MBF-1, MBF-2, MBF-3, MBF-4 and MBF-5 shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response shall be considered a deviation from this permit.

D.6.6 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shutdown immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

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

D.6.7 Record Keeping Requirements

(a) To document the compliance status with Condition D.6.5 the Permittee shall maintain a daily record of visible emission notations of the stack exhaust from Stacks MBF-1, MBF-2, MBF-3, MBF-4 and MBF-5. 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).

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

SECTION D.7 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities

Description	Capacity (gallons)	Control	Affected Facility?
Kaolin Receiving Tank [326 IAC 2-2] [326 IAC 6-3-2] *2006, **2010	10,800 and 40 tons per hour	Bin Filter	
Hull Overflow Tank [326 IAC 2-2] [326 IAC 6-3-2] *2006, **2010 and 2012	13,900 cu. ft and 17 tons per hour	None	
diesel/#2 fuel oil storage tank [326 IAC 2-2] *2006, **2011	44,839 gallons	None	
Cooling tower with a maximum drift rate of 0.005% *2006	11,000 gpm	None	
Three (3) Diesel Fire Pumps [326 IAC 2-2] *2006	575 BHP each	None	Yes under NSPS IIII and NESHAP ZZZZ
Paved roads and parking lots with public access [326 IAC 2-2] *2006		None	
Diatomaceous Earth (DE) Storage Bin [326 IAC 6-3-2] *2009, **2011	767 tons per year	Filter	

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

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

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

D.7.1 PSD Minor Limits for Particulate [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 not applicable, the Permittee shall comply with the following PM, PM_{10}, and $PM_{2.5}$ limits:

The PM, PM_{10}, and $PM_{2.5}$ emissions from the following emission units shall be less than the emission limits listed in the table below:

Process	Control	PM Limit (lbs/hour)	PM10 Limit (lbs/hour)	PM2.5 Limit (lbs/hour)
Kaolin Receiving Tank	Bin Filter	1.9	1.9	1.9

Compliance with the above limits, in combination with the soybean usage limit in Condition D.1.1(a) in combination with the PM, PM_{10}, and $PM_{2.5}$ emission limits in Conditions D.1.1(b), D.1.1(c), D.2.1, D.3.1, D.6.1 and D.5.1, and with the potential to emit PM, PM_{10}, and $PM_{2.5}$ from other emission units at the source, shall limit the PM, PM_{10}, and $PM_{2.5}$ emissions from the entire source to less 250 tons per twelve (12) consecutive month period and render the requirements of 326 IAC 2-2 Prevention of Significant Deterioration (PSD) not applicable.

D.7.2 PSD Minor Limit for VOC [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 not applicable, the Permittee shall comply with the following VOC limit:

The VOC emissions from the following Processes shall be less than the emission limits listed in the table below:

Process	Control	VOC (lbs/hour)
diesel/#2 fuel oil storage tank	None	0.002
Diesel fire pumps	None	0.57

Compliance with the above limits, in combination with the purchased seed oil limit in Condition D.4.1(b), the VOC emission limits in Condition D.3.2, the VOC emission limits in Condition D.4.1, the VOC emission limits in Condition D.5.2, and the potential to emit VOC from other units at the source, shall limit the VOC emissions from the entire source to less 250 tons per twelve (12) consecutive month period and render the requirements of 326 IAC 2-2 Prevention of Significant Deterioration (PSD) not applicable.

D.7.3 Particulate Emissions Limitations [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2, the particulate emissions from each of the following processes shall not exceed the pound per hour limitations specified in the following table:

Emissions Units	Baghouse ID	Maximum Process Weight (tons/hour) for each unit	326 IAC 6-3 Limit (lbs/hr) for each unit
Diatomaceous Earth (DE) Storage Bin	Filter	0.0875	0.80

The particulate emissions limitations from the above table shall be calculated using the following equation:

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

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

(b) Pursuant to 326 IAC 6-3-2, the particulate emissions from each of the following processes shall not exceed the pound per hour limitations specified in the following table:

Emissions Units	Baghouse ID	Maximum Process Weight (tons/hour) for each unit	326 IAC 6-3 Limit (lbs/hr) for each unit
Kaolin Receiving Tank	Bin Filter	40	42.53

The particulate emissions limitations from the above table shall be calculated using the following equation:

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

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

D.7.4 Preventive Maintenance Plan [326 IAC 1-6-3]

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

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

D.7.5 Visible Emissions Notations

(a) Visible emission notations of the Kaolin Receiving Tank exhaust 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) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee’s obligation with regard to the reasonable response steps required by this condition. Failure to take response shall be considered a deviation from this permit.

D.7.6 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shutdown immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

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

D.7.7 Record Keeping Requirements

(a) To document the compliance status with Condition D.7.5 the Permittee shall maintain a daily record of visible emission notations from the Kaolin Receiving Tank exhaust. 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).

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

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(f)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
B-1	Main Boiler, natural gas fired and #2 fuel oil as back up fuel *2006	220 MMBtu/hr	Low NOx burner and Flue gas recirculation	Stack S-3	Yes under NSPS Db and NESHAP DDDDD

Note *Approved in the year indicated above for construction.

(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 NSPS [326 IAC 12-1] [40 CFR Part 60, Subpart A]

The Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, except when otherwise specified in 40 CFR Part 60, Subpart Db (included as Attachment A of this permit).

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

The boiler (B-1) shall comply with the following provisions of 40 CFR Part 60, Subpart Db (included as Attachment A of this permit):

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

SECTION E.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
A030000	Truck Dump No. 1 *2006	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A020000	Truck Dump No. 2 *2006	600	Grain Receiving Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A030100	Discharge Conveyor No. 1 *2006	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A020100	Discharge Conveyor No. 2 *2006	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A040000	Bean Receiving Leg No. 1 *2006	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A050000	Bean Receiving Leg No. 2 *2006	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A010000	Rail Dump and Rail Collection Conveyor *2006	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A010100	Rail Scale Discharge Conveyor *2006	360	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A150100	Cross Bin No 1 thru 3 *2006	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A120100	Cross Bin No 4 thru 6 *2006	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A151000	Discharge Bin No 1 thru 3 *2006	360	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A121000	Discharge Bin No 4 thru 6 *2006	360	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A153000	Day Bin Leg *2006	360	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
AF-2 A200000	Grain Receiving/Meal Loadout Baghouse *2006, **2010	38,000 acfm @ 0.005 grain/acf outlet gr loading		Stack AF-2	Yes under NSPS DD
A152000	West Bin Cross Conveyor 1-3 *2006, **2010 and 2011	360	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A122000	East Bin Cross Conveyor 4-6 *2006, **2010	360	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A130100	West Bin Feed Conveyor *2006, **2010	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A100100	East Bin Feed Conveyor *2006, **2010	600	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NSPS DD
A170300	Screenings Recycle Leg *2006	5	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B011300	Bean Weigh Scale *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B310000	Screenings Weight Belt *2006	5	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B420000	Screening Receiving Cyclone *2010	4500 cfm	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B010100	Whole Bean Aspirator No 1 *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B020100	Whole Bean Aspirator No 2 *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
B010900	Whole Bean Aspirator Cyclone *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
	Bean Storage Bin No. 1 thru 4 *2006	600 tons/hr and each Bin has a maximum storage capacity of 500,000 bushels	None	None	Yes under NSPS DD
	Bean Storage Silo No. 1 thru 2 *2008	600 tons/hr and each Bin has a maximum storage capacity of 500,000 bushels	None	None	Yes under NSPS DD

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

(b)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
Piles #1 and #2 *2008	Two (2) covered seasonal grain storage piles	each with a maximum storage capacity of 1,000,000 bushels of soybeans	None	None	Yes under NSPS DD

Note *Approved in the year indicated above for construction.

(c)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
A160100	Feed Day Tank Conveyor *2006	600	Hot dehulling baghouse	Stack AF-5	Yes under NSPS DD
A160000	Day Tank *2006, **2010 and 2012	264	Hot dehulling baghouse	Stack AF-5	Yes under NSPS DD

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

(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 NSPS [326 IAC 12-1] [40 CFR Part 60, Subpart A]

The Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, except when otherwise specified in 40 CFR Part 60, Subpart DD (included as Attachment B of this permit).

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

The truck unloading station, truck loading station, railcar loading station, railcar unloading station, grain dryer, and all grain handling operations at the grain storage elevator shall comply with the following provisions of 40 CFR Part 60, Subpart DD (included as Attachment B of this permit):

(1) 40 CFR 60.300
(2) 40 CFR 60.301
(3) 40 CFR 60.302(b), (c)(1), (c)(2), and (c)(3)
(4) 40 CFR 60.303
(5) 40 CFR 60.304

The stack testing requirements under 40 CFR § 60.303 shall not apply to the Bean Storage Bins #1 through #4, Bean Storage Silos #1 and #2, and the seasonal grain storage Piles #1 and #2.

SECTION E.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(e)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
CL-5045	1st Primary Transester Column *2006, **2007 and 2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
CL-5046	1st Secondary Transester Column *2006, **2007 and 2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
CL-5063	2nd Primary Transester Column *2006, **2007 and 2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
CL-5064	2nd Secondary Transester Column *2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
R-8171	Esterification Reactor *2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
VU010000	Vacuum group package *2006, **2007 and 2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS VV, and NESHAP FFFF
	Biodiesel Mineral Oil Absorber *2010			Stack S-5	Yes under NSPS VV, and NESHAP FFFF
	Biodiesel Water Absorber *2006, **2007	0.448 gpm		Stack S-5	Yes under NSPS VV, and NESHAP FFFF

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
I040000	Biodiesel Storage Tank #4 *2006, **2007	725,000 gals			Yes under NSPS VV, and NESHAP FFFF
I050000	Biodiesel Storage Tank #5 *2006, **2007	725,000 gals			Yes under NSPS VV, and NESHAP FFFF
1060000	Biodiesel Storage Tank #6 *2009	325,000			Yes under NSPS VV, and NESHAP FFFF
I070000	Biodiesel Storage Tank #7 *2006, **2007	325,000 gals			Yes under NSPS VV, and NESHAP FFFF
I080000	Biodiesel Storage Tank #8 *2006, **2007	325,000 gals			Yes under NSPS VV, and NESHAP FFFF
I090000	Biodiesel Storage Tank #9 *2006, **2007	325,000 gals			Yes under NSPS VV, and NESHAP FFFF
I100000	Biodiesel Storage Tank #10 *2006, **2007	325,000 gals			Yes under NSPS VV, and NESHAP FFFF
I110000	Biodiesel Storage Tank #11 *2007	325,000 gals			Yes under NSPS VV, and NESHAP FFFF
1140000	Biodiesel Storage Tank #0 *2009	735,000			Yes under NSPS VV, and NESHAP FFFF
I120000	Glycerin Tank #12 *2006, **2010	360,000 gals			Yes under NSPS VV, and NESHAP FFFF
I130000	Glycerin Tank #13 *2006, **2010	360,000 gals			Yes under NSPS VV, and NESHAP FFFF
I250000	Methanol Storage Tank #1 *2006, **2007 and **2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I260000	Methanol Storage Tank #2 *2006, **2007 and 2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
I270000	Methanol Storage Tank #3 *2006, **2007 and 2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I280000	Methanol Storage Tank #4 *2006, **2007 and 2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I290000	Methanol Storage Tank #5 *2006, **2007 and 2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I300000	Methanol Storage Tank #6 *2007	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I230000	Sodium Methylate (catalyst) Storage Tank #1 *2006, **2007 and 2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I240000	Sodium Methylate (catalyst) Storage Tank #2 *2007, **2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
Rail Rack	Loading Rack (Rail) *2006, **2007, **2010 and **2011	500 gallons per minute			Yes under NSPS VV, and NESHAP FFFF
Truck Rack #1	Loading Rack (Truck) *2006, **2007, **2010 and **2011	430 gallons per minute			Yes under NSPS VV, and NESHAP FFFF
Truck Rack #2	Loading Rack (Truck) *2011	430 gallons per minute			Yes under NSPS VV, and NESHAP FFFF

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

(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 NSPS [326 IAC 12-1] [40 CFR Part 60, Subpart A]

The Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, except when otherwise specified in 40 CFR Part 60, Subpart VV (included as Attachment C of this permit).

E.3.2 New Source Performance Standards (NSPS) for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006 [326 IAC 12] [40 CFR Part 60, Subpart VV]

Each pump, pressure relief device, sampling connection system, open-ended valve or line, valve, and flange or any other connector in VOC service at the biodiesel production line shall comply with the following provisions of 40 CFR Part 60, Subpart VV (included as Attachment C of this permit):

(1) 40 CFR 60.480(a), (b), (c), and (f)
(2) 40 CFR 60.481
(3) 40 CFR 60.482-1
(4) 40 CFR 60.482-2
(5) 40 CFR 60.482-3
(6) 40 CFR 60.482-4
(7) 40 CFR 60.482-5
(8) 40 CFR 60.482-6
(9) 40 CFR 60.482-7
(10) 40 CFR 60.482-8
(11) 40 CFR 60.482-9
(12) 40 CFR 60.482-10
(13) 40 CFR 60.483-1
(14) 40 CFR 60.483-2
(15) 40 CFR 60.484
(16) 40 CFR 60.485
(17) 40 CFR 60.486
(18) 40 CFR 60.487
(19) 40 CFR 60.488
(20) 40 CFR 60.489

SECTION E.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(e)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
CL-5045	1st Primary Transester Column *2006, **2007 and 2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
CL-5046	1st Secondary Transester Column *2006, **2007 and 2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
CL-5063	2nd Primary Transester Column *2006, **2007 and 2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
CL-5064	2nd Secondary Transester Column *2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
R-8171	Esterification Reactor *2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
VU010000	Vacuum group package *2006, **2007 and 2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS VV, and NESHAP FFFF

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

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

E.4.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR Part 60, Subpart A]

The Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, except when otherwise specified in 40 CFR Part 60, Subpart NNN (included as Attachment D of this permit).

E.4.2 New Source Performance Standards (NSPS) for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations [326 IAC 12] [40 CFR Part 60, Subpart NNN]

The distillation unit of the biodiesel manufacturing process shall comply with the following provisions of 40 CFR Part 60, Subpart NNN (included as Attachment D of this permit):

(1) 40 CFR 60.660(a), (b)(1), and (c)(4)
(2) 40 CFR 60.661
(3) 40 CFR 60.662(c)
(4) 40 CFR 60.664(e) and (f)
(5) 40 CFR 60.665(a), (b), (h), (k), (l), (m), and (p)
(6) 40 CFR 60.666
(7) 40 CFR 60.667
(8) 40 CFR 60.668

SECTION E.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(e)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
CL-5045	1st Primary Transester Column *2006, **2007 and 2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
CL-5046	1st Secondary Transester Column *2006, **2007 and 2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
CL-5063	2nd Primary Transester Column *2006, **2007 and 2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
CL-5064	2nd Secondary Transester Column *2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
R-8171	Esterification Reactor *2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

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

E.5.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR Part 60, Subpart A]

The Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, except when otherwise specified in 40 CFR Part 60, Subpart RRR (included as Attachment E of this permit).

E.5.2 New Source Performance Standards (NSPS) for Volatile Organic Compound Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes [326 IAC 12] [40 CFR Part 60, Subpart RRR]

The reactor unit, which is part of a biodiesel manufacturing process that produces glycerol, shall comply with the following provisions of 40 CFR Part 60, Subpart RRR (included as Attachment E of this permit):

(1) 40 CFR 60.700(c)(4)
(2) 40 CFR 60.701
(3) 40 CFR 60.704(g)
(4) 40 CFR 60.705(h), (l)(4), and (o)
(5) 40 CFR 60.706
(6) 40 CFR 60.707
(7) 40 CFR 60.708

SECTION E.6 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities

Description	Capacity	Control	Affected Facility?
Three (3) Diesel Fire Pumps [326 IAC 2-2] *2006	575 BHP each	None	Yes under NSPS IIII and NESHAP ZZZZ

Note *Approved in the year indicated above for construction.

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

E.6.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR Part 60, Subpart A]

The Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, except when otherwise specified in 40 CFR Part 60, Subpart IIII (included as Attachment F of this permit).

E.6.2 New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines [326 IAC 12] [40 CFR Part 60, Subpart IIII]

The three (3) diesel fire pumps shall comply with the following provisions of 40 CFR Part 60, Subpart IIII (included as Attachment F of this permit):

(1) 40 CFR 60.4200(a)(2)(ii)
(2) 40 CFR 60.4205(c)
(3) 40 CFR 60.4206
(4) 40 CFR 60.4207(a) and (b)
(5) 40 CFR 60.4209
(6) 40 CFR 60.4211(a), (b) and (e)
(7) 40 CFR 60.4214(b) and (c)
(8) 40 CFR 60.4218
(9) 40 CFR 60.4219
(10) Table 3 to Subpart IIII
(11) Table 4 to Subpart IIII
(12) Table 8 to Subpart IIII

SECTION E.7 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(e)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
CL-5045	1st Primary Transester Column *2006, **2007 and 2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
CL-5046	1st Secondary Transester Column *2006, **2007 and 2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
CL-5063	2nd Primary Transester Column *2006, **2007 and 2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
CL-5064	2nd Secondary Transester Column *2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
R-8171	Esterification Reactor *2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS RRR, NSPS VV, and NESHAP FFFF
VU010000	Vacuum group package *2006, **2007 and 2010	12,960 gals/hr	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS NNN, NSPS VV, and NESHAP FFFF
	Biodiesel Mineral Oil Absorber *2010			Stack S-5	Yes under NSPS VV, and NESHAP FFFF
	Biodiesel Water Absorber *2006, **2007	0.448 gpm		Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I040000	Biodiesel Storage Tank #4 *2006, **2007	725,000 gals			Yes under NSPS VV, and NESHAP FFFF

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
I050000	Biodiesel Storage Tank #5 *2006, **2007	725,000 gals			Yes under NSPS VV, and NESHAP FFFF
1060000	Biodiesel Storage Tank #6 *2009	325,000			Yes under NSPS VV, and NESHAP FFFF
I070000	Biodiesel Storage Tank #7 *2006, **2007	325,000 gals			Yes under NSPS VV, and NESHAP FFFF
I080000	Biodiesel Storage Tank #8 *2006, **2007	325,000 gals			Yes under NSPS VV, and NESHAP FFFF
I090000	Biodiesel Storage Tank #9 *2006, **2007	325,000 gals			Yes under NSPS VV, and NESHAP FFFF
I100000	Biodiesel Storage Tank #10 *2006, **2007	325,000 gals			Yes under NSPS VV, and NESHAP FFFF
I110000	Biodiesel Storage Tank #11 *2007	325,000 gals			Yes under NSPS VV, and NESHAP FFFF
1140000	Biodiesel Storage Tank #0 *2009	735,000			Yes under NSPS VV, and NESHAP FFFF
I120000	Glycerin Tank #12 *2006, **2010	360,000 gals			Yes under NSPS VV, and NESHAP FFFF
I130000	Glycerin Tank #13 *2006, **2010	360,000 gals			Yes under NSPS VV, and NESHAP FFFF
I250000	Methanol Storage Tank #1 *2006, **2007 and **2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I260000	Methanol Storage Tank #2 *2006, **2007 and 2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I270000	Methanol Storage Tank #3 *2006, **2007 and 2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
I280000	Methanol Storage Tank #4 *2006, **2007 and 2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I290000	Methanol Storage Tank #5 *2006, **2007 and 2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I300000	Methanol Storage Tank #6 *2007	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I230000	Sodium Methylate (catalyst) Storage Tank #1 *2006, **2007 and 2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
I240000	Sodium Methylate (catalyst) Storage Tank #2 *2007, **2010	38,850 gallons	Mineral Oil Absorber and water absorber	Stack S-5	Yes under NSPS VV, and NESHAP FFFF
Rail Rack	Loading Rack (Rail) *2006, **2007, **2010 and **2011	500 gallons per minute			Yes under NSPS VV, and NESHAP FFFF
Truck Rack #1	Loading Rack (Truck) *2006, **2007, **2010 and **2011	430 gallons per minute			Yes under NSPS VV, and NESHAP FFFF
Truck Rack #2	Loading Rack (Truck) *2011	430 gallons per minute			Yes under NSPS VV, and NESHAP FFFF

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

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

E.7.1 General Provisions Relating to NESHAP [326 IAC 20-1] [40 CFR 63, Subpart A]

(a) Pursuant to 40 CFR 63.2540, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1, as specified in Table 12 of 40 CFR 63, Subpart FFFF in accordance with the schedule in 40 CFR 63, Subpart FFFF.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

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

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

E.7.2 National Emission Standard for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing [40 CFR Part 63, Subpart FFFF] [326 IAC 20-84]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart FFFF (included as Attachment G of this permit), which are incorporated by reference as 326 IAC 20-84:

(1) 40 CFR 63.2430
(2) 40 CFR 63.2435(a), (b), (d), and (e)
(3) 40 CFR 63.2440
(4) 40 CFR 63.2445(a)(2), (c), (d), and (f)
(5) 40 CFR 63.2450(a), (c)(1), (c)(2), (e)(1), (e)(2), (g), (h), (k)(5), (l), (m), (p), and (r)
(6) 40 CFR 63.2460
(7) 40 CFR 63.2470
(8) 40 CFR 63.2475
(9) 40 CFR 63.2480(a), (b), and (d)
(10) 40 CFR 63.2500(b) through (f)
(11) 40 CFR 63.2505
(12) 40 CFR 63.2515
(13) 40 CFR 63.2520
(14) 40 CFR 63.2525(b), (c), (d), (f), and (g)
(15) 40 CFR 63.2540
(16) 40 CFR 63.2545
(17) 40 CFR 63.2550
(18) Table 2 to Subpart FFFF
(19) Table 4 to Subpart FFFF
(20) Table 5 to Subpart FFFF
(21) Table 6 to Subpart FFFF
(22) Table 9 to Subpart FFFF
(23) Table 11 to Subpart FFFF
(24) Table 12 to Subpart FFFF

SECTION E.8 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
G020500	Meal Storage Feed Conveyor *2006, **2010 and **2011	200	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NESHAP GGGG
G070300	Truck Meal Loadout Feed Conveyor *2006, **2010	300	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G290000	Truck Collection Conveyor *2010	300	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G280000	Truck Loader No.1 *2010	330	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G270000	Truck Loader No.2 *2010	330	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G080000	Truck Pelleted Hull Loadout Bin *2006, **2010	148	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G070000	Truck Meal Loadout Bin *2006, **2010 and 2012	300	Meal Loadout Bin Filter	Stack MLBF-1	Yes under NESHAP GGGG
G180000	Rail Pelleted Hull Loadout Bin *2010	148	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G130000	Rail Meal Loadout Bin *2006, **2010 and 2012	300	Meal Loadout Bin Filter	Stack MLBF-1	Yes under NESHAP GGGG
G160000	Pellet Hulls Conveyor to Loadout *2006, **2010 and 2012	17.0	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G170000	Rail Car Collection Conveyor *2006, **2010	300	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G220000	Rail Car Loadout *2010	330	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes under NESHAP GGGG
G010100	Meal Reclaim Conveyor *2006, **2010	200	Grain Receiving/Meal Loadout baghouse	Stack AF-2	Yes NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
G010200	Meal Reclaim Leg *2010	200	Grain Receiving/Meal Loadout Baghouse	Stack AF-2	Yes under NESHAP GGGG
A060000	Screener *2006, **2011 and 2012	264	Prep Exhaust Baghouse	Stack AF-3	Yes under NESHAP GGGG
A160300	VSC Leg Feed Conveyor *2006, **2010 and 2012	264	Prep Exhaust Baghouse	Stack AF-3	Yes under NESHAP GGGG
A170000	Screenings Tank *2006	5	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
A170300	Screenings Recycle Leg *2006	5	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B011300	Bean Weigh Scale *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B310000	Screenings Weight Belt *2006	5	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
AF-7	Pod Grinder/Screener Baghouse *2011	5,000 acfm		Stack AF-7	Yes under NESHAP GGGG
B310200	Pod Grinder/Destoner *2006, **2010	5	Pod Grinder/ Screener Baghouse	Stack AF-7	Yes under NESHAP GGGG
B011200	VSC Feed Leg *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
A060400	Screener Feed Conveyor *2010, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
B010100	Whole Bean Aspirator No 1 *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B020100	Whole Bean Aspirator No 2 *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B010900	Whole Bean Aspirator Cyclone *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
B030800	Conditioned Bean Feed Conveyor *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
B030900	Hull Collection Conveyor *2006, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E130000	Hull Screener No.1 *2006	9.6	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E150000	Hull Screener No.2 *2006	9.6	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
B440000	Secondary Hull Collection L-Path *2010, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
B430000	Secondary Hull Collection Conveyor *2010, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E070300	4 Hour Hull Tank *2006, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E080000	Pellet Cooler *2006, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E090000	Pellet Cooler Cyclone *2006, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E050200	Hull Hammer Mill Feeder *2006, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E050000	Hull Hammer Mill *2006, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E050100	Hull Hammer Mill Plenum *2006, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
G050100	Pelleted Hulls Leg *2006, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
G050300	Pelleted Hulls Storage Conveyor *2006, **2010 and 2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E050400	Hulls Addition Screw *2011, **2012	17.0	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
B010300	Conditioner Bean Loop Path *2006, **2012	264	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
AF-3 G100000	Prep exhaust baghouse *2006	28,900 acfm @ 0.005 grain/acf outlet grain loading		Stack AF-3	Yes under NESHAP GGGG

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

(c)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
C200100	Flaker Feed Loop Conveyor *2010, **2012	247	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C010600	Flake Collection Conveyor (12 flakers) *2006, **2010 and 2012	247	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C010000	Flaking Roll No. 1 *2006	20.3	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C020000	Flaking Roll No. 2 *2006	22.9	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C030000	Flaking Roll No. 3 *2006	22.9	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C040000	Flaking Roll No. 4 *2012	22.9	***Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C050000	Flaking Roll No. 5 *2006	22.9	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C060000	Flaking Roll No. 6 *2006	22.9	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
C070000	Flaking Roll No. 7 *2012	22.9	***Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C080000	Flaking Roll No. 8 *2006	22.9	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
C090000	Flaking Roll No. 9 *2006	22.9	Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C100000	Flaking Roll No. 10 *2010, **2011	20.3	***Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C0110000	Flaking Roll No. 11 *2009	22.9	***Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C0120000	Flaking Roll No. 12 *2009	22.9	***Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
AF-4 C110000	Flaker aspiration baghouse *2006	24,000 acfm @ 0.005 grain/acf outlet grain loading		Stack AF-4	Yes under NESHAP GGGG
B040000	Hulloosenator No. 1 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B080100	Hulloosenator No. 2 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B130000	Hulloosenator No. 3 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B170000	Hulloosenator No. 4 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B050000	Cascade Dryer No. 1 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B090000	Cascade Dryer No. 2 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B140000	Cascade Dryer No. 3 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B180000	Cascade Dryer No. 4 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B210000	CCD Cyclone *2006, **2010	42,000 cfm	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
B060000	Cracking Roll No.1 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B100000	Cracking Roll No.2 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B150000	Cracking Roll No.3 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B190000	Cracking Roll No.4 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B070000	Cascade Conditioner No. 1 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B110000	Cascade Conditioner No. 2 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B160000	Cascade Conditioner No. 3 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B200000	Cascade Conditioner No. 4 *2006, **2012	66.0	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B230000	CCC Cyclone *2006, **2010	42,000 cfm	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
E130100	Secondary Aspirator No 1 *2006, **2010	9.6	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
E150100	Secondary Aspirator No 2 *2006, **2010	9.6	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
E160000	Secondary Aspirator Cyclone *2006, **2010	9.6	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
AF-5 B260000	Hot dehulling baghouse *2006	43,000 acfm @ 0.005 grain/acf outlet grain loading		Stack AF-5	Yes under NESHAP GGGG
E020300	Grinding Discharge Conveyor *2011, **2012	198	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
E020400	Hammer Mill Mixing Conveyor *2006, **2011 and 2012	198	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E010100	Meal L-Path Conveyor *2006, **2012	198	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E010300	Meal Hammer Mill Feed Conveyor *2006, **2012	198	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E020200	Meal Hammer Mill Feeder No. 1 *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E030200	Meal Hammer Mill Feeder No. 2 *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E040200	Meal Hammer Mill Feeder No. 3 (switch) *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E020000	Meal Hammer Mill No. 1 *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E030000	Meal Hammer Mill No. 2 *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E040000	Meal Hammer Mill No. 3 (switch) *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E020100	Meal Hammer Mill Bin No. 1 *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E030100	Meal Hammer Mill Bin No. 2 *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E040100	Meal Hammer Mill Bin No. 3 (switch) *2006	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E230200	Meal Hammer Mill Feeder No. 5 *2012	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E230000	Meal Hammer Mill No. 5 *2012	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E230100	Meal Hammer Mill Bin No. 5 *2012	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
G010300	Meal Leg *2006, **2010 and 2012	198	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
G150000	Meal Conveyor to Loadout *2006, **2012	198	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
AF-6 E110000	Mill Grinding Baghouse *2006	18,000 acfm @ 0.005 grain/acf outlet grain loading		Stack AF-6	Yes under NESHAP GGGG
B010000	VSC No. 1 *2006, **2012	132	VSC Cyclone	Stack S-1	Yes under NESHAP GGGG
B020000	VSC No. 2 *2006, **2012	132	VSC Cyclone	Stack S-1	Yes under NESHAP GGGG
B010500	VSC Air Heater *2006, **2012	264	VSC Cyclone	Stack S-1	Yes under NESHAP GGGG
B010700	VSC Cyclone *2006, **2010	42,000 cfm		Stack S-1	Yes under NESHAP GGGG
B120000	Jet Dryer No. 1 *2006, **2010 and 2012	132	Jet Dryer Baghouse AF-8	Stack S-1	Yes under NESHAP GGGG
B030000	Jet Dryer No. 2 *2006, **2012	132	Jet Dryer Baghouse AF-9	Stack S-1	Yes under NESHAP GGGG
B120100A	Jet Dryer Baghouse AF-8	74,000 acfm		Stack S-1	Yes under NESHAP GGGG
B120100B	Jet Dryer Baghouse AF-9	74,000 acfm		Stack S-1	Yes under NESHAP GGGG

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.
Note ***The Flaker aspiration baghouse has been determined to be integral to the process for this unit.

(d)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
D010000	Soybean oil extractor *2006, **2010 and 2012	264	Mineral oil absorber	Stack S-4	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
	One (1) set of evaporators *2006		Mineral oil absorber	Stack S-4	Yes under NESHAP GGGG
D020000	One (1) Desolventizer/toaster *2006, **2010		Mineral oil absorber	Stack S-4	Yes under NESHAP GGGG
	One (1) set of water separators *2006		Mineral oil absorber	Stack S-4	Yes under NESHAP GGGG
D060000	Main Vent Condenser *2006		Mineral oil absorber	Stack S-4	Yes under NESHAP GGGG
	Five (5) hexane storage tank *2006 for original tank, and 2010 for other tanks **2010 for original tank	20,690 gallons each	Mineral oil absorber	Stack S-4	Yes under NESHAP GGGG
I220000	One (1) soybean oil pre-treat Tank *2010	35,170 gallons			Yes under NESHAP GGGG
	Three (3) soybean oil storage tank (Degummed Oil Tanks #1 and #2 and Crude Oil Tank #3) *2006 for original tank and 2010 for other tanks, **2010 for original tank	725,000 gallons each			Yes under NESHAP GGGG
D070000	Mineral oil absorber *2006			Stack S-4	Yes under NESHAP GGGG
D310000-1	DC Deck No. 1 *2006, **2010 and 2012	208	DC Deck Cyclone No. 1	Stack S-2	Yes under NESHAP GGGG
D310000-2	DC Deck No. 2 *2006, **2010, 2011, and 2012	208	DC Deck Cyclone No. 2	Stack S-2	Yes under NESHAP GGGG
D310000-3	DC Deck No. 3 *2006, **2010 and 2012	208	DC Deck Cyclone No. 3	Stack S-2	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
D310000-4	DC Deck No. 4 *2006, **2010 and 2012	208	DC Deck Cyclone No. 4	Stack S-2	Yes under NESHAP GGGG
D310700	DC Deck Cyclone No. 1 *2006, **2010 and 2011	18,000 scfm		Stack S-2	Yes under NESHAP GGGG
D310800	DC Deck Cyclone No. 2 *2006, **2010 and 2011	18,000 scfm		Stack S-2	Yes under NESHAP GGGG
D310900	DC Deck Cyclone No. 3 *2010, ** 2011	18,000 scfm		Stack S-2	Yes under NESHAP GGGG
D311000	DC Deck Cyclone No. 4 *2010, **2011	18,000 scfm		Stack S-2	Yes under NESHAP GGGG

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

(g)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
G010000	Meal Bin No. 1*** *2006, **2010, 2011, and 2012	198	Meal Bin Filter No. 1	Stack MBF-1	Yes under NESHAP GGGG
G020000	Meal Bin No. 2*** *2006, **2010, 2011, and 2012	198	Meal Bin Filter No. 2	Stack MBF-2	Yes under NESHAP GGGG
G030000	Meal Bin No. 3*** *2006, **2010, 2011, and 2012	198	Meal Bin Filter No. 3	Stack MBF-3	Yes under NESHAP GGGG
G040000	Meal Bin No. 4*** *2006, **2010, 2011, and 2012	198	Meal Bin Filter No. 4	Stack MBF-4	Yes under NESHAP GGGG
G050000	Meal Bin No. 5*** *2010, **2011 and 2012	198	Meal Bin Filter No. 5	Stack MBF-5	Yes under NESHAP GGGG

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.
Note ***There are five meal bins. However, the plant is only physically capable of loading one meal bin at a time. Thus, the PTE for these units is calculated at a rate of 198 tons/hr for all five meal bins combined.

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

E.8.1 General Provisions Relating to NESHAP [326 IAC 20-1] [40 CFR 63, Subpart A]

(a) Pursuant to 40 CFR 63.2870, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1, as specified in Table 1 of 40 CFR 63.2870, Subpart GGGG in accordance with the schedule in 40 CFR 63, Subpart GGGG.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

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

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

E.8.2 National Emission Standard for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production [40 CFR Part 63, Subpart GGGG] [326 IAC 20-60]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart GGGG (included as Attachment H of this permit), which are incorporated by reference as 326 IAC 20-60:

(1) 40 CFR 63.2830
(2) 40 CFR 63.2831
(3) 40 CFR 63.2832(a)
(4) 40 CFR 63.2833
(5) Table 1 to 63.2833(6)
(6) 40 CFR 63.2834
(7) Table 1 of 63.2834(c)
(8) 40 CFR 63.2840(a), (b), (c),(d), and (f)
(9) Table 1 of 63.2840(ix)
(10) 40 CFR 63.2850(a), (c), (d), and (e)
(11) Table 1 of 63.2850
(12) Table 2 of 63.2850(b), and (c)
(13) 40 CFR 63.2851
(14) 40 CFR 63.2852
(15) 40 CFR 63.2853
(16) Table 1 of 63.2853
(17) 40 CFR 63.2854
(18) 40 CFR 63.2855
(19) 40 CFR 63.2860(b), (c), and (d)
(20) 40 CFR 63.2861
(21) 40 CFR 63.2862
(22) 40 CFR 63.2863
(23) 40 CFR 63.2870
(24) Table 1 of 63.2870
(25) 40 CFR 63.2871
(26) 40 CFR 63.2872

SECTION E.9 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities

Description	Capacity	Control	Affected Facility?
Three (3) Diesel Fire Pumps [326 IAC 2-2] *2006	575 BHP each	None	Yes under NSPS IIII and NESHAP ZZZZ

Note *Approved in the year indicated above for construction.

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

E.9.1 General Provisions Relating to NESHAP [326 IAC 20-1] [40 CFR 63, Subpart A]

(a) Pursuant to 40 CFR 63.6665, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1, as specified in Table 8 of 40 CFR 63, Subpart ZZZZ in accordance with the schedule in 40 CFR 63, Subpart ZZZZ.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

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

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

E.9.2 National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [40 CFR Part 63, Subpart ZZZZ] [326 IAC 20-82]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ (included as Attachment I of this permit), which are incorporated by reference as 326 IAC 20-82:

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585(a), and (b)
(3) 40 CFR 63.6590(a)(2)(i)
(4) 40 CFR 63.6590(b)(1)(i)
(5) 40 CFR 63.6645(f)
(6) 40 CFR 63.6665
(7) 40 CFR 63.6670(a)
(8) 40 CFR 63.6675

SECTION E.10 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(f)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
B-1	Main Boiler, natural gas fired and #2 fuel oil as back up fuel *2006	220 MMBtu/hr	Low NOx burner and Flue gas recirculation	Stack S-3	Yes under NSPS Db and NESHAP DDDDD

Note *Approved in the year indicated above for construction.

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

E.10.1 General Provisions Relating to NESHAP [326 IAC 20-1] [40 CFR 63, Subpart A]

(a) Pursuant to 40 CFR 63.7565, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1, as specified in Table 10 of 40 CFR 63.7480, Subpart DDDDD in accordance with the schedule in 40 CFR 63, Subpart DDDDD.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

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

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

E.10.2 National Emission Standard for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR Part 63, Subpart DDDDD] [326 IAC 20-95]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart DDDDD (included as Attachment J of this permit), which are incorporated by reference as 326 IAC 20-95:

(1) 40 CFR 63.7480;
(2) 40 CFR 63.7485;
(3) 40 CFR 63.7490(a)(2), (b);
(4) 40 CFR 63.7495(a), (d);
(5) 40 CFR 63.7499;
(6) 40 CFR 63.7500(a)(1), (b);
(7) 40 CFR 63.7505;
(8) 40 CFR 63.7506(a);
(9) 40 CFR 63.7510(c), (g);
(10) 40 CFR 63.7525(a), (c);
(11) 40 CFR 63.7530(b);
(12) 40 CFR 63.7535;
(13) 40 CFR 63.7540(a)(10), (b), (d);
(14) 40 CFR 63.7545(a), (c);
(15) 40 CFR 63.7550(a), (b), (c), (d), (e);

(16) 40 CFR 63.7555(a), (b), (d)(1);
(17) 40 CFR 63.7560;
(18) 40 CFR 63.7565;
(19) 40 CFR 63.7570;
(20) 40 CFR 63.7575;
(21) Table 1 to 40 CFR 63 Subpart DDDDD; and
(22) Table 9 to 40 CFR 63 Subpart DDDDD.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT

Certification

Source Name: Louis Dreyfus Agricultural Industries LLC
Source Address: 7344 State Road 15 South, Claypool, Indiana 46510-9746
Part 70 Permit No.: T085-29197-00102

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, Indiana 46204-2251
Phone: (317) 233-0178
Fax: (317) 233-6865

PART 70 OPERATING PERMIT
Emergency Occurrence Report

Source Name: Louis Dreyfus Agricultural Industries LLC
Source Address: 7344 State Road 15 South, Claypool, Indiana 46510-9746
Part 70 Permit No.: T085-29197-00102

This form consists of 2 pages Page 1 of 2

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

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

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

If any of the following are not applicable, mark N/A Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by:_____

Title / Position: _____

Date:_____

Phone: _____

Quarterly Reports

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

Part 70 Quarterly Report

Source Name: Louis Dreyfus Agricultural Industries LLC
Source Address: 7344 State Road 15 South, Claypool, Indiana 46510-9746
Part 70 Permit No.: T085-29197-00102
Facility: Grain Receiving/Meal Loadout and Prep Area
Parameter: Soybeans processed
Limit: shall be less than 2,251,836 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	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: _____

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

Part 70 Quarterly Report

Source Name: Louis Dreyfus Agricultural Industries LLC
Source Address: 7344 State Road 15 South, Claypool, Indiana 46510-9746
Part 70 Permit No.: T085-29197-00102
Facility: Biodiesel Manufacturing
Parameter: Purchased seed oil
Limit: shall be less than 80 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
	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: _____

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

Part 70 Quarterly Report

Source Name: Louis Dreyfus Agricultural Industries LLC
Source Address: 7344 State Road 15 South, Claypool, Indiana 46510-9746
Part 70 Permit No.: T085-29197-00102
Facility: Biodiesel Reactor
Parameter: Seed oil processed to manufacture biodiesel
Limit: shall be less than 110,000,000 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
	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: _____

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

Part 70 Quarterly Report

Source Name: Louis Dreyfus Agricultural Industries LLC
Source Address: 7344 State Road 15 South, Claypool, Indiana 46510-9746
Part 70 Permit No.: T085-29197-00102
Facility: Entire source
Parameter: #2 fuel oil
Limit: shall be less than 7,000,000 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
	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: _____

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

Part 70 Quarterly Report

Source Name: Louis Dreyfus Agricultural Industries LLC
Source Address: 7344 State Road 15 South, Claypool, Indiana 46510-9746
Part 70 Permit No.: T085-29197-00102
Facility: Entire source
Parameter: Natural Gas Usage
Limit: shall not exceed 1,654.0 million standard cubic feet of gas (MMSCF) 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
	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: _____

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

Part 70 Quarterly Report

Source Name: Louis Dreyfus Agricultural Industries LLC
Source Address: 7344 State Road 15 South, Claypool, Indiana 46510-9746
Part 70 Permit No.: T085-29197-00102
Facility: Entire source
Parameter: CO2e emissions from both #2 fuel oil and natural gas
Limit: shall not exceed 99,444.0 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Quarter:_____ Year: _____

Month	Fuel Type (units)	Column 1	Column 2	Column 1 + Column 2	Total SO_2 Emissions From All Fuels (tons per twelve (12) consecutive month period)	Total CO_2e Emissions From All Fuels (tons per twelve (12) consecutive month period)
		Usage This Month	Usage Previous 11 Months	Usage 12 Month Total		
Month 1	#2 fuel Oil (kilogallons)					
	Natural Gas (MMCF)					
Month 2	#2 fuel Oil (kilogallons)					
	Natural Gas (MMCF)					
Month 3	#2 fuel Oil (kilogallons)					
	Natural Gas (MMCF)					

☐ No deviation occurred in this quarter.

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

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

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

Part 70 Quarterly Report

Source Name: Louis Dreyfus Agricultural Industries LLC
Source Address: 7344 State Road 15 South, Claypool, Indiana 46510-9746
Part 70 Permit No.: T085-29197-00102
Facility: Biodiesel Manufacturing Process with Methanol Tank Loading
Parameter: Operating Hours
Limit: shall be less than 1,000 hours 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
	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:

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

Part 70 Quarterly Report

Source Name: Louis Dreyfus Agricultural Industries LLC
Source Address: 7344 State Road 15 South, Claypool, Indiana 46510-9746
Part 70 Permit No.: T085-29197-00102
Facility: Biodiesel Manufacturing Process upset operation
Parameter: Operating Hours
Limit: shall be less than 24 hours 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
	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:

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

Part 70 Quarterly Report

Source Name: Louis Dreyfus Agricultural Industries LLC
Source Address: 7344 State Road 15 South, Claypool, Indiana 46510-9746
Part 70 Permit No.: T085-29197-00102
Facility: Biodiesel Loading Racks
Parameter: Throughout Rate
Limit: shall be less than 110,000,000 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
	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: _____

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

Part 70 Quarterly Report

Source Name: Louis Dreyfus Agricultural Industries LLC
Source Address: 7344 State Road 15 South, Claypool, Indiana 46510-9746
Part 70 Permit No.: T085-29197-00102
Facility: Storage Bean Piles #1 and #2
Parameter: Soybean throughput
Limit: shall be less than 8,000,000 bushels 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
	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: _____

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: Louis Dreyfus Agricultural Industries LLC
Source Address: 7344 State Road 15 South, Claypool, Indiana 46510-9746
Part 70 Permit No.: T085-29197-00102

Months: _____ to _____Year: __

Page 1 of 2

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

Page 2 of 2

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

Form Completed by:_____

Title / Position: _____

Date:_____

Phone: _____

Attachment A
to Part 70 Operating Permit Renewal No. T085-29197-00102

Louis Dreyfus Agricultural Industries LLC
7344 State Road 15 South, Claypool, Indiana, 46510-9746

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_X) 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_Xstandards under this subpart and to the sulfur dioxide (SO_2) 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_Xstandards 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_Xstandards under this subpart and the PM and SO_2standards 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_Xstandards under this subpart and the SO_2standards 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 $NO_X$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 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.

[72 FR 32742, June 13, 2007, as amended at 74 FR 5084, Jan. 28, 2009]

§ 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_2) 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 not meeting the definition of natural gas, 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) or diesel fuel oil numbers 1 and 2, as defined by the American Society for Testing and Materials in ASTM D975 (incorporated by reference, see §60.17).

Dry flue gas desulfurization technology means a SO_2control 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_2control 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 a gas at ISO conditions. This includes, but is not limited to, natural gas and gasified coal (including coke oven gas).

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 or to enhance the performance of the unit (*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^3 (70,000 Btu/hr-ft^3).

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^3 (70,000 Btu/hr-ft^3) 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); or

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

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

Oil means crude oil or petroleum or a liquid fuel derived from crude oil or petroleum, including distillate 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_2emissions (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. For gasified coal or oil that is desulfurized prior to combustion, the *Potential sulfur dioxide emission rate* is the theoretical SO_2emissions (ng/J or lb/MMBtu heat input) that would result from combusting fuel in a cleaned state without using any post combustion 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 heats any 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, oil that contains no more than 0.5 weight percent sulfur or that, when combusted without SO_2emission control, has a SO_2emission 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 and not located in a noncontinental area, *very low sulfur oil* means oil that contains no more than 0.30 weight percent sulfur or that, when combusted without SO_2emission control, has a SO_2emission rate equal to or less than 140 ng/J (0.32 lb/MMBtu) heat input. For units constructed, reconstructed, or modified after February 28, 2005 and located in a noncontinental area, *very low sulfur oil* means oil that contains no more than 0.5 weight percent sulfur or that, when combusted without SO_2emission control, has a SO_2emission rate equal to or less than 215 ng/J (0.50 lb/MMBtu) heat input.

Wet flue gas desulfurization technology means a SO_2control 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_2.

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.

[72 FR 32742, June 13, 2007, as amended at 74 FR 5084, Jan. 28, 2009]

§ 60.42b Standard for sulfur dioxide (SO_2).

(a) Except as provided in paragraphs (b), (c), (d), or (j) 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_2in excess of 87 ng/J (0.20 lb/MMBtu) or 10 percent (0.10) of the potential SO_2emission 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_s= SO_2emission limit, in ng/J or lb/MMBtu heat input;

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

K_b= 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).

For facilities complying with the percent reduction standard, only the heat input supplied to the affected facility from the combustion of coal and oil is counted in this paragraph. 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_2in excess of 87 ng/J (0.20 lb/MMBtu) or 20 percent (0.20) of the potential SO_2emission 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. For facilities complying with the percent reduction standard, only the heat input supplied to the affected facility from the combustion of coal and oil is counted in this paragraph. 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.

(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_2emissions, shall cause to be discharged into the atmosphere any gases that contain SO_2in excess of 50 percent of the potential SO_2emission rate (50 percent reduction) and that contain SO_2in 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= SO2 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).

For facilities complying with the percent reduction standard, only the heat input supplied to the affected facility from the combustion of coal and oil is counted in this paragraph. 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_2in 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. For facilities complying with paragraphs (d)(1), (2), or (3) of this section, only the heat input supplied to the affected facility from the combustion of coal and oil is counted in this paragraph. 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.

(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_2emission 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_2emission 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_2emissions and

(2) Emissions from the pretreated fuel (without combustion or post-combustion SO_2control) 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_2control system is not being operated because of malfunction or maintenance of the SO_2control 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_2emission 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_2in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 8 percent (0.08) of the potential SO_2emission rate (92 percent reduction) and 520 ng/J (1.2 lb/MMBtu) heat input. For facilities complying with the percent reduction standard and paragraph (k)(3) of this section, only the heat input supplied to the affected facility from the combustion of coal and oil is counted in paragraph (k) of 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.

(2) Units firing only very low sulfur oil, gaseous fuel, a mixture of these fuels, or a mixture of these fuels with any other fuels with a potential SO_2emission rate of 140 ng/J (0.32 lb/MMBtu) heat input or less are exempt from the SO_2emissions limit in paragraph (k)(1) of this section.

(3) Units that are located in a noncontinental area and that combust coal, oil, or natural gas shall not discharge any gases that contain SO_2in 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 or natural gas.

(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_2in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO_2emission rate (90 percent reduction) and 520 ng/J (1.2 lb/MMBtu) heat input.

[72 FR 32742, June 13, 2007, as amended at 74 FR 5084, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011]

§ 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_2emissions 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_2emissions 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 can combust 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. Owners and operators of an affected facility that elect to install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring PM emissions according to the requirements of this subpart and are subject to a federally enforceable PM limit of 0.030 lb/MMBtu or less are exempt from the opacity standard specified in this paragraph.

(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), (h)(5), and (h)(6) 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 not located in a noncontinental area that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.30 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 in §60.43b and not using a post-combustion technology (except a wet scrubber) to reduce SO_2or PM emissions is not subject to the PM limits in (h)(1) of this section.

(6) 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 located in a noncontinental area that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.5 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 in §60.43b and not using a post-combustion technology (except a wet scrubber) to reduce SO_2or PM emissions is not subject to the PM limits in (h)(1) of this section.

[72 FR 32742, June 13, 2007, as amended at 74 FR 5084, Jan. 28, 2009]

§ 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_X(expressed as NO_2) in excess of the following emission limits:

Fuel/steam generating unit type	Nitrogen oxide emission limits (expressed as NO_2) 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
(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_X in excess of a limit determined by the use of the following formula:

$$E_n = \frac{(EL_{go}H_{go}) + (EL_{lo}H_{lo}) + (EL_cH_c)}{(H_{go} + H_{lo} + H_c)}$$

Where:

E_n= NO_X emission limit (expressed as NO_2), ng/J (lb/MMBtu);

EL_{go}= Appropriate emission limit from paragraph (a)(1) for combustion of natural gas or distillate oil, ng/J (lb/MMBtu);

H_{go}= Heat input from combustion of natural gas or distillate oil, J (MMBtu);

EL_{ro}= Appropriate emission limit from paragraph (a)(2) for combustion of residual oil, ng/J (lb/MMBtu);

H_{ro}= Heat input from combustion of residual oil, J (MMBtu);

EL_c= Appropriate emission limit from paragraph (a)(3) for combustion of coal, ng/J (lb/MMBtu); and

H_c= 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_Xin 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_Xin 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_Xin 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:

$$E_n = \frac{(EL_{go}H_{go}) + (EL_{ro}H_{ro}) + (EL_cH_c)}{(H_{go} + H_{ro} + H_c)}$$

Where:

E_n= NO_Xemission limit (expressed as NO_2), ng/J (lb/MMBtu);

EL_{go}= Appropriate emission limit from paragraph (a)(1) for combustion of natural gas or distillate oil, ng/J (lb/MMBtu);

H_{go}= Heat input from combustion of natural gas, distillate oil and gaseous byproduct/waste, J (MMBtu);

EL_{ro}= Appropriate emission limit from paragraph (a)(2) for combustion of residual oil and/or byproduct/waste, ng/J (lb/MMBtu);

H_{ro}= Heat input from combustion of residual oil, J (MMBtu);

EL_c= Appropriate emission limit from paragraph (a)(3) for combustion of coal, ng/J (lb/MMBtu); and

H_c= 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_Xemission 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_Xemissions 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_Xemission 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_Xemission 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_Xemission limit will be established at the NO_Xemission 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_Xemissions. In lieu of amending this subpart, a letter will be sent to the facility describing the facility-specific NO_Xlimit. 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_Xemission limit that applies specifically to that affected facility. The petition must include sufficient and appropriate data, as determined by the Administrator, on NO_Xemissions 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_Xemission 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_Xemission limits of this section. The NO_Xemission 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_Xlimit. 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_Xstandards 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_Xemission 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_X(expressed as NO_2) in excess of the following limits:

(1) If the affected facility combusts coal, oil, natural gas, a mixture of these fuels, or a mixture of these fuels 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:

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

Where:

E_n= NO_Xemission limit, (lb/MMBtu);

H_{go}= 30-day heat input from combustion of natural gas or distillate oil; and

H_r= 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.

[72 FR 32742, June 13, 2007, as amended at 74 FR 5086, Jan. 28, 2009]

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

(a) The SO_2emission standards in §60.42b apply at all times. Facilities burning coke oven gas alone or in combination with any other gaseous fuels or distillate oil are allowed to exceed the limit 30 operating days per calendar year for SO_2control system 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_2emission rate (% P_s) and the SO_2emission rate (E_s) 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_2standards 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–7 of this part are used to determine the hourly SO_2emission rate (E_{ho}) and the 30-day average emission rate (E_{ao}). The hourly averages used to compute the 30-day averages are obtained from the CEMS of §60.47b(a) or (b).

(ii) The percent of potential SO_2emission rate (%P_s) 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:

$\%P_s$= Potential SO_2emission rate, percent;

$\%R_g$= SO_2removal efficiency of the control device as determined by Method 19 of appendix A of this part, in percent; and

$\%R_f$= SO_2removal 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_2emission rate (E_{ho}^{o}) 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_{ao}^{o}). The Eho° is computed using the following formula:

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

Where:

E_{ho}^{o} = Adjusted hourly SO_2emission rate, ng/J (lb/MMBtu);

E_{ho}= Hourly SO_2emission rate, ng/J (lb/MMBtu);

E_w= SO_2concentration 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 $E_w$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_2emission rate ($\%P_s$), an adjusted $\%R_g$($\%R_g^{o}$) is computed from the adjusted E_{ao}^{o} from paragraph (b)(3)(i) of this section and an adjusted average SO_2inlet rate (E_{ai}^{o}) using the following formula:

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

To compute E_{ai}^{o} , an adjusted hourly SO_2inlet rate (E_{hi}^{o}) is used. The E_{hi}^{o} is computed using the following formula:

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

Where:

E_{hi}^{o} = Adjusted hourly SO_2inlet rate, ng/J (lb/MMBtu); and

E_{hi}= Hourly SO_2inlet rate, ng/J (lb/MMBtu).

(4) The owner or operator of an affected facility subject to paragraph (c)(3) of this section does not have to measure parameters $E_w$or $X_k$if the owner or operator elects to assume that X_k= 1.0. Owners or operators of affected facilities who assume X_k= 1.0 shall:

(i) Determine %$P_s$following the procedures in paragraph (c)(2) of this section; and

(ii) Sulfur dioxide emissions (E_s) are considered to be in compliance with SO_2emission 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 $E_w$or $X_k$in paragraph (c)(3) of this section if the owner or operator of the affected facility elects to measure SO_2emission rates of the coal or oil following the fuel sampling and analysis procedures in Method 19 of appendix A–7 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, natural gas, or a mixture of these fuels, 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_2emission limits and percent reduction requirements under §60.42b is based on the average emission rates and the average percent reduction for $SO_2$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_2emission limits and percent reduction requirements under §60.42b is based on the average emission rates and the average percent reduction for $SO_2$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_2 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_2 emissions data in calculating $\%P_s$ and E_{ho} 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_2 emission data collected during periods of startup, shutdown and malfunction, shall be used in calculating $\%P_s$ and E_{ho} pursuant to paragraph (c) of this section.

(i) During periods of malfunction or maintenance of the SO_2 control systems when oil is combusted as provided under §60.42b(i), emission data are not used to calculate $\%P_s$ or E_s 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 only combusts very low sulfur oil, natural gas, or a mixture of these fuels with any other fuels not subject to an SO_2 standard 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 in §§60.42b(d)(4), 60.42b(j), 60.42b(k)(2), and 60.42b(k)(3) (when not burning coal) shall follow the applicable procedures in §60.49b(r).

[72 FR 32742, June 13, 2007, as amended at 74 FR 5086, Jan. 28, 2009]

§ 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_X 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_X 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 3A or 3B of appendix A–2 of this part is used for gas analysis when applying Method 5 of appendix A–3 of this part or Method 17 of appendix A–6 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–6 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 (320 °F). The procedures

of sections 8.1 and 11.1 of Method 5B of appendix A–3 of this part may be used in Method 17 of appendix A–6 of this part only if it is used after a wet FGD system. Do not use Method 17 of appendix A–6 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±14 °C (320±25 °F).

(5) For determination of PM emissions, the oxygen (O_2) or CO_2sample 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_2or CO_2measurements 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_Xrequired 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_Xunder §60.48(b).

(1) For the initial compliance test, $NO_X$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_Xemission 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 in §60.8, whichever date comes first, the owner or operator of an affected facility which combusts coal (except as specified under §60.46b(e)(4)) or which combusts residual oil having a nitrogen content greater than 0.30 weight percent shall determine compliance with the NO_Xemission standards in §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 for each steam generating unit operating day as the average of all of the hourly NO_Xemission 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_Xstandards 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_Xemission 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, gasified coal, or residual oil having a nitrogen content of 0.30 weight percent or less shall upon request determine compliance with the NO_Xstandards in §60.44b through the use of a 30-day performance test. During periods when performance tests are not requested, NO_Xemissions 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_Xemission 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_Xemission 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_Xrequired 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_Xshall be computed using Equation 1 in this section:

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

Where:

E = Emissions rate of $NO_X$from the duct burner, ng/J (lb/MMBtu) heat input;

E_{sg}= 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_g= Heat input rate to the combustion turbine, in J/hr (MMBtu/hr);

H_b= Heat input rate to the duct burner, in J/hr (MMBtu/hr); and

E_g= 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_Xconcentrations. Method 3A or 3B of appendix A of this part shall be used to determine O_2concentration.

(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 $NO_X$and $O_2$and meet the requirements of §60.48b. The sampling site shall be located at the outlet from the steam generating unit. The NO_Xemissions rate at the outlet from the steam generating unit shall constitute the NO_Xemissions 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 or the heat input 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_Xemission 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_Xemission 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 with the PM limit in paragraphs §60.43b(a)(4) or §60.43b(h)(5) shall follow the applicable procedures in §60.49b(r).

(j) In place of PM testing with Method 5 or 5B of appendix A–3 of this part, or Method 17 of appendix A–6 of this part, an owner or operator may elect to install, calibrate, maintain, and operate a CEMS for monitoring PM emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor PM emissions instead of conducting performance testing using Method 5 or 5B of appendix A–3 of this part or Method 17 of appendix A–6 of this part shall comply with the requirements specified in paragraphs (j)(1) through (j)(14) 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_2(or CO_2) data shall be collected concurrently (or within a 30-to 60-minute period) by both the continuous emission monitors and performance tests conducted using the following test methods.

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

(ii) For O_2(or CO_2), Method 3A or 3B of appendix A–2 of this part, as applicable shall be used.

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

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

(14) After July 1, 2011, within 90 days after completing a correlation testing run, the owner or operator of an affected facility shall either successfully enter the test data into EPA's WebFIRE data base located at *http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main* or mail a copy to: United States Environmental Protection Agency; Energy Strategies Group; 109 TW Alexander DR; Mail Code: D243–01; RTP, NC 27711.

[72 FR 32742, June 13, 2007, as amended at 74 FR 5086, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011]

§ 60.47b Emission monitoring for sulfur dioxide.

(a) Except as provided in paragraphs (b) and (f) of this section, the owner or operator of an affected facility subject to the SO_2standards in §60.42b shall install, calibrate, maintain, and operate CEMS for measuring SO_2concentrations and either O_2or CO_2concentrations and shall record the output of the systems. For units complying with the percent reduction standard, the $SO_2$and either O_2or CO_2concentrations shall both be monitored at the inlet and outlet of the SO_2control device. If the owner or operator has installed and certified $SO_2$and O_2or CO_2CEMS 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_2concentration data and CO_2(or O_2) data are collected simultaneously; and

(2) In addition to meeting the applicable $SO_2$and CO_2(or O_2) 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. $SO_2$and CO_2(or O_2) 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_2data 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_2emissions 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_2input rate, or

(2) Measuring SO_2according to Method 6B of appendix A of this part at the inlet or outlet to the SO_2control 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 $SO_2$and CO_2measurement 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_2emission rate, E_D, 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_2emission 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_2emission 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_2emission 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_2CEMS at the inlet to the SO_2control device is 125 percent of the maximum estimated hourly potential SO_2emissions of the fuel combusted, and the span value of the CEMS at the outlet to the SO_2control device is 50 percent of the maximum estimated hourly potential SO_2emissions of the fuel combusted. Alternatively, SO_2span 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 $CO_2$and O_2monitors and for $SO_2$and NO_Xmonitors with span values greater than or equal to 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.

(ii) For all required CO_2 and O_2 monitors and for SO_2 and NO_X 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_2 and NO_X span values less than or equal to 30 ppm; and

(iii) For SO_2, CO_2, and O_2 monitoring systems and for NO_X 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_2 (regardless of the SO_2 emission level during the RATA), and for NO_X when the average NO_X 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).

[72 FR 32742, June 13, 2007, as amended at 74 FR 5087, Jan. 28, 2009]

§ 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 continuous opacity monitoring system (COMS) for measuring the opacity of emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility subject to an opacity standard under §60.43b and meeting the conditions under paragraphs (j)(1), (2), (3), (4), or (5) of this section who elects not to use a COMS shall conduct a performance test using Method 9 of appendix A–4 of this part and the procedures in §60.11 to demonstrate compliance with the applicable limit in §60.43b by April 29, 2011, within 45 days of stopping use of an existing COMS, or 180 days after initial startup of the facility, whichever is later, and shall comply with either paragraphs (a)(1), (a)(2), or (a)(3) of this section. The observation period for Method 9 of appendix A–4 of this part performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation.

(1) Except as provided in paragraph (a)(2) and (a)(3) of this section, the owner or operator shall conduct subsequent Method 9 of appendix A–4 of this part performance tests using the procedures in paragraph

(a) of this section according to the applicable schedule in paragraphs (a)(1)(i) through (a)(1)(iv) of this section, as determined by the most recent Method 9 of appendix A–4 of this part performance test results.

(i) If no visible emissions are observed, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted;

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

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

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

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

(i) The owner or operator shall conduct 10 minute observations (during normal operation) each operating day the affected facility fires fuel for which an opacity standard is applicable using Method 22 of appendix A–7 of this part and demonstrate that the sum of the occurrences of any visible emissions is not in excess of 5 percent of the observation period (*i.e.* , 30 seconds per 10 minute period). If the sum of the occurrence of any visible emissions is greater than 30 seconds during the initial 10 minute observation, immediately conduct a 30 minute observation. If the sum of the occurrence of visible emissions is greater than 5 percent of the observation period (*i.e.,* 90 seconds per 30 minute period), the owner or operator shall either document and adjust the operation of the facility and demonstrate within 24 hours that the sum of the occurrence of visible emissions is equal to or less than 5 percent during a 30 minute observation (*i.e.,* 90 seconds) or conduct a new Method 9 of appendix A–4 of this part performance test using the procedures in paragraph (a) of this section within 45 calendar days according to the requirements in §60.46d(d)(7).

(ii) If no visible emissions are observed for 30 operating days during which an opacity standard is applicable, observations can be reduced to once every 7 operating days during which an opacity standard is applicable. If any visible emissions are observed, daily observations shall be resumed.

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

(b) Except as provided under paragraphs (g), (h), and (i) of this section, the owner or operator of an affected facility subject to a NO_X 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_X and O_2 (or CO_2) emissions discharged to the atmosphere, and shall record the output of the system; or

(2) If the owner or operator has installed a NO_X 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_X emission rates measured by the continuous NO_X 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 COMS shall be between 60 and 80 percent.

(2) For affected facilities combusting coal, oil, or natural gas, the span value for NO_X is determined using one of the following procedures:

(i) Except as provided under paragraph (e)(2)(ii) of this section, NO_X span values shall be determined as follows:

Fuel	**Span values for NO_X (ppm)**
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_Xspan 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_Xemission 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, gasified coal, 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_Xemission 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_Xstandards in §60.44b(a)(4), §60.44b(e), or §60.44b(l) is not required to install or operate a continuous emissions monitoring system to measure NO_Xemissions.

(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_Xemissions.

(j) The owner or operator of an affected facility that meets the conditions in either paragraph (j)(1), (2), (3), (4), (5), or (6) of this section is not required to install or operate a COMS 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_2emissions rates of 26 ng/J (0.060 lb/MMBtu) or less and does not use a post-combustion technology to reduce SO_2or 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_2or PM emissions; or

(4) The affected facility does not use post-combustion technology (except a wet scrubber) for reducing PM, SO_2, 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; or

(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. The 1-hour averages are calculated using the data points required in §60.13(h)(2).

(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 uses a bag leak detection system to monitor the performance of a fabric filter (baghouse) according to the most recent requirements in section §60.48Da of this part; or

(6) 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 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 must calibrate, maintain, operate, 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.

[72 FR 32742, June 13, 2007, as amended at 74 FR 5087, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011]

§ 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_2. 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_2, PM, and/or NO_Xemission 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_Xstandard in §60.44b who seeks to demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions in the provisions of §60.48b(g)(2) shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored in §60.48b(g)(2) and the records to be maintained in §60.49b(g). This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected facility. An affected facility burning coke oven gas alone or in combination with other gaseous fuels or distillate oil shall submit this plan to the Administrator for approval within 360 days of the initial startup of the affected facility or by November 30, 2009, whichever date comes later. 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_Xemission 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_2level);

(2) Include the data and information that the owner or operator used to identify the relationship between NO_Xemission 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(g).

(d) Except as provided in paragraph (d)(2) of this section, the owner or operator of an affected facility shall record and maintain records as specified in paragraph (d)(1) of this section.

(1) 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.

(2) As an alternative to meeting the requirements of paragraph (d)(1) of this section, the owner or operator of an affected facility that is subject to a federally enforceable permit restricting fuel use to a single fuel such that the facility is not required to continuously monitor any emissions (excluding opacity) or parameters indicative of emissions may elect to record and maintain records of the amount of each fuel combusted during 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 an affected facility subject to the opacity standard in §60.43b, the owner or operator shall maintain records of opacity. In addition, an owner or operator that elects to monitor emissions according to the requirements in §60.48b(a) shall maintain records according to the requirements specified in paragraphs (f)(1) through (3) of this section, as applicable to the visible emissions monitoring method used.

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

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

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

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

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

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

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

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

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

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

(g) Except as provided under paragraph (p) of this section, the owner or operator of an affected facility subject to the NO_Xstandards 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_Xemission rates (expressed as NO_2) (ng/J or lb/MMBtu heat input) measured or predicted;

(3) The 30-day average NO_Xemission 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_Xemission rates are in excess of the NO_Xemissions 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 in §60.43b(f) or to the operating parameter monitoring requirements in §60.13(i)(1).

(2) Any affected facility that is subject to the NO_Xstandard of §60.44b, and that:

(i) Combusts natural gas, distillate oil, gasified coal, 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_Xemissions 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_Xemission 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_Xunder §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_2standards 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_2emission 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; For an exceedance due to maintenance of the SO_2control system covered in paragraph 60.45b(a), the report shall identify the days on which the maintenance was performed and a description of the maintenance;

(3) Each 30-day average percent reduction in SO_2emissions 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_2or diluent (O_2or CO_2) 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_2emission 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 $S0_2$or diluent (O_2or CO_2) 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_2standards in §60.42(b) for which the minimum amount of data required in §60.47b(c) 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.* , $\%R_f$) is used to determine the overall percent reduction (*i.e.* , $\%R_o$) 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.* , $\%R_f$) 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_Xemission tests required during the reporting period, the hours of operation during the reporting period, and the hours of operation since the last NO_Xemission 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, natural gas, wood, a mixture of these fuels, or any of these fuels (or a mixture of these fuels) in combination with other fuels that are known to contain an insignificant amount of sulfur in §60.42b(j) or §60.42b(k) 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 and gaseous fuel meets the definition of natural gas 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, natural gas, wood, and/or other fuels that are known to contain insignificant amounts of sulfur were 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_Xstandard 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_Xemission limit for fossil fuel in §60.44b(a) applies.

(ii) When natural gas and chemical by-product waste are simultaneously combusted, the NO_Xemission 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_Xemission limit shall be determined by the compliance and performance test methods and procedures for NO_Xin §60.46b(i).

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

(t) Facility-specific NO_Xstandard 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_Xburner 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_Xemission limit for fossil fuel in §60.44b(a) applies.

(ii) When fossil fuel and chemical by-product waste are simultaneously combusted, the NO_Xemission 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_Xemission limit shall be determined by the compliance and performance test methods and procedures for NO_Xin §60.46b.

(iii) The monitoring of the NO_Xemission 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 of 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_Xtechnology.

(ii) The site shall install, calibrate, maintain, and operate a continuous monitoring and recording system for measuring NO_Xemissions 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 $SO_2$and/or $NO_X$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_Xstandard 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_Xemission limit for fossil fuel in §60.44b(a) applies.

(ii) When fossil fuel and chemical by-product waste are simultaneously combusted, the NO_Xemission limit is 215 ng/J (0.5 lb/MMBtu).

(2) *Emission monitoring for nitrogen oxides* . (i) The NO_Xemissions shall be determined by the compliance and performance test methods and procedures for NO_Xin §60.46b.

(ii) The monitoring of the NO_Xemissions 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_Xstandard for INEOS USA's AOGI located in Lima, Ohio:

(1) *Standard for* NO_X. (i) When fossil fuel alone is combusted, the NO_Xemission limit for fossil fuel in §60.44b(a) applies.

(ii) When fossil fuel and chemical byproduct/waste are simultaneously combusted, the NO_Xemission limit is 645 ng/J (1.5 lb/MMBtu).

(2) *Emission monitoring for* NO_X. (i) The NO_Xemissions shall be determined by the compliance and performance test methods and procedures for NO_Xin §60.46b.

(ii) The monitoring of the NO_Xemissions 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.

[72 FR 32742, June 13, 2007, as amended at 74 FR 5089, Jan. 28, 2009]

Attachment B
to Part 70 Operating Permit Renewal No. T085-29197-00102

Louis Dreyfus Agricultural Industries LLC
7344 State Road 15 South, Claypool, Indiana, 46510-9746

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^3 (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^3 (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^3 /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 C
to Part 70 Operating Permit Renewal No. T085-29197-00102

Louis Dreyfus Agricultural Industries LLC
7344 State Road 15 South, Claypool, Indiana, 46510-9746

Subpart VV—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006

Source: 48 FR 48335, Oct. 18, 1983, unless otherwise noted.

§ 60.480 Applicability and designation of affected facility.

(a)(1) The provisions of this subpart apply to affected facilities in the synthetic organic chemicals manufacturing industry.

(2) The group of all equipment (defined in §60.481) within a process unit is an affected facility.

(b) Any affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after January 5, 1981, and on or before November 7, 2006, shall be subject to the requirements of this subpart.

(c) Addition or replacement of equipment for the purpose of process improvement which is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart.

(d)(1) If an owner or operator applies for one or more of the exemptions in this paragraph, then the owner or operator shall maintain records as required in §60.486(i).

(2) Any affected facility that has the design capacity to produce less than 1,000 Mg/yr (1,102 ton/yr) of a chemical listed in §60.489 is exempt from §§60.482–1 through 60.482–10.

(3) If an affected facility produces heavy liquid chemicals only from heavy liquid feed or raw materials, then it is exempt from §§60.482–1 through 60.482–10.

(4) Any affected facility that produces beverage alcohol is exempt from §§60.482–1 through 60.482–10.

(5) Any affected facility that has no equipment in volatile organic compounds (VOC) service is exempt from §§60.482–1 through 60.482–10.

(e) *Alternative means of compliance* —(1) *Option to comply with part 65.* (i) Owners or operators may choose to comply with the provisions of 40 CFR part 65, subpart F, to satisfy the requirements of §§60.482 through 60.487 for an affected facility. When choosing to comply with 40 CFR part 65, subpart F, the requirements of §60.485(d), (e), and (f) and §60.486(i) and (j) still apply. Other provisions applying to an owner or operator who chooses to comply with 40 CFR part 65 are provided in 40 CFR 65.1.

(ii) *Part 60, subpart A* . Owners or operators who choose to comply with 40 CFR part 65, subpart F must also comply with §§60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for that equipment. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (e)(1)(ii) do not apply to owners and operators of equipment subject to this subpart complying with 40 CFR part 65, subpart F, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart F, must comply with 40 CFR part 65, subpart A.

(2) *Subpart VVa* . Owners or operators may choose to comply with the provisions of subpart VVa of this part 60 to satisfy the requirements of this subpart VV for an affected facility.

(f) *Stay of standards* . Owners or operators are not required to comply with the definition of “process unit” in §60.481 and the requirements in §60.482–1(g) of this subpart until the EPA takes final action to require compliance and publishes a document in theFederal Register.While the definition of “process unit” is stayed, owners or operators should use the following definition:

Process unit means components assembled to produce, as intermediate or final products, one or more of the chemicals listed in §60.489 of this part. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product.

[48 FR 48335, Oct. 18, 1983, as amended at 49 FR 22607, May 30, 1984; 65 FR 61762, Oct. 17, 2000; 65 FR 78276, Dec. 14, 2000; 72 FR 64879, Nov. 16, 2007, 73 FR 31379, June 2, 2008; 73 FR 31375, June 2, 2008]

§ 60.481 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act or in subpart A of part 60, and the following terms shall have the specific meanings given them.

Capital expenditure means, in addition to the definition in 40 CFR 60.2, an expenditure for a physical or operational change to an existing facility that:

(a) Exceeds P, the product of the facility's replacement cost, R, and an adjusted annual asset guideline repair allowance, A, as reflected by the following equation: $P = R \times A$, where

(1) The adjusted annual asset guideline repair allowance, A, is the product of the percent of the replacement cost, Y, and the applicable basic annual asset guideline repair allowance, B, divided by 100 as reflected by the following equation:

$A = Y \times (B \div 100)$;

(2) The percent Y is determined from the following equation: $Y = 1.0 - 0.575 \log X$, where X is 1982 minus the year of construction; and

(3) The applicable basic annual asset guideline repair allowance, B, is selected from the following table consistent with the applicable subpart:

Table for Determining Applicable Value for B

Subpart applicable to facility	Value of B to be used in equation
VV	12.5
DDD	12.5
GGG	7.0
KKK	4.5

Closed-loop system means an enclosed system that returns process fluid to the process.

Closed-purge system means a system or combination of systems and portable containers to capture purged liquids. Containers for purged liquids must be covered or closed when not being filled or emptied.

Closed vent system means a system that is not open to the atmosphere and that is composed of hard-piping, ductwork, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device or back to a process.

Connector means flanged, screwed, or other joined fittings used to connect two pipe lines or a pipe line and a piece of process equipment or that close an opening in a pipe that could be connected to another pipe. Joined fittings welded completely around the circumference of the interface are not considered connectors for the purpose of this subpart.

Control device means an enclosed combustion device, vapor recovery system, or flare.

Distance piece means an open or enclosed casing through which the piston rod travels, separating the compressor cylinder from the crankcase.

Double block and bleed system means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

Duct work means a conveyance system such as those commonly used for heating and ventilation systems. It is often made of sheet metal and often has sections connected by screws or crimping. Hard-piping is not ductwork.

Equipment means each pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, and flange or other connector in VOC service and any devices or systems required by this subpart.

First attempt at repair means to take action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.

Fuel gas means gases that are combusted to derive useful work or heat.

Fuel gas system means the offsite and onsite piping and flow and pressure control system that gathers gaseous stream(s) generated by onsite operations, may blend them with other sources of gas, and transports the gaseous stream for use as fuel gas in combustion devices or in-process combustion equipment, such as furnaces and gas turbines, either singly or in combination.

Hard-piping means pipe or tubing that is manufactured and properly installed using good engineering judgment and standards such as ASME B31.3, Process Piping (available from the American Society of Mechanical Engineers, PO Box 2300, Fairfield, NJ 07007–2300).

In gas/vapor service means that the piece of equipment contains process fluid that is in the gaseous state at operating conditions.

In heavy liquid service means that the piece of equipment is not in gas/vapor service or in light liquid service.

In light liquid service means that the piece of equipment contains a liquid that meets the conditions specified in §60.485(e).

In-situ sampling systems means nonextractive samplers or in-line samplers.

In vacuum service means that equipment is operating at an internal pressure which is at least 5 kilopascals (kPa)(0.7 psia) below ambient pressure.

In VOC service means that the piece of equipment contains or contacts a process fluid that is at least 10 percent VOC by weight. (The provisions of §60.485(d) specify how to determine that a piece of equipment is not in VOC service.)

Liquids dripping means any visible leakage from the seal including spraying, misting, clouding, and ice formation.

Open-ended valve or line means any valve, except safety relief valves, having one side of the valve seat in contact with process fluid and one side open to the atmosphere, either directly or through open piping.

Pressure release means the emission of materials resulting from system pressure being greater than set pressure of the pressure relief device.

Process improvement means routine changes made for safety and occupational health requirements, for energy savings, for better utility, for ease of maintenance and operation, for correction of design deficiencies, for bottleneck removal, for changing product requirements, or for environmental control.

Process unit means the components assembled and connected by pipes or ducts to process raw materials and to produce, as intermediate or final products, one or more of the chemicals listed in §60.489. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product. For the purpose of this subpart, process unit includes any feed, intermediate and final product storage vessels (except as specified in §60.482–1(g)), product transfer racks, and connected ducts and piping. A process unit includes all equipment as defined in this subpart.

Process unit shutdown means a work practice or operational procedure that stops production from a process unit or part of a process unit during which it is technically feasible to clear process material from a process unit or part of a process unit consistent with safety constraints and during which repairs can be accomplished. The following are not considered process unit shutdowns:

(1) An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours.

(2) An unscheduled work practice or operational procedure that would stop production from a process unit or part of a process unit for a shorter period of time than would be required to clear the process unit or part of the process unit of materials and start up the unit, and would result in greater emissions than delay of repair of leaking components until the next scheduled process unit shutdown.

(3) The use of spare equipment and technically feasible bypassing of equipment without stopping production.

Quarter means a 3-month period; the first quarter concludes on the last day of the last full month during the 180 days following initial startup.

Repaired means that equipment is adjusted, or otherwise altered, in order to eliminate a leak as defined in the applicable sections of this subpart and, except for leaks identified in accordance with §§60.482–2(b)(2)(ii) and (d)(6)(ii) and (iii), 60.482–3(f), and 60.482–10(f)(1)(ii), is re-monitored as specified in §60.485(b) to verify that emissions from the equipment are below the applicable leak definition.

Replacement cost means the capital needed to purchase all the depreciable components in a facility.

Sampling connection system means an assembly of equipment within a process unit used during periods of representative operation to take samples of the process fluid. Equipment used to take nonroutine grab samples is not considered a sampling connection system.

Sensor means a device that measures a physical quantity or the change in a physical quantity such as temperature, pressure, flow rate, pH, or liquid level.

Storage vessel means a tank or other vessel that is used to store organic liquids that are used in the process as raw material feedstocks, produced as intermediates or final products, or generated as wastes. Storage vessel does not include vessels permanently attached to motor vehicles, such as trucks, railcars, barges, or ships.

Synthetic organic chemicals manufacturing industry means the industry that produces, as intermediates or final products, one or more of the chemicals listed in §60.489.

Transfer rack means the collection of loading arms and loading hoses, at a single loading rack, that are used to fill tank trucks and/or railcars with organic liquids.

Volatile organic compounds or VOC means, for the purposes of this subpart, any reactive organic compounds as defined in §60.2 Definitions.

[48 FR 48335, Oct. 18, 1983, as amended at 49 FR 22607, May 30, 1984; 49 FR 26738, June 29, 1984; 60 FR 43258, Aug. 18, 1995; 65 FR 61762, Oct. 17, 2000; 65 FR 78276, Dec. 14, 2000; 72 FR 64879, Nov. 16, 2007]

Effective Date Note: At 73 FR 31375, June 2, 2008, in §60.481, the definition of “process unit” was stayed until further notice.

§ 60.482-1 Standards: General.

(a) Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of §§60.482–1 through 60.482–10 or §60.480(e) for all equipment within 180 days of initial startup.

(b) Compliance with §§60.482–1 to 60.482–10 will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in §60.485.

(c)(1) An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of §§60.482–2, 60.482–3, 60.482–5, 60.482–6, 60.482–7, 60.482–8, and 60.482–10 as provided in §60.484.

(2) If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of §§60.482–2, 60.482–3, 60.482–5, 60.482–6, 60.482–7, 60.482–8, or 60.482–10, an owner or operator shall comply with the requirements of that determination.

(d) Equipment that is in vacuum service is excluded from the requirements of §§60.482–2 to 60.482–10 if it is identified as required in §60.486(e)(5).

(e) Equipment that an owner or operator designates as being in VOC service less than 300 hours (hr)/yr is excluded from the requirements of §§60.482–2 through 60.482–10 if it is identified as required in §60.486(e)(6) and it meets any of the conditions specified in paragraphs (e)(1) through (3) of this section.

(1) The equipment is in VOC service only during startup and shutdown, excluding startup and shutdown between batches of the same campaign for a batch process.

(2) The equipment is in VOC service only during process malfunctions or other emergencies.

(3) The equipment is backup equipment that is in VOC service only when the primary equipment is out of service.

(f)(1) If a dedicated batch process unit operates less than 365 days during a year, an owner or operator may monitor to detect leaks from pumps and valves at the frequency specified in the following table instead of monitoring as specified in §§60.482–2, 60.482–7, and 60.483–2:

	Equivalent monitoring frequency time in use		
Operating time (percent of hours during year)	**Monthly**	**Quarterly**	**Semiannually**
0 to <25	Quarterly	Annually	Annually.
25 to <50	Quarterly	Semiannually	Annually.
50 to <75	Bimonthly	Three quarters	Semiannually.
75 to 100	Monthly	Quarterly	Semiannually.

(2) Pumps and valves that are shared among two or more batch process units that are subject to this subpart may be monitored at the frequencies specified in paragraph (f)(1) of this section, provided the operating time of all such process units is considered.

(3) The monitoring frequencies specified in paragraph (f)(1) of this section are not requirements for monitoring at specific intervals and can be adjusted to accommodate process operations. An owner or operator may monitor at any time during the specified monitoring period (e.g., month, quarter, year), provided the monitoring is conducted at a reasonable interval after completion of the last monitoring campaign. Reasonable intervals are defined in paragraphs (f)(3)(i) through (iv) of this section.

(i) When monitoring is conducted quarterly, monitoring events must be separated by at least 30 calendar days.

(ii) When monitoring is conducted semiannually (*i.e.* , once every 2 quarters), monitoring events must be separated by at least 60 calendar days.

(iii) When monitoring is conducted in 3 quarters per year, monitoring events must be separated by at least 90 calendar days.

(iv) When monitoring is conducted annually, monitoring events must be separated by at least 120 calendar days.

(g) If the storage vessel is shared with multiple process units, the process unit with the greatest annual amount of stored materials (predominant use) is the process unit the storage vessel is assigned to. If the storage vessel is shared equally among process units, and one of the process units has equipment subject to subpart VVa of this part, the storage vessel is assigned to that process unit. If the storage vessel is shared equally among process units, none of which have equipment subject to subpart VVa of this part, the storage vessel is assigned to any process unit subject to this subpart. If the predominant use of the storage vessel varies from year to year, then the owner or operator must estimate the predominant

use initially and reassess every 3 years. The owner or operator must keep records of the information and supporting calculations that show how predominant use is determined. All equipment on the storage vessel must be monitored when in VOC service.

[48 FR 48335, Oct. 18, 1983, as amended at 49 FR 22608, May 30, 1984; 65 FR 78276, Dec. 14, 2000; 72 FR 64880, Nov. 16, 2007]

Effective Date Note: At 73 FR 31375, June 2, 2008, in §60.482–1, paragraph (g) was stayed until further notice.

§ 60.482-2 Standards: Pumps in light liquid service.

(a)(1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in §60.485(b), except as provided in §60.482–1(c) and (f) and paragraphs (d), (e), and (f) of this section. A pump that begins operation in light liquid service after the initial startup date for the process unit must be monitored for the first time within 30 days after the end of its startup period, except for a pump that replaces a leaking pump and except as provided in §60.482–1(c) and (f) and paragraphs (d), (e), and (f) of this section.

(2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal, except as provided in §60.482–1(f).

(b)(1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(2) If there are indications of liquids dripping from the pump seal, the owner or operator shall follow the procedure specified in either paragraph (b)(2)(i) or (ii) of this section. This requirement does not apply to a pump that was monitored after a previous weekly inspection if the instrument reading for that monitoring event was less than 10,000 ppm and the pump was not repaired since that monitoring event.

(i) Monitor the pump within 5 days as specified in §60.485(b). If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. The leak shall be repaired using the procedures in paragraph (c) of this section.

(ii) Designate the visual indications of liquids dripping as a leak, and repair the leak within 15 days of detection by eliminating the visual indications of liquids dripping.

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482–9.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the practices described in paragraphs (c)(2)(i) and (ii) of this section, where practicable.

(i) Tightening the packing gland nuts;

(ii) Ensuring that the seal flush is operating at design pressure and temperature.

(d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (a) of this section, provided the requirements specified in paragraphs (d)(1) through (6) of this section are met.

(1) Each dual mechanical seal system is—

(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or

(ii) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of §60.482–10; or

(iii) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

(2) The barrier fluid system is in heavy liquid service or is not in VOC service.

(3) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(4)(i) Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

(ii) If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in either paragraph (d)(4)(ii)(A) or (B) of this section.

(A) Monitor the pump within 5 days as specified in §60.485(b) to determine if there is a leak of VOC in the barrier fluid. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(B) Designate the visual indications of liquids dripping as a leak.

(5)(i) Each sensor as described in paragraph (d)(3) of this section is checked daily or is equipped with an audible alarm.

(ii) The owner or operator determines, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(iii) If the sensor indicates failure of the seal system, the barrier fluid system, or both, based on the criterion established in paragraph (d)(5)(ii) of this section, a leak is detected.

(6)(i) When a leak is detected pursuant to paragraph (d)(4)(ii)(A) of this section, it shall be repaired as specified in paragraph (c) of this section.

(ii) A leak detected pursuant to paragraph (d)(5)(iii) of this section shall be repaired within 15 days of detection by eliminating the conditions that activated the sensor.

(iii) A designated leak pursuant to paragraph (d)(4)(ii)(B) of this section shall be repaired within 15 days of detection by eliminating visual indications of liquids dripping.

(e) Any pump that is designated, as described in §60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a), (c), and (d) of this section if the pump:

(1) Has no externally actuated shaft penetrating the pump housing,

(2) Is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in §60.485(c), and

(3) Is tested for compliance with paragraph (e)(2) of this section initially upon designation, annually, and at other times requested by the Administrator.

(f) If any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system or to a control device that complies with the requirements of §60.482–10, it is exempt from paragraphs (a) through (e) of this section.

(g) Any pump that is designated, as described in §60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of paragraphs (a) and (d)(4) through (6) of this section if:

(1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a) of this section; and

(2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in paragraph (c) of this section if a leak is detected.

(h) Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (a)(2) and (d)(4) of this section, and the daily requirements of paragraph (d)(5) of this section, provided that each pump is visually inspected as often as practicable and at least monthly.

[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 61762, Oct. 17, 2000; 65 FR 78276, Dec. 14, 2000; 72 FR 64880, Nov. 16, 2007]

§ 60.482-3 Standards: Compressors.

(a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in §60.482–1(c) and paragraphs (h), (i), and (j) of this section.

(b) Each compressor seal system as required in paragraph (a) shall be:

(1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or

(2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of §60.482–10; or

(3) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

(c) The barrier fluid system shall be in heavy liquid service or shall not be in VOC service.

(d) Each barrier fluid system as described in paragraph (a) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

(e)(1) Each sensor as required in paragraph (d) shall be checked daily or shall be equipped with an audible alarm.

(2) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(f) If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under paragraph (e)(2), a leak is detected.

(g)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482–9.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(h) A compressor is exempt from the requirements of paragraphs (a) and (b) of this section, if it is equipped with a closed vent system to capture and transport leakage from the compressor drive shaft back to a process or fuel gas system or to a control device that complies with the requirements of §60.482–10, except as provided in paragraph (i) of this section.

(i) Any compressor that is designated, as described in §60.486(e) (1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a)–(h) if the compressor:

(1) Is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the methods specified in §60.485(c); and

(2) Is tested for compliance with paragraph (i)(1) of this section initially upon designation, annually, and at other times requested by the Administrator.

(j) Any existing reciprocating compressor in a process unit which becomes an affected facility under provisions of §60.14 or §60.15 is exempt from paragraphs (a) through (e) and (h) of this section, provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of paragraphs (a) through (e) and (h) of this section.

[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 61762, Oct. 17, 2000; 65 FR 78277, Dec. 14, 2000; 72 FR 64881, Nov. 16, 2007]

§ 60.482-4 Standards: Pressure relief devices in gas/vapor service.

(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in §60.485(c).

(b)(1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in §60.482–9.

(2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in §60.485(c).

(c) Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in §60.482–10 is exempted from the requirements of paragraphs (a) and (b) of this section.

(d)(1) Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (a) and (b) of this section, provided the owner or operator complies with the requirements in paragraph (d)(2) of this section.

(2) After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in §60.482–9.

[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 61762, Oct. 17, 2000; 65 FR 78277, Dec. 14, 2000]

§ 60.482-5 Standards: Sampling connection systems.

(a) Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in §60.482–1(c) and paragraph (c) of this section.

(b) Each closed-purge, closed-loop, or closed-vent system as required in paragraph (a) of this section shall comply with the requirements specified in paragraphs (b)(1) through (4) of this section.

(1) Gases displaced during filling of the sample container are not required to be collected or captured.

(2) Containers that are part of a closed-purge system must be covered or closed when not being filled or emptied.

(3) Gases remaining in the tubing or piping between the closed-purge system valve(s) and sample container valve(s) after the valves are closed and the sample container is disconnected are not required to be collected or captured.

(4) Each closed-purge, closed-loop, or closed-vent system shall be designed and operated to meet requirements in either paragraph (b)(4)(i), (ii), (iii), or (iv) of this section.

(i) Return the purged process fluid directly to the process line.

(ii) Collect and recycle the purged process fluid to a process.

(iii) Capture and transport all the purged process fluid to a control device that complies with the requirements of §60.482–10.

(iv) Collect, store, and transport the purged process fluid to any of the following systems or facilities:

(A) A waste management unit as defined in §63.111, if the waste management unit is subject to and operated in compliance with the provisions of 40 CFR part 63, subpart G, applicable to Group 1 wastewater streams;

(B) A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266;

(C) A facility permitted, licensed, or registered by a state to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261;

(D) A waste management unit subject to and operated in compliance with the treatment requirements of §61.348(a), provided all waste management units that collect, store, or transport the purged process fluid to the treatment unit are subject to and operated in compliance with the management requirements of §§61.343 through 61.347; or

(E) A device used to burn off-specification used oil for energy recovery in accordance with 40 CFR part 279, subpart G, provided the purged process fluid is not hazardous waste as defined in 40 CFR part 261.

(c) In situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (a) and (b) of this section.

[60 FR 43258, Aug. 18, 1995, as amended at 65 FR 61762, Oct. 17, 2000; 65 FR 78277, Dec. 14, 2000; 72 FR 64881, Nov. 16, 2007]

§ 60.482-6 Standards: Open-ended valves or lines.

(a)(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in §60.482–1(c) and paragraphs (d) and (e) of this section.

(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.

(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

(c) When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (a) at all other times.

(d) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of paragraphs (a), (b) and (c) of this section.

(e) Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraphs (a) through (c) of this section are exempt from the requirements of paragraphs (a) through (c) of this section.

[48 FR 48335, Oct. 18, 1983, as amended at 49 FR 22607, May 30, 1984; 65 FR 78277, Dec. 14, 2000; 72 FR 64881, Nov. 16, 2007]

§ 60.482-7 Standards: Valves in gas/vapor service and in light liquid service.

(a)(1) Each valve shall be monitored monthly to detect leaks by the methods specified in §60.485(b) and shall comply with paragraphs (b) through (e) of this section, except as provided in paragraphs (f), (g), and (h) of this section, §60.482–1(c) and (f), and §§60.483–1 and 60.483–2.

(2) A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for the process unit must be monitored according to paragraphs (a)(2)(i) or (ii), except for a valve that replaces a leaking valve and except as provided in paragraphs (f), (g), and (h) of this section, §60.482–1(c), and §§60.483–1 and 60.483–2.

(i) Monitor the valve as in paragraph (a)(1) of this section. The valve must be monitored for the first time within 30 days after the end of its startup period to ensure proper installation.

(ii) If the valves on the process unit are monitored in accordance with §60.483–1 or §60.483–2, count the new valve as leaking when calculating the percentage of valves leaking as described in §60.483–2(b)(5). If less than 2.0 percent of the valves are leaking for that process unit, the valve must be monitored for the first time during the next scheduled monitoring event for existing valves in the process unit or within 90 days, whichever comes first.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c)(1)(i) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.

(ii) As an alternative to monitoring all of the valves in the first month of a quarter, an owner or operator may elect to subdivide the process unit into 2 or 3 subgroups of valves and monitor each subgroup in a different month during the quarter, provided each subgroup is monitored every 3 months. The owner or operator must keep records of the valves assigned to each subgroup.

(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.

(d)(1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in §60.482–9.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(e) First attempts at repair include, but are not limited to, the following best practices where practicable:

(1) Tightening of bonnet bolts;

(2) Replacement of bonnet bolts;

(3) Tightening of packing gland nuts;

(4) Injection of lubricant into lubricated packing.

(f) Any valve that is designated, as described in §60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraph (a) if the valve:

(1) Has no external actuating mechanism in contact with the process fluid,

(2) Is operated with emissions less than 500 ppm above background as determined by the method specified in §60.485(c), and

(3) Is tested for compliance with paragraph (f)(2) of this section initially upon designation, annually, and at other times requested by the Administrator.

(g) Any valve that is designated, as described in §60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of paragraph (a) if:

(1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a), and

(2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

(h) Any valve that is designated, as described in §60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of paragraph (a) if:

(1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.

(2) The process unit within which the valve is located either becomes an affected facility through §60.14 or §60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor, and

(3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

[48 FR 48335, Oct. 18, 1983, as amended at 49 FR 22608, May 30, 1984; 65 FR 61762, Oct. 17, 2000; 72 FR 64881, Nov. 16, 2007]

§ 60.482-8 Standards: Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors.

(a) If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures:

(1) The owner or operator shall monitor the equipment within 5 days by the method specified in §60.485(b) and shall comply with the requirements of paragraphs (b) through (d) of this section.

(2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482–9.

(2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(d) First attempts at repair include, but are not limited to, the best practices described under §§60.482–

2(c)(2) and 60.482–7(e).

[48 CFR 48335, Oct. 18, 1983, as amended at 65 FR 78277, Dec. 14, 2000; 72 FR 64882, Nov. 16, 2007]

§ 60.482-9 Standards: Delay of repair.

(a) Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. Monitoring to verify repair must occur within 15 days after startup of the process unit.

(b) Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.

(c) Delay of repair for valves will be allowed if:

(1) The owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and

(2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with §60.482–10.

(d) Delay of repair for pumps will be allowed if:

(1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and

(2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

(e) Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

(f) When delay of repair is allowed for a leaking pump or valve that remains in service, the pump or valve may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive monthly monitoring instrument readings are below the leak definition.

[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 78277, Dec. 14, 2000; 72 FR 64882, Nov. 16, 2007]

§ 60.482-10 Standards: Closed vent systems and control devices.

(a) Owners or operators of closed vent systems and control devices used to comply with provisions of this subpart shall comply with the provisions of this section.

(b) Vapor recovery systems (for example, condensers and absorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent.

(c) Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a

minimum residence time of 0.75 seconds at a minimum temperature of 816 °C.

(d) Flares used to comply with this subpart shall comply with the requirements of §60.18.

(e) Owners or operators of control devices used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs.

(f) Except as provided in paragraphs (i) through (k) of this section, each closed vent system shall be inspected according to the procedures and schedule specified in paragraphs (f)(1) and (f)(2) of this section.

(1) If the vapor collection system or closed vent system is constructed of hard-piping, the owner or operator shall comply with the requirements specified in paragraphs (f)(1)(i) and (f)(1)(ii) of this section:

(i) Conduct an initial inspection according to the procedures in §60.485(b); and

(ii) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

(2) If the vapor collection system or closed vent system is constructed of ductwork, the owner or operator shall:

(i) Conduct an initial inspection according to the procedures in §60.485(b); and

(ii) Conduct annual inspections according to the procedures in §60.485(b).

(g) Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in paragraph (h) of this section.

(1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(2) Repair shall be completed no later than 15 calendar days after the leak is detected.

(h) Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.

(i) If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section.

(j) Any parts of the closed vent system that are designated, as described in paragraph (l)(1) of this section, as unsafe to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (j)(1) and (j)(2) of this section:

(1) The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraphs (f)(1)(i) or (f)(2) of this section; and

(2) The owner or operator has a written plan that requires inspection of the equipment as frequently as

practicable during safe-to-inspect times.

(k) Any parts of the closed vent system that are designated, as described in paragraph (l)(2) of this section, as difficult to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (k)(1) through (k)(3) of this section:

(1) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and

(2) The process unit within which the closed vent system is located becomes an affected facility through §§60.14 or 60.15, or the owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and

(3) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum.

(l) The owner or operator shall record the information specified in paragraphs (l)(1) through (l)(5) of this section.

(1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.

(2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.

(3) For each inspection during which a leak is detected, a record of the information specified in §60.486(c).

(4) For each inspection conducted in accordance with §60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(5) For each visual inspection conducted in accordance with paragraph (f)(1)(ii) of this section during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(m) Closed vent systems and control devices used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

[48 FR 48335, Oct. 18, 1983, as amended at 51 FR 2702, Jan. 21, 1986; 60 FR 43258, Aug. 18, 1995; 61 FR 29878, June 12, 1996; 65 FR 78277, Dec. 14, 2000]

§ 60.483-1 Alternative standards for valves—allowable percentage of valves leaking.

(a) An owner or operator may elect to comply with an allowable percentage of valves leaking of equal to or less than 2.0 percent.

(b) The following requirements shall be met if an owner or operator wishes to comply with an allowable percentage of valves leaking:

(1) An owner or operator must notify the Administrator that the owner or operator has elected to comply

with the allowable percentage of valves leaking before implementing this alternative standard, as specified in §60.487(d).

(2) A performance test as specified in paragraph (c) of this section shall be conducted initially upon designation, annually, and at other times requested by the Administrator.

(3) If a valve leak is detected, it shall be repaired in accordance with §60.482–7(d) and (e).

(c) Performance tests shall be conducted in the following manner:

(1) All valves in gas/vapor and light liquid service within the affected facility shall be monitored within 1 week by the methods specified in §60.485(b).

(2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(3) The leak percentage shall be determined by dividing the number of valves for which leaks are detected by the number of valves in gas/vapor and light liquid service within the affected facility.

(d) Owners and operators who elect to comply with this alternative standard shall not have an affected facility with a leak percentage greater than 2.0 percent, determined as described in §60.485(h).

[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 61762, Oct. 17, 2000; 65 FR 78278, Dec. 14, 2000; 72 FR 64882, Nov. 16, 2007]

§ 60.483-2 Alternative standards for valves—skip period leak detection and repair.

(a)(1) An owner or operator may elect to comply with one of the alternative work practices specified in paragraphs (b)(2) and (3) of this section.

(2) An owner or operator must notify the Administrator before implementing one of the alternative work practices, as specified in §60.487(d).

(b)(1) An owner or operator shall comply initially with the requirements for valves in gas/vapor service and valves in light liquid service, as described in §60.482–7.

(2) After 2 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 1 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

(3) After 5 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 3 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

(4) If the percent of valves leaking is greater than 2.0, the owner or operator shall comply with the requirements as described in §60.482–7 but can again elect to use this section.

(5) The percent of valves leaking shall be determined as described in §60.485(h).

(6) An owner or operator must keep a record of the percent of valves found leaking during each leak detection period.

(7) A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for

a process unit following one of the alternative standards in this section must be monitored in accordance with §60.482–7(a)(2)(i) or (ii) before the provisions of this section can be applied to that valve.

[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 61762, Oct. 17, 2000; 65 FR 78278, Dec. 14, 2000; 72 FR 64882, Nov. 16, 2007]

§ 60.484 Equivalence of means of emission limitation.

(a) Each owner or operator subject to the provisions of this subpart may apply to the Administrator for determination of equivalence for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in this subpart.

(b) Determination of equivalence to the equipment, design, and operational requirements of this subpart will be evaluated by the following guidelines:

(1) Each owner or operator applying for an equivalence determination shall be responsible for collecting and verifying test data to demonstrate equivalence of means of emission limitation.

(2) The Administrator will compare test data for demonstrating equivalence of the means of emission limitation to test data for the equipment, design, and operational requirements.

(3) The Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the equipment, design, and operational requirements.

(c) Determination of equivalence to the required work practices in this subpart will be evaluated by the following guidelines:

(1) Each owner or operator applying for a determination of equivalence shall be responsible for collecting and verifying test data to demonstrate equivalence of an equivalent means of emission limitation.

(2) For each affected facility for which a determination of equivalence is requested, the emission reduction achieved by the required work practice shall be demonstrated.

(3) For each affected facility, for which a determination of equivalence is requested, the emission reduction achieved by the equivalent means of emission limitation shall be demonstrated.

(4) Each owner or operator applying for a determination of equivalence shall commit in writing to work practice(s) that provide for emission reductions equal to or greater than the emission reductions achieved by the required work practice.

(5) The Administrator will compare the demonstrated emission reduction for the equivalent means of emission limitation to the demonstrated emission reduction for the required work practices and will consider the commitment in paragraph (c)(4).

(6) The Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the required work practice.

(d) An owner or operator may offer a unique approach to demonstrate the equivalence of any equivalent means of emission limitation.

(e)(1) After a request for determination of equivalence is received, the Administrator will publish a notice in theFederal Registerand provide the opportunity for public hearing if the Administrator judges that the request may be approved.

(2) After notice and opportunity for public hearing, the Administrator will determine the equivalence of a means of emission limitation and will publish the determination in theFederal Register.

(3) Any equivalent means of emission limitations approved under this section shall constitute a required work practice, equipment, design, or operational standard within the meaning of section 111(h)(1) of the Clean Air Act.

(f)(1) Manufacturers of equipment used to control equipment leaks of VOC may apply to the Administrator for determination of equivalence for any equivalent means of emission limitation that achieves a reduction in emissions of VOC achieved by the equipment, design, and operational requirements of this subpart.

(2) The Administrator will make an equivalence determination according to the provisions of paragraphs (b), (c), (d), and (e) of this section.

[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 61762, Oct. 17, 2000; 72 FR 64882, Nov. 16, 2007]

§ 60.485 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).

(b) The owner or operator shall determine compliance with the standards in §§60.482–1 through 60.482–10, 60.483, and 60.484 as follows:

(1) Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used:

(i) Zero air (less than 10 ppm of hydrocarbon in air); and

(ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane.

(c) The owner or operator shall determine compliance with the no detectable emission standards in §§60.482–2(e), 60.482–3(i), 60.482–4, 60.482–7(f), and 60.482–10(e) as follows:

(1) The requirements of paragraph (b) shall apply.

(2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(d) The owner or operator shall test each piece of equipment unless he demonstrates that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10

percent by weight. For purposes of this demonstration, the following methods and procedures shall be used:

(1) Procedures that conform to the general methods in ASTM E260–73, 91, or 96, E168–67, 77, or 92, E169–63, 77, or 93 (incorporated by reference—see §60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment.

(2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid.

(3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, paragraphs (d) (1) and (2) of this section shall be used to resolve the disagreement.

(e) The owner or operator shall demonstrate that a piece of equipment is in light liquid service by showing that all the following conditions apply:

(1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 °C (1.2 in. H_2O at 68 °F). Standard reference texts or ASTM D2879–83, 96, or 97 (incorporated by reference—see §60.17) shall be used to determine the vapor pressures.

(2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 °C (1.2 in. H_2O at 68 °F) is equal to or greater than 20 percent by weight.

(3) The fluid is a liquid at operating conditions.

(f) Samples used in conjunction with paragraphs (d), (e), and (g) of this section shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare.

(g) The owner or operator shall determine compliance with the standards of flares as follows:

(1) Method 22 shall be used to determine visible emissions.

(2) A thermocouple or any other equivalent device shall be used to monitor the presence of a pilot flame in the flare.

(3) The maximum permitted velocity for air assisted flares shall be computed using the following equation:

$$V_{max} = K_1 + K_2 H_T$$

Where:

V_{max}= Maximum permitted velocity, m/sec (ft/sec)

H_T= Net heating value of the gas being combusted, MJ/scm (Btu/scf).

K_1= 8.706 m/sec (metric units)

= 28.56 ft/sec (English units)

K_2= 0.7084 m^4 /(MJ-sec) (metric units)

= 0.087 ft^4 /(Btu-sec) (English units)

(4) The net heating value (H_T) of the gas being combusted in a flare shall be computed using the following equation:

$$H_T = K\sum_{i=1}^{n} C_i H_i$$

Where:

K = Conversion constant, 1.740×10^{-7} (g-mole)(MJ)/(ppm-scm-kcal) (metric units) = 4.674×10^{-6} [(g-mole)(Btu)/(ppm-scf-kcal)] (English units)

C_i= Concentration of sample component "i," ppm

H_i= Net heat of combustion of sample component "i" at 25 °C and 760 mm Hg (77 °F and 14.7 psi), kcal/g-mole

(5) Method 18 or ASTM D6420–99 (2004) (where the target compound(s) are those listed in Section 1.1 of ASTM D6420–99, and the target concentration is between 150 parts per billion by volume and 100 parts per million by volume) and ASTM D2504–67, 77 or 88 (Reapproved 1993) (incorporated by reference—see §60.17) shall be used to determine the concentration of sample component "i."

(6) ASTM D2382–76 or 88 or D4809–95 (incorporated by reference—see §60.17) shall be used to determine the net heat of combustion of component "i" if published values are not available or cannot be calculated.

(7) Method 2, 2A, 2C, or 2D, as appropriate, shall be used to determine the actual exit velocity of a flare. If needed, the unobstructed (free) cross-sectional area of the flare tip shall be used.

(h) The owner or operator shall determine compliance with §60.483–1 or §60.483–2 as follows:

(1) The percent of valves leaking shall be determined using the following equation:

$\%V_L = (V_L/V_T) * 100$

Where:

$\%V_L$= Percent leaking valves

V_L= Number of valves found leaking

V_T= The sum of the total number of valves monitored

(2) The total number of valves monitored shall include difficult-to-monitor and unsafe-to-monitor valves only during the monitoring period in which those valves are monitored.

(3) The number of valves leaking shall include valves for which repair has been delayed.

(4) Any new valve that is not monitored within 30 days of being placed in service shall be included in the number of valves leaking and the total number of valves monitored for the monitoring period in which the valve is placed in service.

(5) If the process unit has been subdivided in accordance with §60.482–7(c)(1)(ii), the sum of valves found leaking during a monitoring period includes all subgroups.

(6) The total number of valves monitored does not include a valve monitored to verify repair.

[54 FR 6678, Feb. 14, 1989, as amended at 54 FR 27016, June 27, 1989; 65 FR 61763, Oct. 17, 2000; 72 FR 64882, Nov. 16, 2007]

§ 60.486 Recordkeeping requirements.

(a)(1) Each owner or operator subject to the provisions of this subpart shall comply with the recordkeeping requirements of this section.

(2) An owner or operator of more than one affected facility subject to the provisions of this subpart may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility.

(b) When each leak is detected as specified in §§60.482–2, 60.482–3, 60.482–7, 60.482–8, and 60.483–2, the following requirements apply:

(1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.

(2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in §60.482–7(c) and no leak has been detected during those 2 months.

(3) The identification on equipment except on a valve, may be removed after it has been repaired.

(c) When each leak is detected as specified in §§60.482–2, 60.482–3, 60.482–7, 60.482–8, and 60.483–2, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:

(1) The instrument and operator identification numbers and the equipment identification number.

(2) The date the leak was detected and the dates of each attempt to repair the leak.

(3) Repair methods applied in each attempt to repair the leak.

(4) “Above 10,000” if the maximum instrument reading measured by the methods specified in §60.485(a) after each repair attempt is equal to or greater than 10,000 ppm.

(5) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.

(7) The expected date of successful repair of the leak if a leak is not repaired within 15 days.

(8) Dates of process unit shutdowns that occur while the equipment is unrepaired.

(9) The date of successful repair of the leak.

(d) The following information pertaining to the design requirements for closed vent systems and control devices described in §60.482–10 shall be recorded and kept in a readily accessible location:

(1) Detailed schematics, design specifications, and piping and instrumentation diagrams.

(2) The dates and descriptions of any changes in the design specifications.

(3) A description of the parameter or parameters monitored, as required in §60.482–10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.

(4) Periods when the closed vent systems and control devices required in §§60.482–2, 60.482–3, 60.482–4, and 60.482–5 are not operated as designed, including periods when a flare pilot light does not have a flame.

(5) Dates of startups and shutdowns of the closed vent systems and control devices required in §§60.482–2, 60.482–3, 60.482–4, and 60.482–5.

(e) The following information pertaining to all equipment subject to the requirements in §§60.482–1 to 60.482–10 shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for equipment subject to the requirements of this subpart.

(2)(i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §§60.482–2(e), 60.482–3(i) and 60.482–7(f).

(ii) The designation of equipment as subject to the requirements of §60.482–2(e), §60.482–3(i), or §60.482–7(f) shall be signed by the owner or operator. Alternatively, the owner or operator may establish a mechanism with their permitting authority that satisfies this requirement.

(3) A list of equipment identification numbers for pressure relief devices required to comply with §60.482–4.

(4)(i) The dates of each compliance test as required in §§60.482–2(e), 60.482–3(i), 60.482–4, and 60.482–7(f).

(ii) The background level measured during each compliance test.

(iii) The maximum instrument reading measured at the equipment during each compliance test.

(5) A list of identification numbers for equipment in vacuum service.

(6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with §60.482–1(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr.

(f) The following information pertaining to all valves subject to the requirements of §60.482–7(g) and (h)

and to all pumps subject to the requirements of §60.482–2(g) shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump.

(2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.

(g) The following information shall be recorded for valves complying with §60.483–2:

(1) A schedule of monitoring.

(2) The percent of valves found leaking during each monitoring period.

(h) The following information shall be recorded in a log that is kept in a readily accessible location:

(1) Design criterion required in §§60.482–2(d)(5) and 60.482–3(e)(2) and explanation of the design criterion; and

(2) Any changes to this criterion and the reasons for the changes.

(i) The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in §60.480(d):

(1) An analysis demonstrating the design capacity of the affected facility,

(2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol, and

(3) An analysis demonstrating that equipment is not in VOC service.

(j) Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location.

(k) The provisions of §60.7 (b) and (d) do not apply to affected facilities subject to this subpart.

[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 61763, Oct. 17, 2000; 65 FR 78278, Dec. 14, 2000; 72 FR 64883, Nov. 16, 2007]

§ 60.487 Reporting requirements.

(a) Each owner or operator subject to the provisions of this subpart shall submit semiannual reports to the Administrator beginning six months after the initial startup date.

(b) The initial semiannual report to the Administrator shall include the following information:

(1) Process unit identification.

(2) Number of valves subject to the requirements of §60.482–7, excluding those valves designated for no

detectable emissions under the provisions of §60.482–7(f).

(3) Number of pumps subject to the requirements of §60.482–2, excluding those pumps designated for no detectable emissions under the provisions of §60.482–2(e) and those pumps complying with §60.482–2(f).

(4) Number of compressors subject to the requirements of §60.482–3, excluding those compressors designated for no detectable emissions under the provisions of §60.482–3(i) and those compressors complying with §60.482–3(h).

(c) All semiannual reports to the Administrator shall include the following information, summarized from the information in §60.486:

(1) Process unit identification.

(2) For each month during the semiannual reporting period,

(i) Number of valves for which leaks were detected as described in §60.482–7(b) or §60.483–2,

(ii) Number of valves for which leaks were not repaired as required in §60.482–7(d)(1),

(iii) Number of pumps for which leaks were detected as described in §60.482–2(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii),

(iv) Number of pumps for which leaks were not repaired as required in §60.482–2(c)(1) and (d)(6),

(v) Number of compressors for which leaks were detected as described in §60.482–3(f),

(vi) Number of compressors for which leaks were not repaired as required in §60.482–3(g)(1), and

(vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

(3) Dates of process unit shutdowns which occurred within the semiannual reporting period.

(4) Revisions to items reported according to paragraph (b) if changes have occurred since the initial report or subsequent revisions to the initial report.

(d) An owner or operator electing to comply with the provisions of §§60.483–1 or 60.483–2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions.

(e) An owner or operator shall report the results of all performance tests in accordance with §60.8 of the General Provisions. The provisions of §60.8(d) do not apply to affected facilities subject to the provisions of this subpart except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests.

(f) The requirements of paragraphs (a) through (c) of this section remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of paragraphs (a) through (c) of this section, provided that they comply with the requirements established by the State.

[48 FR 48335, Oct. 18, 1983, as amended at 49 FR 22608, May 30, 1984; 65 FR 61763, Oct. 17, 2000; 72 FR 64883, Nov. 16, 2007]

§ 60.488 Reconstruction.

For the purposes of this subpart:

(a) The cost of the following frequently replaced components of the facility shall not be considered in calculating either the “fixed capital cost of the new components” or the “fixed capital costs that would be required to construct a comparable new facility” under §60.15: pump seals, nuts and bolts, rupture disks, and packings.

(b) Under §60.15, the “fixed capital cost of new components” includes the fixed capital cost of all depreciable components (except components specified in §60.488 (a)) which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following the applicability date for the appropriate subpart. (See the “Applicability and designation of affected facility” section of the appropriate subpart.) For purposes of this paragraph, “commenced” means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.

[49 FR 22608, May 30, 1984]

§ 60.489 List of chemicals produced by affected facilities.

The following chemicals are produced, as intermediates or final products, by process units covered under this subpart. The applicability date for process units producing one or more of these chemicals is January 5, 1981.

CAS No.[a]	Chemical
105–57–7	Acetal.
75–07–0	Acetaldehyde.
107–89–1	Acetaldol.
60–35–5	Acetamide.
103–84–4	Acetanilide.
64–19–7	Acetic acid.
108–24–7	Acetic anhydride.
67–64–1	Acetone.
75–86–5	Acetone cyanohydrin.
75–05–8	Acetonitrile.
98–86–2	Acetophenone.
75–36–5	Acetyl chloride.

CAS No.[a]	Chemical
74–86–2	Acetylene.
107–02–8	Acrolein.
79–06–1	Acrylamide.
79–10–7	Acrylic acid.
107–13–1	Acrylonitrile.
124–04–9	Adipic acid.
111–69–3	Adiponitrile.
([b])	Alkyl naphthalenes.
107–18–6	Allyl alcohol.
107–05–1	Allyl chloride.
1321–11–5	Aminobenzoic acid.
111–41–1	Aminoethylethanolamine.
123–30–8	p-Aminophenol.
628–63–7, 123–92–2	Amyl acetates.
71–41–0[c]	Amyl alcohols.
110–58–7	Amyl amine.
543–59–9	Amyl chloride.
110–66–7[c]	Amyl mercaptans.
1322–06–1	Amyl phenol.
62–53–3	Aniline.
142–04–1	Aniline hydrochloride.
29191–52–4	Anisidine.
100–66–3	Anisole.
118–92–3	Anthranilic acid.
84–65–1	Anthraquinone.
100–52–7	Benzaldehyde.
55–21–0	Benzamide.
71–43–2	Benzene.
98–48–6	Benzenedisulfonic acid.
98–11–3	Benzenesulfonic acid.
134–81–6	Benzil.
76–93–7	Benzilic acid.

CAS No.[a]	Chemical
65–85–0	Benzoic acid.
119–53–9	Benzoin.
100–47–0	Benzonitrile.
119–61–9	Benzophenone.
98–07–7	Benzotrichloride.
98–88–4	Benzoyl chloride.
100–51–6	Benzyl alcohol.
100–46–9	Benzylamine.
120–51–4	Benzyl benzoate.
100–44–7	Benzyl chloride.
98–87–3	Benzyl dichloride.
92–52–4	Biphenyl.
80–05–7	Bisphenol A.
10–86–1	Bromobenzene.
27497–51–4	Bromonaphthalene.
106–99–0	Butadiene.
106–98–9	1-butene.
123–86–4	n-butyl acetate.
141–32–2	n-butyl acrylate.
71–36–3	n-butyl alcohol.
78–92–2	s-butyl alcohol.
75–65–0	t-butyl alcohol.
109–73–9	n-butylamine.
13952–84–6	s-butylamine.
75–64–9	t-butylamine.
98–73–7	p-tert-butyl benzoic acid.
107–88–0	1,3-butylene glycol.
123–72–8	n-butyraldehyde.
107–92–6	Butyric acid.
106–31–0	Butyric anhydride.
109–74–0	Butyronitrile.
105–60–2	Caprolactam.

CAS No.[a]	Chemical
75–1–50	Carbon disulfide.
558–13–4	Carbon tetrabromide.
56–23–5	Carbon tetrachloride.
9004–35–7	Cellulose acetate.
79–11–8	Chloroacetic acid.
108–42–9	m-chloroaniline.
95–51–2	o-chloroaniline.
106–47–8	p-chloroaniline.
35913–09–8	Chlorobenzaldehyde.
108–90–7	Chlorobenzene.
118–91–2, 535–80–8, 74–11–3[c]	Chlorobenzoic acid.
2136–81–4, 2136–89–2, 5216–25–1[c]	Chlorobenzotrichloride.
1321–03–5	Chlorobenzoyl chloride.
25497–29–4	Chlorodifluoromethane.
75–45–6	Chlorodifluoroethane.
67–66–3	Chloroform.
25586–43–0	Chloronaphthalene.
88–73–3	o-chloronitrobenzene.
100–00–5	p-chloronitrobenzene.
25167–80–0	Chlorophenols.
126–99–8	Chloroprene.
7790–94–5	Chlorosulfonic acid.
108–41–8	m-chlorotoluene.
95–49–8	o-chlorotoluene.
106–43–4	p-chlorotoluene.
75–72–9	Chlorotrifluoromethane.
108–39–4	m-cresol.
95–48–7	o-cresol.
106–44–5	p-cresol.
1319–77–3	Mixed cresols.
1319–77–3	Cresylic acid.
4170–30–0	Crotonaldehyde.

CAS No.[a]	Chemical
3724–65–0	Crotonic acid.
98–82–8	Cumene.
80–15–9	Cumene hydroperoxide.
372–09–8	Cyanoacetic acid.
506–77–4	Cyanogen chloride.
108–80–5	Cyanuric acid.
108–77–0	Cyanuric chloride.
110–82–7	Cyclohexane.
108–93–0	Cyclohexanol.
108–94–1	Cyclohexanone.
110–83–8	Cyclohexene.
108–91–8	Cyclohexylamine.
111–78–4	Cyclooctadiene.
112–30–1	Decanol.
123–42–2	Diacetone alcohol.
27576–04–1	Diaminobenzoic acid.
95–76–1, 95–82–9, 554–00–7, 608–27–5, 608–31–1, 626–43–7, 27134–27–6, 57311–92–9[c]	Dichloroaniline.
541–73–1	m-dichlorobenzene.
95–50–1	o-dichlorobenzene.
106–46–7	p-dichlorobenzene.
75–71–8	Dichlorodifluoromethane.
111–44–4	Dichloroethyl ether.
107–06–2	1,2-dichloroethane (EDC).
96–23–1	Dichlorohydrin.
26952–23–8	Dichloropropene.
101–83–7	Dicyclohexylamine.
109–89–7	Diethylamine.
111–46–6	Diethylene glycol.
112–36–7	Diethylene glycol diethyl ether.
111–96–6	Diethylene glycol dimethyl ether.
112–34–5	Diethylene glycol monobutyl ether.

CAS No.[a]	Chemical
124–17–4	Diethylene glycol monobutyl ether acetate.
111–90–0	Diethylene glycol monoethyl ether.
112–15–2	Diethylene glycol monoethyl ether acetate.
111–77–3	Diethylene glycol monomethyl ether.
64–67–5	Diethyl sulfate.
75–37–6	Difluoroethane.
25167–70–8	Diisobutylene.
26761–40–0	Diisodecyl phthalate.
27554–26–3	Diisooctyl phthalate.
674–82–8	Diketene.
124–40–3	Dimethylamine.
121–69–7	N,N-dimethylaniline.
115–10–6	N,N-dimethyl ether.
68–12–2	N,N-dimethylformamide.
57–14–7	Dimethylhydrazine.
77–78–1	Dimethyl sulfate.
75–18–3	Dimethyl sulfide.
67–68–5	Dimethyl sulfoxide.
120–61–6	Dimethyl terephthalate.
99–34–3	3,5-dinitrobenzoic acid.
51–28–5	Dinitrophenol.
25321–14–6	Dinitrotoluene.
123–91–1	Dioxane.
646–06–0	Dioxilane.
122–39–4	Diphenylamine.
101–84–8	Diphenyl oxide.
102–08–9	Diphenyl thiourea.
25265–71–8	Dipropylene glycol.
25378–22–7	Dodecene.
28675–17–4	Dodecylaniline.
27193–86–8	Dodecylphenol.

CAS No.[a]	Chemical
106–89–8	Epichlorohydrin.
64–17–5	Ethanol.
141–43–5[c]	Ethanolamines.
141–78–6	Ethyl acetate.
141–97–9	Ethyl acetoacetate.
140–88–5	Ethyl acrylate.
75–04–7	Ethylamine.
100–41–4	Ethylbenzene.
74–96–4	Ethyl bromide.
9004–57–3	Ethylcellulose.
75–00–3	Ethyl chloride.
105–39–5	Ethyl chloroacetate.
105–56–6	Ethylcyanoacetate.
74–85–1	Ethylene.
96–49–1	Ethylene carbonate.
107–07–3	Ethylene chlorohydrin.
107–15–3	Ethylenediamine.
106–93–4	Ethylene dibromide.
107–21–1	Ethylene glycol.
111–55–7	Ethylene glycol diacetate.
110–71–4	Ethylene glycol dimethyl ether.
111–76–2	Ethylene glycol monobutyl ether.
112–07–2	Ethylene glycol monobutyl ether acetate.
110–80–5	Ethylene glycol monoethyl ether.
111–15–9	Ethylene glycol monethyl ether acetate.
109–86–4	Ethylene glycol monomethyl ether.
110–49–6	Ethylene glycol monomethyl ether acetate.
122–99–6	Ethylene glycol monophenyl ether.
2807–30–9	Ethylene glycol monopropyl ether.
75–21–8	Ethylene oxide.
60–29–7	Ethyl ether

CAS No.[a]	Chemical
104–76–7	2-ethylhexanol.
122–51–0	Ethyl orthoformate.
95–92–1	Ethyl oxalate.
41892–71–1	Ethyl sodium oxalacetate.
50–00–0	Formaldehyde.
75–12–7	Formamide.
64–18–6	Formic acid.
110–17–8	Fumaric acid.
98–01–1	Furfural.
56–81–5	Glycerol.
26545–73–7	Glycerol dichlorohydrin.
25791–96–2	Glycerol triether.
56–40–6	Glycine.
107–22–2	Glyoxal.
118–74–1	Hexachlorobenzene.
67–72–1	Hexachloroethane.
36653–82–4	Hexadecyl alcohol.
124–09–4	Hexamethylenediamine.
629–11–8	Hexamethylene glycol.
100–97–0	Hexamethylenetetramine.
74–90–8	Hydrogen cyanide.
123–31–9	Hydroquinone.
99–96–7	p-hydroxybenzoic acid.
26760–64–5	Isoamylene.
78–83–1	Isobutanol.
110–19–0	Isobutyl acetate.
115–11–7	Isobutylene.
78–84–2	Isobutyraldehyde.
79–31–2	Isobutyric acid.
25339–17–7	Isodecanol.
26952–21–6	Isooctyl alcohol.
78–78–4	Isopentane.

CAS No.[a]	Chemical
78–59–1	Isophorone.
121–91–5	Isophthalic acid.
78–79–5	Isoprene.
67–63–0	Isopropanol.
108–21–4	Isopropyl acetate.
75–31–0	Isopropylamine.
75–29–6	Isopropyl chloride.
25168–06–3	Isopropylphenol.
463–51–4	Ketene.
([b])	Linear alkyl sulfonate.
123–01–3	Linear alkylbenzene (linear dodecylbenzene).
110–16–7	Maleic acid.
108–31–6	Maleic anhydride.
6915–15–7	Malic acid.
141–79–7	Mesityl oxide.
121–47–1	Metanilic acid.
79–41–4	Methacrylic acid.
563–47–3	Methallyl chloride.
67–56–1	Methanol.
79–20–9	Methyl acetate.
105–45–3	Methyl acetoacetate.
74–89–5	Methylamine.
100–61–8	n-methylaniline.
74–83–9	Methyl bromide.
37365–71–2	Methyl butynol.
74–87–3	Methyl chloride.
108–87–2	Methylcyclohexane.
1331–22–2	Methylcyclohexanone.
75–09–2	Methylene chloride.
101–77–9	Methylene dianiline.
101–68–8	Methylene diphenyl diisocyanate.
78–93–3	Methyl ethyl ketone.

CAS No.[a]	Chemical
107–31–3	Methyl formate.
108–11–2	Methyl isobutyl carbinol.
108–10–1	Methyl isobutyl ketone.
80–62–6	Methyl methacrylate.
77–75–8	Methylpentynol.
98–83–9	a-methylstyrene.
110–91–8	Morpholine.
85–47–2	a-naphthalene sulfonic acid.
120–18–3	b-naphthalene sulfonic acid.
90–15–3	a-naphthol.
135–19–3	b-naphthol.
75–98–9	Neopentanoic acid.
88–74–4	o-nitroaniline.
100–01–6	p-nitroaniline.
91–23–6	o-nitroanisole.
100–17–4	p-nitroanisole.
98–95–3	Nitrobenzene.
27178–83–2[c]	Nitrobenzoic acid (o,m, and p).
79–24–3	Nitroethane.
75–52–5	Nitromethane.
88–75–5	2-Nitrophenol.
25322–01–4	Nitropropane.
1321–12–6	Nitrotoluene.
27215–95–8	Nonene.
25154–52–3	Nonylphenol.
27193–28–8	Octylphenol.
123–63–7	Paraldehyde.
115–77–5	Pentaerythritol.
109–66–0	n-pentane.
109–67–1	1-pentene
127–18–4	Perchloroethylene.
594–42–3	Perchloromethyl mercaptan.

CAS No.[a]	Chemical
94–70–2	o-phenetidine.
156–43–4	p-phenetidine.
108–95–2	Phenol.
98–67–9, 585–38–6, 609–46–1, 1333–39–7[c]	Phenolsulfonic acids.
91–40–7	Phenyl anthranilic acid.
([b])	Phenylenediamine.
75–44–5	Phosgene.
85–44–9	Phthalic anhydride.
85–41–6	Phthalimide.
108–99–6	b-picoline.
110–85–0	Piperazine.
9003–29–6, 25036–29–7[c]	Polybutenes.
25322–68–3	Polyethylene glycol.
25322–69–4	Polypropylene glycol.
123–38–6	Propionaldehyde.
79–09–4	Propionic acid.
71–23–8	n-propyl alcohol.
107–10–8	Propylamine.
540–54–5	Propyl chloride.
115–07–1	Propylene.
127–00–4	Propylene chlorohydrin.
78–87–5	Propylene dichloride.
57–55–6	Propylene glycol.
75–56–9	Propylene oxide.
110–86–1	Pyridine.
106–51–4	Quinone.
108–46–3	Resorcinol.
27138–57–4	Resorcylic acid.
69–72–7	Salicylic acid.
127–09–3	Sodium acetate.
532–32–1	Sodium benzoate.
9004–32–4	Sodium carboxymethyl cellulose.

CAS No.[a]	Chemical
3926–62–3	Sodium chloroacetate.
141–53–7	Sodium formate.
139–02–6	Sodium phenate.
110–44–1	Sorbic acid.
100–42–5	Styrene.
110–15–6	Succinic acid.
110–61–2	Succinonitrile.
121–57–3	Sulfanilic acid.
126–33–0	Sulfolane.
1401–55–4	Tannic acid.
100–21–0	Terephthalic acid.
79–34–5[c]	Tetrachloroethanes.
117–08–8	Tetrachlorophthalic anhydride.
78–00–2	Tetraethyl lead.
119–64–2	Tetrahydronaphthalene.
85–43–8	Tetrahydrophthalic anhydride.
75–74–1	Tetramethyl lead.
110–60–1	Tetramethylenediamine.
110–18–9	Tetramethylethylenediamine.
108–88–3	Toluene.
95–80–7	Toluene-2,4-diamine.
584–84–9	Toluene-2,4-diisocyanate.
26471–62–5	Toluene diisocyanates (mixture).
1333–07–9	Toluenesulfonamide.
104–15–4[c]	Toluenesulfonic acids.
98–59–9	Toluenesulfonyl chloride.
26915–12–8	Toluidines.
87–61–6, 108–70–3, 120–82–1[c]	Trichlorobenzenes.
71–55–6	1,1,1-trichloroethane.
79–00–5	1,1,2-trichloroethane.
79–01–6	Trichloroethylene.
75–69–4	Trichlorofluoromethane.

CAS No.[a]	Chemical
96–18–4	1,2,3-trichloropropane.
76–13–1	1,1,2-trichloro-1,2,2-trifluoroethane.
121–44–8	Triethylamine.
112–27–6	Triethylene glycol.
112–49–2	Triethylene glycol dimethyl ether.
7756–94–7	Triisobutylene.
75–50–3	Trimethylamine.
57–13–6	Urea.
108–05–4	Vinyl acetate.
75–01–4	Vinyl chloride.
75–35–4	Vinylidene chloride.
25013–15–4	Vinyl toluene.
1330–20–7	Xylenes (mixed).
95–47–6	o-xylene.
106–42–3	p-xylene.
1300–71–6	Xylenol.
1300–73–8	Xylidine.

[a]CAS numbers refer to the Chemical Abstracts Registry numbers assigned to specific chemicals, isomers, or mixtures of chemicals. Some isomers or mixtures that are covered by the standards do not have CAS numbers assigned to them. The standards apply to all of the chemicals listed, whether CAS numbers have been assigned or not.

[b]No CAS number(s) have been assigned to this chemical, its isomers, or mixtures containing these chemicals.

[c]CAS numbers for some of the isomers are listed; the standards apply to all of the isomers and mixtures, even if CAS numbers have not been assigned.

[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 61763, Oct. 17, 2000]

Attachment D
to Part 70 Operating Permit Renewal No. T085-29197-00102

Louis Dreyfus Agricultural Industries LLC
7344 State Road 15 South, Claypool, Indiana, 46510-9746

Subpart NNN—Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations

Source: 55 FR 26942, June 29, 1990, unless otherwise noted.

§ 60.660 Applicability and designation of affected facility.

(a) The provisions of this subpart apply to each affected facility designated in paragraph (b) of this section that is part of a process unit that produces any of the chemicals listed in §60.667 as a product, co-product, by-product, or intermediate, except as provided in paragraph (c).

(b) The affected facility is any of the following for which construction, modification, or reconstruction commenced after December 30, 1983:

(1) Each distillation unit not discharging its vent stream into a recovery system.

(2) Each combination of a distillation unit and the recovery system into which its vent stream is discharged.

(3) Each combination of two or more distillation units and the common recovery system into which their vent streams are discharged.

(c) Exemptions from the provisions of paragraph (a) of this section are as follows:

(1) Any distillation unit operating as part of a process unit which produces coal tar or beverage alcohols, or which uses, contains, and produces no VOC is not an affected facility.

(2) Any distillation unit that is subject to the provisions of subpart DDD is not an affected facility.

(3) Any distillation unit that is designed and operated as a batch operation is not an affected facility.

(4) Each affected facility that has a total resource effectiveness (TRE) index value greater than 8.0 is exempt from all provisions of this subpart except for §§60.662; 60.664 (d), (e), and (f); and 60.665 (h) and (l).

(5) Each affected facility in a process unit with a total design capacity for all chemicals produced within that unit of less than one gigagram per year is exempt from all provisions of this subpart except for the recordkeeping and reporting requirements in paragraphs (j), (l)(6), and (n) of §60.665.

(6) Each affected facility operated with a vent stream flow rate less than 0.008 scm/min is exempt from all provisions of this subpart except for the test method and procedure and the recordkeeping and reporting requirements in §60.664(g) and paragraphs (i), (l)(5), and (o) of §60.665.

(d) *Alternative means of compliance* —(1) *Option to comply with part 65.* Owners or operators of process vents that are subject to this subpart may choose to comply with the provisions of 40 CFR part 65, subpart D, to satisfy the requirements of §§60.662 through 60.665 and 60.668. The provisions of 40 CFR

part 65 also satisfy the criteria of paragraphs (c)(4) and (6) of this section. Other provisions applying to an owner or operator who chooses to comply with 40 CFR part 65 are provided in 40 CFR 65.1.

(2) *Part 60, subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart D, must also comply with §§60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for those process vents. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (d)(2) do not apply to owners or operators of process vents complying with 40 CFR part 65, subpart D, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart D, must comply with 40 CFR part 65, subpart A.

(3) *Compliance date.* Owners or operators who choose to comply with 40 CFR part 65, subpart D, at initial startup shall comply with paragraphs (d)(1) and (2) of this section for each vent stream on and after the date on which the initial performance test is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after the initial startup, whichever date comes first.

(4) *Initial startup notification.* Each owner or operator subject to the provisions of this subpart that chooses to comply with 40 CFR part 65, subpart D, at initial startup shall notify the Administrator of the specific provisions of 40 CFR 65.63(a)(1), (2), or (3), with which the owner or operator has elected to comply. Notification shall be submitted with the notifications of initial startup required by 40 CFR 65.5(b).

[Note: The intent of these standards is to minimize the emissions of VOC through the application of best demonstrated technology (BDT). The numerical emission limits in these standards are expressed in terms of total organic compounds (TOC), measured as TOC less methane and ethane. This emission limit reflects the performance of BDT.]

[55 FR 26942, June 29, 2000, as amended at 65 FR 78279, Dec. 14, 2000]

§ 60.661 Definitions.

As used in this subpart, all terms not defined here shall have the meaning given them in the Act and in subpart A of part 60, and the following terms shall have the specific meanings given them.

Batch distillation operation means a noncontinuous distillation operation in which a discrete quantity or batch of liquid feed is charged into a distillation unit and distilled at one time. After the initial charging of the liquid feed, no additional liquid is added during the distillation operation.

Boiler means any enclosed combustion device that extracts useful energy in the form of steam.

By compound means by individual stream components, not carbon equivalents.

Continuous recorder means a data recording device recording an instantaneous data value at least once every 15 minutes.

Distillation operation means an operation separating one or more feed stream(s) into two or more exit stream(s), each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid and vapor-phase as they approach equilibrium within the distillation unit.

Distillation unit means a device or vessel in which distillation operations occur, including all associated internals (such as trays or packing) and accessories (such as reboiler, condenser, vacuum pump, steam jet, etc.), plus any associated recovery system.

Flame zone means the portion of the combustion chamber in a boiler occupied by the flame envelope.

Flow indicator means a device which indicates whether gas flow is present in a vent stream.

Halogenated vent stream means any vent stream determined to have a total concentration (by volume) of compounds containing halogens of 20 ppmv (by compound) or greater.

Incinerator means any enclosed combustion device that is used for destroying organic compounds and does not extract energy in the form of steam or process heat.

Process heater means a device that transfers heat liberated by burning fuel to fluids contained in tubes, including all fluids except water that is heated to produce steam.

Process unit means equipment assembled and connected by pipes or ducts to produce, as intermediates or final products, one or more of the chemicals in §60.667. A process unit can operate independently if supplied with sufficient fuel or raw materials and sufficient product storage facilities.

Product means any compound or chemical listed in §60.667 that is produced for sale as a final product as that chemical, or for use in the production of other chemicals or compounds. By-products, co-products, and intermediates are considered to be products.

Recovery device means an individual unit of equipment, such as an absorber, carbon adsorber, or condenser, capable of and used for the purpose of recovering chemicals for use, reuse, or sale.

Recovery system means an individual recovery device or series of such devices applied to the same vent stream.

Total organic compounds (TOC) means those compounds measured according to the procedures in §60.664(b)(4). For the purposes of measuring molar composition as required in §60.664(d)(2)(i); hourly emissions rate as required in §60.664(d)(5) and §60.664(e); and TOC concentration as required in §60.665(b)(4) and §60.665(g)(4), those compounds which the Administrator has determined do not contribute appreciably to the formation of ozone are to be excluded. The compounds to be excluded are identified in Environmental Protection Agency's statements on ozone abatement policy for State Implementation Plans (SIP) revisions (42 FR 35314; 44 FR 32042; 45 FR 32424; 45 FR 48942).

TRE index value means a measure of the supplemental total resource requirement per unit reduction of TOC associated with an individual distillation vent stream, based on vent stream flow rate, emission rate of TOC net heating value, and corrosion properties (whether or not the vent stream is halogenated), as quantified by the equation given under §60.664(e).

Vent stream means any gas stream discharged directly from a distillation facility to the atmosphere or indirectly to the atmosphere after diversion through other process equipment. The vent stream excludes relief valve discharges and equipment leaks including, but not limited to, pumps, compressors, and valves.

§ 60.662 Standards.

Each owner or operator of any affected facility shall comply with paragraph (a), (b), or (c) of this section for each vent stream on and after the date on which the initial performance test required by §60.8 and §60.664 is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after the initial start-up, whichever date comes first. Each owner or operator shall either:

(a) Reduce emissions of TOC (less methane and ethane) by 98 weight-percent, or to a TOC (less methane and ethane) concentration of 20 ppmv, on a dry basis corrected to 3 percent oxygen, whichever is less stringent. If a boiler or process heater is used to comply with this paragraph, then the vent stream shall be introduced into the flame zone of the boiler or process heater; or

(b) Combust the emissions in a flare that meets the requirements of §60.18; or

(c) Maintain a TRE index value greater than 1.0 without use of VOC emission control devices.

§ 60.663 Monitoring of emissions and operations.

(a) The owner or operator of an affected facility that uses an incinerator to seek to comply with the TOC emission limit specified under §60.662(a) shall install, calibrate, maintain, and operate according to manufacturer's specifications the following equipment:

(1) A temperature monitoring device equipped with a continuous recorder and having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5 °C, whichever is greater.

(i) Where an incinerator other than a catalytic incinerator is used, a temperature monitoring device shall be installed in the firebox.

(ii) Where a catalytic incinerator is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.

(2) A flow indicator that provides a record of vent stream flow to the incinerator at least once every hour for each affected facility. The flow indicator shall be installed in the vent stream from each affected facility at a point closest to the inlet of each incinerator and before being joined with any other vent stream.

(b) The owner or operator of an affected facility that uses a flare to seek to comply with §60.662(b) shall install, calibrate, maintain and operate according to manufacturer's specifications the following equipment:

(1) A heat sensing device, such as an ultra-violet beam sensor or thermocouple, at the pilot light to indicate the continuous presence of a flame.

(2) A flow indicator that provides a record of vent stream flow to the flare at least once every hour for each affected facility. The flow indicator shall be installed in the vent stream from each affected facility at a point closest to the flare and before being joined with any other vent stream.

(c) The owner or operator of an affected facility that uses a boiler or process heater to seek to comply with §60.662(a) shall install, calibrate, maintain and operate according to the manufacturer's specifications the following equipment:

(1) A flow indicator that provides a record of vent stream flow to the boiler or process heater at least once every hour for each affected facility. The flow indicator shall be installed in the vent stream from each distillation unit within an affected facility at a point closest to the inlet of each boiler or process heater and before being joined with any other vent stream.

(2) A temperature monitoring device in the firebox equipped with a continuous recorder and having an accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5 °C, whichever is greater, for boilers or process heaters of less than 44 MW (150 million Btu/hr) heat input design capacity.

(d) Monitor and record the periods of operation of the boiler or process heater if the design heat input capacity of the boiler or process heater is 44 MW (150 million Btu/hr) or greater. The records must be readily available for inspection.

(e) The owner or operator of an affected facility that seeks to comply with the TRE index value limit specified under §60.662(c) shall install, calibrate, maintain, and operate according to manufacturer's specifications the following equipment, unless alternative monitoring procedures or requirements are approved for that facility by the Administrator:

(1) Where an absorber is the final recovery device in the recovery system:

(i) A scrubbing liquid temperature monitoring device having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5 °C, whichever is greater, and a specific gravity monitoring device having an accuracy of ±0.02 specific gravity units, each equipped with a continuous recorder, or

(ii) An organic monitoring device used to indicate the concentration level of organic compounds exiting the recovery device based on a detection principle such as infrared, photoionization, or thermal conductivity, each equipped with a continuous recorder.

(2) Where a condenser is the final recovery device in the recovery system:

(i) A condenser exit (product side) temperature monitoring device equipped with a continuous recorder and having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5 °C, whichever is greater, or

(ii) An organic monitoring device used to monitor organic compounds exiting the recovery device based on a detection principle such as infra-red, photoionization, or thermal conductivity, each equipped with a continuous recorder.

(3) Where a carbon adsorber is the final recovery device unit in the recovery system:

(i) An integrating steam flow monitoring device having an accuracy of ±10 percent, and a carbon bed temperature monitoring device having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5 °C, whichever is greater, both equipped with a continuous recorder, or

(ii) An organic monitoring device used to indicate the concentration level of organic compounds exiting the recovery device based on a detection principle such as infra-red, photoionization, or thermal conductivity, each equipped with a continuous recorder.

(f) An owner or operator of an affected facility seeking to demonstrate compliance with the standards specified under §60.662 with control devices other than incinerator, boiler, process heater, or flare; or recovery device other than an absorber, condenser, or carbon adsorber shall provide to the Administrator information describing the operation of the control device or recovery device and the process parameter(s) which would indicate proper operation and maintenance of the device. The Administrator may request further information and will specify appropriate monitoring procedures or requirements.

[55 FR 26942, June 29, 1990, as amended at 65 FR 61774, Oct. 17, 2000]

§ 60.664 Test methods and procedures.

(a) For the purpose of demonstrating compliance with §60.662, all affected facilities shall be run at full operating conditions and flow rates during any performance test.

(b) The following methods in appendix A to this part, except as provided under §60.8(b), shall be used as reference methods to determine compliance with the emission limit or percent reduction efficiency specified under §60.662(a).

(1) Method 1 or 1A, as appropriate, for selection of the sampling sites. The control device inlet sampling site for determination of vent stream molar composition or TOC (less methane and ethane) reduction efficiency shall be prior to the inlet of the control device and after the recovery system.

(2) Method 2, 2A, 2C, or 2D, as appropriate, for determination of the gas volumetric flow rates.

(3) The emission rate correction factor, integrated sampling and analysis procedure of Method 3 shall be used to determine the oxygen concentration ($\%O_{2d}$) for the purposes of determining compliance with the 20 ppmv limit. The sampling site shall be the same as that of the TOC samples, and the samples shall be taken during the same time that the TOC samples are taken.

The TOC concentration corrected to 3 percent 0_2(C_c) shall be computed using the following equation:

$$C_c = C_{TOC} \frac{17.9}{20.9 - \%O_{2d}}$$

where:

C_c=Concentration of TOC corrected to 3 percent O_2, dry basis, ppm by volume.

C_{TOC}=Concentration of TOC (minus methane and ethane), dry basis, ppm by volume.

$\%O_{2d}$=Concentration of O_2, dry basis, percent by volume.

(4) Method 18 to determine the concentration of TOC in the control device outlet and the concentration of TOC in the inlet when the reduction efficiency of the control device is to be determined.

(i) The sampling time for each run shall be 1 hour in which either an integrated sample or four grab samples shall be taken. If grab sampling is used then the samples shall be taken at 15-minute intervals.

(ii) The emission reduction (R) of TOC (minus methane and ethane) shall be determined using the following equation:

$$R = \frac{E_i - E_o}{E_i} \times 100$$

where:

R=Emission reduction, percent by weight.

E_i=Mass rate of TOC entering the control device, kg/hr (lb/hr).

E_o=Mass rate of TOC discharged to the atmosphere, kg/hr (lb/hr).

(iii) The mass rates of TOC (E_i, E_o) shall be computed using the following equations:

$$E_i = K_2 \left(\sum_{j=1}^{n} C_{ij} M_{ij} \right) Q_i$$

$$E_O = K_2 \left(\sum_{j=1}^{n} C_{oj} M_{oj} \right) Q_O$$

where:

C_{ij}, C_{oj}=Concentration of sample component "j" of the gas stream at the inlet and outlet of the control device, respectively, dry basis, ppm by volume.

M_{ij}, M_{oj}=Molecular weight of sample component "j" of the gas stream at the inlet and outlet of the control device, respectively, g/g-mole (lb/lb-mole).

Q_i, Q_o=Flow rate of gas stream at the inlet and outlet of the control device, respectively, dscm/min (dscf/min).

K_2= 2.494 × 10^{-6}(1/ppm)(g-mole/scm) (kg/g) (min/hr) (metric units), where standard temperature for (g-mole/scm) is 20 °C.

= 1.557 × 10^{-7}(1/ppm) (lb-mole/scf) (min/hr) (English units), where standard temperature for (lb-mole/scf) is 68 °F.

(iv) The TOC concentration (C_{TOC}) is the sum of the individual components and shall be computed for each run using the following equation:

$$C_{TOC} = \sum_{j=1}^{n} C_j$$

where:

C_{TOC}=Concentration of TOC (minus methane and ethane), dry basis, ppm by volume.

C_j=Concentration of sample components "j", dry basis, ppm by volume.

n=Number of components in the sample.

(c) When a boiler or process heater with a design heat input capacity of 44 MW (150 million Btu/hour) or greater is used to seek to comply with §60.662(a), the requirement for an initial performance test is waived, in accordance with §60.8(b). However, the Administrator reserves the option to require testing at such other times as may be required, as provided for in section 114 of the Act.

(d) When a flare is used to seek to comply with §60.662(b), the flare shall comply with the requirements of §60.18.

(e) The following test methods in appendix A to this part, except as provided under §60.8(b), shall be used for determining the net heating value of the gas combusted to determine compliance under §60.662(b) and for determining the process vent stream TRE index value to determine compliance under §60.662(c).

(1)(i) Method 1 or 1A, as appropriate, for selection of the sampling site. The sampling site for the vent stream flow rate and molar composition determination prescribed in §60.664(e)(2) and (3) shall be, except for the situations outlined in paragraph (e)(1)(ii) of this section, prior to the inlet of any control device, prior to any post-distillation dilution of the stream with air, and prior to any post-distillation introduction of halogenated compounds into the process vent stream. No transverse site selection method is needed for vents smaller than 10 centimeters (4 inches) in diameter.

(ii) If any gas stream other than the distillation vent stream from the affected facility is normally conducted through the final recovery device.

(A) The sampling site for vent stream flow rate and molar composition shall be prior to the final recovery device and prior to the point at which the nondistillation stream is introduced.

(B) The efficiency of the final recovery device is determined by measuring the TOC concentration using Method 18 at the inlet to the final recovery device after the introduction of any nondistillation vent stream and at the outlet of the final recovery device.

(C) This efficiency is applied to the TOC concentration measured prior to the final recovery device and prior to the introduction of the nondistillation stream to determine the concentration of TOC in the distillation vent stream from the final recovery device. This concentration of TOC is then used to perform the calculations outlined in §60.664(e)(4) and (5).

(2) The molar composition of the process vent stream shall be determined as follows:

(i) Method 18 to measure the concentration of TOC including those containing halogens.

(ii) ASTM D1946–77 or 90 (Reapproved 1994) (incorporation by reference as specified in §60.17 of this part) to measure the concentration of carbon monoxide and hydrogen.

(iii) Method 4 to measure the content of water vapor.

(3) The volumetric flow rate shall be determined using Method 2, 2A, 2C, or 2D, as appropriate.

(4) The net heating value of the vent stream shall be calculated using the following equation:

$$H_T = K_1\left(\sum_{j=1}^{n} C_j H_j\right)$$

where:

H_T= Net heating value of the sample, MJ/scm (Btu/scf), where the net enthalpy per mole of vent stream is based on combustion at 25 °C and 760 mm Hg (77 °F and 30 in. Hg), but the standard temperature for determining the volume corresponding to one mole is 20 °C (68 °F).

K_1= 1.74 × 10^{-7}(1/ppm) (g-mole/scm) (MJ/kcal) (metric units), where standard temperature for (g-mole/scm) is 20 °C.

= 1.03 × 10^{-11}(1/ppm) (lb-mole/scf) (Btu/kcal) (English units) where standard temperature for (lb/mole/scf) is 68 °F.

C_j= Concentration on a wet basis of compound j in ppm, as measured for organics by Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946–77 or 90 (Reapproved 1994) (incorporation by reference as specified in §60.17 of this part) as indicated in §60.664(e)(2).

H_j= Net heat of combustion of compound j, kcal/(g-mole) [kcal/(lb-mole)], based on combustion at 25 °C and 760 mm Hg (77 °F and 30 in. Hg).

The heats of combustion of vent stream components would be required to be determined using ASTM D2382–76 (incorporation by reference as specified in §60.17 of this part) if published values are not available or cannot be calculated.

(5) The emission rate of TOC in the vent stream shall be calculated using the following equation:

$$E_{TOC} = K_2 \left[\sum_{j=1}^{n} C_j M_j \right] Q_s$$

where:

E_{TOC}= Measured emission rate of TOC, kg/hr (lb/hr).

K_2= 2.494×10^{-6}(1/ppm) (g-mole/scm) (kg/g) (min/hr) (metric units), where standard temperature for (g-mole/scm) is 20 °C.

= 1.557 × 10^{-7}(1/ppm) (lb-mole/scf) (min/hr) (English units), where standard temperature for (lb-mole/scf) is 68 °F.

C_j= Concentration on a wet basis of compound j in ppm, as measured by Method 18 as indicated in §60.664(e)(2).

M_j= Molecular weight of sample j, g/g-mole (lb/lb-mole).

Q_s= Vent stream flow rate, scm/min (scf/min), at a temperature of 20 °C (68 °F).

(6) The total process vent stream concentration (by volume) of compounds containing halogens (ppmv, by compound) shall be summed from the individual concentrations of compounds containing halogens which were measured by Method 18.

(f) For purposes of complying with §60.662(c) the owner or operator of a facility affected by this subpart shall calculate the TRE index value of the vent stream using the equation for incineration in paragraph (e)(1) of this section for halogenated vent streams. The owner or operator of an affected facility with a nonhalogenated vent stream shall determine the TRE index value by calculating values using both the incinerator equation in (e)(1) and the flare equation in (e)(2) of this section and selecting the lower of the two values.

(1) The equation for calculating the TRE index value of a vent stream controlled by an incinerator is as follows:

$$TRE = \frac{1}{E_{TOC}}\left[a + b(Q_s) + c(Q_s)^{0.88} + d(Q_s)(H_T) + e(Q_s)^{0.88}(H_T)^{0.88} + f(Y_s)^{0.5}\right]$$

(i) Where for a vent stream flow rate that is greater than or equal to 14.2 scm/min (501 scf/min) at a standard temperature of 20 °C (68 °F):

TRE = TRE index value.

Q_s= Vent stream flow rate, scm/min (scf/min), at a temperature of 20 °C (68 °F).

H_T= Vent stream net heating value, MJ/scm (Btu/scf), where the net enthalpy per mole of vent stream is based on combustion at 25 °C and 760 mm Hg (68 °F and 30 in. Hg), but the standard temperature for determining the volume corresponding to one mole is 20 °C (68 °F) as in the definition of Q_s.

Y_s= $Q_s$for all vent stream categories listed in table 1 except for Category E vent streams where Y_s= $Q_sH_T/3.6$.

E_{TOC}= Hourly emissions of TOC, kg/hr (lb/hr).

a, b, c, d, e, and f are coefficients.

The set of coefficients that apply to a vent stream can be obtained from table 1.

TABLE 1. DISTILLATION NSPS TRE COEFFICIENTS FOR VENT STREAMS CONTROLLED BY AN INCINERATOR

DESIGN CATEGORY A1. FOR HALOGENATED PROCESS VENT STREAMS, IF 0 ≤ NET HEATING VALUE (MJ/scm) ≤ 3.5 OR IF 0 ≤ NET HEATING VALUE (Btu/scf) ≤ 94:

Q_s = Vent Stream Flow rate scm/min (scf/min)	a	b	c	d	e	f
$14.2 \le Q_s \le 18.8$	18.84466	0.26742	-0.20044	0	0	0.01025
$(501 \le Q_s \le 664)$	(41.54494)	(0.016696)	(-0.019194)	(0)	(0)	(0.003803)
$18.8 < Q_s \le 699$	19.66658	0.26742	-0.25332	0	0	0.01025
$(664 < Q_s \le 24,700)$	(43.35694)	(0.016696)	(-0.024258)	(0)	(0)	(0.003803)
$699 < Q_s \le 1400$	39.19213	0.29062	-0.25332	0	0	0.01449
$(24,700 < Q_s \le 49,000)$	(86.40297)	(0.018145)	(-0.024258)	(0)	(0)	(0.005376)
$1400 < Q_s \le 2100$	58.71768	0.30511	-0.25332	0	0	0.01775
$(49,000 < Q_s \le 74,000)$	(129.4490)	(0.019050)	(-0.024258)	(0)	(0)	(0.006585)
$2100 < Q_s \le 2800$	78.24323	0.31582	-0.25332	0	0	0.02049
$(74,000 < Q_s \le 99,000)$	(172.4950)	(0.019718)	(-0.024258)	(0)	(0)	(0.007602)
$2800 < Q_s \le 3500$	97.76879	0.32439	-0.25332	0	0	0.02291
$(99,000 < Q_s \le 120,000)$	(215.5411)	(0.020253)	(-0.024258)	(0)	(0)	(0.008500)

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DESIGN CATEGORY A2. FOR HALOGENATED PROCESS VENT STREAMS, IF NET HEATING VALUE < 3.5 (MJ/scm) OR IF NET HEATING VALUE < 94 (Btu/scf):

Q_s = Vent Stream Flow rate scm/min(scf/min)	a	b	c	d	e	f
$14.2 \le Q_s \le 18.8$	18.84466	0.26742	-0.20044	0	0	0.01025
$(501 \le Q_s \le 664)$	(41.54494)	(0.016696)	(-0.019194)	(0)	(0)	(0.003803)
$18.8 < Q_s \le 699$	19.66858	0.26742	-0.25332	0	0	0.01025
$(664 < Q_s \le 24,700)$	(43.35694)	(0.016696)	(-0.024258)	(0)	(0)	(0.003803)
$699 < Q_s \le 1400$	39.19213	0.29062	-0.25332	0	0	0.01449
$(24,700 < Q_s \le 49,000)$	(86.40297)	(0.018145)	(-0.024258)	(0)	(0)	(0.005376)
$1400 < Q_s \le 2100$	58.71768	0.30511	-0.25332	0	0	0.01775
$(49,000 < Q_s \le 74,000)$	(129.4490)	(0.019050)	(-0.024258)	(0)	(0)	(0.006585)
$2100 < Q_s \le 2800$	78.24323	0.31582	-0.25332	0	0	0.02049
$(74,000 < Q_s \le 99,000)$	(172.4950)	(0.019718)	(-0.024258)	(0)	(0)	(0.007602)
$2800 < Q_s \le 3500$	97.76879	0.32439	-0.25332	0	0	0.02291
$(99,000 < Q_s \le 120,000)$	(215.5411)	(0.020253)	(-0.024258)	(0)	(0)	(0.008500)

DESIGN CATEGORY B. FOR NONHALOGENATED PROCESS VENT STREAMS, IF $0 \le$ NET HEATING VALUE (MJ/scm) ≤ 0.48 OR IF $0 \le$ NET HEATING VALUE (Btu/scf) ≤ 13:

Q_s = Vent Stream Flow rate scm/min(scf/min)	a	b	c	d	e	f
$14.2 \le Q_s \le 1340$	8.54245	0.10555	0.09030	-0.17109	0	0.01025
$(501 \le Q_s \le 47,300)$	(18.83268)	(0.0065901)	(0.008647)	(-0.00039762)	(0)	(0.003803)
$1340 < Q_s \le 2690$	16.94386	0.11470	0.09030	-0.17109	0	0.01449
$(47,300 < Q_s \le 95,000)$	(37.35443)	(0.0071614)	(0.008647)	(-0.00039762)	(0)	(0.005376)
$2690 < Q_s \le 4040$	25.34528	0.12042	0.09030	-0.17109	0	0.01775
$(95,000 < Q_s \le 143,000)$	(55.87620)	(0.0075185)	(0.008647)	(-0.00039762)	(0)	(0.006585)

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DESIGN CATEGORY C. FOR NONHALOGENTED PROCESS VENT STREAMS, IF 0.48 < NET HEATING VALUE (MJ/scm) ≤ 1.9 OR IF 13 < NET HEATING VALUE (Btu/scf) ≤ 51:

Q_s = Vent Stream Flow rate scm/min(scf/min)	a	b	c	d	e	f
$14.2 \le Q_s \le 1340$	9.25233	0.06105	0.31937	-0.16181	0	0.01025
$(501 \le Q_s \le 47,300)$	(20.39769)	(0.003812)	(0.030582)	(-0.00037605)	(0)	(0.003803)
$1340 < Q_s \le 2690$	18.36363	0.06635	0.31937	-0.16181	0	0.01449
$(47,300 < Q_s \le 95,000)$	(40.48446)	(0.004143)	(0.030582)	(-0.00037605)	(0)	(0.005376)
$2690 < Q_s \le 4040$	27.47492	0.06965	0.31937	-0.16181	0	0.01775
$(95,000 < Q_s \le 143,000)$	(60.57121)	(0.004349)	(0.030582)	(-0.00037605)	(0)	(0.006585)

DESIGN CATEGORY D. FOR NONHALOGENATED PROCESS VENT STREAMS, IF 1.9 < NET HEATING VALUE (MJ/scm) ≤ 3.6 OR IF 51 < NET HEATING VALUE (Btu/scf) ≤ 97:

Q_s = Vent Stream Flow rate scm/min(scf/min)	a	b	c	d	e	f
$14.2 \le Q_s \le 1180$	6.67868	0.06943	0.02582	0	0	0.01025
$(501 \le Q_s \le 41,700)$	(14.72382)	(0.004335)	(0.002472)	(0)	(0)	(0.003803)
$1180 < Q_s \le 2370$	13.21633	0.07546	0.02582	0	0	0.01449
$(41,700 < Q_s \le 83,700)$	(29.13672)	(0.004711)	(0.002472)	(0)	(0)	(0.005376)
$2370 < Q_s \le 3550$	19.75398	0.07922	0.02582	0	0	0.01775
$(83,700 < Q_s \le 125,000)$	(43.54962)	(0.004946)	(0.002472)	(0)	(0)	(0.006585)

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DESIGN CATEGORY E. FOR NONHALOGENATED PROCESS VENT STREAMS, IF NET HEATING VALUE > 3.6 MJ/scm OR IF NET HEATING VALUE > 97 (Btu/scf):

Q_s = Vent Stream Flow rate scm/min(scf/min)	a	b	c	d	e	f
$14.2 \le Y_s \le 1180$	6.67868	0	0	-0.00707	0.02220	0.01025
$(501 \le Y_s \le 41,700)$	(14.72382)	(0)	(0)	(-0.0000164)	(0.0001174)	(0.003803)
$1180 < Y_s \le 2370$	13.21633	0	0	-0.00707	0.02412	0.01449
$(41,700 < Y_s \le 83,700)$	(29.13672)	(0)	(0)	(-0.0000164)	(0.0001276)	(0.005376)
$2370 < Y_s \le 3550$	19.75398	0	0	-0.00707	0.02533	0.01775
$(83,700 < Y_s \le 125,000)$	(43.54962)	(0)	(0)	(-0.0000164)	(0.0001340)	(0.006585)

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(ii) Where for a vent stream flow rate that is less than 14.2 scm/min (501 scf/min) at a standard temperature of 20 °C (68 °F):

TRE = TRE index value.

Q_s= 14.2 scm/min (501 scf/min).

H_T= (FLOW) (HVAL)/Q_s.

Where the following inputs are used:

FLOW = Vent stream flow rate, scm/min (scf/min), at a temperature of 20 °C (68 °F).

HVAL = Vent stream net heating value, MJ/scm (Btu/scf), where the net enthalpy per mole of vent stream is based on combustion at 25 °C and 760 mm Hg (68 °F and 30 in. Hg), but the standard temperature for determining the volume corresponding to one mole is 20 °C (68 °F) as in the definition of Q_s.

Y_s= $Q_s$for all vent stream categories listed in table 1 except for Category E vent streams where Y_s= Q_sH_T/3.6.

E_{TOC}= Hourly emissions of TOC, kg/hr (lb/hr).

a, b, c, d, e, and f are coefficients

The set of coefficients that apply to a vent stream can be obtained from table 1.

(2) The equation for calculating the TRE index value of a vent stream controlled by a flare is as follows:

$$TRE = \frac{1}{E_{TOC}}\left[a\left(Q_s\right)+b\left(Q_s\right)^{0.8}+c\left(Q_s\right)\left(H_T\right)+d\left(E_{TOC}\right)+e\right]$$

where:

TRE = TRE index value.

E_{TOC}= Hourly emissions of TOC, kg/hr (lb/hr).

Q_s= Vent stream flow rate, scm/min (scf/min), at a standard temperature of 20 °C (68 °F).

H_T= Vent stream net heating value, MJ/scm (Btu/scf), where the net enthalpy per mole of vent stream is based on combustion at 25 °C and 760 mm Hg (68 °F and 30 in. Hg), but the standard temperature for determining the volume corresponding to one mole is 20 °C (68 °F) as in the definition of Q_s.

a, b, c, d, and e are coefficients.

The set of coefficients that apply to a vent stream shall be obtained from table 2.

Table 2—Distillation NSPS TRE Coefficients for Vent Streams Controlled By a Flare

	a	b	c	d	e
H_T< 11.2 MJ/scm	2.25	0.288	−0.193	−0.0051	2.08
(H_T< 301 Btu/scf)	(0.140)	(0.0367)	(−0.000448)	(−0.0051)	(4.59)
H_T≥ 11.2 MJ/scm	0.309	0.0619	−0.0043	−0.0034	2.08
(H_T≥ 301 Btu/scf)	(0.0193)	(0.00788)	(−0.0000010)	(−0.0034)	(4.59)

(g) Each owner or operator of an affected facility seeking to comply with §60.660(c)(4) or §60.662(c) shall recalculate the TRE index value for that affected facility whenever process changes are made. Examples of process changes include changes in production capacity, feedstock type, or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. The TRE index value shall be recalculated based on test data, or on best engineering estimates of the effects of the change to the recovery system.

(1) Where the recalculated TRE index value is less than or equal to 1.0, the owner or operator shall notify the Administrator within 1 week of the recalculation and shall conduct a performance test according to the methods and procedures required by §60.664 in order to determine compliance with §60.662(a). Performance tests must be conducted as soon as possible after the process change but no later than 180 days from the time of the process change.

(2) Where the initial TRE index value is greater than 8.0 and the recalculated TRE index value is less than or equal to 8.0 but greater than 1.0, the owner or operator shall conduct a performance test in accordance with §§60.8 and 60.664 and shall comply with §§60.663, 60.664 and 60.665. Performance tests must be conducted as soon as possible after the process change but no later than 180 days from the time of the process change.

(h) Any owner or operator subject to the provisions of this subpart seeking to demonstrate compliance with §60.660(c)(6) shall use Method 2, 2A, 2C, or 2D as appropriate, for determination of volumetric flow rate.

[55 FR 26942, June 29, 1990, as amended at 65 FR 61774, Oct. 17, 2000]

§ 60.665 Reporting and recordkeeping requirements.

(a) Each owner or operator subject to §60.662 shall notify the Administrator of the specific provisions of §60.662 (§60.662 (a), (b), or (c)) with which the owner or operator has elected to comply. Notification shall be submitted with the notification of initial start-up required by §60.7(a)(3). If an owner or operator elects at a later date to use an alternative provision of §60.662 with which he or she will comply, then the Administrator shall be notified by the owner or operator 90 days before implementing a change and, upon implementing the change, a performance test shall be performed as specified by §60.664 within 180 days.

(b) Each owner or operator subject to the provisions of this subpart shall keep an up-to-date, readily accessible record of the following data measured during each performance test, and also include the following data in the report of the initial performance test required under §60.8. Where a boiler or process heater with a design heat input capacity of 44 MW (150 million Btu/hour) or greater is used to comply with §60.662(a), a report containing performance test data need not be submitted, but a report containing the

information in §60.665(b)(2)(i) is required. The same data specified in this section shall be submitted in the reports of all subsequently required performance tests where either the emission control efficiency of a control device, outlet concentration of TOC, or the TRE index value of a vent stream from a recovery system is determined.

(1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.662(a) through use of either a thermal or catalytic incinerator:

(i) The average firebox temperature of the incinerator (or the average temperature upstream and downstream of the catalyst bed for a catalytic incinerator), measured at least every 15 minutes and averaged over the same time period of the performance testing, and

(ii) The percent reduction of TOC determined as specified in §60.664(b) achieved by the incinerator, or the concentration of TOC (ppmv, by compound) determined as specified in §60.664(b) at the outlet of the control device on a dry basis corrected to 3 percent oxygen.

(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.662(a) through use of a boiler or process heater:

(i) A description of the location at which the vent stream is introduced into the boiler or process heater, and

(ii) The average combustion temperature of the boiler or process heater with a design heat input capacity of less than 44 MW (150 million Btu/hr) measured at least every 15 minutes and averaged over the same time period of the performance testing.

(3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.662(b) through use of a smokeless flare, flare design (i.e., steam-assisted, air-assisted or nonassisted), all visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the performance test, continuous records of the flare pilot flame monitoring, and records of all periods of operations during which the pilot flame is absent.

(4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.662(c):

(i) Where an absorber is the final recovery device in the recovery system, the exit specific gravity (or alternative parameter which is a measure of the degree of absorbing liquid saturation, if approved by the Administrator), and average exit temperature, of the absorbing liquid measured at least every 15 minutes and averaged over the same time period of the performance testing (both measured while the vent stream is normally routed and constituted), or

(ii) Where a condenser is the final recovery device in the recovery system, the average exit (product side) temperature measured at least every 15 minutes and averaged over the same time period of the performance testing while the vent stream is routed and constituted normally, or

(iii) Where a carbon adsorber is the final recovery device in the recovery system, the total steam mass flow measured at least every 15 minutes and averaged over the same time period of the performance test (full carbon bed cycle), temperature of the carbon bed after regeneration (and within 15 minutes of completion of any cooling cycle(s)), and duration of the carbon bed steaming cycle (all measured while the vent stream is routed and constituted normally), or

(iv) As an alternative to §60.665(b)(4) ((i), (ii) or (iii), the concentration level or reading indicated by the organics monitoring device at the outlet of the absorber, condenser, or carbon adsorber, measured at

least every 15 minutes and averaged over the same time period of the performance testing while the vent stream is normally routed and constituted.

(v) All measurements and calculations performed to determine the TRE index value of the vent stream.

(c) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored under §60.663 (a) and (c) as well as up-to-date, readily accessible records of periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. The Administrator may at any time require a report of these data. Where a combustion device is used to comply with §60.662(a), periods of operation during which the parameter boundaries established during the most recent performance tests are exceeded are defined as follows:

(1) For thermal incinerators, all 3-hour periods of operation during which the average combustion temperature was more than 28 °C (50 °F) below the average combustion temperature during the most recent performance test at which compliance with §60.662(a) was determined.

(2) For catalytic incinerators, all 3-hour periods of operation during which the average temperature of the vent stream immediately before the catalyst bed is more than 28 °C (50 °F) below the average temperature of the vent stream during the most recent performance test at which compliance with §60.662(a) was determined. The owner or operator also shall record all 3-hour periods of operation during which the average temperature difference across the catalyst bed is less than 80 percent of the average temperature difference of the device during the most recent performance test at which compliance with §60.662(a) was determined.

(3) All 3-hour periods of operation during which the average combustion temperature was more than 28 °C (50 °F) below the average combustion temperature during the most recent performance test at which compliance with §60.662(a) was determined for boilers or process heaters with a design heat input capacity of less than 44 MW (150 million Btu/hr).

(4) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under §60.662(a).

(d) Each owner or operator subject to the provisions of this subpart shall keep up to date, readily accessible continuous records of the flow indication specified under §60.663(a)(2), §60.663(b)(2) and §60.663(c)(1), as well as up-to-date, readily accessible records of all periods when the vent stream is diverted from the control device or has no flow rate.

(e) Each owner or operator subject to the provisions of this subpart who uses a boiler or process heater with a design heat input capacity of 44 MW (150 million Btu/hour) or greater to comply with §60.662(a) shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other State or Federal regulatory requirements.)

(f) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the flare pilot flame monitoring specified under §60.663(b), as well as up-to-date, readily accessible records of all periods of operations in which the pilot flame is absent.

(g) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored under §60.663(e), as well as up-to-date, readily accessible records of periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. The Administrator may at any time require a report of these data. Where an owner or operator seeks to

comply with §60.662(c), periods of operation during which the parameter boundaries established during the most recent performance tests are exceeded are defined as follows:

(1) Where an absorber is the final recovery device in a recovery system, and where an organic compound monitoring device is not used:

(i) All 3-hour periods of operation during which the average absorbing liquid temperature was more than 11 °C (20 °F) above the average absorbing liquid temperature during the most recent performance test, or

(ii) All 3-hour periods of operation during which the average absorbing liquid specific gravity was more than 0.1 unit above, or more than 0.1 unit below, the average absorbing liquid specific gravity during the most recent performance test (unless monitoring of an alternative parameter, which is a measure of the degree of absorbing liquid saturation, is approved by the Administrator, in which case he will define appropriate parameter boundaries and periods of operation during which they are exceeded).

(2) Where a condenser is the final recovery device in a system, and where an organic compound monitoring device is not used, all 3-hour periods of operation during which the average exit (product side) condenser operating temperature was more than 6 °C (1 1 °F) above the average exit (product side) operating temperature during the most recent performance test.

(3) Where a carbon adsorber is the final recovery device in a system, and where an organic compound monitoring device is not used:

(i) All carbon bed regeneration cycles during which the total mass steam flow was more than 10 percent below the total mass steam flow during the most recent performance test, or

(ii) All carbon bed regeneration cycles during which the temperature of the carbon bed after regeneration (and after completion of any cooling cycle(s)) was more than 10 percent greater than the carbon bed temperature (in degrees Celsius) during the most recent performance test.

(4) Where an absorber, condenser, or carbon adsorber is the final recovery device in the recovery system and where an organic compound monitoring device is used, all 3-hour periods of operation during which the average organic compound concentration level or reading of organic compounds in the exhaust gases is more than 20 percent greater than the exhaust gas organic compound concentration level or reading measured by the monitoring device during the most recent performance test.

(h) Each owner or operator of an affected facility subject to the provisions of this subpart and seeking to demonstrate compliance with §60.662(c) shall keep up-to-date, readily accessible records of:

(1) Any changes in production capacity, feedstock type, or catalyst type, or of any replacement, removal or addition of recovery equipment or a distillation unit;

(2) Any recalculation of the TRE index value performed pursuant to §60.664(f); and

(3) The results of any performance test performed pursuant to the methods and procedures required by §60.664(d).

(i) Each owner or operator of an affected facility that seeks to comply with the requirements of this subpart by complying with the flow rate cutoff in §60.660(c)(6) shall keep up-to-date, readily accessible records to indicate that the vent stream flow rate is less than 0.008 scm/min (0.3 scf/min) and of any change in equipment or process operation that increases the operating vent stream flow rate, including a measurement of the new vent stream flow rate.

(j) Each owner or operator of an affected facility that seeks to comply with the requirements of this subpart by complying with the design production capacity provision in §60.660(c)(5) shall keep up-to-date, readily accessible records of any change in equipment or process operation that increases the design production capacity of the process unit in which the affected facility is located.

(k) Each owner and operator subject to the provisions of this subpart is exempt from the quarterly reporting requirements contained in §60.7(c) of the General Provisions.

(l) Each owner or operator that seeks to comply with the requirements of this subpart by complying with the requirements of §60.660 (c)(4), (c)(5), or (c)(6) or §60.662 shall submit to the Administrator semiannual reports of the following recorded information. The initial report shall be submitted within 6 months after the initial start-up date.

(1) Exceedances of monitored parameters recorded under §60.665 (c) and (g).

(2) All periods recorded under §60.665(d) when the vent stream is diverted from the control device or has no flow rate.

(3) All periods recorded under §60.665(e) when the boiler or process heater was not operating.

(4) All periods recorded under §60.665(f) in which the pilot flame of the flare was absent.

(5) Any change in equipment or process operation that increases the operating vent stream flow rate above the low flow exemption level in §60.660(c)(6), including a measurement of the new vent stream flow rate, as recorded under §60.665(i). These must be reported as soon as possible after the change and no later than 180 days after the change. These reports may be submitted either in conjunction with semiannual reports or as a single separate report. A performance test must be completed with the same time period to verify the recalculated flow value and to obtain the vent stream characteristics of heating value and E_{TOC}. The performance test is subject to the requirements of §60.8 of the General Provisions. Unless the facility qualifies for an exemption under the low capacity exemption status in §60.660(c)(5), the facility must begin compliance with the requirements set forth in §60.662.

(6) Any change in equipment or process operation, as recorded under paragraph (j) of this section, that increases the design production capacity above the low capacity exemption level in §60.660(c)(5) and the new capacity resulting from the change for the distillation process unit containing the affected facility. These must be reported as soon as possible after the change and no later than 180 days after the change. These reports may be submitted either in conjunction with semiannual reports or as a single separate report. A performance test must be completed within the same time period to obtain the vent stream flow rate, heating value, and E_{TOC}. The performance test is subject to the requirements of §60.8. The facility must begin compliance with the requirements set forth in §60.660(d) or §60.662. If the facility chooses to comply with §60.662, the facility may qualify for an exemption in §60.660(c)(4) or (6).

(7) Any recalculation of the TRE index value, as recorded under §60.665(h).

(m) The requirements of §60.665(l) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with §60.665(l), provided that they comply with the requirements established by the State.

(n) Each owner or operator that seeks to demonstrate compliance with §60.660(c)(5) must submit to the Administrator an initial report detailing the design production capacity of the process unit.

(o) Each owner or operator that seeks to demonstrate compliance with §60.660(c)(6) must submit to the Administrator an initial report including a flow rate measurement using the test methods specified in §60.664.

(p) The Administrator will specify appropriate reporting and recordkeeping requirements where the owner or operator of an affected facility complies with the standards specified under §60.662 other than as provided under §60.663(a), (b), (c) and (d).

[55 FR 26922, June 29, 1990; 55 FR 36932, Sept. 7, 1990, as amended at 60 FR 58237, Nov. 27, 1995; 65 FR 61778, Oct. 17, 2000; 65 FR 78279, Dec. 14, 2000]

§ 60.666 Reconstruction.

For purposes of this subpart "fixed capital cost of the new components," as used in §60.15, includes the fixed capital cost of all depreciable components which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following December 30, 1983. For purposes of this paragraph, "commenced" means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.

§ 60.667 Chemicals affected by subpart NNN.

Chemical name	CAS No.*
Acetaldehyde	75–07–0
Acetaldol	107–89–1
Acetic acid	64–19–7
Acetic anhydride	108–24–7
Acetone	67–64–1
Acetone cyanohydrin	75–86–5
Acetylene	74–86–2
Acrylic acid	79–10–7
Acrylonitrile	107–13–1
Adipic acid	124–04–9
Adiponitrile	111–69–3
Alcohols, C–11 or lower, mixtures	
Alcohols, C–12 or higher, mixtures	
Allyl chloride	107–05–1
Amylene	513–35–9
Amylenes, mixed	

Chemical name	CAS No.*
Aniline	62–53–3
Benzene	71–43–2
Benzenesulfonic acid	98–11–3
Benzenesulfonic acid C_{10-16}-alkyl derivatives, sodium salts	68081–81–2
Benzoic acid, tech	65–85–0
Benzyl chloride	100–44–7
Biphenyl	92–52–4
Bisphenol A	80–05–7
Brometone	76–08–4
1,3-Butadiene	106–99–0
Butadiene and butene fractions	
n-Butane	106–97–8
1,4-Butanediol	110–63–4
Butanes, mixed	
1-Butene	106–98–9
2-Butene	25167–67–3
Butenes, mixed	
n-Butyl acetate	123–86–4
Butyl acrylate	141–32–2
n-Butyl alcohol	71–36–3
sec-Butyl alcohol	78–92–2
tert-Butyl alcohol	75–65–0
Butylbenzyl phthalate	85–68–7
Butylene glycol	107–88–0
tert-Butyl hydroperoxide	75–91–2
2-Butyne-1,4-diol	110–65–6
Butyraldehyde	123–72–8
Butyric anhydride	106–31–0
Caprolactam	105–60–2
Carbon disulfide	75–15–0

Chemical name	CAS No.*
Carbon tetrabromide	558–13–4
Carbon tetrachloride	56–23–5
Chlorobenzene	108–90–7
2-Chloro-4-(ethylamino)-6-(isopropylamino)-s-triazine	1912–24–9
Chloroform	67–66–3
p-Chloronitrobenzene	100–00–5
Chloroprene	126–99–8
Citric acid	77–92–9
Crotonaldehyde	4170–30–0
Crotonic acid	3724–65–0
Cumene	98–82–8
Cumene hydroperoxide	80–15–9
Cyanuric chloride	108–77–0
Cyclohexane	110–82–7
Cyclohexane, oxidized	68512–15–2
Cyclohexanol	108–93–0
Cyclohexanone	108–94–1
Cyclohexanone oxime	100–64–1
Cyclohexene	110–83–8
1,3-Cyclopentadiene	542–92–7
Cyclopropane	75–19–4
Diacetone alcohol	123–42–2
Dibutanized aromatic concentrate	
1,4-Dichlorobutene	110–57–6
3,4-Dichloro-1-butene	64037–54–3
Dichlorodifluoromethane	75–71–8
Dichlorodimethylsilane	75–78–5
Dichlorofluoromethane	75–43–4
-Dichlorohydrin	96–23–1
Diethanolamine	111–42–2

Chemical name	CAS No.*
Diethylbenzene	25340–17–4
Diethylene glycol	111–46–6
Di-n-heptyl-n-nonyl undecyl phthalate	85–68–7
Di-isodecyl phthalate	26761–40–0
Diisononyl phthalate	28553–12–0
Dimethylamine	124–40–3
Dimethyl terephthalate	120–61–6
2,4-Dinitrotoluene	121–14–2
2,4-(and 2,6)-dinitrotoluene	121–14–2
	606–20–2
Dioctyl phthalate	117–81–7
Dodecene	25378–22–7
Dodecylbenzene, non linear	
Dodecylbenzenesulfonic acid	27176–87–0
Dodecylbenzenesulfonic acid, sodium salt	25155–30–0
Epichlorohydrin	106–89–8
Ethanol	64–17–5
Ethanolamine	141–43–5
Ethyl acetate	141–78–6
Ethyl acrylate	140–88–5
Ethylbenzene	100–41–4
Ethyl chloride	75–00–3
Ethyl cyanide	107–12–0
Ethylene	74–85–1
Ethylene dibromide	106–93–4
Ethylene dichloride	107–06–2
Ethylene glycol	107–21–1
Ethylene glycol monobutyl	111–76–2
Ethylene glycol monoethyl ether	110–80–5
Ethylene glycol monoethyl ether acetate	111–15–9

Chemical name	CAS No.*
Ethylene glycol monomethyl ether	109–86–4
Ethylene oxide	75–21–8
2-Ethylhexanal	26266–68–2
2-Ethylhexyl alcohol	104–76–7
(2-Ethylhexyl) amine	104–75–6
Ethylmethylbenzene	25550–14–5
6-Ethyl-1,2,3,4-tetrahydro 9,10-anthracenedione	15547–17–8
Formaldehyde	50–00–0
Glycerol	56–81–5
n-Heptane	142–82–5
Heptenes (mixed)	
Hexadecyl chloride	
Hexamethylene diamine	124–09–4
Hexamethylene diamine adipate	3323–53–3
Hexamethylenetetramine	100–97–0
Hexane	110–54–3
2-Hexenedinitrile	13042–02–9
3-Hexenedinitrile	1119–85–3
Hydrogen cyanide	74–90–8
Isobutane	75–28–5
Isobutanol	78–83–1
Isobutylene	115–11–7
Isobutyraldehyde	78–84–2
Isodecyl alcohol	25339–17–7
Isooctyl alcohol	26952–21–6
Isopentane	78–78–4
Isophthalic acid	121–91–5
Isoprene	78–79–5
Isopropanol	67–63–0
Ketene	463–51–4

Chemical name	CAS No.*
Linear alcohols, ethoxylated, mixed	
Linear alcohols, ethoxylated, and sulfated, sodium salt, mixed	
Linear alcohols, sulfated, sodium salt, mixed	
Linear alkylbenzene	123–01–3
Magnesium acetate	142–72–3
Maleic anhydride	108–31–6
Melamine	108–78–1
Mesityl oxide	141–79–7
Methacrylonitrile	126–98–7
Methanol	67–56–1
Methylamine	74–89–5
ar-Methylbenzenediamine	25376–45–8
Methyl chloride	74–87–3
Methylene chloride	75–09–2
Methyl ethyl ketone	78–93–3
Methyl iodide	74–88–4
Methyl isobutyl ketone	108–10–1
Methyl methacrylate	80–62–6
2-Methylpentane	107–83–5
1-Methyl-2-pyrrolidone	872–50–4
Methyl tert-butyl ether	
Naphthalene	91–20–3
Nitrobenzene	98–95–3
1-Nonene	27215–95–8
Nonyl alcohol	143–08–8
Nonylphenol	25154–52–3
Nonylphenol, ethoxylated	9016–45–9
Octene	25377–83–7
Oil-soluble petroleum sulfonate, calcium salt	
Oil-soluble petroleum sulfonate, sodium salt	

Chemical name	CAS No.*
Pentaerythritol	115–77–5
n-Pentane	109–66–0
3-Pentenenitrile	4635–87–4
Pentenes, mixed	109–67–1
Perchloroethylene	127–18–4
Phenol	108–95–2
1-Phenylethyl hydroperoxide	3071–32–7
Phenylpropane	103–65–1
Phosgene	75–44–5
Phthalic anhydride	85–44–9
Propane	74–98–6
Propionaldehyde	123–38–6
Propionic acid	79–09–4
Propyl alcohol	71–23–8
Propylene	115–07–1
Propylene chlorohydrin	78–89–7
Propylene glycol	57–55–6
Propylene oxide	75–56–9
Sodium cyanide	143–33–9
Sorbitol	50–70–4
Styrene	100–42–5
Terephthalic acid	100–21–0
1,1,2,2-Tetrachloroethane	79–34–5
Tetraethyl lead	78–00–2
Tetrahydrofuran	109–99–9
Tetra (methyl-ethyl) lead	
Tetramethyl lead	75–74–1
Toluene	108–88–3
Toluene-2,4-diamine	95–80–7
Toluene-2,4-(and, 2,6)-diisocyanate (80/20 mixture)	26471–62–5

Chemical name	CAS No.*
Tribromomethane	75–25–2
1,1,1-Trichloroethane	71–55–6
1,1,2-Trichloroethane	79–00–5
Trichloroethylene	79–01–6
Trichlorofluoromethane	75–69–4
1,1,2-Trichloro-1,2,2-trifluoroethane	76–13–1
Triethanolamine	102–71–6
Triethylene glycol	112–27–6
Vinyl acetate	108–05–4
Vinyl chloride	75–01–4
Vinylidene chloride	75–35–4
m-Xylene	108–38–3
o-Xylene	95–47–6
p-Xylene	106–42–3
Xylenes (mixed)	1330–20–7
m-Xylenol	576–26–1

*CAS numbers refer to the Chemical Abstracts Registry numbers assigned to specific chemicals, isomers, or mixtures of chemicals. Some isomers or mixtures that are covered by the standards do not have CAS numbers assigned to them. The standards apply to all of the chemicals listed, whether CAS numbers have been assigned or not.

[55 FR 26942, June 29, 1990, as amended at 60 FR 58237, 58238, Nov. 27, 1995]

§ 60.668 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under §111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which will not be delegated to States: §60.663(e).

Attachment E
to Part 70 Operating Permit Renewal No. T085-29197-00102

Louis Dreyfus Agricultural Industries LLC
7344 State Road 15 South, Claypool, Indiana, 46510-9746

Subpart RRR—Standards of Performance for Volatile Organic Compound Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes

Source: 58 FR 45962, Aug. 31, 1993, unless otherwise noted.

§ 60.700 Applicability and designation of affected facility.

(a) The provisions of this subpart apply to each affected facility designated in paragraph (b) of this section that is part of a process unit that produces any of the chemicals listed in §60.707 as a product, co-product, by-product, or intermediate, except as provided in paragraph (c) of this section.

(b) The affected facility is any of the following for which construction, modification, or reconstruction commenced after June 29, 1990:

(1) Each reactor process not discharging its vent stream into a recovery system.

(2) Each combination of a reactor process and the recovery system into which its vent stream is discharged.

(3) Each combination of two or more reactor processes and the common recovery system into which their vent streams are discharged.

(c) Exemptions from the provisions of paragraph (a) of this section are as follows:

(1) Any reactor process that is designed and operated as a batch operation is not an affected facility.

(2) Each affected facility that has a total resource effectiveness (TRE) index value greater than 8.0 is exempt from all provisions of this subpart except for §§60.702(c); 60.704 (d), (e), and (f); and 60.705 (g), (l)(1), (l)(6), and (t).

(3) Each affected facility in a process unit with a total design capacity for all chemicals produced within that unit of less than 1 gigagram per year (1,100 tons per year) is exempt from all provisions of this subpart except for the recordkeeping and reporting requirements in §60.705 (i), (l)(5), and (n).

(4) Each affected facility operated with a vent stream flow rate less than 0.011 scm/min is exempt from all provisions of this subpart except for the test method and procedure and the recordkeeping and reporting requirements in §60.704(g) and §70.705 (h), (l)(4), and (o).

(5) If the vent stream from an affected facility is routed to a distillation unit subject to subpart NNN and has no other releases to the air except for a pressure relief valve, the facility is exempt from all provisions of this subpart except for §60.705(r).

(6) Any reactor process operating as part of a process unit which produces beverage alcohols, or which uses, contains, and produces no VOC is not an affected facility.

(7) Any reactor process that is subject to the provisions of subpart DDD is not an affected facility.

(8) Each affected facility operated with a concentration of total organic compounds (TOC) (less methane and ethane) in the vent stream less than 300 ppmv as measured by Method 18 or a concentration of TOC in the vent stream less than 150 ppmv as measured by Method 25A is exempt from all provisions of this subpart except for the test method and procedure and the reporting and recordkeeping requirements in §60.704(h) and paragraphs (j), (l)(8), and (p) of §60.705.

(d) *Alternative means of compliance* —(1) *Option to comply with part 65.* Owners or operators of process vents that are subject to this subpart may choose to comply with the provisions of 40 CFR part 65, subpart D, to satisfy the requirements of §§60.702 through 60.705 and 60.708. The provisions of 40 CFR part 65 also satisfy the criteria of paragraphs (c)(2), (4), and (8) of this section. Other provisions applying to an owner or operator who chooses to comply with 40 CFR part 65 are provided in 40 CFR 65.1.

(2) *Part 60, subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart D, must also comply with §§60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for those process vents. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (d)(2) do not apply to owners or operators of process vents complying with 40 CFR part 65, subpart D, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart D, must comply with 40 CFR part 65, subpart A.

(3) *Compliance date.* Owners or operators who choose to comply with 40 CFR part 65, subpart D at initial startup shall comply with paragraphs (d)(1) and (2) of this section for each vent stream on and after the date on which the initial performance test is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after the initial startup, whichever date comes first.

(4) *Initial startup notification.* Each owner or operator subject to the provisions of this subpart that chooses to comply with 40 CFR part 65, subpart D, at initial startup shall notify the Administrator of the specific provisions of 40 CFR 65.63(a)(1), (2), or (3), with which the owner or operator has elected to comply. Notification shall be submitted with the notifications of initial startup required by 40 CFR 65.5(b).

(Note: The intent of these standards is to minimize emissions of VOC through the application of best demonstrated technology (BDT). The numerical emission limits in these standards are expressed in terms of TOC, measured as TOC less methane and ethane. This emission limit reflects the performance of BDT.)

[58 FR 45962, Aug. 31, 1993, as amended at 60 FR 58238, Nov. 27, 1995; 65 FR 78279, Dec. 14, 2000]

§ 60.701 Definitions.

As used in this subpart, all terms not defined here shall have the meaning given them in the Act and in subpart A of part 60, and the following terms shall have the specific meanings given them.

Batch operation means any noncontinuous reactor process that is not characterized by steady-state conditions and in which reactants are not added and products are not removed simultaneously.

Boiler means any enclosed combustion device that extracts useful energy in the form of steam and is not an incinerator.

By compound means by individual stream components, not carbon equivalents.

Car-seal means a seal that is placed on a device that is used to change the position of a valve (e.g., from opened to closed) in such a way that the position of the valve cannot be changed without breaking the seal.

Combustion device means an individual unit of equipment, such as an incinerator, flare, boiler, or process heater, used for combustion of a vent stream discharged from the process vent.

Continuous recorder means a data recording device recording an instantaneous data value at least once every 15 minutes.

Flame zone means the portion of the combustion chamber in a boiler occupied by the flame envelope.

Flow indicator means a device which indicates whether gas flow is present in a line.

Halogenated vent stream means any vent stream determined to have a total concentration (by volume) of compounds containing halogens of 20 ppmv (by compound) or greater.

Incinerator means an enclosed combustion device that is used for destroying organic compounds. If there is energy recovery, the energy recovery section and the combustion chambers are not of integral design. That is, the energy recovery section and the combustion section are not physically formed into one manufactured or assembled unit but are joined by ducts or connections carrying flue gas.

Primary fuel means the fuel fired through a burner or a number of similar burners. The primary fuel provides the principal heat input to the device, and the amount of fuel is sufficient to sustain operation without the addition of other fuels.

Process heater means a device that transfers heat liberated by burning fuel directly to process streams or to heat transfer liquids other than water.

Process unit means equipment assembled and connected by pipes or ducts to produce, as intermediates or final products, one or more of the chemicals in §60.707. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient product storage facilities.

Product means any compound or chemical listed in §60.707 which is produced for sale as a final product as that chemical, or for use in the production of other chemicals or compounds. By-products, co-products, and intermediates are considered to be products.

Reactor processes are unit operations in which one or more chemicals, or reactants other than air, are combined or decomposed in such a way that their molecular structures are altered and one or more new organic compounds are formed.

Recovery device means an individual unit of equipment, such as an absorber, carbon adsorber, or condenser, capable of and used for the purpose of recovering chemicals for use, reuse, or sale.

Recovery system means an individual recovery device or series of such devices applied to the same vent stream.

Relief valve means a valve used only to release an unplanned, nonroutine discharge. A relief valve discharge results from an operator error, a malfunction such as a power failure or equipment failure, or other unexpected cause that requires immediate venting of gas from process equipment in order to avoid safety hazards or equipment damage.

Secondary fuel means a fuel fired through a burner other than a primary fuel burner. The secondary fuel may provide supplementary heat in addition to the heat provided by the primary fuel.

Total organic compounds or TOC means those compounds measured according to the procedures in §60.704(b)(4). For the purposes of measuring molar composition as required in §60.704(d)(2)(i) and §60.704(d)(2)(ii), hourly emission rate as required in §60.704(d)(5) and §60.704(e), and TOC concentration as required in §60.705(b)(4) and §60.705(f)(4), those compounds which the Administrator has determined do not contribute appreciably to the formation of ozone are to be excluded.

Total resource effectiveness or TRE index value means a measure of the supplemental total resource requirement per unit reduction of TOC associated with a vent stream from an affected reactor process facility, based on vent stream flow rate, emission rate of TOC, net heating value, and corrosion properties (whether or not the vent stream contains halogenated compounds), as quantified by the equation given under §60.704(e).

Vent stream means any gas stream discharged directly from a reactor process to the atmosphere or indirectly to the atmosphere after diversion through other process equipment. The vent stream excludes relief valve discharges and equipment leaks.

§ 60.702 Standards.

Each owner or operator of any affected facility shall comply with paragraph (a), (b), or (c) of this section for each vent stream on and after the date on which the initial performance test required by §60.8 and §60.704 is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after the initial start-up, whichever date comes first. Each owner or operator shall either:

(a) Reduce emissions of TOC (less methane and ethane) by 98 weight-percent, or to a TOC (less methane and ethane) concentration of 20 ppmv, on a dry basis corrected to 3 percent oxygen, whichever is less stringent. If a boiler or process heater is used to comply with this paragraph, then the vent stream shall be introduced into the flame zone of the boiler or process heater; or

(b) Combust the emissions in a flare that meets the requirements of §60.18; or

(c) Maintain a TRE index value greater than 1.0 without use of a VOC emission control device.

§ 60.703 Monitoring of emissions and operations.

(a) The owner or operator of an affected facility that uses an incinerator to seek to comply with the TOC emission limit specified under §60.702(a) shall install, calibrate, maintain, and operate according to manufacturer's specifications the following equipment:

(1) A temperature monitoring device equipped with a continuous recorder and having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5 °C, whichever is greater.

(i) Where an incinerator other than a catalytic incinerator is used, a temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange is encountered.

(ii) Where a catalytic incinerator is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.

(2) A flow indicator that provides a record of vent stream flow diverted from being routed to the incinerator at least once every 15 minutes for each affected facility, except as provided in paragraph (a)(2)(ii) of this section.

(i) The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream from being routed to the incinerator, resulting in its emission to the atmosphere.

(ii) Where the bypass line valve is secured in the closed position with a car-seal or a lock-and-key type configuration, a flow indicator is not required. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and the vent stream is not diverted through the bypass line.

(b) The owner or operator of an affected facility that uses a flare to seek to comply with §60.702(b) shall install, calibrate, maintain, and operate according to manufacturer's specifications the following equipment:

(1) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light to indicate the continuous presence of a flame.

(2) A flow indicator that provides a record of vent stream flow diverted from being routed to the flare at least once every 15 minutes for each affected facility, except as provided in paragraph (b)(2)(ii) of this section.

(i) The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream from being routed to the flare, resulting in its emission to the atmosphere.

(ii) Where the bypass line valve is secured in the closed position with a car-seal or a lock-and-key type configuration, a flow indicator is not required. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and the vent stream is not diverted through the bypass line.

(c) The owner or operator of an affected facility that uses a boiler or process heater to seek to comply with §60.702(a) shall install, calibrate, maintain and operate according to the manufacturer's specifications the following equipment:

(1) A flow indicator that provides a record of vent stream flow diverted from being routed to the boiler or process heater at least once every 15 minutes for each affected facility, except as provided in paragraph (c)(1)(ii) of this section.

(i) The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream from being routed to the boiler or process heater, resulting in its emission to the atmosphere.

(ii) Where the bypass line valve is secured in the closed position with a car-seal or a lock-and-key type configuration, a flow indicator is not required. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and the vent stream is not diverted through the bypass line.

(2) A temperature monitoring device in the firebox equipped with a continuous recorder and having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5 °C, whichever is greater, for boilers or process heaters of less than 44 MW (150 million Btu/hr) design heat input capacity. Any vent stream introduced with primary fuel into a boiler or process heater is exempt from this requirement.

(d) The owner or operator of an affected facility that seeks to demonstrate compliance with the TRE index value limit specified under §60.702(c) shall install, calibrate, maintain, and operate according to manufacturer's specifications the following equipment, unless alternative monitoring procedures or requirements are approved for that facility by the Administrator:

(1) Where an absorber is the final recovery device in the recovery system:

(i) A scrubbing liquid temperature monitoring device having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5 °C, whichever is greater, and a specific gravity monitoring device having an accuracy of ±0.02 specific gravity units, each equipped with a continuous recorder; or

(ii) An organic monitoring device used to indicate the concentration level of organic compounds exiting the recovery device based on a detection principle such as infra-red, photoionization, or thermal conductivity, each equipped with a continuous recorder.

(2) Where a condenser is the final recovery device in the recovery system:

(i) A condenser exit (product side) temperature monitoring device equipped with a continuous recorder and having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5 °C, whichever is greater; or

(ii) An organic monitoring device used to indicate the concentration level of organic compounds exiting the recovery device based on a detection principle such as infra-red, photoionization, or thermal conductivity, each equipped with a continuous recorder.

(3) Where a carbon adsorber is the final recovery device unit in the recovery system:

(i) An integrating steam flow monitoring device having an accuracy of ±10 percent, and a carbon bed temperature monitoring device having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5 °C, whichever is greater, both equipped with a continuous recorder; or

(ii) An organic monitoring device used to indicate the concentration level of organic compounds exiting the recovery device based on a detection principle such as infra-red, photoionization, or thermal conductivity, each equipped with a continuous recorder.

(e) An owner or operator of an affected facility seeking to demonstrate compliance with the standards specified under §60.702 with a control device other than an incinerator, boiler, process heater, or flare; or a recovery device other than an absorber, condenser, or carbon adsorber, shall provide to the Administrator information describing the operation of the control device or recovery device and the process parameter(s) which would indicate proper operation and maintenance of the device. The Administrator may request further information and will specify appropriate monitoring procedures or requirements.

§ 60.704 Test methods and procedures.

(a) For the purpose of demonstrating compliance with §60.702, all affected facilities shall be run at full operating conditions and flow rates during any performance test.

(b) The following methods in appendix A to this part, except as provided under §60.8(b), shall be used as reference methods to determine compliance with the emission limit or percent reduction efficiency specified under §60.702(a).

(1) Method 1 or 1A, as appropriate, for selection of the sampling sites. The control device inlet sampling site for determination of vent stream molar composition or TOC (less methane and ethane) reduction efficiency shall be prior to the inlet of the control device and after the recovery system.

(2) Method 2, 2A, 2C, or 2D, as appropriate, for determination of the gas volumetric flow rates.

(3) The emission rate correction factor, integrated sampling and analysis procedure of Method 3B shall be used to determine the oxygen concentration ($\%O_{2d}$) for the purposes of determining compliance with the 20 ppmv limit. The sampling site shall be the same as that of the TOC samples, and the samples shall be taken during the same time that the TOC samples are taken. The TOC concentration corrected to 3 percent O_2(Cc) shall be computed using the following equation:

$$C_C = C_{TOC} \frac{17.9}{20.9 - \%O_{2d}}$$

where:

C_c=Concentration of TOC corrected to 3 percent O_2, dry basis, ppm by volume.

C_{TOC}=Concentration of TOC (minus methane and ethane), dry basis, ppm by volume.

$\%O_{2d}$=Concentration of O_2, dry basis, percent by volume.

(4) Method 18 to determine the concentration of TOC in the control device outlet and the concentration of TOC in the inlet when the reduction efficiency of the control device is to be determined.

(i) The minimum sampling time for each run shall be 1 hour in which either an integrated sample or four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately 15-minute intervals.

(ii) The emission reduction (R) of TOC (minus methane and ethane) shall be determined using the following equation:

$$R = \frac{E_i - E_o}{E_i} \times 100$$

where:

R=Emission reduction, percent by weight.

E_i=Mass rate of TOC entering the control device, kg TOC/hr.

E_o=Mass rate of TOC discharged to the atmosphere, kg TOC/hr.

(iii) The mass rates of TOC (E_i, E_o) shall be computed using the following equations:

$$E_i = K_2 \sum_{j=1}^{n} C_{ij} M_{ij} Q_i$$

$$E_i = K_2 \sum_{j=1}^{n} C_{oj} M_{ij} Q_o$$

where:

C_{ij}. C_{oj}=Concentration of sample component "j" of the gas stream at the inlet and outlet of the control device, respectively, dry basis, ppm by volume.

M_{ij}, M_{oj}=Molecular weight of sample component "j" of the gas stream at the inlet and outlet of the control device, respectively, g/g-mole (lb/lb-mole).

Q_i, Q_o=Flow rate of gas stream at the inlet and outlet of the control device, respectively, dscm/min (dscf/hr).

K_2=Constant, 2.494×10^{-6}(l/ppm) (g-mole/scm) (kg/g) (min/hr), where standard temperature for (g-mole/scm) is 20 °C.

(iv) The TOC concentration (C_{TOC}) is the sum of the individual components and shall be computed for each run using the following equation:

$$C_{TOC} = \sum_{j=1}^{n} C_j$$

where:

C_{TOC}=Concentration of TOC (minus methane and ethane), dry basis, ppm by volume.

C_j=Concentration of sample components "j", dry basis, ppm by volume.

n=Number of components in the sample.

(5) The requirement for an initial performance test is waived, in accordance with §60.8(b), for the following:

(i) When a boiler or process heater with a design heat input capacity of 44 MW (150 million Btu/hour) or greater is used to seek compliance with §60.702(a).

(ii) When a vent stream is introduced into a boiler or process heater with the primary fuel.

(iii) The Administrator reserves the option to require testing at such other times as may be required, as provided for in section 114 of the Act.

(6) For purposes of complying with the 98 weight-percent reduction in §60.702(a), if the vent stream entering a boiler or process heater with a design capacity less than 44 MW (150 million Btu/hour) is introduced with the combustion air or as secondary fuel, the weight-percent reduction of TOC (minus methane and ethane) across the combustion device shall be determined by comparing the TOC (minus methane and ethane) in all combusted vent streams, primary fuels, and secondary fuels with the TOC (minus methane and ethane) exiting the combustion device.

(c) When a flare is used to seek to comply with §60.702(b), the flare shall comply with the requirements of §60.18.

(d) The following test methods in appendix A to this part, except as provided under §60.8(b), shall be used for determining the net heating value of the gas combusted to determine compliance under §60.702(b) and for determining the process vent stream TRE index value to determine compliance under §60.700(c)(2) and §60.702(c).

(1)(i) Method 1 or 1A, as appropriate, for selection of the sampling site. The sampling site for the vent stream flow rate and molar composition determination prescribed in §60.704 (d)(2) and (d)(3) shall be, except for the situations outlined in paragraph (d)(1)(ii) of this section, prior to the inlet of any control device, prior to any postreactor dilution of the stream with air, and prior to any postreactor introduction of halogenated compounds into the process vent stream. No traverse site selection method is needed for vents smaller than 4 inches in diameter.

(ii) If any gas stream other than the reactor vent stream is normally conducted through the final recovery device:

(A) The sampling site for vent stream flow rate and molar composition shall be prior to the final recovery device and prior to the point at which any nonreactor stream or stream from a nonaffected reactor process is introduced.

(B) The efficiency of the final recovery device is determined by measuring the TOC concentration using Method 18 at the inlet to the final recovery device after the introduction of any vent stream and at the outlet of the final recovery device.

(C) This efficiency of the final recovery device shall be applied to the TOC concentration measured prior to the final recovery device and prior to the introduction of any nonreactor stream or stream from a nonaffected reactor process to determine the concentration of TOC in the reactor process vent stream from the final recovery device. This concentration of TOC is then used to perform the calculations outlined in §60.704(d) (4) and (5).

(2) The molar composition of the process vent stream shall be determined as follows:

(i) Method 18 to measure the concentration of TOC including those containing halogens.

(ii) ASTM D1946–77 or 90 (Reapproved 1994) (incorporation by reference as specified in §60.17 of this part) to measure the concentration of carbon monoxide and hydrogen.

(iii) Method 4 to measure the content of water vapor.

(3) The volumetric flow rate shall be determined using Method 2, 2A, 2C, or 2D, as appropriate.

(4) The net heating value of the vent stream shall be calculated using the following equation:

$$H_T = K_1 \sum_{j=1}^{n} C_j H_j \quad 1 - B_{ws}$$

where:

H_T=Net heating value of the sample, MJ/scm, where the net enthalpy per mole of vent stream is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C, as in the definition of Q_s(vent stream flow rate).

K_1=Constant, 1.740×10^{-7}(l/ppm) (g-mole/scm) (MJ/kcal), where standard temperature for (g-mole/scm) is 20 °C.

C_j=Concentration on a dry basis of compound j in ppm, as measured for organics by Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946–77 or 90 (Reapproved 1994) (incorporation by reference as specified in §60.17 of this part) as indicated in §60.704(d)(2).

H_j=Net heat of combustion of compound j, kcal/g-mole, based on combustion at 25 °C and 760 mm Hg. The heats of combustion of vent stream components would be required to be determined using ASTM D2382–76 or 88 or D4809–95 (incorporation by reference as specified in §60.17 of this part) if published values are not available or cannot be calculated.

B_{ws}=Water vapor content of the vent stream, proportion by volume.

(5) The emission rate of TOC in the vent stream shall be calculated using the following equation:

$$E_{TOC} = K_2 \sum_{j=1}^{n} C_j M_j Q_s$$

where:

E_{TOC}=Emission rate of TOC in the sample, kg/hr.

K_2=Constant, 2.494×10^{-6}(l/ppm) (g-mole/scm) (kg/g) (min/hr), where standard temperature for (g-mole/scm) is 20 °C.

C_j=Concentration on a dry basis of compound j in ppm as measured by Method 18 as indicated in §60.704(d)(2).

M_j=Molecular weight of sample j, g/g-mole.

Q_s=Vent stream flow rate (dscm/min) at a temperature of 20 °C.

(6) The total vent stream concentration (by volume) of compounds containing halogens (ppmv, by compound) shall be summed from the individual concentrations of compounds containing halogens which were measured by Method 18.

(e) For purposes of complying with §60.700(c)(2) and §60.702(c), the owner or operator of a facility affected by this subpart shall calculate the TRE index value of the vent stream using the equation for incineration in paragraph (e)(1) of this section for halogenated vent streams. The owner or operator of an affected facility with a nonhalogenated vent stream shall determine the TRE index value by calculating values using both the incinerator equation in (e)(1) of this section and the flare equation in (e)(2) of this section and selecting the lower of the two values.

(1) The equation for calculating the TRE index value of a vent stream controlled by an incinerator is as follows:

$$TRE = \frac{1}{E_{TOC}} \left[a + b(Q_s)^{0.88} + c(Q_s) + d(Q_s)\ (H_T) + e(Q_s)^{0.88}(H_T)^{0.88} + f(Y_s)^{0.5} \right]$$

(i) Where for a vent stream flow rate (scm/min) at a standard temperature of 20 °C that is greater than or equal to 14.2 scm/min:

TRE=TRE index value.

Q_s=Vent stream flow rate (scm/min) at a standard temperature of 20 °C.

H_T=Vent stream net heating value (MJ/scm), where the net enthalpy per mole of vent stream is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C as in the definition of Q_s.

Y_s=$Q_s$for all vent stream categories listed in table 1 except for Category E vent streams where Y_s=(Q_s)(H_T)/3.6.

E_{TOC}=Hourly emissions of TOC reported in kg/hr.

a, b, c, d, e, and f are coefficients. The set of coefficients that apply to a vent stream can be obtained from table 1.

Table 1—Total Resource Effectiveness Coefficients for Vent Streams Controlled by an Incinerator Subject to the New Source Performance Standards for Reactor Processes

	a	b	c	d	e	f
DESIGN CATEGORY A1. FOR HALOGENATED PROCESS VENT STREAMS, IF 0≤NET HEATING VALUE (MJ/scm)≤3.5: *Q_s= Vent Stream Flow Rate (scm/min)*						
14.2≤Q_s≤18.8	19.18370	0.27580	0.75762	−0.13064	0	0.01025
18.8<Q_s≤699	20.00563	0.27580	0.30387	−0.13064	0	0.01025
699<Q_s≤1,400	39.87022	0.29973	0.30387	−0.13064	0	0.01449
1,400<Q_s≤2,100	59.73481	0.31467	0.30387	−0.13064	0	0.01775
2,100<Q_s≤2,800	79.59941	0.32572	0.30387	−0.13064	0	0.02049
2,800<Q_s≤3,500	99.46400	0.33456	0.30387	−0.13064	0	0.02291
DESIGN CATEGORY A2. FOR HALOGENATED PROCESS VENT STREAMS, IF NET HEATING VALUE (MJ/scm)>3.5: *Q_s= Vent Stream Flow Rate (scm/min)*						
14.2<Q_s≤18.8	18.84466	0.26742	−0.20044	0	0	0.01025
18.8<Q_s≤699	19.66658	0.26742	−0.25332	0	0	0.01025
699<Q_s≤1,400	39.19213	0.29062	−0.25332	0	0	0.01449
1,400<Q_s≤2,100	58.71768	0.30511	−0.25332	0	0	0.01775
2,100<Q_s≤2,800	78.24323	0.31582	−0 25332	0	0	0.02049
2,800<Q_s≤3,500	97.76879	0.32439	−0.25332	0	0	0.02291
DESIGN CATEGORY B. FOR NONHALOGENATED PROCESS VENT STREAMS, IF 0≤NET HEATING VALUE (MJ/scm)≤0.48: *Q_s= Vent Stream Flow Rate (scm/min)*						
14.2≤Q_s≤1,340	8.54245	0.10555	0.09030	−0.17109	0	0.01025
1,340<Q_s≤2,690	16.94386	0.11470	0.09030	−0.17109	0	0.01449
2,690<Q_s≤4,040	25.34528	0.12042	0.09030	−0.17109	0	0.01775

	a	b	c	d	e	f
DESIGN CATEGORY A1. FOR HALOGENATED PROCESS VENT STREAMS, IF 0≤NET HEATING VALUE (MJ/scm)≤3.5: *Q_s= Vent Stream Flow Rate (scm/min)*						
DESIGN CATEGORY C. FOR NONHALOGENATED PROCESS VENT STREAMS, IF 0.48<NET HEATING VALUE (MJ/scm)≤1.9: *Q_s= Vent Stream Flow Rate (scm/min)*						
$14.2 \le Q_S \le 1{,}340$	9.25233	0.06105	0.31937	−0.16181	0	0.01025
$1{,}340 < Q_S \le 2{,}690$	18.36363	0.06635	0.31937	−0.16181	0	0.01449
$2{,}690 < Q_S \le 4{,}040$	27.47492	0.06965	0.31937	−0.16181	0	0.01775
DESIGN CATEGORY D. FOR NONHALOGENATED PROCESS VENT STREAMS, IF 1.9<NET HEATING VALUE (MJ/scm)≤3.6: *Q_s= Vent Stream Flow Rate (scm/min)*						
$14.2 \le Q_S \le 1{,}180$	6.67868	0.06943	0.02582	0	0	0.01025
$1{,}180 < Q_S \le 2{,}370$	13.21633	0.07546	0.02582	0	0	0.01449
$2{,}370 < Q_S \le 3{,}550$	19.75398	0.07922	0.02582	0	0	0.01755
DESIGN CATEGORY E. FOR NONHALOGENATED PROCESS VENT STREAMS, IF NET HEATING VALUE (MJ/scm)>3.6: *Y_s= Dilution Flow Rate (scm/min)=(Q_s)* $(H_T)/3.6$						
$14.2 \le Y_S \le 1{,}180$	6.67868	0	0	−0.00707	0.02220	0.01025
$1{,}180 < Y_S \le 2{,}370$	13.21633	0	0	−0.00707	0.02412	0.01449
$2{,}370 < Y_S \le 3{,}550$	19.75398	0	0	−0.00707	0.02533	0.01755

(ii) For a vent stream flow rate (scm/min) at a standard temperature of 20 °C that is less than 14.2 scm/min:

TRE=TRE index value.

Q_s=14.2 scm/min.

H_T=(FLOW)(HVAL)/14.2

where the following inputs are used:

FLOW=Vent stream flow rate (scm/min), at a standard temperature of 20 °C.

HVAL=Vent stream net heating value (MJ/scm), where the net enthalpy per mole of vent stream is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C as in definition of Q_s.

Y_s=14.2 scm/min for all vent streams except for Category E vent streams, where $Y_s=(14.2)(H_T)/3.6$.

E_{TOC}=Hourly emissions of TOC reported in kg/hr.

a, b, c, d, e, and f are coefficients. The set of coefficients that apply to a vent stream can be obtained from table 1.

(2) The equation for calculating the TRE index value of a vent stream controlled by a flare is as follows:

$$TRE = \frac{1}{E_{TOC}}\left[a(Q_s) + b(Q_s)^{0.8} + c(Q_s)(H_T) + d(E_{TOC}) + e\right]$$

where:

TRE=TRE index value.

E_{TOC}=Hourly emission rate of TOC reported in kg/hr.

Q_s=Vent stream flow rate (scm/min) at a standard temperature of 20 °C.

H_T=Vent stream net heating value (MJ/scm) where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C as in the definition of Q_s.

a, b, c, d, and e are coefficients. The set of coefficients that apply to a vent stream can be obtained from table 2.

Table 2—Total Resource Effectiveness Coefficients for Vent Streams Controlled by a Flare Subject to the New Source Performance Standards for Reactor Processes

	a	b	c	d	e
H_T<11.2 MJ/scm	2.25	0.288	−0.193	−0.0051	2.08
H_T≥11.2 MJ/scm	0.309	0.0619	−0.0043	−0.0034	2.08

(f) Each owner or operator of an affected facility seeking to comply with §60.700(c)(2) or §60.702(c) shall recalculate the TRE index value for that affected facility whenever process changes are made. Examples of process changes include changes in production capacity, feedstock type, or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. The TRE index value shall be recalculated based on test data, or on best engineering estimates of the effects of the change on the recovery system.

(1) Where the recalculated TRE index value is less than or equal to 1.0, the owner or operator shall notify the Administrator within 1 week of the recalculation and shall conduct a performance test according to the methods and procedures required by §60.704 in order to determine compliance with §60.702 (a) or (b). Performance tests must be conducted as soon as possible after the process change but no later than 180 days from the time of the process change.

(2) Where the recalculated TRE index value is less than or equal to 8.0 but greater than 1.0, the owner or operator shall conduct a performance test in accordance with §60.8 and §60.704 and shall comply with §60.703, §60.704 and §60.705. Performance tests must be conducted as soon as possible after the process change but no later than 180 days from the time of the process change.

(g) Any owner or operator subject to the provisions of this subpart seeking to demonstrate compliance with §60.700(c)(4) shall use Method 2, 2A, 2C, or 2D of appendix A to 40 CFR part 60, as appropriate, for determination of volumetric flow rate.

(h) Each owner or operator seeking to demonstrate that a reactor process vent stream has a TOC concentration for compliance with the low concentration exemption in §60.700(c)(8) shall conduct an initial test to measure TOC concentration.

(1) The sampling site shall be selected as specified in paragraph (d)(1)(i) of this section.

(2) Method 18 or Method 25A of part 60, appendix A shall be used to measure concentration.

(3) Where Method 18 is used to qualify for the low concentration exclusion in §60.700(c)(8), the procedures in §60.704(b)(4) (i) and (iv) shall be used to measure TOC concentration, and the procedures of §60.704(b)(3) shall be used to correct the TOC concentration to 3 percent oxygen. To qualify for the exclusion, the results must demonstrate that the concentration of TOC, corrected to 3 percent oxygen, is below 300 ppm by volume.

(4) Where Method 25A is used, the following procedures shall be used to calculate ppm by volume TOC concentration, corrected to 3 percent oxygen:

(i) Method 25A shall be used only if a single organic compound is greater than 50 percent of total TOC, by volume, in the reactor process vent stream. This compound shall be the principal organic compound.

(ii) The principal organic compound may be determined by either process knowledge or test data collected using an appropriate EPA Reference Method. Examples of information that could constitute process knowledge include calculations based on material balances, process stoichiometry, or previous test results provided the results are still relevant to the current reactor process vent stream conditions.

(iii) The principal organic compound shall be used as the calibration gas for Method 25A.

(iv) The span value for Method 25A shall be 300 ppmv.

(v) Use of Method 25A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(vi) The owner or operator shall demonstrate that the concentration of TOC including methane and ethane measured by Method 25A, corrected to 3 percent oxygen, is below 150 ppm by volume to qualify for the low concentration exclusion in §60.700(c)(8).

(vii) The concentration of TOC shall be corrected to 3 percent oxygen using the procedures and equation in paragraph (b)(3) of this section.

[58 FR 45962, Aug. 31, 1993, as amended at 60 FR 58238, Nov. 27, 1995; 65 FR 61778, Oct. 17, 2000]

§ 60.705 Reporting and recordkeeping requirements.

(a) Each owner or operator subject to §60.702 shall notify the Administrator of the specific provisions of §60.702 (§60.702 (a), (b), or (c)) with which the owner or operator has elected to comply. Notification shall be submitted with the notification of initial start-up required by §60.7(a)(3). If an owner or operator elects at a later date to use an alternative provision of §60.702 with which he or she will comply, then the Administrator shall be notified by the owner or operator 90 days before implementing a change and, upon implementing the change, a performance test shall be performed as specified by §60.704 no later than 180 days from initial start-up.

(b) Each owner or operator subject to the provisions of this subpart shall keep an up-to-date, readily accessible record of the following data measured during each performance test, and also include the following data in the report of the initial performance test required under §60.8. Where a boiler or process heater with a design heat input capacity of 44 MW (150 million Btu/hour) or greater is used or where the reactor process vent stream is introduced as the primary fuel to any size boiler or process heater to comply with §60.702(a), a report containing performance test data need not be submitted, but a report containing the information in §60.705(b)(2)(i) is required. The same data specified in this section shall be submitted in the reports of all subsequently required performance tests where either the emission control efficiency of a combustion device, outlet concentration of TOC, or the TRE index value of a vent stream from a recovery system is determined.

(1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.702(a) through use of either a thermal or catalytic incinerator:

(i) The average firebox temperature of the incinerator (or the average temperature upstream and downstream of the catalyst bed for a catalytic incinerator), measured at least every 15 minutes and averaged over the same time period of the performance testing, and

(ii) The percent reduction of TOC determined as specified in §60.704(b) achieved by the incinerator, or the concentration of TOC (ppmv, by compound) determined as specified in §60.704(b) at the outlet of the control device on a dry basis corrected to 3 percent oxygen.

(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.702(a) through use of a boiler or process heater:

(i) A description of the location at which the vent stream is introduced into the boiler or process heater, and

(ii) The average combustion temperature of the boiler or process heater with a design heat input capacity of less than 44 MW (150 million Btu/hr) measured at least every 15 minutes and averaged over the same time period of the performance testing.

(3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.702(b) through use of a smokeless flare, flare design (i.e., steam-assisted, air-assisted or nonassisted), all visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the performance test, continuous records of the flare pilot flame monitoring, and records of all periods of operations during which the pilot flame is absent.

(4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.702(c):

(i) Where an absorber is the final recovery device in the recovery system, the exit specific gravity (or alternative parameter which is a measure of the degree of absorbing liquid saturation, if approved by the Administrator), and average exit temperature, of the absorbing liquid measured at least every 15 minutes and averaged over the same time period of the performance testing (both measured while the vent stream is normally routed and constituted); or

(ii) Where a condenser is the final recovery device in the recovery system, the average exit (product side) temperature measured at least every 15 minutes and averaged over the same time period of the performance testing while the vent stream is routed and constituted normally; or

(iii) Where a carbon adsorber is the final recovery device in the recovery system, the total steam mass flow measured at least every 15 minutes and averaged over the same time period of the performance test

(full carbon bed cycle), temperature of the carbon bed after regeneration [and within 15 minutes of completion of any cooling cycle(s)], and duration of the carbon bed steaming cycle (all measured while the vent stream is routed and constituted normally); or

(iv) As an alternative to §60.705(b)(4) (i), (ii) or (iii), the concentration level or reading indicated by the organics monitoring device at the outlet of the absorber, condenser, or carbon adsorber, measured at least every 15 minutes and averaged over the same time period of the performance testing while the vent stream is normally routed and constituted.

(v) All measurements and calculations performed to determine the TRE index value of the vent stream.

(c) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored under §60.703 (a) and (c) as well as up-to-date, readily accessible records of periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. The Administrator may at any time require a report of these data. Where a combustion device is used to comply with §60.702(a), periods of operation during which the parameter boundaries established during the most recent performance tests are exceeded are defined as follows:

(1) For thermal incinerators, all 3-hour periods of operation during which the average combustion temperature was more than 28 °C (50 °F) below the average combustion temperature during the most recent performance test at which compliance with §60.702(a) was determined.

(2) For catalytic incinerators, all 3-hour periods of operation during which the average temperature of the vent stream immediately before the catalyst bed is more than 28 °C (50 °F) below the average temperature of the vent stream during the most recent performance test at which compliance with §60.702(a) was determined. The owner or operator also shall record all 3-hour periods of operation during which the average temperature difference across the catalyst bed is less than 80 percent of the average temperature difference of the bed during the most recent performance test at which compliance with §60.702(a) was determined.

(3) All 3-hour periods of operation during which the average combustion temperature was more than 28 °C (50 °F) below the average combustion temperature during the most recent performance test at which compliance with §60.702(a) was determined for boilers or process heaters with a design heat input capacity of less than 44 MW (150 million Btu/hr) where the vent stream is introduced with the combustion air or as a secondary fuel.

(4) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under §60.702(a).

(d) Each owner or operator subject to the provisions of this subpart shall keep records of the following:

(1) Up-to-date, readily accessible continuous records of the flow indication specified under §60.703(a)(2)(i), §60.703(b)(2)(i) and §60.703(c)(1)(i), as well as up-to-date, readily accessible records of all periods and the duration when the vent stream is diverted from the control device.

(2) Where a seal mechanism is used to comply with §60.703(a)(2)(ii), §60.703(b)(2)(ii), and §60.703(c)(1)(ii), a record of continuous flow is not required. In such cases, the owner or operator shall keep up-to-date, readily accessible records of all monthly visual inspections of the seals as well as readily accessible records of all periods and the duration when the seal mechanism is broken, the bypass line valve position has changed, the serial number of the broken car-seal has changed, or when the key for a lock-and-key type configuration has been checked out.

(e) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the flare pilot flame monitoring specified under §60.703(b), as well as up-to-date, readily accessible records of all periods of operations in which the pilot flame is absent.

(f) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored under §60.703(d), as well as up-to-date, readily accessible records of periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. The Administrator may at any time require a report of these data. Where an owner or operator seeks to comply with §60.702(c), periods of operation during which the parameter boundaries established during the most recent performance tests are exceeded are defined as follows:

(1) Where an absorber is the final recovery device in a recovery system, and where an organic compound monitoring device is not used:

(i) All 3-hour periods of operation during which the average absorbing liquid temperature was more than 11 °C (20 °F) above the average absorbing liquid temperature during the most recent performance test, or

(ii) All 3-hour periods of operation during which the average absorbing liquid specific gravity was more than 0.1 unit above, or more than 0.1 unit below, the average absorbing liquid specific gravity during the most recent performance test (unless monitoring of an alternative parameter, which is a measure of the degree of absorbing liquid saturation, is approved by the Administrator, in which case he will define appropriate parameter boundaries and periods of operation during which they are exceeded).

(2) Where a condenser is the final recovery device in a system, and where an organic compound monitoring device is not used, all 3-hour periods of operation during which the average exit (product side) condenser operating temperature was more than 6 °C (11 °F) above the average exit (product side) operating temperature during the most recent performance test.

(3) Where a carbon adsorber is the final recovery device in a system, and where an organic compound monitoring device is not used:

(i) All carbon bed regeneration cycles during which the total mass steam flow was more than 10 percent below the total mass steam flow during the most recent performance test, or

(ii) All carbon bed regeneration cycles during which the temperature of the carbon bed after regeneration (and after completion of any cooling cycle(s)) was more than 10 percent or 5 °C greater, whichever is less stringent, than the carbon bed temperature (in degrees Celsius) during the most recent performance test.

(4) Where an absorber, condenser, or carbon adsorber is the final recovery device in the recovery system and where an organic compound monitoring device is used, all 3-hour periods of operation during which the average organic compound concentration level or reading of organic compounds in the exhaust gases is more than 20 percent greater than the exhaust gas organic compound concentration level or reading measured by the monitoring device during the most recent performance test.

(g) Each owner or operator of an affected facility subject to the provisions of this subpart and seeking to demonstrate compliance with §60.702(c) shall keep up-to-date, readily accessible records of:

(1) Any changes in production capacity, feedstock type, or catalyst type, or of any replacement, removal or addition of recovery equipment or reactors;

(2) Any recalculation of the TRE index value performed pursuant to §60.704(f); and

(3) The results of any performance test performed pursuant to the methods and procedures required by §60.704(d).

(h) Each owner or operator of an affected facility that seeks to comply with the requirements of this subpart by complying with the flow rate cutoff in §60.700(c)(4) shall keep up-to-date, readily accessible records to indicate that the vent stream flow rate is less than 0.011 scm/min and of any change in equipment or process operation that increases the operating vent stream flow rate, including a measurement of the new vent stream flow rate.

(i) Each owner or operator of an affected facility that seeks to comply with the requirements of this subpart by complying with the design production capacity provision in §60.700(c)(3) shall keep up-to-date, readily accessible records of any change in equipment or process operation that increases the design production capacity of the process unit in which the affected facility is located.

(j) Each owner or operator of an affected facility that seeks to comply with the requirements of this subpart by complying with the low concentration exemption in §60.700(c)(8) shall keep up-to-date, readily accessible records of any change in equipment or process operation that increases the concentration of the vent stream of the affected facility.

(k) Each owner or operator subject to the provisions of this subpart is exempt from the quarterly reporting requirements contained in §60.7(c) of the General Provisions.

(l) Each owner or operator that seeks to comply with the requirements of this subpart by complying with the requirements of §60.700 (c)(2), (c)(3), or (c)(4) or §60.702 shall submit to the Administrator semiannual reports of the following recorded information. The initial report shall be submitted within 6 months after the initial start-up date.

(1) Exceedances of monitored parameters recorded under §60.705 (c), (f), and (g).

(2) All periods and duration recorded under §60.705(d) when the vent stream is diverted from the control device to the atmosphere.

(3) All periods recorded under §60.705(f) in which the pilot flame of the flare was absent.

(4) Any change in equipment or process operation that increases the operating vent stream flow rate above the low flow exemption level in §60.700(c)(4), including a measurement of the new vent stream flow rate, as recorded under §60.705(i). These must be reported as soon as possible after the change and no later than 180 days after the change. These reports may be submitted either in conjunction with semiannual reports or as a single separate report. A performance test must be completed within the same time period to verify the recalculated flow value and to obtain the vent stream characteristics of heating value and E_{TOC}. The performance test is subject to the requirements of §60.8 of the General Provisions. Unless the facility qualifies for an exemption under any of the exemption provisions listed in §60.700(c), except for the total resource effectiveness index greater than 8.0 exemption in §60.700(c)(2), the facility must begin compliance with the requirements set forth in §60.702.

(5) Any change in equipment or process operation, as recorded under paragraph (i) of this section, that increases the design production capacity above the low capacity exemption level in §60.700(c)(3) and the new capacity resulting from the change for the reactor process unit containing the affected facility. These must be reported as soon as possible after the change and no later than 180 days after the change. These reports may be submitted either in conjunction with semiannual reports or as a single separate report. A performance test must be completed within the same time period to obtain the vent stream flow rate, heating value, and E_{TOC}. The performance test is subject to the requirements of §60.8. The facility

must begin compliance with the requirements set forth in §60.702 or §60.700(d). If the facility chooses to comply with §60.702, the facility may qualify for an exemption under §60.700(c)(2), (4), or (8).

(6) Any recalculation of the TRE index value, as recorded under §60.705(g).

(7) All periods recorded under §60.705(d) in which the seal mechanism is broken or the by-pass line valve position has changed. A record of the serial number of the car-seal or a record to show that the key to unlock the bypass line valve was checked out must be maintained to demonstrate the period, the duration, and frequency in which the bypass line was operated.

(8) Any change in equipment or process operation that increases the vent stream concentration above the low concentration exemption level in §60.700(c)(8), including a measurement of the new vent stream concentration, as recorded under §60.705(j). These must be reported as soon as possible after the change and no later than 180 days after the change. These reports may be submitted either in conjunction with semiannual reports or as a single separate report. If the vent stream concentration is above 300 ppmv as measured using Method 18 or above 150 ppmv as measured using Method 25A, a performance test must be completed within the same time period to obtain the vent stream flow rate, heating value, and E_{TOC}. The performance test is subject to the requirements of §60.8 of the General Provisions. Unless the facility qualifies for an exemption under any of the exemption provisions listed in §60.700(c), except for the TRE index greater than 8.0 exemption in §60.700(c)(2), the facility must begin compliance with the requirements set forth in §60.702.

(m) The requirements of §60.705(l) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with §60.705(l), provided that they comply with the requirements established by the State.

(n) Each owner or operator that seeks to demonstrate compliance with §60.700(c)(3) must submit to the Administrator an initial report detailing the design production capacity of the process unit.

(o) Each owner or operator that seeks to demonstrate compliance with §60.700(c)(4) must submit to the Administrator an initial report including a flow rate measurement using the test methods specified in §60.704.

(p) Each owner or operator that seeks to demonstrate compliance with §60.700(c)(8) must submit to the Administrator an initial report including a concentration measurement using the test method specified in §60.704.

(q) The Administrator will specify appropriate reporting and recordkeeping requirements where the owner or operator of an affected facility complies with the standards specified under §60.702 other than as provided under §60.703 (a), (b), (c), and (d).

(r) Each owner or operator whose reactor process vent stream is routed to a distillation unit subject to subpart NNN and who seeks to demonstrate compliance with §60.700(c)(5) shall submit to the Administrator a process design description as part of the initial report. This process design description must be retained for the life of the process. No other records or reports would be required unless process changes are made.

(s) Each owner or operator who seeks to demonstrate compliance with §60.702 (a) or (b) using a control device must maintain on file a schematic diagram of the affected vent streams, collection system(s), fuel systems, control devices, and bypass systems as part of the initial report. This schematic diagram must be retained for the life of the system.

(t) Each owner or operator that seeks to demonstrate compliance with §60.700(c)(2) must maintain a record of the initial test for determining the total resource effectiveness index and the results of the initial total resource effectiveness index calculation.

[58 FR 45962, Aug. 31, 1993, as amended at 60 FR 58238, Nov. 27, 1995; 65 FR 78279, Dec. 14, 2000]

§ 60.706 Reconstruction.

(a) For purposes of this subpart "fixed capital cost of the new components," as used in §60.15, includes the fixed capital cost of all depreciable components which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following June 29, 1990. For purposes of this paragraph, "commenced" means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.

(b) [Reserved]

§ 60.707 Chemicals affected by subpart RRR.

Chemical	CAS No.[1]
Acetaldehyde	75–07–0
Acetic acid	64–19–7
Acetic anhydride	108–24–7
Acetone	67–64–1
Acetone cyanohydrin	75–86–5
Acetylene	74–86–2
Acrylic acid	79–10–7
Acrylonitrile	107–13–1
Adipic acid	124–04–9
Adiponitrile	111–69–3
Alcohols, C–11 or lower, mixtures	
Alcohols, C–12 or higher, mixtures	
Alcohols, C–12 or higher, unmixed	
Allyl chloride	107–05–1
Amylene	513–35–9
Amylenes, mixed	
Aniline	62–53–3
Benzene	71–43–2
Benzenesulfonic acid	98–11–3

Chemical	CAS No.[1]
Benzenesulfonic acid $C_{10–16}$-alkyl derivatives, sodium salts	68081–81–2
Benzyl chloride	100–44–7
Bisphenol A	80–05–7
Brometone	76–08–4
1,3-Butadiene	106–99–0
Butadiene and butene fractions	
n-Butane	106–97–8
1,4-Butanediol	110–63–4
Butanes, mixed	
1-Butene	106–98–9
2-Butene	25167–67–3
Butenes, mixed	
n-Butyl acetate	123–86–4
Butyl acrylate	141–32–2
n-Butyl alcohol	71–36–3
sec-Butyl alcohol	78–92–2
tert-Butyl alcohol	75–65–0
Butylbenzyl phthalate	85–68–7
tert-Butyl hydroperoxide	75–91–2
2-Butyne-1,4-diol	110–65–6
Butyraldehyde	123–72–8
Butyric anhydride	106–31–0
Caprolactam	105–60–2
Carbon disulfide	75–15–0
Carbon tetrachloride	56–23–5
Chloroacetic acid	79–11–8
Chlorobenzene	108–90–7
Chlorodifluoromethane	75–45–6
Chloroform	67–66–3
p-Chloronitrobenzene	100–00–5
Citric acid	77–92–9
Cumene	98–82–8

Chemical	CAS No.[1]
Cumene hydroperoxide	80–15–9
Cyanuric chloride	108–77–0
Cyclohexane	110–82–7
Cyclohexane, oxidized	68512–15–2
Cyclohexanol	108–93–0
Cyclohexanone	108–94–1
Cyclohexanone oxime	100–64–1
Cyclohexene	110–83–8
Cyclopropane	75–19–4
Diacetone alcohol	123–42–2
1,4-Dichlorobutene	110–57–6
3,4-Dichloro-1-butene	64037–54–3
Dichlorodifluoromethane	75–71–8
Dichlorodimethylsilane	75–78–5
Dichlorofluoromethane	75–43–4
Diethanolamine	111–42–2
Diethylbenzene	25340–17–4
Diethylene glycol	111–46–6
Di-isodecyl phthalate	26761–40–0
Dimethyl terephthalate	120–61–6
2,4-(and 2,6)-dinitrotoluene	121–14–2
	606–20–2
Dioctyl phthalate	117–81–7
Dodecene	25378–22–7
Dodecylbenzene, nonlinear	
Dodecylbenzenesulfonic acid	27176–87–0
Dodecylbenzenesulfonic acid, sodium salt	25155–30–0
Epichlorohydrin	106–89–8
Ethanol	64–17–5
Ethanolamine	141–43–5
Ethyl acetate	141–78–6
Ethyl acrylate	140–88–5

Chemical	CAS No.[1]
Ethylbenzene	100–41–4
Ethyl chloride	75–00–3
Ethylene	74–85–1
Ethylene dibromide	106–93–4
Ethylene dichloride	107–06–2
Ethylene glycol	107–21–1
Ethylene glycol monobutyl ether	111–76–2
Ethylene glycol monoethyl ether acetate	111–15–9
Ethylene glycol monomethyl ether	109–86–4
Ethylene oxide	75–21–8
2-Ethylhexyl alcohol	104–76–7
(2-Ethylhexyl) amine	104–75–6
6-Ethyl-1,2,3,4-tetrahydro 9,10-anthracenedione	15547–17–8
Formaldehyde	50–00–0
Glycerol	56–81–5
n-Heptane	142–82–5
Heptenes (mixed)	
Hexamethylene diamine	124–09–4
Hexamethylene diamine adipate	3323–53–3
Hexamethylenetetramine	100–97–0
Hexane	110–54–3
Isobutane	75–28–5
Isobutanol	78–83–1
Isobutylene	115–11–7
Isobutyraldehyde	78–84–2
Isopentane	78–78–4
Isoprene	78–79–5
Isopropanol	67–63–0
Ketene	463–51–4
Linear alcohols, ethoxylated, mixed	
Linear alcohols, ethoxylated, and sulfated, sodium salt, mixed	
Linear alcohols, sulfated, sodium salt, mixed	

Chemical	CAS No.[1]
Linear alkylbenzene	123–01–3
Maleic anhydride	108–31–6
Mesityl oxide	141–79–7
Methanol	67–56–1
Methylamine	74–39–5
ar-Methylbenzenediamine	25376–45–8
Methyl chloride	74–87–3
Methylene chloride	75–09–2
Methyl ethyl ketone	78–93–3
Methyl isobutyl ketone	108–10–1
Methyl methacrylate	80–62–6
1-Methyl-2-pyrrolidone	872–50–4
Methyl tert-butyl ether	
Naphthalene	91–20–3
Nitrobenzene	98–95–3
1-Nonene	27215–95–8
Nonyl alcohol	143–08–8
Nonylphenol	25154–52–3
Nonylphenol, ethoxylated	9016–45–9
Octene	25377–83–7
Oil-soluble petroleum sulfonate, calcium salt	
Pentaerythritol	115–77–5
3-Pentenenitrile	4635–87–4
Pentenes, mixed	109–67–1
Perchloroethylene	127–18–4
Phenol	108–95–2
1-Phenylethyl hydroperoxide	3071–32–7
Phenylpropane	103–65–1
Phosgene	75–44–5
Phthalic anhydride	85–44–9
Propane	74–98–6
Propionaldehyde	123–38–6

Chemical	CAS No.[1]
Propyl alcohol	71–23–8
Propylene	115–07–1
Propylene glycol	57–55–6
Propylene oxide	75–56–9
Sorbitol	50–70–4
Styrene	100–42–5
Terephthalic acid	100–21–0
Tetraethyl lead	78–00–2
Tetrahydrofuran	109–99–9
Tetra (methyl-ethyl) lead	
Tetramethyl lead	75–74–1
Toluene	108–88–3
Toluene-2,4-diamine	95–80–7
Toluene-2,4-(and, 2,6)-diisocyanate (80/20 mixture)	26471–62–5
1,1,1-Trichloroethane	71–55–6
1,1,2-Trichloroethane	79–00–5
Trichloroethylene	79–01–6
Trichlorofluoromethane	75–69–4
1,1,2-Trichloro-1,2,2-trifluoroethane	76–13–1
Triethanolamine	102–71–6
Triethylene glycol	112–27–6
Vinyl acetate	108–05–4
Vinyl chloride	75–01–4
Vinylidene chloride	75–35–4
m-Xylene	108–38–3
o-Xylene	95–47–6
p-Xylene	106–42–3
Xylenes (mixed)	1330–20–7

[1]CAS numbers refer to the Chemical Abstracts Registry numbers assigned to specific chemicals, isomers, or mixtures of chemicals. Some isomers or mixtures that are covered by the standards do not have CAS numbers assigned to them. The standards apply to all of the chemicals listed, whether CAS numbers have been assigned or not.

[58 FR 45962, Aug. 31, 1993, as amended at 60 FR 58238, Nov. 27, 1995]

§ 60.708 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which will not be delegated to States: §60.703(e).

Attachment F
to Part 70 Operating Permit Renewal No. T085-29197-00102

Louis Dreyfus Agricultural Industries LLC
7344 State Road 15 South, Claypool, Indiana, 46510-9746

Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Source: 71 FR 39172, July 11, 2006, unless otherwise noted.

What This Subpart Covers

§ 60.4200 Am I subject to this subpart?

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

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

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

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

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

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

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

(3) Owners and operators of any stationary CI ICE that are modified or reconstructed after July 11, 2005 and any person that modifies or reconstructs any stationary CI ICE after July 11, 2005.

(4) The provisions of §60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005.

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

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

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

(e) Owners and operators of facilities with CI ICE that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011]

Emission Standards for Manufacturers

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

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

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

(c) Stationary CI internal combustion engine manufacturers must certify their 2011 model year and later non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power.

(d) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2007 model year through 2012 non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;

(2) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(3) Their 2013 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(e) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards and other requirements for new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.110, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(2) Their 2014 model year and later non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

(f) Notwithstanding the requirements in paragraphs (a) through (c) of this section, stationary non-emergency CI ICE identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part 94 or, if Table 1 to 40 CFR 1042.1 identifies 40 CFR part 1042 as being applicable, 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:

(1) Areas of Alaska not accessible by the Federal Aid Highway System (FAHS); and

(2) Marine offshore installations.

(g) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (e) of this section that are applicable to the model year, maximum engine power, and displacement of the reconstructed stationary CI ICE.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011]

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

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

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

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

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

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

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

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

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

(c) [Reserved]

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

(e) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE that are not fire pump engines to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2007 model year through 2012 emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;

(2) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder;

(3) Their 2013 model year emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder; and

(4) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(f) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE to the certification emission standards and other requirements applicable to Tier 3 new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(2) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power less than 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(g) Notwithstanding the requirements in paragraphs (a) through (d) of this section, stationary emergency CI internal combustion engines identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part 94 or, if Table 2 to 40 CFR 1042.101 identifies Tier 3 standards as being applicable, the requirements applicable to Tier 3 engines in 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:

(1) Areas of Alaska not accessible by the FAHS; and

(2) Marine offshore installations.

(h) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (f) of this section that are applicable to the model year, maximum engine power and displacement of the reconstructed emergency stationary CI ICE.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37968, June 28, 2011]

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

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

[76 FR 37968, June 28, 2011]

Emission Standards for Owners and Operators

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

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

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

(c) Owners and operators of non-emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the following requirements:

(1) For engines installed prior to January 1, 2012, limit the emissions of NO_Xin the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 grams per kilowatt-hour (g/KW-hr) (12.7 grams per horsepower-hr (g/HP-hr)) when maximum engine speed is less than 130 revolutions per minute (rpm);

(ii) $45 \cdot n^{-0.2}$g/KW-hr ($34 \cdot n^{-0.2}$g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012 and before January 1, 2016, limit the emissions of NO_Xin the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $44 \cdot n^{-0.23}$g/KW-hr ($33 \cdot n^{-0.23}$g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) For engines installed on or after January 1, 2016, limit the emissions of NO_Xin the stationary CI internal combustion engine exhaust to the following:

(i) 3.4 g/KW-hr (2.5 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $9.0 \cdot n^{-0.20}$g/KW-hr ($6.7 \cdot n^{-0.20}$g/HP-hr) where n (maximum engine speed) is 130 or more but less than 2,000 rpm; and

(iii) 2.0 g/KW-hr (1.5 g/HP-hr) where maximum engine speed is greater than or equal to 2,000 rpm.

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

(d) Owners and operators of non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the not-to-exceed (NTE) standards as indicated in §60.4212.

(e) Owners and operators of any modified or reconstructed non-emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed non-emergency stationary CI ICE that are specified in paragraphs (a) through (d) of this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37968, June 28, 2011]

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

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

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

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

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

(1) For engines installed prior to January 1, 2012, limit the emissions of NO_Xin the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $45 \cdot n^{-0.2}$g/KW-hr ($34 \cdot n^{-0.2}$g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/kW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012, limit the emissions of NO_Xin the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $44 \cdot n^{-0.23}$g/KW-hr ($33 \cdot n^{-0.23}$g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).

(e) Owners and operators of emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the NTE standards as indicated in §60.4212.

(f) Owners and operators of any modified or reconstructed emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed CI ICE that are specified in paragraphs (a) through (e) of this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

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

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine.

[76 FR 37969, June 28, 2011]

Fuel Requirements for Owners and Operators

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

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

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

(c) [Reserved]

(d) Beginning June 1, 2012, owners and operators of stationary CI ICE subject to this subpart with a displacement of greater than or equal to 30 liters per cylinder are no longer subject to the requirements of paragraph (a) of this section, and must use fuel that meets a maximum per-gallon sulfur content of 1,000 parts per million (ppm).

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

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

Other Requirements for Owners and Operators

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

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

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

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

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

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

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

(g) After December 31, 2018, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power greater than or equal to 600 KW (804 HP) and less than 2,000 KW (2,680 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that do not meet the applicable requirements for 2017 model year non-emergency engines.

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

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

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

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

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

(a) If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.

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

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

Compliance Requirements

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

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

(b) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the emission standards specified in §60.4201(d) and (e) and §60.4202(e) and (f) using the certification

procedures required in 40 CFR part 94, subpart C, or 40 CFR part 1042, subpart C, as applicable, and must test their engines as specified in 40 CFR part 94 or 1042, as applicable.

(c) Stationary CI internal combustion engine manufacturers must meet the requirements of 40 CFR 1039.120, 1039.125, 1039.130, and 1039.135, and 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1039. Stationary CI internal combustion engine manufacturers must meet the corresponding provisions of 40 CFR part 89, 40 CFR part 94 or 40 CFR part 1042 for engines that would be covered by that part if they were nonroad (including marine) engines. Labels on such engines must refer to stationary engines, rather than or in addition to nonroad or marine engines, as appropriate. Stationary CI internal combustion engine manufacturers must label their engines according to paragraphs (c)(1) through (3) of this section.

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

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

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

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

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

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

(i) Stationary CI internal combustion engines that meet the requirements of this subpart and the corresponding requirements for nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR parts 89, 94, 1039 or 1042, as appropriate.

(ii) Stationary CI internal combustion engines that meet the requirements of this subpart, but are not certified to the standards applicable to nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR parts 89, 94, 1039 or 1042, as appropriate, but the words “stationary” must be included instead of “nonroad” or “marine” on the label. In addition, such engines must be labeled according to 40 CFR 1039.20.

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

(d) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under 40 CFR parts 89, 94, 1039 or 1042 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts.

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

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

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

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

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

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

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

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:

(1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;

(2) Change only those emission-related settings that are permitted by the manufacturer; and

(3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

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

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

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

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

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

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

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

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

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

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

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

(ii) A discussion of the relationship between these parameters and $NO_X$and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit $NO_X$and PM emissions;

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

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

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

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

(e) If you are an owner or operator of a modified or reconstructed stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(e) or §60.4205(f), you must demonstrate compliance according to one of the methods specified in paragraphs (e)(1) or (2) of this section.

(1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in §60.4204(e) or §60.4205(f), as applicable.

(2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in §60.4212 or §60.4213, as appropriate. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.

(f) Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

(g) If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:

(1) If you are an owner or operator of a stationary CI internal combustion engine with maximum engine power less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

(2) If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted

maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

(3) If you are an owner or operator of a stationary CI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37970, June 28, 2011]

Testing Requirements for Owners and Operators

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

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

(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F, for stationary CI ICE with a displacement of less than 10 liters per cylinder, and according to 40 CFR part 1042, subpart F, for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

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

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

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

Where:

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

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

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

Where:

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

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

(e) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1042 must not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1042.101(c).

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

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

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

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

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

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

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

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

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

Where:

C_i= concentration of NO_Xor PM at the control device inlet,

C_o= concentration of NO_Xor PM at the control device outlet, and

R = percent reduction of NO_Xor PM emissions.

(2) You must normalize the NO_Xor PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen (O_2) using Equation 3 of this section, or an equivalent percent carbon dioxide (CO_2) using the procedures described in paragraph (d)(3) of this section.

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

Where:

C_{adj}= Calculated NO_Xor PM concentration adjusted to 15 percent O_2.

C_d= Measured concentration of NO_Xor PM, uncorrected.

5.9 = 20.9 percent O_2−15 percent O_2, the defined O_2correction value, percent.

$\%O_2$= Measured O_2concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent $O_2$and CO_2concentration is measured in lieu of O_2concentration measurement, a CO_2correction factor is needed. Calculate the CO_2correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.

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

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

Where:

F_o= Fuel factor based on the ratio of O_2volume to the ultimate CO_2volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is O_2, percent/100.

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

F_c= Ratio of the volume of CO_2produced to the gross calorific value of the fuel from Method 19, dsm^3 /J (dscf/10^6 Btu).

(ii) Calculate the CO_2correction factor for correcting measurement data to 15 percent O_2, as follows:

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

Where:

X_{CO2}= CO_2correction factor, percent.

5.9 = 20.9 percent O_2−15 percent O_2, the defined O_2correction value, percent.

(iii) Calculate the $NO_X$and PM gas concentrations adjusted to 15 percent O_2using CO_2as follows:

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

Where:

C_{adj}= Calculated NO_Xor PM concentration adjusted to 15 percent O_2.

C_d= Measured concentration of NO_Xor PM, uncorrected.

$\%CO_2$= Measured CO_2concentration, dry basis, percent.

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

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

Where:

ER = Emission rate in grams per KW-hour.

C_d= Measured NO_Xconcentration in ppm.

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

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

T = Time of test run, in hours.

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

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

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

Where:

ER = Emission rate in grams per KW-hour.

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

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

T = Time of test run, in hours.

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

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

Notification, Reports, and Records for Owners and Operators

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

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

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

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

(ii) The address of the affected source;

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

(iv) Emission control equipment; and

(v) Fuel used.

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

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

(ii) Maintenance conducted on the engine.

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

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

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

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

Special Requirements

§ 60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?

(a) Stationary CI ICE with a displacement of less than 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the applicable emission standards in §§60.4202 and 60.4205.

(b) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are not required to meet the fuel requirements in §60.4207.

(c) Stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the following emission standards:

(1) For engines installed prior to January 1, 2012, limit the emissions of NO_Xin the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $45 \cdot n^{-0.2}$g/KW-hr ($34 \cdot n^{-0.2}$g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012, limit the emissions of NO_Xin the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $44 \cdot n^{-0.23}$g/KW-hr ($33 \cdot n^{-0.23}$g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

§ 60.4216 What requirements must I meet for engines used in Alaska?

(a) Prior to December 1, 2010, owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder located in areas of Alaska not accessible by the FAHS should refer to 40 CFR part 69 to determine the diesel fuel requirements applicable to such engines.

(b) Except as indicated in paragraph (c) of this section, manufacturers, owners and operators of stationary CI ICE with a displacement of less than 10 liters per cylinder located in areas of Alaska not accessible by the FAHS may meet the requirements of this subpart by manufacturing and installing engines meeting the requirements of 40 CFR parts 94 or 1042, as appropriate, rather than the otherwise applicable requirements of 40 CFR parts 89 and 1039, as indicated in sections §§60.4201(f) and 60.4202(g) of this subpart.

(c) Manufacturers, owners and operators of stationary CI ICE that are located in areas of Alaska not accessible by the FAHS may choose to meet the applicable emission standards for emergency engines in §60.4202 and §60.4205, and not those for non-emergency engines in §60.4201 and §60.4204, except that for 2014 model year and later non-emergency CI ICE, the owner or operator of any such engine that was not certified as meeting Tier 4 PM standards, must meet the applicable requirements for PM in §60.4201 and §60.4204 or install a PM emission control device that achieves PM emission reductions of 85 percent, or 60 percent for engines with a displacement of greater than or equal to 30 liters per cylinder, compared to engine-out emissions.

(d) The provisions of §60.4207 do not apply to owners and operators of pre-2014 model year stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS.

(e) The provisions of §60.4208(a) do not apply to owners and operators of stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS until after December 31, 2009.

(f) The provisions of this section and §60.4207 do not prevent owners and operators of stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS from using fuels mixed with used lubricating oil, in volumes of up to 1.75 percent of the total fuel. The sulfur content of the used lubricating oil must be less than 200 parts per million. The used lubricating oil must meet the on-specification levels and properties for used oil in 40 CFR 279.11.

[76 FR 37971, June 28, 2011]

§ 60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?

Owners and operators of stationary CI ICE that do not use diesel fuel may petition the Administrator for approval of alternative emission standards, if they can demonstrate that they use a fuel that is not the fuel on which the manufacturer of the engine certified the engine and that the engine cannot meet the applicable standards required in §60.4204 or §60.4205 using such fuels and that use of such fuel is appropriate and reasonably necessary, considering cost, energy, technical feasibility, human health and environmental, and other factors, for the operation of the engine.

[76 FR 37972, June 28, 2011]

General Provisions

§ 60.4218 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

Definitions

§ 60.4219 What definitions apply to this subpart?

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

Certified emissions life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for certified emissions life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for certified emissions life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 94.9(a).

Combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Date of manufacture means one of the following things:

(1) For freshly manufactured engines and modified engines, date of manufacture means the date the engine is originally produced.

(2) For reconstructed engines, date of manufacture means the date the engine was originally produced, except as specified in paragraph (3) of this definition.

(3) Reconstructed engines are assigned a new date of manufacture if the fixed capital cost of the new and refurbished components exceeds 75 percent of the fixed capital cost of a comparable entirely new facility. An engine that is produced from a previously used engine block does not retain the date of manufacture of the engine in which the engine block was previously used if the engine is produced using all new components except for the engine block. In these cases, the date of manufacture is the date of reconstruction or the date the new engine is produced.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.

Diesel particulate filter means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

Emergency stationary internal combustion engine means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc. Stationary CI ICE used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

Engine manufacturer means the manufacturer of the engine. See the definition of “manufacturer” in this section.

Fire pump engine means an emergency stationary internal combustion engine certified to NFPA requirements that is used to provide power to pump water for fire suppression or protection.

Freshly manufactured engine means an engine that has not been placed into service. An engine becomes freshly manufactured when it is originally produced.

Installed means the engine is placed and secured at the location where it is intended to be operated.

Manufacturer has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for sale or resale.

Maximum engine power means maximum engine power as defined in 40 CFR 1039.801.

Model year means the calendar year in which an engine is manufactured (see “date of manufacture”), except as follows:

(1) Model year means the annual new model production period of the engine manufacturer in which an engine is manufactured (see “date of manufacture”), if the annual new model production period is different than the calendar year and includes January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year.

(2) For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was manufactured (see “date of manufacture”).

Other internal combustion engine means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

Reciprocating internal combustion engine means any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work.

Rotary internal combustion engine means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

Spark ignition means relating to a gasoline, natural gas, or liquefied petroleum gas fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid

fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle, aircraft, or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

Subpart means 40 CFR part 60, subpart IIII.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37972, June 28, 2011]

Table 1 to Subpart IIII of Part 60—Emission Standards for Stationary Pre-2007 Model Year Engines With a Displacement of <10 Liters per Cylinder and 2007–2010 Model Year Engines >2,237 KW (3,000 HP) and With a Displacement of <10 Liters per Cylinder

[As stated in §§60.4201(b), 60.4202(b), 60.4204(a), and 60.4205(a), you must comply with the following emission standards]

Maximum engine power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007–2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)				
	NMHC + NO_X	HC	NO_X	CO	PM
KW<8 (HP<11)	10.5 (7.8)			8.0 (6.0)	1.0 (0.75)
8≤KW<19 (11≤HP<25)	9.5 (7.1)			6.6 (4.9)	0.80 (0.60)
19≤KW<37 (25≤HP<50)	9.5 (7.1)			5.5 (4.1)	0.80 (0.60)
37≤KW<56 (50≤HP<75)			9.2 (6.9)		
56≤KW<75 (75≤HP<100)			9.2 (6.9)		
75≤KW<130 (100≤HP<175)			9.2 (6.9)		
130≤KW<225 (175≤HP<300)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
225≤KW<450 (300≤HP<600)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
450≤KW≤560 (600≤HP≤750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
KW>560 (HP>750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

Table 2 to Subpart IIII of Part 60—Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE <37 KW (50 HP) With a Displacement of <10 Liters per Cylinder

[As stated in §60.4202(a)(1), you must comply with the following emission standards]

	Emission standards for 2008 model year and later emergency stationary CI ICE <37 KW (50 HP) with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)			
Engine power	**Model year(s)**	**NO_X+ NMHC**	**CO**	**PM**
KW<8 (HP<11)	2008+	7.5 (5.6)	8.0 (6.0)	0.40 (0.30)
8≤KW<19 (11≤HP<25)	2008+	7.5 (5.6)	6.6 (4.9)	0.40 (0.30)
19≤KW<37 (25≤HP<50)	2008+	7.5 (5.6)	5.5 (4.1)	0.30 (0.22)

Table 3 to Subpart IIII of Part 60—Certification Requirements for Stationary Fire Pump Engines

As stated in §60.4202(d), you must certify new stationary fire pump engines beginning with the following model years:

Engine power	**Starting model year engine manufacturers must certify new stationary fire pump engines according to §60.4202(d)[1]**
KW<75 (HP<100)	2011
75≤KW<130 (100≤HP<175)	2010
130≤KW≤560 (175≤HP≤750)	2009
KW>560 (HP>750)	2008

[1]Manufacturers of fire pump stationary CI ICE with a maximum engine power greater than or equal to 37 kW (50 HP) and less than 450 KW (600 HP) and a rated speed of greater than 2,650 revolutions per minute (rpm) are not required to certify such engines until three model years following the model year indicated in this Table 3 for engines in the applicable engine power category.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37972, June 28, 2011]

Table 4 to Subpart IIII of Part 60—Emission Standards for Stationary Fire Pump Engines

[As stated in §§60.4202(d) and 60.4205(c), you must comply with the following emission standards for stationary fire pump engines]

Maximum engine power	Model year(s)	NMHC + NO_X	CO	PM
KW<8 (HP<11)	2010 and earlier	10.5 (7.8)	8.0 (6.0)	1.0 (0.75)
	2011+	7.5 (5.6)		0.40 (0.30)
8≤KW<19 (11≤HP<25)	2010 and earlier	9.5 (7.1)	6.6 (4.9)	0.80 (0.60)
	2011+	7.5 (5.6)		0.40 (0.30)
19≤KW<37 (25≤HP<50)	2010 and earlier	9.5 (7.1)	5.5 (4.1)	0.80 (0.60)
	2011+	7.5 (5.6)		0.30 (0.22)
37≤KW<56 (50≤HP<75)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+[1]	4.7 (3.5)		0.40 (0.30)
56≤KW<75 (75≤HP<100)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+[1]	4.7 (3.5)		0.40 (0.30)
75≤KW<130 (100≤HP<175)	2009 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2010+[2]	4.0 (3.0)		0.30 (0.22)
130≤KW<225 (175≤HP<300)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+[3]	4.0 (3.0)		0.20 (0.15)
225≤KW<450 (300≤HP<600)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+[3]	4.0 (3.0)		0.20 (0.15)
450≤KW≤560 (600≤HP≤750)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+	4.0 (3.0)		0.20 (0.15)
KW>560 (HP>750)	2007 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2008+	6.4 (4.8)		0.20 (0.15)

[1]For model years 2011–2013, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.

[2]For model years 2010–2012, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

[3]In model years 2009–2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.

Table 5 to Subpart IIII of Part 60—Labeling and Recordkeeping Requirements for New Stationary Emergency Engines

[You must comply with the labeling requirements in §60.4210(f) and the recordkeeping requirements in §60.4214(b) for new emergency stationary CI ICE beginning in the following model years:]

Engine power	Starting model year
19≤KW<56 (25≤HP<75)	2013
56≤KW<130 (75≤HP<175)	2012
KW≥130 (HP≥175)	2011

Table 6 to Subpart IIII of Part 60—Optional 3-Mode Test Cycle for Stationary Fire Pump Engines

[As stated in §60.4210(g), manufacturers of fire pump engines may use the following test cycle for testing fire pump engines:]

Mode No.	Engine speed[1]	Torque (percent)[2]	Weighting factors
1	Rated	100	0.30
2	Rated	75	0.50
3	Rated	50	0.20

[1]Engine speed: ±2 percent of point.

[2]Torque: NFPA certified nameplate HP for 100 percent point. All points should be ±2 percent of engine percent load value.

Table 7 to Subpart IIII of Part 60—Requirements for Performance Tests for Stationary CI ICE With a Displacement of ≥30 Liters per Cylinder

[As stated in §60.4213, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of ≥30 liters per cylinder:]

For each	Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary CI internal combustion engine with a displacement of ≥30 liters per cylinder	a. Reduce NO_Xemissions by 90 percent or more	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O_2at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O_2concentration must be made at the same time as the measurements for NO_Xconcentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and,	(3) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurements for NO_Xconcentration.
		iv. Measure NO_Xat the inlet and outlet of the control device	(4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17)	(d) NO_Xconcentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	b. Limit the concentration of NO_Xin the stationary CI internal combustion engine exhaust.	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) If using a control device, the sampling site must be located at the outlet of the control device.

For each	Complying with the requirement to	You must	Using	According to the following requirements
		ii. Determine the O_2concentration of the stationary internal combustion engine exhaust at the sampling port location; and,	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O_2concentration must be made at the same time as the measurement for NO_Xconcentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and,	(3) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurement for NO_Xconcentration.
		iv. Measure NO_Xat the exhaust of the stationary internal combustion engine	(4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17)	(d) NO_Xconcentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	c. Reduce PM emissions by 60 percent or more	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O_2at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O_2concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and	(3) Method 4 of 40 CFR part 60, appendix A	(c) Measurements to determine and moisture content must be made at the same time as the measurements for PM concentration.

For each	Complying with the requirement to	You must	Using	According to the following requirements
		iv. Measure PM at the inlet and outlet of the control device	(4) Method 5 of 40 CFR part 60, appendix A	(d) PM concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	d. Limit the concentration of PM in the stationary CI internal combustion engine exhaust	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O_2concentration of the stationary internal combustion engine exhaust at the sampling port location; and	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O_2concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(3) Method 4 of 40 CFR part 60, appendix A	(c) Measurements to determine moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the exhaust of the stationary internal combustion engine	(4) Method 5 of 40 CFR part 60, appendix A	(d) PM concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

Table 8 to Subpart IIII of Part 60—Applicability of General Provisions to Subpart IIII

[As stated in §60.4218, you must comply with the following applicable General Provisions:]

General Provisions citation	Subject of citation	Applies to subpart	Explanation
§60.1	General applicability of the General Provisions	Yes	
§60.2	Definitions	Yes	Additional terms defined in §60.4219.
§60.3	Units and abbreviations	Yes	
§60.4	Address	Yes	
§60.5	Determination of construction or modification	Yes	
§60.6	Review of plans	Yes	
§60.7	Notification and Recordkeeping	Yes	Except that §60.7 only applies as specified in §60.4214(a).
§60.8	Performance tests	Yes	Except that §60.8 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder and engines that are not certified.
§60.9	Availability of information	Yes	
§60.10	State Authority	Yes	
§60.11	Compliance with standards and maintenance requirements	No	Requirements are specified in subpart IIII.
§60.12	Circumvention	Yes	
§60.13	Monitoring requirements	Yes	Except that §60.13 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder.
§60.14	Modification	Yes	
§60.15	Reconstruction	Yes	
§60.16	Priority list	Yes	
§60.17	Incorporations by reference	Yes	
§60.18	General control device requirements	No	
§60.19	General notification and reporting requirements	Yes	

Attachment G
to Part 70 Operating Permit Renewal No. T085-29197-00102

Louis Dreyfus Agricultural Industries LLC
7344 State Road 15 South, Claypool, Indiana, 46510-9746

Subpart FFFF—National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing

Source: 68 FR 63888, Nov. 10, 2003, unless otherwise noted.

What This Subpart Covers

§ 63.2430 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for miscellaneous organic chemical manufacturing. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limits, operating limits, and work practice standards.

§ 63.2435 Am I subject to the requirements in this subpart?

(a) You are subject to the requirements in this subpart if you own or operate miscellaneous organic chemical manufacturing process units (MCPU) that are located at, or are part of, a major source of hazardous air pollutants (HAP) emissions as defined in section 112(a) of the Clean Air Act (CAA).

(b) An MCPU includes equipment necessary to operate a miscellaneous organic chemical manufacturing process, as defined in §63.2550, that satisfies all of the conditions specified in paragraphs (b)(1) through (3) of this section. An MCPU also includes any assigned storage tanks and transfer racks; equipment in open systems that is used to convey or store water having the same concentration and flow characteristics as wastewater; and components such as pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, and instrumentation systems that are used to manufacture any material or family of materials described in paragraphs (b)(1)(i) through (v) of this section.

(1) The MCPU produces material or family of materials that is described in paragraph (b)(1)(i), (ii), (iii), (iv), or (v) of this section.

(i) An organic chemical(s) classified using the 1987 version of SIC code 282, 283, 284, 285, 286, 287, 289, or 386, except as provided in paragraph (c)(5) of this section.

(ii) An organic chemical(s) classified using the 1997 version of NAICS code 325, except as provided in paragraph (c)(5) of this section.

(iii) Quaternary ammonium compounds and ammonium sulfate produced with caprolactam.

(iv) Hydrazine.

(v) Organic solvents classified in any of the SIC or NAICS codes listed in paragraph (b)(1)(i) or (ii) of this section that are recovered using nondedicated solvent recovery operations.

(2) The MCPU processes, uses, or generates any of the organic HAP listed in section 112(b) of the CAA or hydrogen halide and halogen HAP, as defined in §63.2550.

(3) The MCPU is not an affected source or part of an affected source under another subpart of this part 63, except for process vents from batch operations within a chemical manufacturing process unit (CMPU), as identified in §63.100(j)(4). For this situation, the MCPU is the same as the CMPU as defined in §63.100, and you are subject only to the requirements for batch process vents in this subpart.

(c) The requirements in this subpart do not apply to the operations specified in paragraphs (c)(1) through (7) of this section.

(1) Research and development facilities, as defined in section 112(c)(7) of the CAA.

(2) The manufacture of ammonium sulfate as a by-product, if the slurry entering the by-product manufacturing process contains 50 parts per million by weight (ppmw) HAP or less or 10 ppmw benzene or less. You must retain information, data, and analysis to document the HAP concentration in the entering slurry in order to claim this exemption.

(3) The affiliated operations located at an affected source under subparts GG (National Emission Standards for Aerospace Manufacturing and Rework Facilities), KK (National Emission Standards for the Printing and Publishing Industry), JJJJ (NESHAP: Paper and Other Web Coating), future MMMM (NESHAP: Surface Coating of Miscellaneous Metal Parts and Products), and SSSS (NESHAP: Surface Coating of Metal Coil) of this part 63. Affiliated operations include, but are not limited to, mixing or dissolving of coating ingredients; coating mixing for viscosity adjustment, color tint or additive blending, or pH adjustment; cleaning of coating lines and coating line parts; handling and storage of coatings and solvent; and conveyance and treatment of wastewater.

(4) Fabricating operations (such as spinning or compressing a solid polymer into its end use); compounding operations (in which blending, melting, and resolidification of a solid polymer product occur for the purpose of incorporating additives, colorants, or stabilizers); and extrusion and drawing operations (converting an already produced solid polymer into a different shape by melting or mixing the polymer and then forcing it or pulling it through an orifice to create an extruded product). An operation is not exempt if it involves processing with HAP solvent or if an intended purpose of the operation is to remove residual HAP monomer.

(5) Production activities described using the 1997 version of NAICS codes 325131, 325181, 325188 (except the requirements do apply to hydrazine), 325314, 325991 (except the requirements do apply to reformulating plastics resins from recycled plastics products), and 325992 (except the requirements do apply to photographic chemicals).

(6) Tall oil recovery systems.

(7) Carbon monoxide production.

(d) If the predominant use of a transfer rack loading arm or storage tank (including storage tanks in series) is associated with a miscellaneous organic chemical manufacturing process, and the loading arm or storage tank is not part of an affected source under a subpart of this part 63, then you must assign the loading arm or storage tank to the MCPU for that miscellaneous organic chemical manufacturing process. If the predominant use cannot be determined, then you may assign the loading arm or storage tank to any MCPU that shares it and is subject to this subpart. If the use varies from year to year, then you must base the determination on the utilization that occurred during the year preceding November 10, 2003 or, if the loading arm or storage tank was not in operation during that year, you must base the use on the expected use for the first 5-year period after startup. You must include the determination in the notification of compliance status report specified in §63.2520(d). You must redetermine the primary use at least once every 5 years, or any time you implement emissions averaging or pollution prevention after the compliance date.

(e) For nondedicated equipment used to create at least one MCPU, you may elect to develop process unit groups (PUG), determine the primary product of each PUG, and comply with the requirements of the subpart in 40 CFR part 63 that applies to that primary product as specified in §63.2535(l).

[68 FR 63888, Nov. 10, 2003, as amended at 71 FR 40331, July 14, 2006]

§ 63.2440 What parts of my plant does this subpart cover?

(a) This subpart applies to each miscellaneous organic chemical manufacturing affected source.

(b) The miscellaneous organic chemical manufacturing affected source is the facilitywide collection of MCPU and heat exchange systems, wastewater, and waste management units that are associated with manufacturing materials described in §63.2435(b)(1).

(c) A new affected source is described by either paragraph (c)(1) or (2) of this section.

(1) Each affected source defined in paragraph (b) of this section for which you commenced construction or reconstruction after April 4, 2002, and you meet the applicability criteria at the time you commenced construction or reconstruction.

(2) Each dedicated MCPU that has the potential to emit 10 tons per year (tpy) of any one HAP or 25 tpy of combined HAP, and you commenced construction or reconstruction of the MCPU after April 4, 2002. For the purposes of this paragraph, an MCPU is an affected source in the definition of the term “reconstruction” in §63.2.

(d) An MCPU that is also a CMPU under §63.100 is reconstructed for the purposes of this subpart if, and only if, the CMPU meets the requirements for reconstruction in §63.100(l)(2).

Compliance Dates

§ 63.2445 When do I have to comply with this subpart?

(a) If you have a new affected source, you must comply with this subpart according to the requirements in paragraphs (a)(1) and (2) of this section.

(1) If you startup your new affected source before November 10, 2003, then you must comply with the requirements for new sources in this subpart no later than November 10, 2003.

(2) If you startup your new affected source after November 10, 2003, then you must comply with the requirements for new sources in this subpart upon startup of your affected source.

(b) If you have an existing source on November 10, 2003, you must comply with the requirements for existing sources in this subpart no later than May 10, 2008.

(c) You must meet the notification requirements in §63.2515 according to the dates specified in that section and in subpart A of this part 63. Some of the notifications must be submitted before you are required to comply with the emission limits, operating limits, and work practice standards in this subpart.

(d) If you have a Group 2 emission point that becomes a Group 1 emission point after the compliance date for your affected source, you must comply with the Group 1 requirements beginning on the date the switch occurs. An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs.

(e) If, after the compliance date for your affected source, hydrogen halide and halogen HAP emissions from process vents in a process increase to more than 1,000 lb/yr, or HAP metals emissions from a process at a new affected source increase to more than 150 lb/yr, you must comply with the applicable emission limits specified in Table 3 to this subpart and the associated compliance requirements beginning on the date the emissions exceed the applicable threshold. An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs.

(f) If you have a small control device for process vent or transfer rack emissions that becomes a large control device, as defined in §63.2550(i), you must comply with monitoring and associated recordkeeping and reporting requirements for large control devices beginning on the date the switch occurs. An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs.

[68 FR 63888, Nov. 10, 2003, as amended at 71 FR 10442, Mar. 1, 2006; 71 FR 40332, July 14, 2006]

Emission Limits, Work Practice Standards, and Compliance Requirements

§ 63.2450 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limits and work practice standards in tables 1 through 7 to this subpart at all times, except during periods of startup, shutdown, and malfunction (SSM), and you must meet the requirements specified in §§63.2455 through 63.2490 (or the alternative means of compliance in §63.2495, §63.2500, or §63.2505), except as specified in paragraphs (b) through (s) of this section. You must meet the notification, reporting, and recordkeeping requirements specified in §§63.2515, 63.2520, and 63.2525.

(b) *Determine halogenated vent streams.* You must determine if an emission stream is a halogenated vent stream, as defined in §63.2550, by calculating the mass emission rate of halogen atoms in accordance with §63.115(d)(2)(v). Alternatively, you may elect to designate the emission stream as halogenated.

(c) *Requirements for combined emission streams.* When organic HAP emissions from different emission types (*e.g.,* continuous process vents, batch process vents, storage tanks, transfer operations, and waste management units) are combined, you must comply with the requirements of either paragraph (c)(1) or (2) of this section.

(1) Comply with the applicable requirements of this subpart for each kind of organic HAP emissions in the stream (*e.g.,* the requirements of table 1 to this subpart for continuous process vents and the requirements of table 4 to this subpart for emissions from storage tanks).

(2) Determine the applicable requirements based on the hierarchy presented in paragraphs (c)(2)(i) through (vi) of this section. For a combined stream, the applicable requirements are specified in the highest-listed paragraph in the hierarchy that applies to any of the individual streams that make up the combined stream. For example, if a combined stream consists of emissions from Group 1 batch process vents and any other type of emission stream, then you must comply with the requirements in paragraph (c)(2)(i) of this section for the combined stream; compliance with the requirements in paragraph (c)(2)(i) of this section constitutes compliance for the other emission streams in the combined stream. Two exceptions are that you must comply with the requirements in table 3 to this subpart and §63.2465 for all process vents with hydrogen halide and halogen HAP emissions, and recordkeeping requirements for Group 2 applicability or compliance are still required (*e.g.,* the requirement in §63.2525(f) to track the number of batches produced and calculate rolling annual emissions for processes with Group 2 batch process vents).

(i) The requirements of table 2 to this subpart and §63.2460 for Group 1 batch process vents, including applicable monitoring, recordkeeping, and reporting.

(ii) The requirements of table 1 to this subpart and §63.2455 for continuous process vents that are routed to a control device, as defined in §63.981, including applicable monitoring, recordkeeping, and reporting.

(iii) The requirements of table 5 to this subpart and §63.2475 for transfer operations, including applicable monitoring, recordkeeping, and reporting.

(iv) The requirements of table 7 to this subpart and §63.2485 for emissions from waste management units that are used to manage and treat Group 1 wastewater streams and residuals from Group 1 wastewater streams, including applicable monitoring, recordkeeping, and reporting.

(v) The requirements of table 4 to this subpart and §63.2470 for control of emissions from storage tanks, including applicable monitoring, recordkeeping, and reporting.

(vi) The requirements of table 1 to this subpart and §63.2455 for continuous process vents after a recovery device including applicable monitoring, recordkeeping, and reporting.

(d) [Reserved]

(e) *Requirements for control devices.* (1) Except when complying with §63.2485, if you reduce organic HAP emissions by venting emissions through a closed-vent system to any combination of control devices (except a flare) or recovery devices, you must meet the requirements of §63.982(c) and the requirements referenced therein.

(2) Except when complying with §63.2485, if you reduce organic HAP emissions by venting emissions through a closed-vent system to a flare, you must meet the requirements of §63.982(b) and the requirements referenced therein.

(3) If you use a halogen reduction device to reduce hydrogen halide and halogen HAP emissions from halogenated vent streams, you must meet the requirements of §63.994 and the requirements referenced therein. If you use a halogen reduction device before a combustion device, you must determine the halogen atom emission rate prior to the combustion device according to the procedures in §63.115(d)(2)(v).

(f) *Requirements for flare compliance assessments.* (1) As part of a flare compliance assessment required in §63.987(b), you have the option of demonstrating compliance with the requirements of §63.11(b) by complying with the requirements in either §63.11(b)(6)(i) or §63.987(b)(3)(ii).

(2) If you elect to meet the requirements in §63.11(b)(6)(i), you must keep flare compliance assessment records as specified in paragraphs (f)(2)(i) and (ii) of this section.

(i) Keep records as specified in §63.998(a)(1)(i), except that a record of the heat content determination is not required.

(ii) Keep records of the flare diameter, hydrogen content, exit velocity, and maximum permitted velocity. Include these records in the flare compliance report required in §63.999(a)(2).

(g) *Requirements for performance tests.* The requirements specified in paragraphs (g)(1) through (5) of this section apply instead of or in addition to the requirements specified in subpart SS of this part 63.

(1) Conduct gas molecular weight analysis using Method 3, 3A, or 3B in appendix A to part 60 of this chapter.

(2) Measure moisture content of the stack gas using Method 4 in appendix A to part 60 of this chapter.

(3) If the uncontrolled or inlet gas stream to the control device contains carbon disulfide, you must conduct emissions testing according to paragraph (g)(3)(i) or (ii) of this section.

(i) If you elect to comply with the percent reduction emission limits in tables 1 through 7 to this subpart, and carbon disulfide is the principal organic HAP component (*i.e.,* greater than 50 percent of the HAP in the stream by volume), then you must use Method 18, or Method 15 (40 CFR part 60, appendix A) to measure carbon disulfide at the inlet and outlet of the control device. Use the percent reduction in carbon disulfide as a surrogate for the percent reduction in total organic HAP emissions.

(ii) If you elect to comply with the outlet total organic compound (TOC) concentration emission limits in tables 1 through 7 to this subpart, and the uncontrolled or inlet gas stream to the control device contains greater than 10 percent (volume concentration) carbon disulfide, you must use Method 18 or Method 15 to separately determine the carbon disulfide concentration. Calculate the total HAP or TOC emissions by totaling the carbon disulfide emissions measured using Method 18 or 15 and the other HAP emissions measured using Method 18 or 25A.

(4) As an alternative to using Method 18, Method 25/25A, or Method 26/26A of 40 CFR part 60, appendix A, to comply with any of the emission limits specified in tables 1 through 7 to this subpart, you may use Method 320 of 40 CFR part 60, appendix A. When using Method 320, you must follow the analyte spiking procedures of section 13 of Method 320, unless you demonstrate that the complete spiking procedure has been conducted at a similar source.

(5) Section 63.997(c)(1) does not apply. For the purposes of this subpart, results of all initial compliance demonstrations must be included in the notification of compliance status report, which is due 150 days after the compliance date, as specified in §63.2520(d)(1).

(h) *Design evaluation.* To determine the percent reduction of a small control device that is used to comply with an emission limit specified in table 1, 2, 3, or 5 to this subpart, you may elect to conduct a design evaluation as specified in §63.1257(a)(1) instead of a performance test as specified in subpart SS of this part 63. You must establish the value(s) and basis for the operating limits as part of the design evaluation. For continuous process vents, the design evaluation must be conducted at maximum representative operating conditions for the process, unless the Administrator specifies or approves alternate operating conditions. For transfer racks, the design evaluation must demonstrate that the control device achieves the required control efficiency during the reasonably expected maximum transfer loading rate.

(i) *Outlet concentration correction for combustion devices.* When §63.997(e)(2)(iii)(C) requires you to correct the measured concentration at the outlet of a combustion device to 3 percent oxygen if you add supplemental combustion air, the requirements in either paragraph (i)(1) or (2) of this section apply for the purposes of this subpart.

(1) You must correct the concentration in the gas stream at the outlet of the combustion device to 3 percent oxygen if you add supplemental gases, as defined in §63.2550, to the vent stream, or;

(2) You must correct the measured concentration for supplemental gases using Equation 1 of §63.2460; you may use process knowledge and representative operating data to determine the fraction of the total flow due to supplemental gas.

(j) *Continuous emissions monitoring systems.* Each continuous emissions monitoring system (CEMS) must be installed, operated, and maintained according to the requirements in §63.8 and paragraphs (j)(1) through (5) of this section.

(1) Each CEMS must be installed, operated, and maintained according to the applicable Performance Specification of 40 CFR part 60, appendix B, and according to paragraph (j)(2) of this section, except as specified in paragraph (j)(1)(i) of this section. For any CEMS meeting Performance Specification 8, you must also comply with appendix F, procedure 1 of 40 CFR part 60.

(i) If you wish to use a CEMS other than an Fourier Transform Infrared Spectroscopy (FTIR) meeting the requirements of Performance Specification 15 to measure hydrogen halide and halogen HAP before we promulgate a Performance Specification for such CEMS, you must prepare a monitoring plan and submit it for approval in accordance with the procedures specified in §63.8.

(ii) [Reserved]

(2) You must determine the calibration gases and reporting units for TOC CEMS in accordance with paragraph (j)(2)(i), (ii), or (iii) of this section.

(i) For CEMS meeting Performance Specification 9 or 15 requirements, determine the target analyte(s) for calibration using either process knowledge of the control device inlet stream or the screening procedures of Method 18 on the control device inlet stream.

(ii) For CEMS meeting Performance Specification 8 used to monitor performance of a combustion device, calibrate the instrument on the predominant organic HAP and report the results as carbon (C1), and use Method 25A or any approved alternative as the reference method for the relative accuracy tests.

(iii) For CEMS meeting Performance Specification 8 used to monitor performance of a noncombustion device, determine the predominant organic HAP using either process knowledge or the screening procedures of Method 18 on the control device inlet stream, calibrate the monitor on the predominant organic HAP, and report the results as C_1. Use Method 18, ASTM D6420–99, or any approved alternative as the reference method for the relative accuracy tests, and report the results as C_1.

(3) You must conduct a performance evaluation of each CEMS according to the requirements in 40 CFR 63.8 and according to the applicable Performance Specification of 40 CFR part 60, appendix B, except that the schedule in §63.8(e)(4) does not apply, and the results of the performance evaluation must be included in the notification of compliance status report.

(4) The CEMS data must be reduced to operating day or operating block averages computed using valid data consistent with the data availability requirements specified in §63.999(c)(6)(i)(B) through (D), except monitoring data also are sufficient to constitute a valid hour of data if measured values are available for at least two of the 15-minute periods during an hour when calibration, quality assurance, or maintenance activities are being performed. An operating block is a period of time from the beginning to end of batch operations within a process. Operating block averages may be used only for batch process vent data.

(5) If you add supplemental gases, you must correct the measured concentrations in accordance with paragraph (i) of this section and §63.2460(c)(6).

(k) *Continuous parameter monitoring.* The provisions in paragraphs (k)(1) through (6) of this section apply in addition to the requirements for continuous parameter monitoring system (CPMS) in subpart SS of this part 63.

(1) You must record the results of each calibration check and all maintenance performed on the CPMS as specified in §63.998(c)(1)(ii)(A).

(2) When subpart SS of this part 63 uses the term “a range” or “operating range” of a monitored parameter, it means an “operating limit” for a monitored parameter for the purposes of this subpart.

(3) As an alternative to continuously measuring and recording pH as specified in §§63.994(c)(1)(i) and 63.998(a)(2)(ii)(D), you may elect to continuously monitor and record the caustic strength of the effluent. For halogen scrubbers used to control only batch process vents you may elect to monitor and record either the pH or the caustic strength of the scrubber effluent at least once per day.

(4) As an alternative to the inlet and outlet temperature monitoring requirements for catalytic incinerators as specified in §63.988(c)(2) and the related recordkeeping requirements specified in §63.998(a)(2)(ii)(B)(*2*) and (c)(2)(ii), you may elect to comply with the requirements specified in paragraphs (k)(4)(i) through (iv) of this section.

(i) Monitor and record the inlet temperature as specified in subpart SS of this part 63.

(ii) Check the activity level of the catalyst at least every 12 months and take any necessary corrective action, such as replacing the catalyst to ensure that the catalyst is performing as designed.

(iii) Maintain records of the annual checks of catalyst activity levels and the subsequent corrective actions.

(iv) Recording the downstream temperature and temperature difference across the catalyst bed as specified in §63.998(a)(2)(ii)(B)(*2*) and (b)(2)(ii) is not required.

(5) For absorbers that control organic compounds and use water as the scrubbing fluid, you must conduct monitoring and recordkeeping as specified in paragraphs (k)(5)(i) through (iii) of this section instead of the monitoring and recordkeeping requirements specified in §§63.990(c)(1), 63.993(c)(1), and 63.998(a)(2)(ii)(C).

(i) You must use a flow meter capable of providing a continuous record of the absorber influent liquid flow.

(ii) You must determine gas stream flow using one of the procedures specified in §63.994(c)(1)(ii)(A) through (D).

(iii) You must record the absorber liquid-to-gas ratio averaged over the time period of any performance test.

(6) For a control device with total inlet HAP emissions less than 1 tpy, you must establish an operating limit(s) for a parameter(s) that you will measure and record at least once per averaging period (i.e., daily or block) to verify that the control device is operating properly. You may elect to measure the same parameter(s) that is required for control devices that control inlet HAP emissions equal to or greater than 1 tpy. If the parameter will not be measured continuously, you must request approval of your proposed procedure in the precompliance report. You must identify the operating limit(s) and the measurement frequency, and you must provide rationale to support how these measurements demonstrate the control device is operating properly.

(l) *Startup, shutdown, and malfunction.* Sections 63.152(f)(7)(ii) through (iv) and 63.998(b)(2)(iii) and (b)(6)(i)(A), which apply to the exclusion of monitoring data collected during periods of SSM from daily averages, do not apply for the purposes of this subpart.

(m) *Reporting.* (1) When §§63.2455 through 63.2490 reference other subparts in this part 63 that use the term "periodic report," it means "compliance report" for the purposes of this subpart. The compliance report must include the information specified in §63.2520(e), as well as the information specified in referenced subparts.

(2) When there are conflicts between this subpart and referenced subparts for the due dates of reports required by this subpart, reports must be submitted according to the due dates presented in this subpart.

(3) Excused excursions, as defined in subparts G and SS of this part 63, are not allowed.

(n) [Reserved]

(o) You may not use a flare to control halogenated vent streams or hydrogen halide and halogen HAP emissions.

(p) Opening a safety device, as defined in §63.2550, is allowed at any time conditions require it to avoid unsafe conditions.

(q) If an emission stream contains energetics or organic peroxides that, for safety reasons, cannot meet an applicable emission limit specified in Tables 1 through 7 to this subpart, then you must submit documentation in your precompliance report explaining why an undue safety hazard would be created if the air emission controls were installed, and you must describe the procedures that you will implement to minimize HAP emissions from these vent streams.

(r) *Surge control vessels and bottoms receivers.* For each surge control vessel or bottoms receiver that meets the capacity and vapor pressure thresholds for a Group 1 storage tank, you must meet emission limits and work practice standards specified in Table 4 to this subpart.

(s) For the purposes of determining Group status for continuous process vents, batch process vents, and storage tanks in §§63.2455, 63.2460, and 63.2470, hydrazine is to be considered an organic HAP.

[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38559, July 1, 2005; 71 FR 40332, July 14, 2006]

§ 63.2455 What requirements must I meet for continuous process vents?

(a) You must meet each emission limit in Table 1 to this subpart that applies to your continuous process vents, and you must meet each applicable requirement specified in paragraphs (b) through (c) of this section.

(b) For each continuous process vent, you must either designate the vent as a Group 1 continuous process vent or determine the total resource effectiveness (TRE) index value as specified in §63.115(d), except as specified in paragraphs (b)(1) through (3) of this section.

(1) You are not required to determine the Group status or the TRE index value for any continuous process vent that is combined with Group 1 batch process vents before a control device or recovery device because the requirements of §63.2450(c)(2)(i) apply to the combined stream.

(2) When a TRE index value of 4.0 is referred to in §63.115(d), TRE index values of 5.0 for existing affected sources and 8.0 for new and reconstructed affected sources apply for the purposes of this subpart.

(3) When §63.115(d) refers to "emission reductions specified in §63.113(a)," the reductions specified in Table 1 to this subpart apply for the purposes of this subpart.

(c) If you use a recovery device to maintain the TRE above a specified threshold, you must meet the requirements of §63.982(e) and the requirements referenced therein, except as specified in §63.2450 and paragraph (c)(1) of this section.

(1) When §63.993 uses the phrase "the TRE index value is between the level specified in a referencing subpart and 4.0," the phrase "the TRE index value is >1.9 but ≤5.0" applies for an existing affected source, and the phrase "the TRE index value is >5.0 but ≤8.0" applies for a new and reconstructed affected source, for the purposes of this subpart.

(2) [Reserved]

§ 63.2460 What requirements must I meet for batch process vents?

(a) You must meet each emission limit in Table 2 to this subpart that applies to you, and you must meet each applicable requirement specified in paragraphs (b) and (c) of this section.

(b) *Group status.* If a process has batch process vents, as defined in §63.2550, you must determine the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process using the procedures specified in §63.1257(d)(2)(i) and (ii), except as specified in paragraphs (b)(1) through (7) of this section.

(1) To calculate emissions caused by the heating of a vessel without a process condenser to a temperature lower than the boiling point, you must use the procedures in §63.1257(d)(2)(i)(C)(*3*).

(2) To calculate emissions from depressurization of a vessel without a process condenser, you must use the procedures in §63.1257(d)(2)(i)(D)(*10*).

(3) To calculate emissions from vacuum systems for the purposes of this subpart, the receiving vessel is part of the vacuum system, and terms used in Equation 33 to 40 CFR part 63, subpart GGG, are defined as follows:

P_{system}= absolute pressure of the receiving vessel;

P_i= partial pressure of the HAP determined at the exit temperature and exit pressure conditions of the condenser or at the conditions of the dedicated receiver;

P_j= partial pressure of condensables (including HAP) determined at the exit temperature and exit pressure conditions of the condenser or at the conditions of the dedicated receiver;

MW_{HAP}= molecular weight of the HAP determined at the exit temperature and exit pressure conditions of the condenser or at the conditions of the dedicated receiver.

(4) To calculate uncontrolled emissions when a vessel is equipped with a process condenser, you must use the procedures in §63.1257(d)(3)(i)(B), except as specified in paragraphs (b)(4)(i) through (vii) of this section.

(i) You must determine the flowrate of gas (or volume of gas), partial pressures of condensables, temperature (T), and HAP molecular weight (MW_{HAP}) at the exit temperature and exit pressure conditions of the condenser or at the conditions of the dedicated receiver.

(ii) You must assume that all of the components contained in the condenser exit vent stream are in equilibrium with the same components in the exit condensate stream (except for noncondensables).

(iii) You must perform a material balance for each component.

(iv) For the emissions from gas evolution, the term for time, t, must be used in Equation 12 to 40 CFR part 63, subpart GGG.

(v) Emissions from empty vessel purging shall be calculated using Equation 36 to 40 CFR part 63, subpart GGG and the exit temperature and exit pressure conditions of the condenser or the conditions of the dedicated receiver.

(vi) You must conduct an engineering assessment as specified in §63.1257(d)(2)(ii) for each emission episode that is not due to vapor displacement, purging, heating, depressurization, vacuum operations, gas evolution, air drying, or empty vessel purging. The requirements of paragraphs (b)(3) through (4) of this section shall apply.

(vii) You may elect to conduct an engineering assessment if you can demonstrate to the Administrator that the methods in §63.1257(d)(3)(i)(B) are not appropriate.

(5) You may elect to designate the batch process vents within a process as Group 1 and not calculate uncontrolled emissions under either of the situations in paragraph (b)(5)(i), (ii), or (iii) of this section.

(i) If you comply with the alternative standard specified in §63.2505.

(ii) If all Group 1 batch process vents within a process are controlled; you conduct the performance test under hypothetical worst case conditions, as defined in §63.1257(b)(8)(i)(B); and the emission profile is based on capture and control system limitations as specified in §63.1257(b)(8)(ii)(C).

(iii) If you comply with an emission limit using a flare that meets the requirements specified in §63.987.

(6) You may change from Group 2 to Group 1 in accordance with either paragraph (b)(6)(i) or (ii) of this section. You must comply with the requirements of this section and submit the test report in the next Compliance report.

(i) You may switch at any time after operating as Group 2 for at least 1 year so that you can show compliance with the 10,000 pounds per year (lb/yr) threshold for Group 2 batch process vents for at least 365 days before the switch. You may elect to start keeping records of emissions from Group 2 batch process vents before the compliance date. Report a switch based on this provision in your next compliance report in accordance with §63.2520(e)(10)(i).

(ii) If the conditions in paragraph (b)(6)(i) of this section are not applicable, you must provide a 60-day advance notice in accordance with §63.2520(e)(10)(ii) before switching.

(7) As an alternative to determining the uncontrolled organic HAP emissions as specified in §63.1257(d)(2)(i) and (ii), you may elect to demonstrate that non-reactive organic HAP are the only HAP used in the process and non-reactive HAP usage in the process is less than 10,000 lb/yr. You must provide data and supporting rationale in your notification of compliance status report explaining why the non-reactive organic HAP usage will be less than 10,000 lb/yr. You must keep records of the non-reactive organic HAP usage as specified in §63.2525(e)(2) and include information in compliance reports as specified in §63.2520(e)(5)(iv).

(c) Exceptions to the requirements in subparts SS and WW of this part 63 are specified in paragraphs (c)(1) through (9) of this section.

(1) *Process condensers.* Process condensers, as defined in §63.2550(i), are not considered to be control devices for batch process vents. You must determine whether a condenser is a control device for a batch process vent or a process condenser from which the uncontrolled HAP emissions are evaluated as part of the initial compliance demonstration for each MCPU and report the results with supporting rationale in your notification of compliance status report.

(2) *Initial compliance.* (i) To demonstrate initial compliance with a percent reduction emission limit in Table 2 to this subpart FFFF, you must compare the sums of the controlled and uncontrolled emissions for the applicable Group 1 batch process vents within the process, and show that the specified reduction is met. This requirement does not apply if you comply with the emission limits of Table 2 to this subpart FFFF by using a flare that meets the requirements of §63.987.

(ii) When you conduct a performance test or design evaluation for a non-flare control device used to control emissions from batch process vents, you must establish emission profiles and conduct the test under worst-case conditions according to §63.1257(b)(8) instead of under normal operating conditions as specified in §63.7(e)(1). The requirements in §63.997(e)(1)(i) and (iii) also do not apply for performance tests conducted to determine compliance with the emission limits for batch process vents. For purposes of this subpart FFFF, references in §63.997(b)(1) to “methods specified in §63.997(e)” include the methods specified in §63.1257(b)(8).

(iii) As an alternative to conducting a performance test or design evaluation to demonstrate initial compliance with a percent reduction requirement for a condenser, you may determine controlled emissions using the procedures specified in §63.1257(d)(3)(i)(B) and paragraphs (b)(3) through (4) of this section.

(iv) When §63.1257(d)(3)(i)(B)(*7*) specifies that condenser-controlled emissions from an air dryer must be calculated using Equation 11 of 40 CFR part 63, subpart GGG, with “V equal to the air flow rate,” it means “V equal to the dryer outlet gas flow rate,” for the purposes of this subpart. Alternatively, you may use Equation 12 of 40 CFR part 63, subpart GGG, with V equal to the dryer inlet air flow rate. Account for time as appropriate in either equation.

(v) If a process condenser is used for any boiling operations, you must demonstrate that it is properly operated according to the procedures specified in §63.1257(d)(2)(i)(C)(*4*)(*ii*) and (d)(3)(iii)(B), and the demonstration must occur only during the boiling operation. The reference in §63.1257(d)(3)(iii)(B) to the alternative standard in §63.1254(c) means §63.2505 for the purposes of this subpart. As an alternative to measuring the exhaust gas temperature, as required by §63.1257(d)(3)(iii)(B), you may elect to measure the liquid temperature in the receiver.

(vi) You must conduct a subsequent performance test or compliance demonstration equivalent to an initial compliance demonstration within 180 days of a change in the worst-case conditions.

(3) *Establishing operating limits.* You must establish operating limits under the conditions required for your initial compliance demonstration, except you may elect to establish operating limit(s) for conditions other than those under which a performance test was conducted as specified in paragraph (c)(3)(i) of this section and, if applicable, paragraph (c)(3)(ii) of this section.

(i) The operating limits may be based on the results of the performance test and supplementary information such as engineering assessments and manufacturer's recommendations. These limits may be established for conditions as unique as individual emission episodes for a batch process. You must provide rationale in the precompliance report for the specific level for each operating limit, including any data and calculations used to develop the limit and a description of why the limit indicates proper

operation of the control device. The procedures provided in this paragraph (c)(3)(i) have not been approved by the Administrator and determination of the operating limit using these procedures is subject to review and approval by the Administrator.

(ii) If you elect to establish separate monitoring levels for different emission episodes within a batch process, you must maintain records in your daily schedule or log of processes indicating each point at which you change from one operating limit to another, even if the duration of the monitoring for an operating limit is less than 15 minutes. You must maintain a daily schedule or log of processes according to §63.2525(c).

(4) *Averaging periods.* As an alternative to the requirement for daily averages in §63.998(b)(3), you may determine averages for operating blocks. An operating block is a period of time that is equal to the time from the beginning to end of batch process operations within a process.

(5) [Reserved]

(6) *Outlet concentration correction for supplemental gases.* If you use a control device other than a combustion device to comply with a TOC, organic HAP, or hydrogen halide and halogen HAP outlet concentration emission limit for batch process vents, you must correct the actual concentration for supplemental gases using Equation 1 of this section; you may use process knowledge and representative operating data to determine the fraction of the total flow due to supplemental gas.

$$C_a = C_m \left(\frac{Q_s + Q_a}{Q_a} \right) \qquad (Eq.\ 1)$$

Where:

C_a= corrected outlet TOC, organic HAP, or hydrogen halide and halogen HAP concentration, dry basis, ppmv;

C_m= actual TOC, organic HAP, or hydrogen halide and halogen HAP concentration measured at control device outlet, dry basis, ppmv;

Q_a= total volumetric flowrate of all gas streams vented to the control device, except supplemental gases;

Q_s= total volumetric flowrate of supplemental gases.

(7) If flow to a control device could be intermittent, you must install, calibrate, and operate a flow indicator at the inlet or outlet of the control device to identify periods of no flow. Periods of no flow may not be used in daily or block averages, and it may not be used in fulfilling a minimum data availability requirement.

(8) *Terminology.* When the term “storage vessel” is used in subpart WW of this part 63, the term “process tank,” as defined in §63.2550(i), applies for the purposes of this section.

(9) *Requirements for a biofilter.* If you use a biofilter to meet either the 95 percent reduction requirement or outlet concentration requirement specified in Table 2 to this subpart, you must meet the requirements specified in paragraphs (c)(9)(i) through (iv) of this section.

(i) *Operational requirements.* The biofilter must be operated at all times when emissions are vented to it.

(ii) *Performance tests.* To demonstrate initial compliance, you must conduct a performance test according to the procedures in §63.997 and paragraphs (c)(9)(ii)(A) through (D) of this section. The design evaluation option for small control devices is not applicable if you use a biofilter.

(A) Keep up-to-date, readily accessible continuous records of either the biofilter bed temperature averaged over the full period of the performance test or the outlet total organic HAP or TOC concentration averaged over the full period of the performance test. Include these data in your notification of compliance status report as required by §63.999(b)(3)(ii).

(B) Record either the percent reduction of total organic HAP achieved by the biofilter determined as specified in §63.997(e)(2)(iv) or the concentration of TOC or total organic HAP determined as specified in §63.997(e)(2)(iii) at the outlet of the biofilter, as applicable.

(C) If you monitor the biofilter bed temperature, you may elect to use multiple thermocouples in representative locations throughout the biofilter bed and calculate the average biofilter bed temperature across these thermocouples prior to reducing the temperature data to 15 minute (or shorter) averages for purposes of establishing operating limits for the biofilter. If you use multiple thermocouples, include your rationale for their site selection in your notification of compliance status report.

(D) Submit a performance test report as specified in §63.999(a)(2)(i) and (ii). Include the records from paragraph (c)(9)(ii)(B) of this section in your performance test report.

(iii) *Monitoring requirements.* Use either a biofilter bed temperature monitoring device (or multiple devices) capable of providing a continuous record or an organic monitoring device capable of providing a continuous record. Keep records of temperature or other parameter monitoring results as specified in §63.998(b) and (c), as applicable. General requirements for monitoring are contained in §63.996. If you monitor temperature, the operating temperature range must be based on only the temperatures measured during the performance test; these data may not be supplemented by engineering assessments or manufacturer's recommendations as otherwise allowed in §63.999(b)(3)(ii)(A). If you establish the operating range (minimum and maximum temperatures) using data from previous performance tests in accordance with §63.996(c)(6), replacement of the biofilter media with the same type of media is not considered a process change under §63.997(b)(1). You may expand your biofilter bed temperature operating range by conducting a repeat performance test that demonstrates compliance with the 95 percent reduction requirement or outlet concentration limit, as applicable.

(iv) *Repeat performance tests.* You must conduct a repeat performance test using the applicable methods specified in §63.997 within 2 years following the previous performance test and within 150 days after each replacement of any portion of the biofilter bed media with a different type of media or each replacement of more than 50 percent (by volume) of the biofilter bed media with the same type of media.

[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38559, July 1, 2005; 71 FR 40333, July 14, 2006]

§ 63.2465 What requirements must I meet for process vents that emit hydrogen halide and halogen HAP or HAP metals?

(a) You must meet each emission limit in Table 3 to this subpart that applies to you, and you must meet each applicable requirement in paragraphs (b) through (d) of this section.

(b) If any process vents within a process emit hydrogen halide and halogen HAP, you must determine and sum the uncontrolled hydrogen halide and halogen HAP emissions from each of the process vents within the process using the procedures specified in §63.1257(d)(2)(i) and/or (ii), as appropriate. When §63.1257(d)(2)(ii)(E) requires documentation to be submitted in the precompliance report, it means the notification of compliance status report for the purposes of this paragraph.

(c) If collective uncontrolled hydrogen halide and halogen HAP emissions from the process vents within a process are greater than or equal to 1,000 pounds per year (lb/yr), you must comply with §63.994 and the requirements referenced therein, except as specified in paragraphs (c)(1) through (3) of this section.

(1) When §63.994(b)(1) requires a performance test, you may elect to conduct a design evaluation in accordance with §63.1257(a)(1).

(2) When §63.994(b)(1) refers to "a combustion device followed by a halogen scrubber or other halogen reduction device," it means any combination of control devices used to meet the emission limits specified in Table 3 to this subpart.

(3) Section 63.994(b)(2) does not apply for the purposes of this section.

(d) To demonstrate compliance with the emission limit in Table 3 to this subpart for HAP metals at a new source, you must comply with paragraphs (d)(1) through (3) of this section.

(1) Determine the mass emission rate of HAP metals based on process knowledge, engineering assessment, or test data.

(2) Conduct an initial performance test of each control device that is used to comply with the emission limit for HAP metals specified in Table 3 to this subpart. Conduct the performance test according to the procedures in §63.997. Use Method 29 of appendix A of 40 CFR part 60 to determine the HAP metals at the inlet and outlet of each control device, or use Method 5 of appendix A of 40 CFR part 60 to determine the total particulate matter (PM) at the inlet and outlet of each control device. You have demonstrated initial compliance if the overall reduction of either HAP metals or total PM from the process is greater than or equal to 97 percent by weight.

(3) Comply with the monitoring requirements specified in §63.1366(b)(1)(xi) for each fabric filter used to control HAP metals.

[68 FR 63888, Nov. 10, 2003, as amended at 71 FR 40334, July 14, 2006]

§ 63.2470 What requirements must I meet for storage tanks?

(a) You must meet each emission limit in Table 4 to this subpart that applies to your storage tanks, and you must meet each applicable requirement specified in paragraphs (b) through (e) of this section.

(b) [Reserved]

(c) *Exceptions to subparts SS and WW of this part 63.* (1) If you conduct a performance test or design evaluation for a control device used to control emissions only from storage tanks, you must establish operating limits, conduct monitoring, and keep records using the same procedures as required in subpart SS of this part 63 for control devices used to reduce emissions from process vents instead of the procedures specified in §§63.985(c), 63.998(d)(2)(i), and 63.999(b)(2).

(2) When the term "storage vessel" is used in subparts SS and WW of this part 63, the term "storage tank," as defined in §63.2550 applies for the purposes of this subpart.

(d) *Planned routine maintenance.* The emission limits in Table 4 to this subpart for control devices used to control emissions from storage tanks do not apply during periods of planned routine maintenance. Periods of planned routine maintenance of each control device, during which the control device does not meet the emission limit specified in Table 4 to this subpart, must not exceed 240 hours per year (hr/yr). You may submit an application to the Administrator requesting an extension of this time limit to a total of

360 hr/yr. The application must explain why the extension is needed, it must indicate that no material will be added to the storage tank between the time the 240-hr limit is exceeded and the control device is again operational, and it must be submitted at least 60 days before the 240-hr limit will be exceeded.

(e) *Vapor balancing alternative.* As an alternative to the emission limits specified in Table 4 to this subpart, you may elect to implement vapor balancing in accordance with §63.1253(f), except as specified in paragraphs (e)(1) through (3) of this section.

(1) When §63.1253(f)(6)(i) refers to a 90 percent reduction, 95 percent applies for the purposes of this subpart.

(2) To comply with §63.1253(f)(6)(i), the owner or operator of an offsite cleaning or reloading facility must comply with §§63.2445 through 63.2550 instead of complying with §63.1253(f)(7)(ii), except as specified in paragraph (e)(2)(i) or (ii) of this section.

(i) The reporting requirements in §63.2520 do not apply to the owner or operator of the offsite cleaning or reloading facility.

(ii) As an alternative to complying with the monitoring, recordkeeping, and reporting provisions in §§63.2445 through 63.2550, the owner or operator of an offsite cleaning or reloading facility may comply as specified in §63.2535(a)(2) with any other subpart of this part 63 which has monitoring, recordkeeping, and reporting provisions as specified in §63.2535(a)(2).

(3) You may elect to set a pressure relief device to a value less than the 2.5 pounds per square inch gage pressure (psig) required in §63.1253(f)(5) if you provide rationale in your notification of compliance status report explaining why the alternative value is sufficient to prevent breathing losses at all times.

(4) You may comply with the vapor balancing alternative in §63.1253(f) when your storage tank is filled from a barge. All requirements for tank trucks and railcars specified in §63.1253(f) also apply to barges, except as specified in §63.2470(e)(4)(i).

(i) When §63.1253(f)(2) refers to pressure testing certifications, the requirements in 40 CFR 61.304(f) apply for barges.

(ii) [Reserved]

[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38559, July 1, 2005; 71 FR 40335, July 14, 2006]

§ 63.2475 What requirements must I meet for transfer racks?

(a) You must comply with each emission limit and work practice standard in table 5 to this subpart that applies to your transfer racks, and you must meet each applicable requirement in paragraphs (b) and (c) of this section.

(b) When the term “high throughput transfer rack” is used in subpart SS of this part 63, the term “Group 1 transfer rack,” as defined in §63.2550, applies for the purposes of this subpart.

[68 FR 63888, Nov. 10, 2003, as amended at 71 FR 40335, July 14, 2006]

§ 63.2480 What requirements must I meet for equipment leaks?

(a) You must meet each requirement in table 6 to this subpart that applies to your equipment leaks, except as specified in paragraphs (b) through (d) of this section.

(b) If you comply with either subpart H or subpart UU of this part 63, you may elect to comply with the provisions in paragraphs (b)(1) through (5) of this section as an alternative to the referenced provisions in subpart H or subpart UU of this part.

(1) The requirements for pressure testing in §63.179(b) or §63.1036(b) may be applied to all processes, not just batch processes.

(2) For the purposes of this subpart, pressure testing for leaks in accordance with §63.179(b) or §63.1036(b) is not required after reconfiguration of an equipment train if flexible hose connections are the only disturbed equipment.

(3) For an existing source, you are not required to develop an initial list of identification numbers for connectors as would otherwise be required under §63.1022(b)(1) or §63.181(b)(1)(i).

(4) For connectors in gas/vapor and light liquid service at an existing source, you may elect to comply with the requirements in §63.169 or §63.1029 for connectors in heavy liquid service, including all associated recordkeeping and reporting requirements, rather than the requirements of §63.174 or §63.1027.

(5) For pumps in light liquid service in an MCPU that has no continuous process vents and is part of an existing source, you may elect to consider the leak definition that defines a leak to be 10,000 parts per million (ppm) or greater as an alternative to the values specified in §63.1026(b)(2)(i) through (iii) or §63.163(b)(2).

(c) If you comply with 40 CFR part 65, subpart F, you may elect to comply with the provisions in paragraphs (c)(1) through (9) of this section as an alternative to the referenced provisions in 40 CFR part 65, subpart F.

(1) The requirements for pressure testing in §65.117(b) may be applied to all processes, not just batch processes.

(2) For the purposes of this subpart, pressure testing for leaks in accordance with §65.117(b) is not required after reconfiguration of an equipment train if flexible hose connections are the only disturbed equipment.

(3) For an existing source, you are not required to develop an initial list of identification numbers for connectors as would otherwise be required under §65.103(b)(1).

(4) You may elect to comply with the monitoring and repair requirements specified in §65.108(e)(3) as an alternative to the requirements specified in §65.108(a) through (d) for any connectors at your affected source.

(5) For pumps in light liquid service in an MCPU that has no continuous process vents and is part of an existing source, you may elect to consider the leak definition that defines a leak to be 10,000 ppm or greater as an alternative to the values specified in §65.107(b)(2)(i) through (iii).

(6) When 40 CFR part 65, subpart F refers to the implementation date specified in §65.1(f), it means the compliance date specified in §63.2445.

(7) When §§65.105(f) and 65.117(d)(3) refer to §65.4, it means §63.2525.

(8) When §65.120(a) refers to §65.5(d), it means §63.2515.

(9) When §65.120(b) refers to §65.5(e), it means §63.2520.

(d) The provisions of this section do not apply to bench-scale processes, regardless of whether the processes are located at the same plant site as a process subject to the provisions of this subpart.

[71 FR 40335, July 14, 2006]

§ 63.2485 What requirements must I meet for wastewater streams and liquid streams in open systems within an MCPU?

(a) You must meet each requirement in table 7 to this subpart that applies to your wastewater streams and liquid streams in open systems within an MCPU, except as specified in paragraphs (b) through (o) of this section.

(b) *Wastewater HAP.* Where §63.105 and §§63.132 through 63.148 refer to compounds in table 9 of subpart G of this part 63, the compounds in tables 8 and 9 to this subpart apply for the purposes of this subpart.

(c) *Group 1 wastewater.* Section 63.132(c)(1) (i) and (ii) do not apply. For the purposes of this subpart, a process wastewater stream is Group 1 for compounds in tables 8 and 9 to this subpart if any of the conditions specified in paragraphs (c) (1) through (3) of this section are met.

(1) The total annual average concentration of compounds in table 8 to this subpart is greater than or equal to 10,000 ppmw at any flowrate, and the total annual load of compounds in table 8 to this subpart is greater than or equal to 200 lb/yr.

(2) The total annual average concentration of compounds in table 8 to this subpart is greater than or equal to 1,000 ppmw, and the annual average flowrate is greater than or equal to 1 l/min.

(3) The combined total annual average concentration of compounds in tables 8 and 9 to this subpart is greater than or equal to 30,000 ppmw, and the combined total annual load of compounds in tables 8 and 9 to this subpart is greater than or equal to 1 tpy.

(d) *Wastewater tank requirements.* (1) When §§63.133 and 63.147 reference floating roof requirements in §§63.119 and 63.120, the corresponding requirements in subpart WW of this part 63 may be applied for the purposes of this subpart.

(2) When §63.133(a) refers to table 10 of subpart G of this part 63, the maximum true vapor pressure in the table shall be limited to the HAP listed in tables 8 and 9 of this subpart FFFF.

(3) For the purposes of this subpart, the requirements of §63.133(a)(2) are satisfied by operating and maintaining a fixed roof if you demonstrate that the total soluble and partially soluble HAP emissions from the wastewater tank are no more than 5 percent higher than the emissions would be if the contents of the wastewater tank were not heated, treated by an exothermic reaction, or sparged.

(4) The emission limits specified in §§63.133(b)(2) and 63.139 for control devices used to control emissions from wastewater tanks do not apply during periods of planned routine maintenance of the control device(s) of no more than 240 hr/yr. You may request an extension to a total of 360 hr/yr in accordance with the procedures specified in §63.2470(d).

(e) *Individual drain systems.* The provisions of §63.136(e)(3) apply except as specified in paragraph (e)(1) of this section.

(1) A sewer line connected to drains that are in compliance with §63.136(e)(1) may be vented to the atmosphere, provided that the sewer line entrance to the first downstream junction box is water sealed and the sewer line vent pipe is designed as specified in §63.136(e)(2)(ii)(A).

(2) [Reserved]

(f) *Closed-vent system requirements.* When §63.148(k) refers to closed vent systems that are subject to the requirements of §63.172, the requirements of either §63.172 or §63.1034 apply for the purposes of this subpart.

(g) *Halogenated vent stream requirements.* For each halogenated vent stream from a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream that is vented through a closed-vent system to a combustion device to reduce organic HAP emissions, you must meet the same emission limits as specified for batch process vents in item 2 of table 2 to this subpart.

(h) *Alternative test methods.* (1) As an alternative to the test methods specified in §63.144(b)(5)(i), you may use Method 8260 or 8270 as specified in §63.1257(b)(10)(iii).

(2) As an alternative to using the methods specified in §63.144(b)(5)(i), you may conduct wastewater analyses using Method 1666 or 1671 of 40 CFR part 136 and comply with the sampling protocol requirements specified in §63.144(b)(5)(ii). The validation requirements specified in §63.144(b)(5)(iii) do not apply if you use Method 1666 or 1671 of 40 CFR part 136.

(3) As an alternative to using Method 18 of 40 CFR part 60, as specified in §§63.139(c)(1)(ii) and 63.145(i)(2), you may elect to use Method 25A of 40 CFR part 60 as specified in §63.997.

(i) *Offsite management and treatment option.* (1) If you ship wastewater to an offsite treatment facility that meets the requirements of §63.138(h), you may elect to document in your notification of compliance status report that the wastewater will be treated as hazardous waste at a facility that meets the requirements of §63.138(h) as an alternative to having the offsite facility submit the certification specified in §63.132(g)(2).

(2) As an alternative to the management and treatment options specified in §63.132(g)(2), any affected wastewater stream (or residual removed from an affected wastewater stream) with a total annual average concentration of compounds in Table 8 to this subpart less than 50 ppmw may be transferred offsite in accordance with paragraphs (i)(2) (i) and (ii) of this section.

(i) The transferee (or you) must demonstrate that less than 5 percent of the HAP in Table 9 to this subpart is emitted from the waste management units up to the activated sludge unit.

(ii) The transferee must treat the wastewater stream or residual in a biological treatment unit in accordance with §§63.138 and 63.145 and the requirements referenced therein.

(j) You must determine the annual average concentration and annual average flowrate for wastewater streams for each MCPU. The procedures for flexible operation units specified in §63.144 (b) and (c) do not apply for the purposes of this subpart.

(k) The requirement to correct outlet concentrations from combustion devices to 3 percent oxygen in §§63.139(c)(1)(ii) and 63.146(i)(6) applies only if supplemental gases are combined with a vent stream from a Group 1 wastewater stream. If emissions are controlled with a vapor recovery system as specified in §63.139(c)(2), you must correct for supplemental gases as specified in §63.2460(c)(6).

(l) *Requirements for liquid streams in open systems.* (1) References in §63.149 to §63.100(b) mean §63.2435(b) for the purposes of this subpart.

(2) When §63.149(e) refers to 40 CFR 63.100(l) (1) or (2), §63.2445(a) applies for the purposes of this subpart.

(3) When §63.149 uses the term “chemical manufacturing process unit,” the term “MCPU” applies for the purposes of this subpart.

(4) When §63.149(e)(1) refers to characteristics of water that contain compounds in Table 9 to 40 CFR part 63, subpart G, the characteristics specified in paragraphs (c) (1) through (3) of this section apply for the purposes of this subpart.

(5) When §63.149(e)(2) refers to characteristics of water that contain compounds in Table 9 to 40 CFR part 63, subpart G, the characteristics specified in paragraph (c)(2) of this section apply for the purposes of this subpart.

(m) When §63.132(f) refers to “a concentration of greater than 10,000 ppmw of table 9 compounds,” the phrase “a concentration of greater than 30,000 ppmw of total partially soluble HAP (PSHAP) and soluble HAP (SHAP) or greater than 10,000 ppmw of PSHAP” shall apply for the purposes of this subpart.

(n) *Alternative requirements for wastewater that is Group 1 for soluble HAP only.* The option specified in this paragraph (n) applies to wastewater that is Group 1 for soluble HAP in accordance with paragraph (c)(3) of this section and is discharged to biological treatment. Except as provided in paragraph (n)(4) of this section, this option does not apply to wastewater that is Group 1 for partially soluble HAP in accordance with paragraph (c)(1), (c)(2), or (c)(4) of this section. For wastewater that is Group 1 for SHAP, you need not comply with §§63.133 through 63.137 for any equalization unit, neutralization unit, and/or clarifier prior to the activated sludge unit, and you need not comply with the venting requirements in §63.136(e)(2)(ii)(A) for lift stations with a volume larger than 10,000 gal, provided you comply with the requirements specified in paragraphs (n)(1) through (3) of this section and all otherwise applicable requirements specified in table 7 to this subpart. For this option, the treatment requirements in §63.138 and the performance testing requirements in §63.145 do not apply to the biological treatment unit, except as specified in paragraphs (n)(2)(i) through (iv) of this section.

(1) Wastewater must be hard-piped between the equalization unit, clarifier, and activated sludge unit. This requirement does not apply to the transfer between any of these types of units that are part of the same structure and one unit overflows into the next.

(2) Calculate the destruction efficiency of the biological treatment unit using Equation 1 of this section in accordance with the procedures described in paragraphs (n)(2)(i) through (vi) of this section. You have demonstrated initial compliance if E is greater than or equal to 90 percent.

$$E = \frac{(QMW_a - QMG_e - QMG_n - QMG_c)(F_{bio})}{QMW_a} \times 100 \qquad \text{(Eq. 1)}$$

Where:

E = destruction efficiency of total PSHAP and SHAP for the biological treatment unit including the equalization unit, neutralization unit, and/or clarifier, percent;

QMW_a= mass flow rate of total PSHAP and SHAP compounds entering the equalization unit (or whichever of the three types of units is first), kilograms per hour (kg/hr);

QMG_e= mass flow rate of total PSHAP and SHAP compounds emitted from the equalization unit, kg/hr;

QMG_n= mass flow rate of total PSHAP and SHAP compounds emitted from the neutralization unit, kg/hr;

QMG_c= mass flow rate of total PSHAP and SHAP compounds emitted from the clarifier, kg/hr

F_{bio}= site-specific fraction of PSHAP and SHAP compounds biodegraded in the biological treatment unit.

(i) Include all PSHAP and SHAP compounds in both Group 1 and Group 2 wastewater streams from all MCPU, except you may exclude any compounds that meet the criteria specified in §63.145(a)(6)(ii) or (iii).

(ii) Conduct the demonstration under representative process unit and treatment unit operating conditions in accordance with §63.145(a)(3) and (4).

(iii) Determine PSHAP and SHAP concentrations and the total wastewater flow rate at the inlet to the equalization unit in accordance with §63.145(f)(1) and (2). References in §63.145(f)(1) and (2) to required mass removal and actual mass removal do not apply for the purposes of this section.

(iv) Determine $F_{bio}$for the activated sludge unit as specified in §63.145(h), except as specified in paragraph (n)(2)(iv)(A) or paragraph (n)(2)(iv)(B) of this section.

(A) If the biological treatment process meets both of the requirements specified in §63.145(h)(1)(i) and (ii), you may elect to replace the F_{bio}term in Equation 1 of this section with the numeral “1.”

(B) You may elect to assume $f_{bio}$is zero for any compounds on List 2 of table 36 in subpart G.

(v) Determine QMG_e, QMG_n, and QMG_cusing EPA's WATER9 model or the most recent update to this model, and conduct testing or use other procedures to validate the modeling results.

(vi) Submit the data and results of your demonstration, including both a description of and the results of your WATER9 modeling validation procedures, in your notification of compliance status report as specified in §63.2520(d)(2)(ii).

(3) As an alternative to the venting requirements in §63.136(e)(2)(ii)(A), a lift station with a volume larger than 10,000 gal may have openings necessary for proper venting of the lift station. The size and other design characteristics of these openings may be established based on manufacturer recommendations or engineering judgment for venting under normal operating conditions. You must describe the design of such openings and your supporting calculations and other rationale in your notification of compliance status report.

(4) For any wastewater streams that are Group 1 for both PSHAP and SHAP, you may elect to meet the requirements specified in table 7 to this subpart for the PSHAP and then comply with paragraphs (n)(1) through (3) of this section for the SHAP in the wastewater system. You may determine the SHAP mass removal rate, in kg/hr, in treatment units that are used to meet the requirements for PSHAP and add this amount to both the numerator and denominator in Equation 1 of this section.

(o) *Compliance records.* For each CPMS used to monitor a nonflare control device for wastewater emissions, you must keep records as specified in §63.998(c)(1) in addition to the records required in §63.147(d).

[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38559, July 1, 2005; 71 FR 40335, July 14, 2006]

§ 63.2490 What requirements must I meet for heat exchange systems?

(a) You must comply with each requirement in Table 10 to this subpart that applies to your heat exchange systems, except as specified in paragraphs (b) and (c) of this section.

(b) The phrase “a chemical manufacturing process unit meeting the conditions of §63.100 (b)(1) through (b)(3) of this section” in §63.104(a) means “an MCPU meeting the conditions of §63.2435” for the purposes of this subpart.

(c) The reference to §63.100(c) in §63.104(a) does not apply for the purposes of this subpart.

Alternative Means of Compliance

§ 63.2495 How do I comply with the pollution prevention standard?

(a) You may elect to comply with the pollution prevention alternative requirements specified in paragraphs (a) (1) and (2) of this section in lieu of the emission limitations and work practice standards contained in Tables 1 through 7 to this subpart for any MCPU for which initial startup occurred before April 4, 2002.

(1) You must reduce the production-indexed HAP consumption factor (HAP factor) by at least 65 percent from a 3-year average baseline beginning no earlier than the 1994 through 1996 calendar years. For any reduction in the HAP factor that you achieve by reducing HAP that are also volatile organic compounds (VOC), you must demonstrate an equivalent reduction in the production-indexed VOC consumption factor (VOC factor) on a mass basis. For any reduction in the HAP factor that you achieve by reducing a HAP that is not a VOC, you may not increase the VOC factor.

(2) Any MCPU for which you seek to comply by using the pollution prevention alternative must begin with the same starting material(s) and end with the same product(s). You may not comply by eliminating any steps of a process by transferring the step offsite (to another manufacturing location). You may also not merge a solvent recovery step conducted offsite to onsite and as part of an existing process as a method of reducing consumption.

(3) You may comply with the requirements of paragraph (a)(1) of this section for a series of processes, including situations where multiple processes are merged, if you demonstrate to the satisfaction of the Administrator that the multiple processes were merged after the baseline period into an existing process or processes.

(b) *Exclusions.* (1) You must comply with the emission limitations and work practice standards contained in tables 1 through 7 of this subpart for all HAP that are generated in the MCPU and that are not included in consumption, as defined in §63.2550. If any vent stream routed to the combustion control is a halogenated vent stream, as defined in §63.2550, then hydrogen halides that are generated as a result of

combustion control must be controlled according to the requirements of §63.994 and the requirements referenced therein.

(2) You may not merge nondedicated formulation or nondedicated solvent recovery processes with any other processes.

(c) *Initial compliance procedures.* To demonstrate initial compliance with paragraph (a) of this section, you must prepare a demonstration summary in accordance with paragraph (c) (1) of this section and calculate baseline and target annual HAP and VOC factors in accordance with paragraphs (c) (2) and (3) of this section.

(1) *Demonstration plan.* You must prepare a pollution prevention demonstration plan that contains, at a minimum, the information in paragraphs (c)(1) (i) through (iii) of this section for each MCPU for which you comply with paragraph (a) of this section.

(i) Descriptions of the methodologies and forms used to measure and record consumption of HAP and VOC compounds.

(ii) Descriptions of the methodologies and forms used to measure and record production of the product(s).

(iii) Supporting documentation for the descriptions provided in accordance with paragraphs (c)(1) (i) and (ii) of this section including, but not limited to, samples of operator log sheets and daily, monthly, and/or annual inventories of materials and products. You must describe how this documentation will be used to calculate the annual factors required in paragraph (d) of this section.

(2) *Baseline factors.* You must calculate baseline HAP and VOC factors by dividing the consumption of total HAP and total VOC by the production rate, per process, for the first 3-year period in which the process was operational, beginning no earlier than the period consisting of the 1994 through 1996 calendar years.

(3) *Target annual factors.* You must calculate target annual HAP and VOC factors. The target annual HAP factor must be equal to 35 percent of the baseline HAP factor. The target annual VOC factor must be lower than the baseline VOC factor by an amount equivalent to the reduction in any HAP that is also a VOC, on a mass basis. The target annual VOC factor may be the same as the baseline VOC factor if the only HAP you reduce is not a VOC.

(d) *Continuous compliance requirements.* You must calculate annual rolling average values of the HAP and VOC factors (annual factors) in accordance with the procedures specified in paragraphs (d) (1) through (3) of this section. To show continuous compliance, the annual factors must be equal to or less than the target annual factors calculated according to paragraph (c)(3) of this section.

(1) To calculate the annual factors, you must divide the consumption of both total HAP and total VOC by the production rate, per process, for 12-month periods at the frequency specified in either paragraph (d) (2) or (3) of this section, as applicable.

(2) For continuous processes, you must calculate the annual factors every 30 days for the 12-month period preceding the 30th day (i.e., annual rolling average calculated every 30 days). A process with both batch and continuous operations is considered a continuous process for the purposes of this section.

(3) For batch processes, you must calculate the annual factors every 10 batches for the 12-month period preceding the 10th batch (*i.e.,* annual rolling average calculated every 10 batches), except as specified in paragraphs (d)(3) (i) and (ii) of this section.

(i) If you produce more than 10 batches during a month, you must calculate the annual factors at least once during that month.

(ii) If you produce less than 10 batches in a 12-month period, you must calculate the annual factors for the number of batches in the 12-month period since the previous calculations.

(e) *Records.* You must keep records of HAP and VOC consumption, production, and the rolling annual HAP and VOC factors for each MCPU for which you are complying with paragraph (a) of this section.

(f) *Reporting.* (1) You must include the pollution prevention demonstration plan in the precompliance report required by §63.2520(c).

(2) You must identify all days when the annual factors were above the target factors in the compliance reports.

[68 FR 63888, Nov. 10, 2003, as amended at 71 FR 40336, July 14, 2006]

§ 63.2500 How do I comply with emissions averaging?

(a) For an existing source, you may elect to comply with the percent reduction emission limitations in Tables 1, 2, 4, 5, and 7 to this subpart by complying with the emissions averaging provisions specified in §63.150, except as specified in paragraphs (b) through (f) of this section.

(b) The batch process vents in an MCPU collectively are considered one individual emission point for the purposes of emissions averaging, except that only individual batch process vents must be excluded to meet the requirements of §63.150(d)(5).

(c) References in §63.150 to §§63.112 through 63.130 mean the corresponding requirements in §§63.2450 through 63.2490, including applicable monitoring, recordkeeping, and reporting.

(d) References to “periodic reports” in §63.150 mean “compliance report” for the purposes of this subpart.

(e) For batch process vents, estimate uncontrolled emissions for a standard batch using the procedures in §63.1257(d)(2)(i) and (ii) instead of the procedures in §63.150(g)(2). Multiply the calculated emissions per batch by the number of batches per month when calculating the monthly emissions for use in calculating debits and credits.

(f) References to “storage vessels” in §63.150 mean “storage tank” as defined in §63.2550 for the purposes of this subpart.

§ 63.2505 How do I comply with the alternative standard?

As an alternative to complying with the emission limits and work practice standards for process vents and storage tanks in Tables 1 through 4 to this subpart and the requirements in §§63.2455 through 63.2470, you may comply with the emission limits in paragraph (a) of this section and demonstrate compliance in accordance with the requirements in paragraph (b) of this section.

(a) *Emission limits and work practice standards.* (1) You must route vent streams through a closed-vent system to a control device that reduces HAP emissions as specified in either paragraph (a)(1)(i) or (ii) of this section.

(i) If you use a combustion control device, it must reduce HAP emissions as specified in paragraphs (a)(1)(i)(A), (B), and (C) of this section.

(A) To an outlet TOC concentration of 20 parts per million by volume (ppmv) or less.

(B) To an outlet concentration of hydrogen halide and halogen HAP of 20 ppmv or less.

(C) As an alternative to paragraph (a)(1)(i)(B) of this section, if you control halogenated vent streams emitted from a combustion device followed by a scrubber, reduce the hydrogen halide and halogen HAP generated in the combustion device by greater than or equal to 95 percent by weight in the scrubber.

(ii) If you use a noncombustion control device(s), it must reduce HAP emissions to an outlet total organic HAP concentration of 50 ppmv or less, and an outlet concentration of hydrogen halide and halogen HAP of 50 ppmv or less.

(2) Any Group 1 process vents within a process that are not controlled according to this alternative standard must be controlled according to the emission limits in tables 1 through 3 to this subpart.

(b) *Compliance requirements.* To demonstrate compliance with paragraph (a) of this section, you must meet the requirements of §63.1258(b)(5) beginning no later than the initial compliance date specified in §63.2445, except as specified in paragraphs (b)(1) through (9) of this section.

(1) You must comply with the requirements in §63.983 and the requirements referenced therein for closed-vent systems.

(2) When §63.1258(b)(5)(i) refers to §§63.1253(d) and 63.1254(c), the requirements in paragraph (a) of this section apply for the purposes of this subpart FFFF.

(3) When §63.1258(b)(5)(i)(B) refers to “HCl,” it means “total hydrogen halide and halogen HAP” for the purposes of this subpart FFFF.

(4) When §63.1258(b)(5)(ii) refers to §63.1257(a)(3), it means §63.2450(j)(5) for the purposes of this subpart FFFF.

(5) You must submit the results of any determination of the target analytes of predominant HAP in the notification of compliance status report.

(6) If you elect to comply with the requirement to reduce hydrogen halide and halogen HAP by greater than or equal to 95 percent by weight in paragraph (a)(1)(i)(C) of this section, you must meet the requirements in paragraphs (b)(6)(i) and (ii) of this section.

(i) Demonstrate initial compliance with the 95 percent reduction by conducting a performance test and setting a site-specific operating limit(s) for the scrubber in accordance with §63.994 and the requirements referenced therein. You must submit the results of the initial compliance demonstration in the notification of compliance status report.

(ii) Install, operate, and maintain CPMS for the scrubber as specified in §§63.994(c) and 63.2450(k), instead of as specified in §63.1258(b)(5)(i)(C).

(7) If flow to the scrubber could be intermittent, you must install, calibrate, and operate a flow indicator as specified in §63.2460(c)(7).

(8) Use the operating day as the averaging period for CEMS data and scrubber parameter monitoring data.

(9) The requirements in paragraph (a) of this section do not apply to emissions from storage tanks during periods of planned routine maintenance of the control device that do not exceed 240 hr/yr. You may submit an application to the Administrator requesting an extension of this time limit to a total of 360 hr/yr in accordance with the procedures specified in §63.2470(d). You must comply with the recordkeeping and reporting specified in §§63.998(d)(2)(ii) and 63.999(c)(4) for periods of planned routine maintenance.

[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38559, July 1, 2005]

Notification, Reports, and Records

§ 63.2515 What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.

(b) *Initial notification.* As specified in §63.9(b)(2), if you startup your affected source before November 10, 2003, you must submit an initial notification not later than 120 calendar days after November 10, 2003.

(2) As specified in §63.9(b)(3), if you startup your new affected source on or after November 10, 2003, you must submit an initial notification not later than 120 calendar days after you become subject to this subpart.

(c) *Notification of performance test.* If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required in §63.7(b)(1). For any performance test required as part of the initial compliance procedures for batch process vents in table 2 to this subpart, you must also submit the test plan required by §63.7(c) and the emission profile with the notification of the performance test.

§ 63.2520 What reports must I submit and when?

(a) You must submit each report in Table 11 to this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in table 11 to this subpart and according to paragraphs (b)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.2445 and ending on June 30 or December 31, whichever date is the first date following the end of the first 6 months after the compliance date that is specified for your affected source in §63.2445.

(2) The first compliance report must be postmarked or delivered no later than August 31 or February 28, whichever date is the first date following the end of the first reporting period specified in paragraph (b)(1) of this section.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than August 31 or February 28, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) *Precompliance report.* You must submit a precompliance report to request approval for any of the items in paragraphs (c)(1) through (7) of this section. We will either approve or disapprove the report within 90 days after we receive it. If we disapprove the report, you must still be in compliance with the emission limitations and work practice standards in this subpart by the compliance date. To change any of the information submitted in the report, you must notify us 60 days before the planned change is to be implemented.

(1) Requests for approval to set operating limits for parameters other than those specified in §§63.2455 through 63.2485 and referenced therein. Alternatively, you may make these requests according to §63.8(f).

(2) Descriptions of daily or per batch demonstrations to verify that control devices subject to §63.2460(c)(5) are operating as designed.

(3) A description of the test conditions, data, calculations, and other information used to establish operating limits according to §63.2460(c)(3).

(4) Data and rationale used to support an engineering assessment to calculate uncontrolled emissions in accordance with §63.1257(d)(2)(ii). This requirement does not apply to calculations of hydrogen halide and halogen HAP emissions as specified in §63.2465(b), to determinations that the total HAP concentration is less than 50 ppmv, or if you use previous test data to establish the uncontrolled emissions.

(5) The pollution prevention demonstration plan required in §63.2495(c)(1), if you are complying with the pollution prevention alternative.

(6) Documentation of the practices that you will implement to minimize HAP emissions from streams that contain energetics and organic peroxides, and rationale for why meeting the emission limit specified in tables 1 through 7 to this subpart would create an undue safety hazard.

(7) For fabric filters that are monitored with bag leak detectors, an operation and maintenance plan that describes proper operation and maintenance procedures, and a corrective action plan that describes corrective actions to be taken, and the timing of those actions, when the PM concentration exceeds the set point and activates the alarm.

(d) *Notification of compliance status report.* You must submit a notification of compliance status report according to the schedule in paragraph (d)(1) of this section, and the notification of compliance status report must contain the information specified in paragraph (d)(2) of this section.

(1) You must submit the notification of compliance status report no later than 150 days after the applicable compliance date specified in §63.2445.

(2) The notification of compliance status report must include the information in paragraphs (d)(2)(i) through (ix) of this section.

(i) The results of any applicability determinations, emission calculations, or analyses used to identify and quantify HAP usage or HAP emissions from the affected source.

(ii) The results of emissions profiles, performance tests, engineering analyses, design evaluations, flare compliance assessments, inspections and repairs, and calculations used to demonstrate initial compliance according to §§63.2455 through 63.2485. For performance tests, results must include descriptions of sampling and analysis procedures and quality assurance procedures.

(iii) Descriptions of monitoring devices, monitoring frequencies, and the operating limits established during the initial compliance demonstrations, including data and calculations to support the levels you establish.

(iv) All operating scenarios.

(v) Descriptions of worst-case operating and/or testing conditions for control devices.

(vi) Identification of parts of the affected source subject to overlapping requirements described in §63.2535 and the authority under which you will comply.

(vii) The information specified in §63.1039(a)(1) through (3) for each process subject to the work practice standards for equipment leaks in Table 6 to this subpart.

(viii) Identify storage tanks for which you are complying with the vapor balancing alternative in §63.2470(e).

(ix) Records as specified in §63.2535(l)(1) through (3) of process units used to create a PUG and calculations of the initial primary product of the PUG.

(e) *Compliance report.* The compliance report must contain the information specified in paragraphs (e)(1) through (10) of this section.

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) For each SSM during which excess emissions occur, the compliance report must include records that the procedures specified in your startup, shutdown, and malfunction plan (SSMP) were followed or documentation of actions taken that are not consistent with the SSMP, and include a brief description of each malfunction.

(5) The compliance report must contain the information on deviations, as defined in §63.2550, according to paragraphs (e)(5)(i), (ii), (iii), and (iv) of this section.

(i) If there are no deviations from any emission limit, operating limit or work practice standard specified in this subpart, include a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.

(ii) For each deviation from an emission limit, operating limit, and work practice standard that occurs at an affected source where you are not using a continuous monitoring system (CMS) to comply with the

emission limit or work practice standard in this subpart, you must include the information in paragraphs (e)(5)(ii)(A) through (C) of this section. This includes periods of SSM.

(A) The total operating time of the affected source during the reporting period.

(B) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(C) Operating logs of processes with batch vents from batch operations for the day(s) during which the deviation occurred, except operating logs are not required for deviations of the work practice standards for equipment leaks.

(iii) For each deviation from an emission limit or operating limit occurring at an affected source where you are using a CMS to comply with an emission limit in this subpart, you must include the information in paragraphs (e)(5)(iii)(A) through (L) of this section. This includes periods of SSM.

(A) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(B) The date, time, and duration that each CEMS was out-of-control, including the information in §63.8(c)(8).

(C) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(D) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total operating time of the affected source during that reporting period.

(E) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(F) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the affected source during that reporting period.

(G) An identification of each HAP that is known to be in the emission stream.

(H) A brief description of the process units.

(I) A brief description of the CMS.

(J) The date of the latest CMS certification or audit.

(K) Operating logs of processes with batch vents from batch operations for each day(s) during which the deviation occurred.

(L) The operating day or operating block average values of monitored parameters for each day(s) during which the deviation occurred.

(iv) If you documented in your notification of compliance status report that an MCPU has Group 2 batch process vents because the non-reactive HAP is the only HAP and usage is less than 10,000 lb/yr, the total uncontrolled organic HAP emissions from the batch process vents in an MCPU will be less than 1,000 lb/yr for the anticipated number of standard batches, or total uncontrolled hydrogen halide and

halogen HAP emissions from all batch process vents and continuous process vents in a process are less than 1,000 lb/yr, include the records associated with each calculation required by §63.2525(e) that exceeds an applicable HAP usage or emissions threshold.

(6) If you use a CEMS, and there were no periods during which it was out-of-control as specified in §63.8(c)(7), include a statement that there were no periods during which the CEMS was out-of-control during the reporting period.

(7) Include each new operating scenario which has been operated since the time period covered by the last compliance report and has not been submitted in the notification of compliance status report or a previous compliance report. For each new operating scenario, you must provide verification that the operating conditions for any associated control or treatment device have not been exceeded and that any required calculations and engineering analyses have been performed. For the purposes of this paragraph, a revised operating scenario for an existing process is considered to be a new operating scenario.

(8) Records of process units added to a PUG as specified in §63.2525(i)(4) and records of primary product redeterminations as specified in §63.2525(i)(5).

(9) Applicable records and information for periodic reports as specified in referenced subparts F, G, H, SS, UU, WW, and GGG of this part and subpart F of 40 CFR part 65.

(10) *Notification of process change.* (i) Except as specified in paragraph (e)(10)(ii) of this section, whenever you make a process change, or change any of the information submitted in the notification of compliance status report or a previous compliance report, that is not within the scope of an existing operating scenario, you must document the change in your compliance report. A process change does not include moving within a range of conditions identified in the standard batch, and a nonstandard batch does not constitute a process change. The notification must include all of the information in paragraphs (e)(10)(i)(A) through (C) of this section.

(A) A description of the process change.

(B) Revisions to any of the information reported in the original notification of compliance status report under paragraph (d) of this section.

(C) Information required by the notification of compliance status report under paragraph (d) of this section for changes involving the addition of processes or equipment at the affected source.

(ii) You must submit a report 60 days before the scheduled implementation date of any of the changes identified in paragraph (e)(10)(ii)(A), (B), or (C) of this section.

(A) Any change to the information contained in the precompliance report.

(B) A change in the status of a control device from small to large.

(C) A change from Group 2 to Group 1 for any emission point except for batch process vents that meet the conditions specified in §63.2460(b)(6)(i).

[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38560, July 1, 2005; 71 FR 40336, July 14, 2006]

§ 63.2525 What records must I keep?

You must keep the records specified in paragraphs (a) through (k) of this section.

(a) Each applicable record required by subpart A of this part 63 and in referenced subparts F, G, SS, UU, WW, and GGG of this part 63 and in referenced subpart F of 40 CFR part 65.

(b) Records of each operating scenario as specified in paragraphs (b)(1) through (8) of this section.

(1) A description of the process and the type of process equipment used.

(2) An identification of related process vents, including their associated emissions episodes if not complying with the alternative standard in §63.2505; wastewater point of determination (POD); storage tanks; and transfer racks.

(3) The applicable control requirements of this subpart, including the level of required control, and for vents, the level of control for each vent.

(4) The control device or treatment process used, as applicable, including a description of operating and/or testing conditions for any associated control device.

(5) The process vents, wastewater POD, transfer racks, and storage tanks (including those from other processes) that are simultaneously routed to the control device or treatment process(s).

(6) The applicable monitoring requirements of this subpart and any parametric level that assures compliance for all emissions routed to the control device or treatment process.

(7) Calculations and engineering analyses required to demonstrate compliance.

(8) For reporting purposes, a change to any of these elements not previously reported, except for paragraph (b)(5) of this section, constitutes a new operating scenario.

(c) A schedule or log of operating scenarios for processes with batch vents from batch operations updated each time a different operating scenario is put into effect.

(d) The information specified in paragraphs (d)(1) and (2) of this section for Group 1 batch process vents in compliance with a percent reduction emission limit in Table 2 to this subpart if some of the vents are controlled to less the percent reduction requirement.

(1) Records of whether each batch operated was considered a standard batch.

(2) The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.

(e) The information specified in paragraph (e)(2), (3), or (4) of this section, as applicable, for each process with Group 2 batch process vents or uncontrolled hydrogen halide and halogen HAP emissions from the sum of all batch and continuous process vents less than 1,000 lb/yr. No records are required for situations described in paragraph (e)(1) of this section.

(1) No records are required if you documented in your notification of compliance status report that the MCPU meets any of the situations described in paragraph (e)(1)(i), (ii), or (iii) of this section.

(i) The MCPU does not process, use, or generate HAP.

(ii) You control the Group 2 batch process vents using a flare that meets the requirements of §63.987.

(iii) You control the Group 2 batch process vents using a control device for which your determination of worst case for initial compliance includes the contribution of all Group 2 batch process vents.

(2) If you documented in your notification of compliance status report that an MCPU has Group 2 batch process vents because the non-reactive organic HAP is the only HAP and usage is less than 10,000 lb/yr, as specified in §63.2460(b)(7), you must keep records of the amount of HAP material used, and calculate the daily rolling annual sum of the amount used no less frequently than monthly. If a record indicates usage exceeds 10,000 lb/yr, you must estimate emissions for the preceding 12 months based on the number of batches operated and the estimated emissions for a standard batch, and you must begin recordkeeping as specified in paragraph (e)(4) of this section. After 1 year, you may revert to recording only usage if the usage during the year is less than 10,000 lb.

(3) If you documented in your notification of compliance status report that total uncontrolled organic HAP emissions from the batch process vents in an MCPU will be less than 1,000 lb/yr for the anticipated number of standard batches, then you must keep records of the number of batches operated and calculate a daily rolling annual sum of batches operated no less frequently than monthly. If the number of batches operated results in organic HAP emissions that exceed 1,000 lb/yr, you must estimate emissions for the preceding 12 months based on the number of batches operated and the estimated emissions for a standard batch, and you must begin recordkeeping as specified in paragraph (e)(4) of this section. After 1 year, you may revert to recording only the number of batches if the number of batches operated during the year results in less than 1,000 lb of organic HAP emissions.

(4) If you meet none of the conditions specified in paragraphs (e)(1) through (3) of this section, you must keep records of the information specified in paragraphs (e)(4)(i) through (iv) of this section.

(i) A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.

(ii) A record of whether each batch operated was considered a standard batch.

(iii) The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.

(iv) Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.

(f) A record of each time a safety device is opened to avoid unsafe conditions in accordance with §63.2450(s).

(g) Records of the results of each CPMS calibration check and the maintenance performed, as specified in §63.2450(k)(1).

(h) For each CEMS, you must keep records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(i) For each PUG, you must keep records specified in paragraphs (i)(1) through (5) of this section.

(1) Descriptions of the MCPU and other process units in the initial PUG required by §63.2535(l)(1)(v).

(2) Rationale for including each MCPU and other process unit in the initial PUG (*i.e.,* identify the overlapping equipment between process units) required by §63.2535(l)(1)(v).

(3) Calculations used to determine the primary product for the initial PUG required by §63.2535(l)(2)(iv).

(4) Descriptions of process units added to the PUG after the creation date and rationale for including the additional process units in the PUG as required by §63.2535(l)(1)(v).

(5) The calculation of each primary product redetermination required by §63.2535(l)(2)(iv).

(j) In the SSMP required by §63.6(e)(3), you are not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and is optional for other equipment.

(k) For each bag leak detector used to monitor PM HAP emissions from a fabric filter, maintain records of any bag leak detection alarm, including the date and time, with a brief explanation of the cause of the alarm and the corrective action taken.

[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38560, July 1, 2005; 71 FR 40337, July 14, 2006]

Other Requirements and Information

§ 63.2535 What compliance options do I have if part of my plant is subject to both this subpart and another subpart?

For any equipment, emission stream, or wastewater stream subject to the provisions of both this subpart and another rule, you may elect to comply only with the provisions as specified in paragraphs (a) through (l) of this section. You also must identify the subject equipment, emission stream, or wastewater stream, and the provisions with which you will comply, in your notification of compliance status report required by §63.2520(d).

(a) *Compliance with other subparts of this part 63.* (1) If you have an MCPU that includes a batch process vent that also is part of a CMPU as defined in subparts F and G of this part 63, you must comply with the emission limits; operating limits; work practice standards; and the compliance, monitoring, reporting, and recordkeeping requirements for batch process vents in this subpart, and you must continue to comply with the requirements in subparts F, G, and H of this part 63 that are applicable to the CMPU and associated equipment.

(2) After the compliance dates specified in §63.2445, at an offsite reloading or cleaning facility subject to §63.1253(f), as referenced from §63.2470(e), compliance with the monitoring, recordkeeping, and reporting provisions of any other subpart of this part 63 constitutes compliance with the monitoring, recordkeeping, and reporting provisions of §63.1253(f)(7)(ii) or §63.1253(f)(7)(iii). You must identify in your notification of compliance status report required by §63.2520(d) the subpart of this part 63 with which the owner or operator of the offsite reloading or cleaning facility complies.

(b) *Compliance with 40 CFR parts 264 and 265, subparts AA, BB, and/or CC.* (1) After the compliance dates specified in §63.2445, if a control device that you use to comply with this subpart is also subject to monitoring, recordkeeping, and reporting requirements in 40 CFR part 264, subpart AA, BB, or CC; or the monitoring and recordkeeping requirements in 40 CFR part 265, subpart AA, BB, or CC; and you comply with the periodic reporting requirements under 40 CFR part 264, subpart AA, BB, or CC that would apply to the device if your facility had final-permitted status, you may elect to comply either with the monitoring, recordkeeping, and reporting requirements of this subpart; or with the monitoring and recordkeeping requirements in 40 CFR part 264 or 265 and the reporting requirements in 40 CFR part 264, as described

in this paragraph (b)(1), which constitute compliance with the monitoring, recordkeeping, and reporting requirements of this subpart. If you elect to comply with the monitoring, recordkeeping, and reporting requirements in 40 CFR parts 264 and/or 265, you must report the information described in §63.2520(e).

(2) After the compliance dates specified in §63.2445, if you have an affected source with equipment that is also subject to 40 CFR part 264, subpart BB, or to 40 CFR part 265, subpart BB, then compliance with the recordkeeping and reporting requirements of 40 CFR parts 264 and/or 265 may be used to comply with the recordkeeping and reporting requirements of this subpart, to the extent that the requirements of 40 CFR parts 264 and/or 265 duplicate the requirements of this subpart.

(c) *Compliance with 40 CFR part 60, subpart Kb and 40 CFR part 61, subpart Y.* After the compliance dates specified in §63.2445, you are in compliance with the provisions of this subpart FFFF for any storage tank that is assigned to an MCPU and that is both controlled with a floating roof and in compliance with the provisions of either 40 CFR part 60, subpart Kb, or 40 CFR part 61, subpart Y. You are in compliance with this subpart FFFF if you have a storage tank with a fixed roof, closed-vent system, and control device in compliance with the provisions of either 40 CFR part 60, subpart Kb, or 40 CFR part 61, subpart Y, except that you must comply with the monitoring, recordkeeping, and reporting requirements in this subpart FFFF. Alternatively, if a storage tank assigned to an MCPU is subject to control under 40 CFR part 60, subpart Kb, or 40 CFR part 61, subpart Y, you may elect to comply only with the requirements for Group 1 storage tanks in this subpart FFFF.

(d) *Compliance with subpart I, GGG, or MMM of this part 63.* After the compliance dates specified in §63.2445, if you have an affected source with equipment subject to subpart I, GGG, or MMM of this part 63, you may elect to comply with the provisions of subpart H, GGG, or MMM of this part 63, respectively, for all such equipment.

(e) *Compliance with subpart GGG of this part 63 for wastewater.* After the compliance dates specified in §63.2445, if you have an affected source subject to this subpart and you have an affected source that generates wastewater streams that meet the applicability thresholds specified in §63.1256, you may elect to comply with the provisions of this subpart FFFF for all such wastewater streams.

(f) *Compliance with subpart MMM of this part 63 for wastewater.* After the compliance dates specified in §63.2445, if you have an affected source subject to this subpart, and you have an affected source that generates wastewater streams that meet the applicability thresholds specified in §63.1362(d), you may elect to comply with the provisions of this subpart FFFF for all such wastewater streams (except that the 99 percent reduction requirement for streams subject to §63.1362(d)(10) still applies).

(g) *Compliance with other regulations for wastewater.* After the compliance dates specified in §63.2445, if you have a Group 1 wastewater stream that is also subject to provisions in 40 CFR parts 260 through 272, you may elect to determine whether this subpart or 40 CFR parts 260 through 272 contain the more stringent control requirements (*e.g.,* design, operation, and inspection requirements for waste management units; numerical treatment standards; etc.) and the more stringent testing, monitoring, recordkeeping, and reporting requirements. Compliance with provisions of 40 CFR parts 260 through 272 that are determined to be more stringent than the requirements of this subpart constitute compliance with this subpart. For example, provisions of 40 CFR parts 260 through 272 for treatment units that meet the conditions specified in §63.138(h) constitute compliance with this subpart. You must identify in the notification of compliance status report required by §63.2520(d) the information and procedures that you used to make any stringency determinations.

(h) *Compliance with 40 CFR part 60, subpart DDD, III, NNN, or RRR.* After the compliance dates specified in §63.2445, if you have an MCPU that contains equipment subject to the provisions of this subpart that are also subject to the provisions of 40 CFR part 60, subpart DDD, III, NNN, or RRR, you may elect to apply this subpart to all such equipment in the MCPU. If an MCPU subject to the provisions of this subpart has equipment to which this subpart does not apply but which is subject to a standard in

40 CFR part 60, subpart DDD, III, NNN, or RRR, you may elect to comply with the requirements for Group 1 process vents in this subpart for such equipment. If you elect any of these methods of compliance, you must consider all total organic compounds, minus methane and ethane, in such equipment for purposes of compliance with this subpart, as if they were organic HAP. Compliance with the provisions of this subpart, in the manner described in this paragraph (h), will constitute compliance with 40 CFR part 60, subpart DDD, III, NNN, or RRR, as applicable.

(i) *Compliance with 40 CFR part 61, subpart BB.* (1) After the compliance dates specified in §63.2445, a Group 1 transfer rack, as defined in §63.2550, that is also subject to the provisions of 40 CFR part 61, subpart BB, you are required to comply only with the provisions of this subpart.

(2) After the compliance dates specified in §63.2445, a Group 2 transfer rack, as defined in §63.2550, that is also subject to the provisions of 40 CFR part 61, subpart BB, is required to comply with the provisions of either paragraph (l)(2)(i) or (ii) of this section.

(i) If the transfer rack is subject to the control requirements specified in §61.302 of 40 CFR part 61, subpart BB, then you may elect to comply with either the requirements of 40 CFR part 61, subpart BB, or the requirements for Group 1 transfer racks under this subpart FFFF.

(ii) If the transfer rack is subject only to reporting and recordkeeping requirements under 40 CFR part 61, subpart BB, then you are required to comply only with the reporting and recordkeeping requirements specified in this subpart for Group 2 transfer racks, and you are exempt from the reporting and recordkeeping requirements in 40 CFR part 61, subpart BB.

(j) *Compliance with 40 CFR part 61, subpart FF.* After the compliance date specified in §63.2445, for a Group 1 or Group 2 wastewater stream that is also subject to the provisions of 40 CFR 61.342(c) through (h), and is not exempt under 40 CFR 61.342(c)(2) or (3), you may elect to comply only with the requirements for Group 1 wastewater streams in this subpart FFFF. If a Group 2 wastewater stream is exempted from 40 CFR 61.342(c)(1) under 40 CFR 61.342(c)(2) or (3), then you are required to comply only with the reporting and recordkeeping requirements specified in this subpart for Group 2 wastewater streams, and you are exempt from the requirements in 40 CFR part 61, subpart FF.

(k) *Compliance with 40 CFR part 60, subpart VV, and 40 CFR part 61, subpart V.* After the compliance date specified in §63.2445, if you have an affected source with equipment that is also subject to the requirements of 40 CFR part 60, subpart VV, or 40 CFR part 61, subpart V, you may elect to apply this subpart to all such equipment. After the compliance date specified in §63.2445, if you have an affected source with equipment to which this subpart does not apply, but which is subject to the requirements of 40 CFR part 60, subpart VV, or 40 CFR part 61, subpart V, you may elect to apply this subpart to all such equipment. If you elect either of these methods of compliance, you must consider all total organic compounds, minus methane and ethane, in such equipment for purposes of compliance with this subpart, as if they were organic HAP. Compliance with the provisions of this subpart, in the manner described in this paragraph (k), will constitute compliance with 40 CFR part 60, subpart VV and 40 CFR part 61, subpart V, as applicable.

(l) *Applicability of process units included in a process unit group.* You may elect to develop and comply with the requirements for PUG in accordance with paragraphs (l)(1) through (3) of this section.

(1) *Procedures to create process unit groups.* Develop and document changes in a PUG in accordance with the procedures specified in paragraphs (l)(1)(i) through (v) of this section.

(i) Initially, identify an MCPU that is created from nondedicated equipment that will operate on or after November 10, 2003 and identify all processing equipment that is part of this MCPU, based on descriptions in operating scenarios.

(ii) Add to the group any other nondedicated MCPU and other nondedicated process units expected to be operated in the 5 years after the date specified in paragraph (l)(1)(i) of this section, provided they satisfy the criteria specified in paragraphs (l)(1)(ii)(A) through (C) of this section. Also identify all of the processing equipment used for each process unit based on information from operating scenarios and other applicable documentation.

(A) Each process unit that is added to a group must have some processing equipment that is also part of one or more process units in the group.

(B) No process unit may be part of more than one PUG.

(C) The processing equipment used to satisfy the requirement of paragraph (l)(1)(ii)(A) of this section may not be a storage tank or control device.

(iii) The initial PUG consists of all of the processing equipment for the process units identified in paragraphs (l)(1)(i) and (ii) of this section. As an alternative to the procedures specified in paragraphs (l)(1)(i) and (ii) of this section, you may use a PUG that was developed in accordance with §63.1360(h) as your initial PUG.

(iv) Add process units developed in the future in accordance with the conditions specified in paragraphs (l)(1)(ii)(A) and (B) of this section.

(v) Maintain records that describe the process units in the initial PUG, the procedure used to create the PUG, and subsequent changes to each PUG as specified in §63.2525(i). Submit the records in reports as specified in §63.2520(d)(2)(ix) and (e)(8).

(2) *Determine primary product.* You must determine the primary product of each PUG created in paragraph (l)(1) of this section according to the procedures specified in paragraphs (l)(2)(i) through (iv) of this section.

(i) The primary product is the type of product (*e.g.,* organic chemicals subject to §63.2435(b)(1), pharmaceutical products subject to §63.1250, or pesticide active ingredients subject to §63.1360) expected to be produced for the greatest operating time in the 5-year period specified in paragraph (l)(1)(ii) of this section.

(ii) If the PUG produces multiple types of products equally based on operating time, then the primary product is the type of product with the greatest production on a mass basis over the 5-year period specified in paragraph (l)(1)(ii) of this section.

(iii) At a minimum, you must redetermine the primary product of the PUG following the procedure specified in paragraphs (l)(2)(i) and (ii) of this section every 5 years.

(iv) You must record the calculation of the initial primary product determination as specified in §63.2525(i)(3) and report the results in the notification of compliance status report as specified in §63.2520(d)(8)(ix). You must record the calculation of each redetermination of the primary product as specified in §63.2525(i)(5) and report the calculation in a compliance report submitted no later than the report covering the period for the end of the 5th year after cessation of production of the previous primary product, as specified in §63.2520(e)(8).

(3) *Compliance requirements.* (i) If the primary product of the PUG is determined according to paragraph (l)(2) of this section to be material described in §63.2435(b)(1), then you must comply with this subpart for each MCPU in the PUG. You may also elect to comply with this subpart for all other process units in the PUG, which constitutes compliance with other part 63 rules.

(ii) If the primary product of the PUG is determined according to paragraph (l)(2) of this section to be material not described in §63.2435(b)(1), then you must comply with paragraph (l)(3)(ii)(A), (B), or (C) of this section, as applicable.

(A) If the primary product is subject to subpart GGG of this part 63, then comply with the requirements of subpart GGG for each MCPU in the PUG.

(B) If the primary product is subject to subpart MMM of this part 63, then comply with the requirements of subpart MMM for each MCPU in the PUG.

(C) If the primary product is subject to any subpart in this part 63 other than subpart GGG or subpart MMM, then comply with the requirements of this subpart for each MCPU in the PUG.

(iii) The requirements for new and reconstructed sources in the alternative subpart apply to all MCPU in the PUG if and only if the affected source under the alternative subpart meets the requirements for construction or reconstruction.

[68 FR 63888, Nov. 10, 2003, as amended at 71 FR 40337, July 14, 2006]

§ 63.2540 What parts of the General Provisions apply to me?

Table 12 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

§ 63.2545 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. Environmental Protection Agency (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 also 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 40 CFR part 63, subpart E, the authorities contained in paragraphs (b)(1) through (4) of this section are retained by the Administrator of U.S. EPA and are not delegated to the State, local, or tribal agency.

(1) Approval of alternatives to the non-opacity emission limits and work practice standards in §63.2450(a) under §63.6(g).

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

§ 63.2550 What definitions apply to this subpart?

(a) For an affected source complying with the requirements in subpart SS of this part 63, the terms used in this subpart and in subpart SS of this part 63 have the meaning given them in §63.981, except as specified in §§63.2450(k)(2) and (m), 63.2470(c)(2), 63.2475(b), and paragraph (i) of this section.

(b) For an affected source complying with the requirements in 40 CFR part 65, subpart F, the terms used in this subpart and in 40 CFR part 65, subpart F have the meaning given to them in §65.2.

(c) For an affected source complying with the requirements in subpart UU of this part 63, the terms used in this subpart and in subpart UU of this part 63 have the meaning given them in §63.1020.

(d) For an affected source complying with the requirements in subpart WW of this part 63, the terms used in this subpart and subpart WW of this part 63 have the meaning given them in §63.1061, except as specified in §§63.2450(m), 63.2470(c)(2), and paragraph (i) of this section.

(e) For an affected source complying with the requirements in §§63.132 through 63.149, the terms used in this subpart and §§63.132 through 63.149 have the meaning given them in §§63.101 and 63.111, except as specified in §63.2450(m) and paragraph (i) of this section.

(f) For an affected source complying with the requirements in §§63.104 and 63.105, the terms used in this subpart and in §§63.104 and 63.105 of this subpart have the meaning given them in §63.101, except as specified in §§63.2450(m), 63.2490(b), and paragraph (i) of this section.

(g) For an affected source complying with requirements in §§63.1253, 63.1257, and 63.1258, the terms used in this subpart and in §§63.1253, 63.1257, and 63.1258 have the meaning given them in §63.1251, except as specified in §63.2450(m) and paragraph (i) of this section.

(h) For an affected source complying with the requirements in 40 CFR part 65, subpart F, the terms used in this subpart and in 40 CFR part 65, subpart F, have the meaning given them in 40 CFR 65.2.

(i) All other terms used in this subpart are defined in the Clean Air Act (CAA), in 40 CFR 63.2, and in this paragraph (i). If a term is defined in §63.2, §63.101, §63.111, §63.981, §63.1020, §63.1061, §63.1251, or §65.2 and in this paragraph (i), the definition in this paragraph (i) applies for the purposes of this subpart.

Ancillary activities means boilers and incinerators (not used to comply with the emission limits in Tables 1 through 7 to this subpart), chillers and refrigeration systems, and other equipment and activities that are not directly involved (*i.e.,* they operate within a closed system and materials are not combined with process fluids) in the processing of raw materials or the manufacturing of a product or isolated intermediate.

Batch operation means a noncontinuous operation involving intermittent or discontinuous feed into equipment, and, in general, involves the emptying of the equipment after the operation ceases and prior to beginning a new operation. Addition of raw material and withdrawal of product do not occur simultaneously in a batch operation.

Batch process vent means a vent from a unit operation or vents from multiple unit operations within a process that are manifolded together into a common header, through which a HAP-containing gas stream is, or has the potential to be, released to the atmosphere. Examples of batch process vents include, but are not limited to, vents on condensers used for product recovery, reactors, filters, centrifuges, and process tanks. The following are not batch process vents for the purposes of this subpart:

(1) Continuous process vents;

(2) Bottoms receivers;

(3) Surge control vessels;

(4) Gaseous streams routed to a fuel gas system(s);

(5) Vents on storage tanks, wastewater emission sources, or pieces of equipment subject to the emission limits and work practice standards in Tables 4, 6, and 7 to this subpart;

(6) Drums, pails, and totes;

(7) Flexible elephant trunk systems that draw ambient air (*i.e.,* the system is not ducted, piped, or otherwise connected to the unit operations) away from operators when vessels are opened; and

(8) Emission streams from emission episodes that are undiluted and uncontrolled containing less than 50 ppmv HAP are not part of any batch process vent. A vent from a unit operation, or a vent from multiple unit operations that are manifolded together, from which total uncontrolled HAP emissions are less than 200 lb/yr is not a batch process vent; emissions for all emission episodes associated with the unit operation(s) must be included in the determination of the total mass emitted. The HAP concentration or mass emission rate may be determined using any of the following: process knowledge that no HAP are present in the emission stream; an engineering assessment as discussed in §63.1257(d)(2)(ii), except that you do not need to demonstrate that the equations in §63.1257(d)(2)(i) do not apply, and the precompliance reporting requirements specified in §63.1257(d)(2)(ii)(E) do not apply for the purposes of this demonstration; equations specified in §63.1257(d)(2)(i), as applicable; test data using Method 18 of 40 CFR part 60, appendix A; or any other test method that has been validated according to the procedures in Method 301 of appendix A of this part.

Biofilter means an enclosed control system such as a tank or series of tanks with a fixed roof that contact emissions with a solid media (such as bark) and use microbiological activity to transform organic pollutants in a process vent stream to innocuous compounds such as carbon dioxide, water, and inorganic salts. Wastewater treatment processes such as aeration lagoons or activated sludge systems are not considered to be biofilters.

Bottoms receiver means a tank that collects bottoms from continuous distillation before the stream is sent for storage or for further downstream processing.

Construction means the onsite fabrication, erection, or installation of an affected source or MCPU. Addition of new equipment to an MCPU subject to existing source standards does not constitute construction, but it may constitute reconstruction of the affected source or MCPU if it satisfies the definition of reconstruction in §63.2.

Consumption means the quantity of all HAP raw materials entering a process in excess of the theoretical amount used as reactant, assuming 100 percent stoichiometric conversion. The raw materials include reactants, solvents, and any other additives. If a HAP is generated in the process as well as added as a raw material, consumption includes the quantity generated in the process.

Continuous operation means any operation that is not a batch operation.

Continuous process vent means the point of discharge to the atmosphere (or the point of entry into a control device, if any) of a gas stream if the gas stream has the characteristics specified in §63.107(b) through (h), or meets the criteria specified in §63.107(i), except:

(1) The reference in §63.107(e) to a chemical manufacturing process unit that meets the criteria of §63.100(b) means an MCPU that meets the criteria of §63.2435(b);

(2) The reference in §63.107(h)(4) to §63.113 means Table 1 to this subpart;

(3) The references in §63.107(h)(7) to §§63.119 and 63.126 mean tables 4 and 5 to this subpart; and

(4) For the purposes of §63.2455, all references to the characteristics of a process vent (*e.g.,* flowrate, total HAP concentration, or TRE index value) mean the characteristics of the gas stream.

(5) The reference to “total organic HAP” in §63.107(d) means “total HAP” for the purposes of this subpart FFFF.

(6) The references to an “air oxidation reactor, distillation unit, or reactor” in §63.107 mean any continuous operation for the purposes of this subpart.

(7) A separate determination is required for the emissions from each MCPU, even if emission streams from two or more MCPU are combined prior to discharge to the atmosphere or to a control device.

Dedicated MCPU means an MCPU that consists of equipment that is used exclusively for one process, except that storage tanks assigned to the process according to the procedures in §63.2435(d) also may be shared by other processes.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard; or

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limit, operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Emission point means each continuous process vent, batch process vent, storage tank, transfer rack, and wastewater stream.

Energetics means propellants, explosives, and pyrotechnics and include materials listed at 49 CFR 172.101 as Hazard Class I Hazardous Materials, Divisions 1.1 through 1.6.

Equipment means each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation system in organic HAP service; and any control devices or systems used to comply with Table 6 to this subpart.

Excess emissions means emissions greater than those allowed by the emission limit.

Family of materials means a grouping of materials with the same basic composition or the same basic end use or functionality produced using the same basic feedstocks with essentially identical HAP emission profiles (primary constituent and relative magnitude on a pound per product basis) and manufacturing equipment configuration. Examples of families of materials include multiple grades of the same product or different variations of a product (*e.g.,* blue, black, and red resins).

Group 1 batch process vent means each of the batch process vents in a process for which the collective uncontrolled organic HAP emissions from all of the batch process vents are greater than or equal to 10,000 lb/yr at an existing source or greater than or equal to 3,000 lb/yr at a new source.

Group 2 batch process vent means each batch process vent that does not meet the definition of Group 1 batch process vent.

Group 1 continuous process vent means a continuous process vent for which the flow rate is greater than or equal to 0.005 standard cubic meter per minute, and the total resource effectiveness index value, calculated according to §63.2455(b), is less than or equal to 1.9 at an existing source and less than or equal to 5.0 at a new source.

Group 2 continuous process vent means a continuous process vent that does not meet the definition of a Group 1 continuous process vent.

Group 1 storage tank means a storage tank with a capacity greater than or equal to 10,000 gal storing material that has a maximum true vapor pressure of total HAP greater than or equal to 6.9 kilopascals at an existing source or greater than or equal to 0.69 kilopascals at a new source.

Group 2 storage tank means a storage tank that does not meet the definition of a Group 1 storage tank.

Group 1 transfer rack means a transfer rack that loads more than 0.65 million liters/year of liquids that contain organic HAP with a rack-weighted average partial pressure, as defined in §63.111, greater than or equal to 1.5 pound per square inch absolute.

Group 2 transfer rack means a transfer rack that does not meet the definition of a Group 1 transfer rack.

Group 1 wastewater stream means a wastewater stream consisting of process wastewater at an existing or new source that meets the criteria for Group 1 status in §63.2485(c) for compounds in Tables 8 and 9 to this subpart and/or a wastewater stream consisting of process wastewater at a new source that meets the criteria for Group 1 status in §63.132(d) for compounds in Table 8 to subpart G of this part 63.

Group 2 wastewater stream means any process wastewater stream that does not meet the definition of a Group 1 wastewater stream.

Halogen atoms mean chlorine and fluorine.

Halogenated vent stream means a vent stream determined to have a mass emission rate of halogen atoms contained in organic compounds of 0.45 kilograms per hour or greater determined by the procedures presented in §63.115(d)(2)(v).

HAP metals means the metal portion of antimony compounds, arsenic compounds, beryllium compounds, cadmium compounds, chromium compounds, cobalt compounds, lead compounds, manganese compounds, mercury compounds, nickel compounds, and selenium compounds.

Hydrogen halide and halogen HAP means hydrogen chloride, hydrogen fluoride, and chlorine.

In organic HAP service means that a piece of equipment either contains or contacts a fluid (liquid or gas) that is at least 5 percent by weight of total organic HAP as determined according to the provisions of §63.180(d). The provisions of §63.180(d) also specify how to determine that a piece of equipment is not in organic HAP service.

Isolated intermediate means a product of a process that is stored before subsequent processing. An isolated intermediate is usually a product of a chemical synthesis, fermentation, or biological extraction process. Storage of an isolated intermediate marks the end of a process. Storage occurs at any time the intermediate is placed in equipment used solely for storage. The storage equipment is part of the MCPU that produces the isolated intermediate and is not assigned as specified in §63.2435(d).

Large control device means a control device that controls total HAP emissions of greater than or equal to 10 tpy, before control.

Maintenance wastewater means wastewater generated by the draining of process fluid from components in the MCPU into an individual drain system in preparation for or during maintenance activities. Maintenance wastewater can be generated during planned and unplanned shutdowns and during periods not associated with a shutdown. Examples of activities that can generate maintenance wastewater include descaling of heat exchanger tubing bundles, cleaning of distillation column traps, draining of pumps into an individual drain system, and draining of portions of the MCPU for repair. Wastewater from routine cleaning operations occurring as part of batch operations is not considered maintenance wastewater.

Maximum true vapor pressure has the meaning given in §63.111, except that it applies to all HAP rather than only organic HAP.

Miscellaneous organic chemical manufacturing process means all equipment which collectively function to produce a product or isolated intermediate that are materials described in §63.2435(b). For the purposes of this subpart, process includes any, all or a combination of reaction, recovery, separation, purification, or other activity, operation, manufacture, or treatment which are used to produce a product or isolated intermediate. A process is also defined by the following:

(1) Routine cleaning operations conducted as part of batch operations are considered part of the process;

(2) Each nondedicated solvent recovery operation is considered a single process;

(3) Each nondedicated formulation operation is considered a single process that is used to formulate numerous materials and/or products;

(4) Quality assurance/quality control laboratories are not considered part of any process; and

(5) Ancillary activities are not considered a process or part of any process.

(6) The end of a process that produces a solid material is either up to and including the dryer or extruder, or for a polymer production process without a dryer or extruder, it is up to and including the extruder, die plate, or solid-state reactor, except in two cases. If the dryer, extruder, die plate, or solid-state reactor is followed by an operation that is designed and operated to remove HAP solvent or residual HAP monomer from the solid, then the solvent removal operation is the last step in the process. If the dried solid is diluted or mixed with a HAP-based solvent, then the solvent removal operation is the last step in the process.

Nondedicated solvent recovery operation means a distillation unit or other purification equipment that receives used solvent from more than one MCPU.

Nonstandard batch means a batch process that is operated outside of the range of operating conditions that are documented in an existing operating scenario but is still a reasonably anticipated event. For example, a nonstandard batch occurs when additional processing or processing at different operating conditions must be conducted to produce a product that is normally produced under the conditions described by the standard batch. A nonstandard batch may be necessary as a result of a malfunction, but it is not itself a malfunction.

On-site or on site means, with respect to records required to be maintained by this subpart or required by another subpart referenced by this subpart, that records are stored at a location within a major source

which encompasses the affected source. On-site includes, but is not limited to, storage at the affected source or MCPU to which the records pertain, or storage in central files elsewhere at the major source.

Operating scenario means, for the purposes of reporting and recordkeeping, any specific operation of an MCPU as described by records specified in §63.2525(b).

Organic group means structures that contain primarily carbon, hydrogen, and oxygen atoms.

Organic peroxides means organic compounds containing the bivalent -o-o-structure which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

Point of determination means each point where process wastewater exits the MCPU or control device.

Note to definition for point of determination: The regulation allows determination of the characteristics of a wastewater stream: At the point of determination; or downstream of the point of determination if corrections are made for changes in flow rate and annual average concentration of soluble HAP and partially soluble HAP compounds as determined according to procedures in §63.144 of subpart G in this part 63. Such changes include losses by air emissions; reduction of annual average concentration or changes in flow rate by mixing with other water or wastewater streams; and reduction in flow rate or annual average concentration by treating or otherwise handling the wastewater stream to remove or destroy HAP.

Predominant HAP means as used in calibrating an analyzer, the single organic HAP that constitutes the largest percentage of the total organic HAP in the analyzed gas stream, by volume.

Process condenser means a condenser whose primary purpose is to recover material as an integral part of an MCPU. All condensers recovering condensate from an MCPU at or above the boiling point or all condensers in line prior to a vacuum source are considered process condensers. Typically, a primary condenser or condensers in series are considered to be integral to the MCPU if they are capable of and normally used for the purpose of recovering chemicals for fuel value (i.e., net positive heating value), use, reuse or for sale for fuel value, use, or reuse. This definition does not apply to a condenser that is used to remove materials that would hinder performance of a downstream recovery device as follows:

(1) To remove water vapor that would cause icing in a downstream condenser, or

(2) To remove water vapor that would negatively affect the adsorption capacity of carbon in a downstream carbon adsorber, or

(3) To remove high molecular weight organic compounds or other organic compounds that would be difficult to remove during regeneration of a downstream carbon adsorber.

Process tank means a tank or vessel that is used within a process to collect material discharged from a feedstock storage tank or equipment within the process before the material is transferred to other equipment within the process or a product storage tank. A process tank has emissions that are related to the characteristics of the batch cycle, and it does not accumulate product over multiple batches. Surge control vessels and bottoms receivers are not process tanks.

Production-indexed HAP consumption factor (HAP factor) means the result of dividing the annual consumption of total HAP by the annual production rate, per process.

Production-indexed VOC consumption factor (VOC factor) means the result of dividing the annual consumption of total VOC by the annual production rate, per process.

Quaternary ammonium compounds means a type of organic nitrogen compound in which the molecular structure includes a central nitrogen atom joined to four organic groups as well as an acid radical of some sort.

Recovery device means an individual unit of equipment used for the purpose of recovering chemicals from process vent streams and from wastewater streams for fuel value (i.e., net positive heating value), use, reuse, or for sale for fuel value, use, or reuse. For the purposes of meeting requirements in table 2 to this subpart, the recovery device must not be a process condenser and must recover chemicals to be reused in a process on site. Examples of equipment that may be recovery devices include absorbers, carbon adsorbers, condensers, oil-water separators or organic-water separators, or organic removal devices such as decanters, strippers, or thin-film evaporation units. To be a recovery device for a wastewater stream, a decanter and any other equipment based on the operating principle of gravity separation must receive only multi-phase liquid streams.

Responsible official means responsible official as defined in 40 CFR 70.2.

Safety device means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device which functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purposes of this subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the air emission control equipment as determined by the owner or operator based on manufacturer recommendations, applicable regulations, fire protection and prevention codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials.

Shutdown means the cessation of operation of a continuous operation for any purpose. Shutdown also means the cessation of a batch operation, or any related individual piece of equipment required or used to comply with this subpart, if the steps taken to cease operation differ from those described in a standard batch or nonstandard batch. Shutdown also applies to emptying and degassing storage vessels. Shutdown does not apply to cessation of batch operations at the end of a campaign or between batches within a campaign when the steps taken are routine operations.

Small control device means a control device that controls total HAP emissions of less than 10 tpy, before control.

Standard batch means a batch process operated within a range of operating conditions that are documented in an operating scenario. Emissions from a standard batch are based on the operating conditions that result in highest emissions. The standard batch defines the uncontrolled and controlled emissions for each emission episode defined under the operating scenario.

Startup means the setting in operation of a continuous operation for any purpose; the first time a new or reconstructed batch operation begins production; for new equipment added, including equipment required or used to comply with this subpart, the first time the equipment is put into operation; or for the introduction of a new product/process, the first time the product or process is run in equipment. For batch operations, startup applies to the first time the equipment is put into operation at the start of a campaign to produce a product that has been produced in the past if the steps taken to begin production differ from those specified in a standard batch or nonstandard batch. Startup does not apply when the equipment is put into operation as part of a batch within a campaign when the steps taken are routine operations.

Storage tank means a tank or other vessel that is used to store liquids that contain organic HAP and/or hydrogen halide and halogen HAP and that has been assigned to an MCPU according to the procedures in §63.2435(d). The following are not considered storage tanks for the purposes of this subpart:

(1) Vessels permanently attached to motor vehicles such as trucks, railcars, barges, or ships;

(2) Pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere;

(3) Vessels storing organic liquids that contain HAP only as impurities;

(4) Wastewater storage tanks;

(5) Bottoms receivers;

(6) Surge control vessels; and

(7) Process tanks.

Supplemental gases means the air that is added to a vent stream after the vent stream leaves the unit operation. Air that is part of the vent stream as a result of the nature of the unit operation is not considered supplemental gases. Air required to operate combustion device burner(s) is not considered supplemental gases.

Surge control vessel means feed drums, recycle drums, and intermediate vessels as part of any continuous operation. Surge control vessels are used within an MCPU when in-process storage, mixing, or management of flowrates or volumes is needed to introduce material into continuous operations.

Total organic compounds or (TOC) means the total gaseous organic compounds (minus methane and ethane) in a vent stream.

Transfer rack means the collection of loading arms and loading hoses, at a single loading rack, that are assigned to an MCPU according to the procedures specified in §63.2435(d) and are used to fill tank trucks and/or rail cars with organic liquids that contain one or more of the organic HAP listed in section 112(b) of the CAA of this subpart. Transfer rack includes the associated pumps, meters, shutoff valves, relief valves, and other piping and valves.

Unit operation means those processing steps that occur within distinct equipment that are used, among other things, to prepare reactants, facilitate reactions, separate and purify products, and recycle materials. Equipment used for these purposes includes, but is not limited to, reactors, distillation columns, extraction columns, absorbers, decanters, dryers, condensers, and filtration equipment.

Waste management unit means the equipment, structure(s), and/or device(s) used to convey, store, treat, or dispose of wastewater streams or residuals. Examples of waste management units include wastewater tanks, air flotation units, surface impoundments, containers, oil-water or organic-water separators, individual drain systems, biological wastewater treatment units, waste incinerators, and organic removal devices such as steam and air stripper units, and thin film evaporation units. If such equipment is being operated as a recovery device, then it is part of a miscellaneous organic chemical manufacturing process and is not a waste management unit.

Wastewater means water that is discarded from an MCPU or control device through a POD and that contains either: an annual average concentration of compounds in tables 8 and 9 to this subpart of at least 5 ppmw and has an annual average flowrate of 0.02 liters per minute or greater; or an annual

average concentration of compounds in tables 8 and 9 to this subpart of at least 10,000 ppmw at any flowrate. Wastewater means process wastewater or maintenance wastewater. The following are not considered wastewater for the purposes of this subpart:

(1) Stormwater from segregated sewers;

(2) Water from fire-fighting and deluge systems, including testing of such systems;

(3) Spills;

(4) Water from safety showers;

(5) Samples of a size not greater than reasonably necessary for the method of analysis that is used;

(6) Equipment leaks;

(7) Wastewater drips from procedures such as disconnecting hoses after cleaning lines; and

(8) Noncontact cooling water.

Wastewater stream means a stream that contains only wastewater as defined in this paragraph (i).

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38560, July 1, 2005; 71 FR 40338, July 14, 2006]

Table 1 to Subpart FFFF of Part 63—Emission Limits and Work Practice Standards for Continuous Process Vents

As required in §63.2455, you must meet each emission limit and work practice standard in the following table that applies to your continuous process vents:

For each . . .	For which . . .	Then you must . . .
1. Group 1 continuous process vent	a. Not applicable	i. Reduce emissions of total organic HAP by ≥98 percent by weight or to an outlet process concentration ≤20 ppmv as organic HAP or TOC by venting emissions through a closed-vent system to any combination of control devices (except a flare); or
		ii. Reduce emissions of total organic HAP by venting emissions through a closed vent system to a flare; or
		iii. Use a recovery device to maintain the TRE above 1.9 for an existing source or above 5.0 for a new source.
2. Halogenated Group 1 continuous process vent stream	a. You use a combustion control device to control organic HAP emissions	i. Use a halogen reduction device after the combustion device to reduce emissions of hydrogen halide and halogen HAP by ≥99 percent by weight, or to ≤0.45 kg/hr, or to ≤20 ppmv; or ii. Use a halogen reduction device before the combustion device to reduce the halogen atom mass emission rate to

		≤0.45 kg/hr or to a concentration ≤20 ppmv.
3. Group 2 continuous process vent at an existing source	You use a recovery device to maintain the TRE level >1.9 but ≤5.0	Comply with the requirements in §63.993 and the requirements referenced therein.
4. Group 2 continuous process vent at a new source	You use a recovery device to maintain the TRE level >5.0 but ≤8.0	Comply with the requirements in §63.993 and the requirements referenced therein.

Table 2 to Subpart FFFF of Part 63—Emission Limits and Work Practice Standards for Batch Process Vents

As required in §63.2460, you must meet each emission limit and work practice standard in the following table that applies to your batch process vents:

For each . . .	Then you must . . .	And you must . . .
1. Process with Group 1 batch process vents	a. Reduce collective uncontrolled organic HAP emissions from the sum of all batch process vents within the process by ≥98 percent by weight by venting emissions from a sufficient number of the vents through one or more closed-vent systems to any combination of control devices (except a flare); or	Not applicable.
	b. Reduce collective uncontrolled organic HAP emissions from the sum of all batch process vents within the process by ≥95 percent by weight by venting emissions from a sufficient number of the vents through one or more closed-vent systems to any combination of recovery devices or a biofilter, except you may elect to comply with the requirements of subpart WW of this part for any process tank; or	Not applicable.
	c. Reduce uncontrolled organic HAP emissions from one or more batch process vents within the process by venting through a closed-vent system to a flare or by venting through one or more closed-vent systems to any combination of control devices (excluding a flare) that reduce organic HAP to an outlet concentration ≤20 ppmv as TOC or total organic HAP.	For all other batch process vents within the process, reduce collective organic HAP emissions as specified in item 1.a and/or item 1.b of this table.
2. Halogenated Group 1 batch process vent for which you use a combustion device to control organic HAP emissions	a. Use a halogen reduction device after the combustion control device; or	i. Reduce overall emissions of hydrogen halide and halogen HAP by ≥99 percent; or ii. Reduce overall emissions of hydrogen halide and halogen HAP to ≤0.45 kg/hr; or iii. Reduce overall

		emissions of hydrogen halide and halogen HAP to a concentration ≤20 ppmv.
	b. Use a halogen reduction device before the combustion control device	Reduce the halogen atom mass emission rate to ≤0.45 kg/hr or to a concentration ≤20 ppmv.

[68 FR 63888, Nov. 10, 2003, as amended at 71 FR 40339, July 14, 2006]

Table 3 to Subpart FFFF of Part 63—Emission Limits for Hydrogen Halide and Halogen HAP Emissions or HAP Metals Emissions From Process Vents

As required in §63.2465, you must meet each emission limit in the following table that applies to your process vents that contain hydrogen halide and halogen HAP emissions or PM HAP emissions:

For each . . .	You must . . .
1. Process with uncontrolled hydrogen halide and halogen HAP emissions from process vents ≥1,000 lb/yr	a. Reduce collective hydrogen halide and halogen HAP emissions by ≥99 percent by weight or to an outlet concentration ≤20 ppmv by venting through one or more closed-vent systems to any combination of control devices, or
	b. Reduce the halogen atom mass emission rate from the sum of all batch process vents and each individual continuous process vent to ≤0.45 kg/hr by venting through one or more closed-vent systems to a halogen reduction device.
2. Process at a new source with uncontrolled emissions from process vents ≥150 lb/yr of HAP metals	Reduce overall emissions of HAP metals by ≥97 percent by weight.

[68 FR 63888, Nov. 10, 2003, as amended at 71 FR 40340, July 14, 2006]

Table 4 to Subpart FFFF of Part 63—Emission Limits for Storage Tanks

As required in §63.2470, you must meet each emission limit in the following table that applies to your storage tanks:

For each . . .	For which . . .	Then you must . . .
1. Group 1 storage tank	a. The maximum true vapor pressure of total HAP at the storage temperature is ≥76.6 kilopascals	i. Reduce total HAP emissions by ≥95 percent by weight or to ≤20 ppmv of TOC or organic HAP and ≤20 ppmv of hydrogen halide and halogen HAP by venting emissions through a closed vent system to any combination of control devices (excluding a flare); or
		ii. Reduce total organic HAP emissions by venting emissions through a closed vent system to a flare; or
		iii. Reduce total HAP emissions by venting emissions to a fuel gas system or process in accordance with §63.982(d) and the requirements referenced therein.
	b. The maximum true vapor pressure of total HAP at the storage temperature is <76.6 kilopascals	i. Comply with the requirements of subpart WW of this part, except as specified in §63.2470; or
		ii. Reduce total HAP emissions by ≥95 percent by weight or to ≤20 ppmv of TOC or organic HAP and ≤20 ppmv of hydrogen halide and halogen HAP by venting emissions through a closed vent system to any combination of control devices (excluding a flare); or
		iii. Reduce total organic HAP emissions by venting emissions through a closed vent system to a flare; or
		iv. Reduce total HAP emissions by venting emissions to a fuel gas system or process in accordance with §63.982(d) and the requirements referenced therein.
2. Halogenated vent stream from a Group 1 storage tank	You use a combustion control device to control organic HAP emissions	Meet one of the emission limit options specified in Item 2.a.i or ii. in Table 1 to this subpart.

[68 FR 63888, Nov. 10, 2003, as amended at 71 FR 40340, July 14, 2006]

Table 5 to Subpart FFFF of Part 63—Emission Limits and Work Practice Standards for Transfer Racks

As required in §63.2475, you must meet each emission limit and work practice standard in the following table that applies to your transfer racks:

For each . . .	You must . . .
1. Group 1 transfer rack	a. Reduce emissions of total organic HAP by ≥98 percent by weight or to an outlet concentration ≤20 ppmv as organic HAP or TOC by venting emissions through a closed-vent system to any combination of control devices (except a flare); or
	b. Reduce emissions of total organic HAP by venting emissions through a closed-vent system to a flare; or
	c. Reduce emissions of total organic HAP by venting emissions to a fuel gas system or process in accordance with §63.982(d) and the requirements referenced therein; or
	d. Use a vapor balancing system designed and operated to collect organic HAP vapors displaced from tank trucks and railcars during loading and route the collected HAP vapors to the storage tank from which the liquid being loaded originated or to another storage tank connected by a common header.
2. Halogenated Group 1 transfer rack vent stream for which you use a combustion device to control organic HAP emissions	a. Use a halogen reduction device after the combustion device to reduce emissions of hydrogen halide and halogen HAP by ≥99 percent by weight, to ≤0.45 kg/hr, or to ≤20 ppmv; or b. Use a halogen reduction device before the combustion device to reduce the halogen atom mass emission rate to ≤0.45 kg/hr or to a concentration ≤20 ppmv.

[68 FR 63888, Nov. 10, 2003, as amended at 71 FR 40341, July 14, 2006]

Table 6 to Subpart FFFF of Part 63—Requirements for Equipment Leaks

As required in §63.2480, you must meet each requirement in the following table that applies to your equipment leaks:

For all . . .	And that is part of . . .	You must . . .
1. Equipment that is in organic HAP service	a. Comply with the requirements of subpart UU of this part 63 and the requirements referenced therein, except as specified in §63.2480(b) and (d); or	
	b. Comply with the requirements of subpart H of this part 63 and the requirements referenced therein, except as specified in §63.2480(b) and (d); or	
	c. Comply with the requirements of 40 CFR part 65, subpart F and the requirements referenced therein, except as specified in §63.2480(c) and (d).	
2. Equipment that is in organic HAP service at a new source	a. Any MCPU	i. Comply with the requirements of subpart UU of this part 63 and the requirements referenced therein; or ii. Comply with the requirements of 40 CFR part 65, subpart F.

[68 FR 63888, Nov. 10, 2003, as amended at 71 FR 40341, July 14, 2006]

Table 7 to Subpart FFFF of Part 63—Requirements for Wastewater Streams and Liquid Streams in Open Systems Within an MCPU

As required in §63.2485, you must meet each requirement in the following table that applies to your wastewater streams and liquid streams in open systems within an MCPU:

For each . . .	You must . . .
1. Process wastewater stream	Comply with the requirements in §§63.132 through 63.148 and the requirements referenced therein, except as specified in §63.2485.
2. Maintenance wastewater stream	Comply with the requirements in §63.105 and the requirements referenced therein, except as specified in §63.2485.
3. Liquid streams in an open system within an MCPU	Comply with the requirements in §63.149 and the requirements referenced therein, except as specified in §63.2485.

Table 8 to Subpart FFFF of Part 63—Partially Soluble Hazardous Air Pollutants

As specified in §63.2485, the partially soluble HAP in wastewater that are subject to management and treatment requirements in this subpart FFFF are listed in the following table:

Chemical name . . .	CAS No.
1. 1,1,1–Trichloroethane (methyl chloroform)	71556
2. 1,1,2,2–Tetrachloroethane	79345
3. 1,1,2–Trichloroethane	79005
4. 1,1–Dichloroethylene (vinylidene chloride)	75354
5. 1,2–Dibromoethane	106934
6. 1,2–Dichloroethane (ethylene dichloride)	107062
7. 1,2–Dichloropropane	78875
8. 1,3–Dichloropropene	542756
9. 2,4,5–Trichlorophenol	95954
10. 1,4–Dichlorobenzene	106467
11. 2–Nitropropane	79469
12. 4–Methyl-2-pentanone (MIBK)	108101
13. Acetaldehyde	75070
14. Acrolein	107028
15. Acrylonitrile	107131
16. Allyl chloride	107051
17. Benzene	71432
18. Benzyl chloride	100447
19. Biphenyl	92524
20. Bromoform (tribromomethane)	75252
21. Bromomethane	74839
22. Butadiene	106990
23. Carbon disulfide	75150
24. Chlorobenzene	108907
25. Chloroethane (ethyl chloride)	75003

Chemical name . . .	CAS No.
26. Chloroform	67663
27. Chloromethane	74873
28. Chloroprene	126998
29. Cumene	98828
30. Dichloroethyl ether	111444
31. Dinitrophenol	51285
32. Epichlorohydrin	106898
33. Ethyl acrylate	140885
34. Ethylbenzene	100414
35. Ethylene oxide	75218
36. Ethylidene dichloride	75343
37. Hexachlorobenzene	118741
38. Hexachlorobutadiene	87683
39. Hexachloroethane	67721
40. Methyl methacrylate	80626
41. Methyl-t-butyl ether	1634044
42. Methylene chloride	75092
43. N-hexane	110543
44. N,N-dimethylaniline	121697
45. Naphthalene	91203
46. Phosgene	75445
47. Propionaldehyde	123386
48. Propylene oxide	75569
49. Styrene	100425
50. Tetrachloroethylene (perchloroethylene)	127184
51. Tetrachloromethane (carbon tetrachloride)	56235
52. Toluene	108883
53. Trichlorobenzene (1,2,4-)	120821
54. Trichloroethylene	79016

Chemical name . . .	CAS No.
55. Trimethylpentane	540841
56. Vinyl acetate	108054
57. Vinyl chloride	75014
58. Xylene (m)	108383
59. Xylene (o)	95476
60. Xylene (p)	106423

[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38560, July 1, 2005; 71 FR 40341, July 14, 2006]

Table 9 to Subpart FFFF of Part 63—Soluble Hazardous Air Pollutants

As specified in §63.2485, the soluble HAP in wastewater that are subject to management and treatment requirements of this subpart FFFF are listed in the following table:

Chemical name . . .	CAS No.
1. Acetonitrile	75058
2. Acetophenone	98862
3. Diethyl sulfate	64675
4. Dimethyl hydrazine (1,1)	57147
5. Dimethyl sulfate	77781
6. Dinitrotoluene (2,4)	121142
7. Dioxane (1,4)	123911
8. Ethylene glycol dimethyl ether	110714
9. Ethylene glycol monobutyl ether acetate	112072
10. Ethylene glycol monomethyl ether acetate	110496
11. Isophorone	78591
12. Methanol	67561
13. Nitrobenzene	98953
14. Toluidine (o-)	95534
15. Triethylamine	121448

[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38561, July 1, 2005]

Table 10 to Subpart FFFF of Part 63—Work Practice Standards for Heat Exchange Systems

As required in §63.2490, you must meet each requirement in the following table that applies to your heat exchange systems:

For each . . .	You must . . .
Heat exchange system, as defined in §63.101	Comply with the requirements of §63.104 and the requirements referenced therein, except as specified in §63.2490.

Table 11 to Subpart FFFF of Part 63—Requirements for Reports

As required in §63.2520(a) and (b), you must submit each report that applies to you on the schedule shown in the following table:

You must submit a(n)	The report must contain . . .	You must submit the report . . .
1. Precompliance report	The information specified in §63.2520(c)	At least 6 months prior to the compliance date; or for new sources, with the application for approval of construction or reconstruction.
2. Notification of compliance status report	The information specified in §63.2520(d)	No later than 150 days after the compliance date specified in §63.2445.
3. Compliance report	The information specified in §63.2520(e)	Semiannually according to the requirements in §63.2520(b).

Table 12 to Subpart FFFF of Part 63—Applicability of General Provisions to Subpart FFFF

As specified in §63.2540, the parts of the General Provisions that apply to you are shown in the following table:

Citation	Subject	Explanation
§63.1	Applicability	Yes.
§63.2	Definitions	Yes.
§63.3	Units and Abbreviations	Yes.
§63.4	Prohibited Activities	Yes.
§63.5	Construction/Reconstruction	Yes.
§63.6(a)	Applicability	Yes.
§63.6(b)(1)–(4)	Compliance Dates for New and Reconstructed sources	Yes.

Citation	Subject	Explanation
§63.6(b)(5)	Notification	Yes.
§63.6(b)(6)	[Reserved]	
§63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major	Yes.
§63.6(c)(1)–(2)	Compliance Dates for Existing Sources	Yes.
§63.6(c)(3)–(4)	[Reserved]	
§63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major	Yes
§63.6(d)	[Reserved]	
§63.6(e)(1)–(2)	Operation & Maintenance	Yes.
§63.6(e)(3)(i), (ii), and (v) through (viii)	Startup, Shutdown, Malfunction Plan (SSMP)	Yes, except information regarding Group 2 emission points and equipment leaks is not required in the SSMP, as specified in §63.2525(j).
§63.6(e)(3)(iii) and (iv)	Recordkeeping and Reporting During SSM	No, §63.998(d)(3) and 63.998(c)(1)(ii)(D) through (G) specify the recordkeeping requirement for SSM events, and §63.2520(e)(4) specifies reporting requirements.
§63.6(e)(3)(ix)	SSMP incorporation into title V permit	Yes.
§63.6(f)(1)	Compliance Except During SSM	Yes.
§63.6(f)(2)–(3)	Methods for Determining Compliance	Yes.
§63.6(g)(1)–(3)	Alternative Standard	Yes.
§63.6(h)	Opacity/Visible Emission (VE) Standards	Only for flares for which Method 22 observations are required as part of a flare compliance assessment.
§63.6(i)(1)–(14)	Compliance Extension	Yes.
§63.6(j)	Presidential Compliance Exemption	Yes.
§63.7(a)(1)–(2)	Performance Test Dates	Yes, except substitute 150 days for 180 days.
§63.7(a)(3)	Section 114 Authority	Yes, and this paragraph also applies to flare compliance assessments as specified under §63.997(b)(2).
§63.7(b)(1)	Notification of Performance Test	Yes.

Citation	Subject	Explanation
§63.7(b)(2)	Notification of Rescheduling	Yes.
§63.7(c)	Quality Assurance/Test Plan	Yes, except the test plan must be submitted with the notification of the performance test if the control device controls batch process vents.
§63.7(d)	Testing Facilities	Yes.
§63.7(e)(1)	Conditions for Conducting Performance Tests	Yes, except that performance tests for batch process vents must be conducted under worst-case conditions as specified in §63.2460.
§63.7(e)(2)	Conditions for Conducting Performance Tests	Yes.
§63.7(e)(3)	Test Run Duration	Yes.
§63.7(f)	Alternative Test Method	Yes.
§63.7(g)	Performance Test Data Analysis	Yes.
§63.7(h)	Waiver of Tests	Yes.
§63.8(a)(1)	Applicability of Monitoring Requirements	Yes.
§63.8(a)(2)	Performance Specifications	Yes.
§63.8(a)(3)	[Reserved]	
§63.8(a)(4)	Monitoring with Flares	Yes.
§63.8(b)(1)	Monitoring	Yes.
§63.8(b)(2)–(3)	Multiple Effluents and Multiple Monitoring Systems	Yes.
§63.8(c)(1)	Monitoring System Operation and Maintenance	Yes.
§63.8(c)(1)(i)	Routine and Predictable SSM	Yes.
§63.8(c)(1)(ii)	SSM not in SSMP	Yes.
§63.8(c)(1)(iii)	Compliance with Operation and Maintenance Requirements	Yes.
§63.8(c)(2)–(3)	Monitoring System Installation	Yes.
§63.8(c)(4)	CMS Requirements	Only for CEMS. Requirements for CPMS are specified in referenced subparts G and SS of part 63. Requirements for COMS do not apply because subpart FFFF does not require continuous opacity monitoring systems (COMS).
§63.8(c)(4)(i)	COMS Measurement and Recording Frequency	No; subpart FFFF does not require COMS.

Citation	Subject	Explanation
§63.8(c)(4)(ii)	CEMS Measurement and Recording Frequency	Yes.
§63.8(c)(5)	COMS Minimum Procedures	No. Subpart FFFF does not contain opacity or VE limits.
§63.8(c)(6)	CMS Requirements	Only for CEMS; requirements for CPMS are specified in referenced subparts G and SS of this part 63. Requirements for COMS do not apply because subpart FFFF does not require COMS.
§63.8(c)(7)–(8)	CMS Requirements	Only for CEMS. Requirements for CPMS are specified in referenced subparts G and SS of part 63. Requirements for COMS do not apply because subpart FFFF does not require COMS.
§63.8(d)	CMS Quality Control	Only for CEMS.
§63.8(e)	CMS Performance Evaluation	Only for CEMS. Section 63.8(e)(5)(ii) does not apply because subpart FFFF does not require COMS.
§63.8(f)(1)–(5)	Alternative Monitoring Method	Yes, except you may also request approval using the precompliance report.
§63.8(f)(6)	Alternative to Relative Accuracy Test	Only applicable when using CEMS to demonstrate compliance, including the alternative standard in §63.2505.
§63.8(g)(1)–(4)	Data Reduction	Only when using CEMS, including for the alternative standard in §63.2505, except that the requirements for COMS do not apply because subpart FFFF has no opacity or VE limits, and §63.8(g)(2) does not apply because data reduction requirements for CEMS are specified in §63.2450(j).
§63.8(g)(5)	Data Reduction	No. Requirements for CEMS are specified in §63.2450(j). Requirements for CPMS are specified in referenced subparts G and SS of this part 63.
§63.9(a)	Notification Requirements	Yes.
§63.9(b)(1)–(5)	Initial Notifications	Yes.
§63.9(c)	Request for Compliance Extension	Yes.
§63.9(d)	Notification of Special Compliance Requirements for New Source	Yes.
§63.9(e)	Notification of Performance Test	Yes.

Citation	Subject	Explanation
§63.9(f)	Notification of VE/Opacity Test	No. Subpart FFFF does not contain opacity or VE limits.
§63.9(g)	Additional Notifications When Using CMS	Only for CEMS. Section 63.9(g)(2) does not apply because subpart FFFF does not require COMS.
63.9(h)(1)–(6)	Notification of Compliance Status	Yes, except subpart FFFF has no opacity or VE limits, and 63.9(h)(2)(i)(A) through (G) and (ii) do not apply because 63.2520(d) specifies the required contents and due date of the notification of compliance status report.
§63.9(i)	Adjustment of Submittal Deadlines	Yes.
§63.9(j)	Change in Previous Information	No, §63.2520(e) specifies reporting requirements for process changes.
§63.10(a)	Recordkeeping/Reporting	Yes.
§63.10(b)(1)	Recordkeeping/Reporting	Yes.
§63.10(b)(2)(i)–(ii), (iv), (v)	Records related to SSM	No, §§63.998(d)(3) and 63.998(c)(1)(ii)(D) through (G) specify recordkeeping requirements for periods of SSM.
§63.10(b)(2)(iii)	Records related to maintenance of air pollution control equipment	Yes.
§63.10(b)(2)(vi), (x), and (xi)	CMS Records	Only for CEMS; requirements for CPMS are specified in referenced subparts G and SS of this part 63.
§63.10(b)(2)(vii)–(ix)	Records	Yes.
§63.10(b)(2)(xii)	Records	Yes.
§63.10(b)(2)(xiii)	Records	Only for CEMS.
§63.10(b)(2)(xiv)	Records	Yes.
§63.10(b)(3)	Records	Yes.
§63.10(c)(1)–(6),(9)–(15)	Records	Only for CEMS. Recordkeeping requirements for CPMS are specified in referenced subparts G and SS of this part 63.
§63.10(c)(7)–(8)	Records	No. Recordkeeping requirements are specified in §63.2525.
§63.10(d)(1)	General Reporting Requirements	Yes.
§63.10(d)(2)	Report of Performance Test Results	Yes.

Citation	Subject	Explanation
§63.10(d)(3)	Reporting Opacity or VE Observations	No. Subpart FFFF does not contain opacity or VE limits.
§63.10(d)(4)	Progress Reports	Yes.
§63.10(d)(5)(i)	Periodic Startup, Shutdown, and Malfunction Reports	No, §63.2520(e)(4) and (5) specify the SSM reporting requirements.
§63.10(d)(5)(ii)	Immediate SSM Reports	No.
§63.10(e)(1)	Additional CEMS Reports	Yes.
§63.10(e)(2)(i)	Additional CMS Reports	Only for CEMS.
§63.10(e)(2)(ii)	Additional COMS Reports	No. Subpart FFFF does not require COMS.
§63.10(e)(3)	Reports	No. Reporting requirements are specified in §63.2520.
§63.10(e)(3)(i)–(iii)	Reports	No. Reporting requirements are specified in §63.2520.
§63.10(e)(3)(iv)–(v)	Excess Emissions Reports	No. Reporting requirements are specified in §63.2520.
§63.10(e)(3)(iv)–(v)	Excess Emissions Reports	No. Reporting requirements are specified in §63.2520.
§63.10(e)(3)(vi)–(viii)	Excess Emissions Report and Summary Report	No. Reporting requirements are specified in §63.2520.
§63.10(e)(4)	Reporting COMS data	No. Subpart FFFF does not contain opacity or VE limits.
§63.10(f)	Waiver for Recordkeeping/Reporting	Yes.
§63.11	Control device requirements for flares and work practice requirements for equipment leaks	Yes.
§63.12	Delegation	Yes.
§63.13	Addresses	Yes.
§63.14	Incorporation by Reference	Yes.
§63.15	Availability of Information	Yes.

[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38561, July 1, 2005; 71 FR 20463, Apr. 20, 2006; 71 FR 40341, July 14, 2006; 73 FR 72816, Dec. 22, 2008]

Attachment H
to Part 70 Operating Permit Renewal No. T085-29197-00102

Louis Dreyfus Agricultural Industries LLC
7344 State Road 15 South, Claypool, Indiana, 46510-9746

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

If your affected source...	And if...	Then your affected source...
(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

If your affected source...	And if...	Then your affected 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

If your affected source is categorized as...	And if...	Then your compliance date is...
(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:

$$\text{Compliance Ratio} = \frac{\text{Actual Hap Loss}}{\text{Allowable Hap Loss}} \qquad (Eq.\ 1)$$

(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:

$$\text{Compliance Ratio} = \frac{f * \text{Actual Solvent Loss}}{0.64 * \sum_{i=1}^{n}\left((\text{Oilseed})_i * (\text{SLF})_i\right)} \qquad (Eq.\ 2)$$

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

Are you required to . . .	For periods of normal operation?	For initial startup periods subject to §63.2850(c)(2) or (d)(2)?	For malfunction periods subject to §63.2850(e)(2)?
(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 practible throughout the initial startup period. Such measures should be described in the SSM plan.	Yes, you are required to minimizwe emissions to the extent practible 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.

Are you required to . . .	For periods of normal operation?	For initial startup periods subject to §63.2850(c)(2) or (d)(2)?	For malfunction periods subject to §63.2850(e)(2)?
(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 compliance certification happens to occur during the initial startup period	No. However, you may be required to submit an annual compliance certification for previous operating months, if the deadline for the annual 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

If your source is . . .	and is operating under. . .	then your recordkeeping schedule. . .	You must determine your first compliance ratio by the end of the calendar month following. . .	Base your first compliance ratio on information recorded. . .
(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:

$$\text{Monthly Actual Solvent (gal)} = \sum_{i=1}^{N} \left(SOLV_B - SOLV_E + SOLV_R \pm SOLV_A \right)_i \qquad (Eq.\ 1)$$

Where:

$SOLV_B$= Gallons of solvent in the inventory at the beginning of normal operating period “i” as determined in paragraph (a)(3) of this section.

$SOLV_E$= Gallons of solvent in the inventory at the end of normal operating period “i” as determined in paragraph (a)(3) of this section.

$SOLV_R$= 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.

$SOLV_A$= 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:

$$\begin{array}{c}\text{Monthly Weighted}\\ \textit{Average}\text{ HAP Content}\\ \text{of Extraction Solvent}\\ \text{(volume fraction)}\end{array} = \frac{\sum_{i=1}^{n}\left(\text{Received}_i * \textit{Content}_i\right)}{\textit{Total}\text{ Received}} \qquad (\textit{Eq. } 1)$$

Where:

Received_i= Gallons of extraction solvent received in delivery “i.”

Content_i= 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:

$$\begin{array}{c}\text{12-Month Weighted}\\ \textit{Average}\text{ of HAP Content}\\ \text{in Solvent Received}\\ \text{(volume fraction)}\end{array} = \frac{\sum_{i=1}^{12}\left(\text{Received}_i * \textit{Content}_i\right)}{\textit{Total}\text{ Received}} \qquad (\textit{Eq. } 2)$$

Where:

Received_i= Gallons of extraction solvent received in operating month “i” as determined in accordance with §63.2853(a)(4).

Content_i= 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:

$$\text{Monthly Quantity of Each Oilseed Processed (tons)} = \sum_{n=1}^{n}\left(SEED_B - SEED_E + SEED_R \pm SEED_A\right) \qquad (Eq.\ 1)$$

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

General provisions citation	Subject of citation	Brief description of requirement	Applies to subpart	Explanation
§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]			

General provisions citation	Subject of citation	Brief description of requirement	Applies to subpart	Explanation
§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 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).

General provisions citation	Subject of citation	Brief description of requirement	Applies to subpart	Explanation
§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 responsible agency to grant compliance extension	Yes	
§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.

General provisions citation	Subject of citation	Brief description of requirement	Applies to subpart	Explanation
§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 for relative accuracy	No	Subpart GGGG has no CMS requirements.
§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.

General provisions citation	Subject of citation	Brief description of requirement	Applies to subpart	Explanation
§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 (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).

[66 FR 19011, Apr. 12, 2001, as amended at 71 FR 20464, Apr. 20, 2006]

Attachment I
to Part 70 Operating Permit Renewal No. T085-29197-00102

Louis Dreyfus Agricultural Industries LLC
7344 State Road 15 South, Claypool, Indiana, 46510-9746

Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Source: 69 FR 33506, June 15, 2004, unless otherwise noted.

What This Subpart Covers

§ 63.6580 What is the purpose of subpart ZZZZ?

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

[73 FR 3603, Jan. 18, 2008]

§ 63.6585 Am I subject to this subpart?

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

(a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

(b) 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, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

(c) An area source of HAP emissions is a source that is not a major source.

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

(e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008]

§ 63.6590 What parts of my plant does this subpart cover?

This subpart applies to each affected source.

(a) *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) *Existing stationary RICE.*

(i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

(ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(2) *New stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(3) *Reconstructed stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(b) *Stationary RICE subject to limited requirements.* (1) An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f).

(i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(ii) The stationary RICE is a new or reconstructed limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(2) A new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of §63.6645(f) and the requirements of §§63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.

(3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:

(i) Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(ii) Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(v) Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(vi) Existing residential emergency stationary RICE located at an area source of HAP emissions;

(vii) Existing commercial emergency stationary RICE located at an area source of HAP emissions; or

(viii) Existing institutional emergency stationary RICE located at an area source of HAP emissions.

(c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

(1) A new or reconstructed stationary RICE located at an area source;

(2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;

(4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010; 75 FR 51588, Aug. 20, 2010]

§ 63.6595 When do I have to comply with this subpart?

(a) *Affected sources.* (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than October 19, 2013.

(2) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.

(3) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(4) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(5) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(6) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(7) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(b) *Area sources that become major sources.* If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.

(1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.

(2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.

(c) If you own or operate an affected source, you must meet the applicable notification requirements in §63.6645 and in 40 CFR part 63, subpart A.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

Emission and Operating Limitations

§ 63.6600 What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing, new, or reconstructed spark ignition 4SRB stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 1a to this subpart and the operating limitations in Table 1b to this subpart which apply to you.

(b) If you own or operate a new or reconstructed 2SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, a new or reconstructed 4SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, or a new or reconstructed CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

(c) If you own or operate any of the following stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the emission limitations in Tables 1a, 2a, 2c, and 2d to this subpart or operating limitations in Tables 1b and 2b to this subpart: an existing 2SLB stationary RICE; an existing 4SLB stationary RICE; a stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; an emergency stationary RICE; or a limited use stationary RICE.

(d) If you own or operate an existing non-emergency stationary CI RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010]

§ 63.6601 What emission limitations must I meet if I own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart. If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at major source of HAP emissions manufactured on or after January 1, 2008, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

§ 63.6602 What emission limitations must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?

If you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart which apply to you. Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

[75 FR 51589, Aug. 20, 2010]

§ 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 1b and Table 2b to this subpart that apply to you.

(b) If you own or operate an existing stationary non-emergency CI RICE greater than 300 HP located at area sources in areas of Alaska not accessible by the Federal Aid Highway System (FAHS) you do not have to meet the numerical CO emission limitations specified in Table 2d to this subpart. Existing stationary non-emergency CI RICE greater than 300 HP located at area sources in areas of Alaska not accessible by the FAHS must meet the management practices that are shown for stationary non-emergency CI RICE less than or equal to 300 HP in Table 2d to this subpart.

[75 FR 9675, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011]

§ 63.6604 What fuel requirements must I meet if I own or operate an existing stationary CI RICE?

If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. Existing non-emergency CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or at area sources in areas of Alaska not accessible by the FAHS are exempt from the requirements of this section.

[75 FR 51589, Aug. 20, 2010]

General Compliance Requirements

§ 63.6605 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times.

(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[75 FR 9675, Mar. 3, 2010]

Testing and Initial Compliance Requirements

§ 63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

If you own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions you are subject to the requirements of this section.

(a) You must conduct the initial performance test or other initial compliance demonstrations in Table 4 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).

(b) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(d) An owner or operator is not required to conduct an initial performance test on units for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (d)(1) through (5) of this section.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

(5) The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3605, Jan. 18, 2008]

§ 63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?

If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must conduct an initial performance test within 240 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions specified in Table 4 to this subpart, as appropriate.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 51589, Aug. 20, 2010]

§ 63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?

If you own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions you are subject to the requirements of this section.

(a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).

(b) An owner or operator is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (b)(1) through (4) of this section.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

[75 FR 9676, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010]

§ 63.6615 When must I conduct subsequent performance tests?

If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in Table 3 of this subpart.

§ 63.6620 What performance tests and other procedures must I use?

(a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.

(b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again.

(c) [Reserved]

(d) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.

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

$$\frac{C_i - C_o}{C_i} \times 100 = R \qquad \text{(Eq. 1)}$$

Where:

C_i= concentration of CO or formaldehyde at the control device inlet,

C_o= concentration of CO or formaldehyde at the control device outlet, and

R = percent reduction of CO or formaldehyde emissions.

(2) You must normalize the carbon monoxide (CO) or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO_2). If pollutant concentrations are to be corrected to 15 percent oxygen and CO_2concentration is measured in lieu of oxygen concentration measurement, a CO_2correction factor is needed. Calculate the CO_2correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.

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

$$F_o = \frac{0.209\, F_d}{F_c} \qquad \text{(Eq. 2)}$$

Where:

F_o= Fuel factor based on the ratio of oxygen volume to the ultimate CO_2volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

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

F_c= Ratio of the volume of CO_2produced to the gross calorific value of the fuel from Method 19, dsm^3 /J (dscf/10^6 Btu).

(ii) Calculate the CO_2correction factor for correcting measurement data to 15 percent oxygen, as follows:

$$X_{co_2} = \frac{5.9}{F_o} \qquad \text{(Eq. 3)}$$

Where:

X_{co2}= CO_2correction factor, percent.

5.9 = 20.9 percent O_2−15 percent O_2, the defined O_2correction value, percent.

(iii) Calculate the $NO_X$and SO_2gas concentrations adjusted to 15 percent O_2using CO_2as follows:

$$C_{adj} = C_d \frac{X_{co_2}}{\%CO_2} \qquad \text{(Eq. 4)}$$

Where:

$\%CO_2$= Measured CO_2concentration measured, dry basis, percent.

(f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or NSCR, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.

(g) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.

(1) Identification of the specific parameters you propose to use as operating limitations;

(2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions;

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

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

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

(h) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.

(1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally (*e.g.,* operator adjustment, automatic controller adjustment, etc.) or unintentionally (*e.g.,* wear and tear, error, etc.) on a routine basis or over time;

(2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;

(3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;

(4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;

(5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;

(6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and

(7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.

(i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9676, Mar. 3, 2010]

§ 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

(a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either oxygen or CO_2at both the inlet and the outlet of the control device according to the requirements in paragraphs (a)(1) through (4) of this section.

(1) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR part 60, appendix B.

(2) You must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in §63.8 and according to the applicable performance specifications of 40 CFR part 60, appendix B as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.

(3) As specified in §63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. You must have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.

(4) The CEMS data must be reduced as specified in §63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO_2concentration.

(b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (5) of this section. For an affected source that is complying with the emission limitations and operating limitations on March 9, 2011, the requirements in paragraph (b) of this section are applicable September 6, 2011.

(1) You must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraphs (b)(1)(i) through (v) of this section and in §63.8(d). As specified in §63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs (b)(1) through (5) of this section in your site-specific monitoring plan.

(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;

(ii) Sampling interface (*e.g.,* thermocouple) location such that the monitoring system will provide representative measurements;

(iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;

(iv) Ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1) and (c)(3); and

(v) Ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i).

(2) You must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.

(3) The CPMS must collect data at least once every 15 minutes (see also §63.6635).

(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.

(5) You must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.

(6) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.

(d) If you are operating a new or reconstructed emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter prior to the startup of the engine.

(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

(1) An existing stationary RICE with a site rating of less than 100 HP located at a major source of HAP emissions;

(2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;

(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;

(4) An existing non-emergency, non-black start stationary CI RICE with a site rating less than or equal to 300 HP located at an area source of HAP emissions;

(5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions;

(6) An existing non-emergency, non-black start landfill or digester gas stationary RICE located at an area source of HAP emissions;

(7) An existing non-emergency, non-black start 4SLB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(8) An existing non-emergency, non-black start 4SRB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(9) An existing, non-emergency, non-black start 4SLB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year; and

(10) An existing, non-emergency, non-black start 4SRB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year.

(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.

(g) If you own or operate an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (g)(2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska not accessible by the FAHS do not have to meet the requirements of paragraph (g) of this section.

(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or

(2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.

(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

(i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

(j) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011]

§ 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?

(a) You must demonstrate initial compliance with each emission and operating limitation that applies to you according to Table 5 of this subpart.

(b) During the initial performance test, you must establish each operating limitation in Tables 1b and 2b of this subpart that applies to you.

(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6645.

Continuous Compliance Requirements

§ 63.6635 How do I monitor and collect data to demonstrate continuous compliance?

(a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.

(b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

[69 FR 33506, June 15, 2004, as amended at 76 FR 12867, Mar. 9, 2011]

§ 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?

(a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

(c) [Reserved]

(d) For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations. Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR 94.11(a).

(e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.

(f) *Requirements for emergency stationary RICE.* (1) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed on or after June 12, 2006, or an existing emergency stationary RICE located at an area source of HAP emissions, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1)(i) through (iii) of this section. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1)(i) through (iii) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

(i) There is no time limit on the use of emergency stationary RICE in emergency situations.

(ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.

(iii) You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is

expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (f)(1)(iii), as long as the power provided by the financial arrangement is limited to emergency power.

(2) If you own or operate an emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed prior to June 12, 2006, you must operate the engine according to the conditions described in paragraphs (f)(2)(i) through (iii) of this section. If you do not operate the engine according to the requirements in paragraphs (f)(2)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

(i) There is no time limit on the use of emergency stationary RICE in emergency situations.

(ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary RICE in emergency situations and for routine testing and maintenance.

(iii) You may operate your emergency stationary RICE for an additional 50 hours per year in non-emergency situations. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010]

Notifications, Reports, and Records

§ 63.6645 What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;

(1) An existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

(2) An existing stationary RICE located at an area source of HAP emissions.

(3) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(4) A new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 HP located at a major source of HAP emissions.

(5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.

(b) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart, you must submit an Initial Notification not later than December 13, 2004.

(c) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions on or after August 16, 2004, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(d) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart and you are required to submit an initial notification, you must submit an Initial Notification not later than July 16, 2008.

(e) If you start up your new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions on or after March 18, 2008 and you are required to submit an initial notification, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with §63.6590(b), your notification should include the information in §63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).

(g) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1).

(h) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).

(1) For each initial compliance demonstration required in Table 5 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.

(2) For each initial compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to §63.10(d)(2).

[73 FR 3606, Jan. 18, 2008, as amended at 75 FR 9677, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010]

§ 63.6650 What reports must I submit and when?

(a) You must submit each report in Table 7 of this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.

(1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on June 30 or

December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.6595.

(2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.6595.

(3) For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.

(6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on December 31.

(7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in §63.6595.

(8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.

(9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.

(c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction.

(5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.

(6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.

(d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.

(1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(e) For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in paragraphs (c)(1) through (4) and (e)(1) through (12) of this section.

(1) The date and time that each malfunction started and stopped.

(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each CMS was out-of-control, including the information in §63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.

(8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.

(9) A brief description of the stationary RICE.

(10) A brief description of the CMS.

(11) The date of the latest CMS certification or audit.

(12) A description of any changes in CMS, processes, or controls since the last reporting period.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

(g) If you are operating as a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to Table 7 of this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (b)(1) through (b)(5) of this section. You must report the data specified in (g)(1) through (g)(3) of this section.

(1) Fuel flow rate of each fuel and the heating values that were used in your calculations. You must also demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis.

(2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.

(3) Any problems or errors suspected with the meters.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9677, Mar. 3, 2010]

§ 63.6655 What records must I keep?

(a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).

(2) Records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment) or the air pollution control and monitoring equipment.

(3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).

(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(b) For each CEMS or CPMS, you must keep the records listed in paragraphs (b)(1) through (3) of this section.

(1) Records described in §63.10(b)(2)(vi) through (xi).

(2) Previous (*i.e.,* superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in §63.8(f)(6)(i), if applicable.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must keep the records of your daily fuel usage monitors.

(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

(1) An existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.

(2) An existing stationary emergency RICE.

(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) or (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

(1) An existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.

(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010]

§ 63.6660 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review according to §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 readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010]

Other Requirements and Information

§ 63.6665 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in Table 8: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE.

[75 FR 9678, Mar. 3, 2010]

§ 63.6670 Who implements and enforces this subpart?

(a) This subpart is implemented and enforced by 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 whether this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the 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:

(1) Approval of alternatives to the non-opacity emission limitations and operating limitations in §63.6600 under §63.6(g).

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

(5) Approval of a performance test which was conducted prior to the effective date of the rule, as specified in §63.6610(b).

§ 63.6675 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act (CAA); in 40 CFR 63.2, the General Provisions of this part; and in this section as follows:

Area source means any stationary source of HAP that is not a major source as defined in part 63.

Associated equipment as used in this subpart and as referred to in section 112(n)(4) of the CAA, means equipment associated with an oil or natural gas exploration or production well, and includes all equipment from the well bore to the point of custody transfer, except glycol dehydration units, storage vessels with potential for flash emissions, combustion turbines, and stationary RICE.

Black start engine means an engine whose only purpose is to start up a combustion turbine.

CAA means the Clean Air Act (42 U.S.C. 7401 *et seq.,* as amended by Public Law 101–549, 104 Stat. 2399).

Commercial emergency stationary RICE means an emergency stationary RICE used in commercial establishments such as office buildings, hotels, stores, telecommunications facilities, restaurants, financial institutions such as banks, doctor's offices, and sports and performing arts facilities.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Custody transfer means the transfer of hydrocarbon liquids or natural gas: After processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation. For the purposes of this subpart, the point at which such liquids or natural gas enters a natural gas processing plant is a point of custody transfer.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless or whether or not such failure is permitted by this subpart.

(4) Fails to satisfy the general duty to minimize emissions established by §63.6(e)(1)(i).

Diesel engine means any stationary RICE in which a high boiling point liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition. This process is also known as compression ignition.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is fuel oil number 2. Diesel fuel also

includes any non-distillate fuel with comparable physical and chemical properties (*e.g.* biodiesel) that is suitable for use in compression ignition engines.

Digester gas means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and CO_2.

Dual-fuel engine means any stationary RICE in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel.

Emergency stationary RICE means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, *etc.* Stationary RICE used for peak shaving are not considered emergency stationary RICE. Stationary RICE used to supply power to an electric grid or that supply non-emergency power as part of a financial arrangement with another entity are not considered to be emergency engines, except as permitted under §63.6640(f). All emergency stationary RICE must comply with the requirements specified in §63.6640(f) in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in §63.6640(f), then it is not considered to be an emergency stationary RICE under this subpart.

Engine startup means the time from initial start until applied load and engine and associated equipment reaches steady state or normal operation. For stationary engine with catalytic controls, engine startup means the time from initial start until applied load and engine and associated equipment, including the catalyst, reaches steady state or normal operation.

Four-stroke engine means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

Gaseous fuel means a material used for combustion which is in the gaseous state at standard atmospheric temperature and pressure conditions.

Gasoline means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.

Glycol dehydration unit means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes “rich” glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The “lean” glycol is then recycled.

Hazardous air pollutants (HAP) means any air pollutants listed in or pursuant to section 112(b) of the CAA.

Institutional emergency stationary RICE means an emergency stationary RICE used in institutional establishments such as medical centers, nursing homes, research centers, institutions of higher education, correctional facilities, elementary and secondary schools, libraries, religious establishments, police stations, and fire stations.

ISO standard day conditions means 288 degrees Kelvin (15 degrees Celsius), 60 percent relative humidity and 101.3 kilopascals pressure.

Landfill gas means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO_2.

Lean burn engine means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

Limited use stationary RICE means any stationary RICE that operates less than 100 hours per year.

Liquefied petroleum gas means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining of natural gas production.

Liquid fuel means any fuel in liquid form at standard temperature and pressure, including but not limited to diesel, residual/crude oil, kerosene/naphtha (jet fuel), and gasoline.

Major Source, as used in this subpart, shall have the same meaning as in §63.2, except that:

(1) Emissions from any oil or gas exploration or production well (with its associated equipment (as defined in this section)) and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;

(2) For oil and gas production facilities, emissions from processes, operations, or equipment that are not part of the same oil and gas production facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated;

(3) For production field facilities, only HAP emissions from glycol dehydration units, storage vessel with the potential for flash emissions, combustion turbines and reciprocating internal combustion engines shall be aggregated for a major source determination; and

(4) Emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Natural gas means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.

Non-selective catalytic reduction (NSCR) means an add-on catalytic nitrogen oxides (NO_X) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NO_X, CO, and volatile organic compounds (VOC) into CO_2, nitrogen, and water.

Oil and gas production facility as used in this subpart means any grouping of equipment where hydrocarbon liquids are processed, upgraded (*i.e.,* remove impurities or other constituents to meet contract specifications), or stored prior to the point of custody transfer; or where natural gas is processed, upgraded, or stored prior to entering the natural gas transmission and storage source category. For purposes of a major source determination, facility (including a building, structure, or installation) means oil and natural gas production and processing equipment that is located within the boundaries of an individual surface site as defined in this section. Equipment that is part of a facility will typically be located

within close proximity to other equipment located at the same facility. Pieces of production equipment or groupings of equipment located on different oil and gas leases, mineral fee tracts, lease tracts, subsurface or surface unit areas, surface fee tracts, surface lease tracts, or separate surface sites, whether or not connected by a road, waterway, power line or pipeline, shall not be considered part of the same facility. Examples of facilities in the oil and natural gas production source category include, but are not limited to, well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.

Oxidation catalyst means an add-on catalytic control device that controls CO and VOC by oxidation.

Peaking unit or engine means any standby engine intended for use during periods of high demand that are not emergencies.

Percent load means the fractional power of an engine compared to its maximum manufacturer's design capacity at engine site conditions. Percent load may range between 0 percent to above 100 percent.

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. For oil and natural gas production facilities subject to subpart HH of this part, the potential to emit provisions in §63.760(a) may be used. For natural gas transmission and storage facilities subject to subpart HHH of this part, the maximum annual facility gas throughput for storage facilities may be determined according to §63.1270(a)(1) and the maximum annual throughput for transmission facilities may be determined according to §63.1270(a)(2).

Production field facility means those oil and gas production facilities located prior to the point of custody transfer.

Production well means any hole drilled in the earth from which crude oil, condensate, or field natural gas is extracted.

Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure C_3H_8.

Residential emergency stationary RICE means an emergency stationary RICE used in residential establishments such as homes or apartment buildings.

Responsible official means responsible official as defined in 40 CFR 70.2.

Rich burn engine means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to December 19, 2002 with passive emission control technology for NO_X(such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

Site-rated HP means the maximum manufacturer's design capacity at engine site conditions.

Spark ignition means relating to either: A gasoline-fueled engine; or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical

Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary reciprocating internal combustion engine (RICE) means any reciprocating internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

Stationary RICE test cell/stand means an engine test cell/stand, as defined in subpart PPPPP of this part, that tests stationary RICE.

Stoichiometric means the theoretical air-to-fuel ratio required for complete combustion.

Storage vessel with the potential for flash emissions means any storage vessel that contains a hydrocarbon liquid with a stock tank gas-to-oil ratio equal to or greater than 0.31 cubic meters per liter and an American Petroleum Institute gravity equal to or greater than 40 degrees and an actual annual average hydrocarbon liquid throughput equal to or greater than 79,500 liters per day. Flash emissions occur when dissolved hydrocarbons in the fluid evolve from solution when the fluid pressure is reduced.

Subpart means 40 CFR part 63, subpart ZZZZ.

Surface site means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

Two-stroke engine means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3607, Jan. 18, 2008; 75 FR 9679, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 76 FR 12867, Mar. 9, 2011]

Table 1a to Subpart ZZZZ of Part 63—Emission Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations at 100 percent load plus or minus 10 percent for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 4SRB stationary RICE	a. Reduce formaldehyde emissions by 76 percent or more. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may reduce formaldehyde emissions by 75 percent or more until June 15, 2007 or	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[1]
	b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2	

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9679, Mar. 3, 2010, as amended at 75 FR 51592, Aug. 20, 2010]

Table 1b to Subpart ZZZZ of Part 63—Operating Limitations for Existing, New, and Reconstructed Spark Ignition 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions and Existing Spark Ignition 4SRB Stationary RICE >500 HP Located at an Area Source of HAP Emissions

As stated in §§63.6600, 63.6603, 63.6630 and 63.6640, you must comply with the following operating limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions and existing 4SRB stationary RICE >500 HP located at an area source of HAP emissions that operate more than 24 hours per calendar year:

For each . . .	You must meet the following operating limitation . . .
1. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O2 and using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd or less at 15 percent O2 and using NSCR.	a. Maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst measured during the initial performance test; and b. Maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 750 °F and less than or equal to 1250 °F.
2. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and not using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O2 and not using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd or less at 15 percent O2 and not using NSCR.	Comply with any operating limitations approved by the Administrator.

[76 FR 12867, Mar. 9, 2011]

Table 2a to Subpart ZZZZ of Part 63—Emission Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP and New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE at 100 percent load plus or minus 10 percent:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 2SLB stationary RICE	a. Reduce CO emissions by 58 percent or more; or b. Limit concentration of formaldehyde in the stationary RICE exhaust to 12 ppmvd or less at 15 percent O_2. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may limit concentration of formaldehyde to 17 ppmvd or less at 15 percent O_2until June 15, 2007	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[1]
2. 4SLB stationary RICE	a. Reduce CO emissions by 93 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O_2	
3. CI stationary RICE	a. Reduce CO emissions by 70 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at 15 percent O_2	

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9680, Mar. 3, 2010]

Table 2b to Subpart ZZZZ of Part 63— Operating Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP Located at a Major Source of HAP Emissions, New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions, Existing Compression Ignition Stationary RICE >500 HP, and Existing 4SLB Stationary RICE >500 HP Located at an Area Source of HAP Emissions

As stated in §§63.6600, 63.6601, 63.6603, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed 2SLB and compression ignition stationary RICE located at a major source of HAP emissions; new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions; existing compression ignition stationary RICE >500 HP; and existing 4SLB stationary RICE >500 HP located at an area source of HAP emissions that operate more than 24 hours per calendar year:

For each . . .	You must meet the following operating limitation . . .
1. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst; or 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of CO in the stationary RICE exhaust and using an oxidation catalyst	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.[1]
2. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and not using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst; or 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of CO in the stationary RICE exhaust and not using an oxidation catalyst	Comply with any operating limitations approved by the Administrator.

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(g) for a different temperature range.

[75 FR 51593, Aug. 20, 2010, as amended at 76 FR 12867, Mar. 9, 2011]

Table 2c to Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE ≤500 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600, 63.6602, and 63.6640, you must comply with the following requirements for existing compression ignition stationary RICE located at a major source of HAP emissions and existing spark ignition stationary RICE ≤500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Emergency stationary CI RICE and black start stationary CI RICE.[1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[3]
2. Non-Emergency, non-black start stationary CI RICE <100 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first;[2]	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
3. Non-Emergency, non-black start CI stationary RICE 100≤HP≤300 HP	Limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O_2	
4. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
5. Non-Emergency, non-black start stationary CI RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
6. Emergency stationary SI RICE and black start stationary SI RICE.[1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2]	
	b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
7. Non-Emergency, non-black start stationary SI RICE <100 HP that are not 2SLB stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[2]	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
8. Non-Emergency, non-black start 2SLB stationary SI RICE <100 HP	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first;[2]	
	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first;	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
9. Non-emergency, non-black start 2SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent O_2	
10. Non-emergency, non-black start 4SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O_2	
11. Non-emergency, non-black start 4SRB stationary RICE 100≤HP≤500	Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent O_2	
12. Non-emergency, non-black start landfill or digester gas-fired stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 177 ppmvd or less at 15 percent O_2	

[1]If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

[2]Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2c of this subpart.

[3]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 51593, Aug. 20, 2010]

Table 2d to Subpart ZZZZ of Part 63— Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

As stated in §§63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Non-Emergency, non-black start CI stationary RICE ≤300 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first;[1]	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
2. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
3. Non-Emergency, non-black start CI stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
4. Emergency stationary CI RICE and black start stationary CI RICE.[2]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1]	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
5. Emergency stationary SI RICE; black start stationary SI RICE; non-emergency, non-black start 4SLB stationary RICE >500 HP that operate 24 hours or less per calendar year; non-emergency, non-black start 4SRB stationary RICE >500 HP that operate 24 hours or less per calendar year.[2]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1] b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
6. Non-emergency, non-black start 2SLB stationary RICE	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.	
7. Non-emergency, non-black start 4SLB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
8. Non-emergency, non-black start 4SLB stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd at 15 percent O_2; or	
	b. Reduce CO emissions by 93 percent or more.	
9. Non-emergency, non-black start 4SRB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
10. Non-emergency, non-black start 4SRB stationary RICE >500 HP	a. Limit concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd at 15 percent O_2; or	
	b. Reduce formaldehyde emissions by 76 percent or more.	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
11. Non-emergency, non-black start landfill or digester gas-fired stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	

[1]Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart.

[2]If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

[75 FR 51595, Aug. 20, 2010]

Table 3 to Subpart ZZZZ of Part 63—Subsequent Performance Tests

As stated in §§63.6615 and 63.6620, you must comply with the following subsequent performance test requirements:

For each . . .	Complying with the requirement to . . .	You must . . .
1. New or reconstructed 2SLB stationary RICE with a brake horsepower >500 located at major sources; new or reconstructed 4SLB stationary RICE with a brake horsepower ≥250 located at major sources; and new or reconstructed CI stationary RICE with a brake horsepower >500 located at major sources	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually.[1]
2. 4SRB stationary RICE with a brake horsepower ≥5,000 located at major sources	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually.[1]
3. Stationary RICE with a brake horsepower >500 located at major sources and new or reconstructed 4SLB stationary RICE with a brake horsepower 250≤HP≤500 located at major sources	Limit the concentration of formaldehyde in the stationary RICE exhaust	Conduct subsequent performance tests semiannually.[1]
4. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower >500 that are not limited use stationary RICE; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE located at an area source of HAP emissions with a brake horsepower >500 that are operated more than 24 hours per calendar year that are not limited use stationary RICE	Limit or reduce CO or formaldehyde emissions	Conduct subsequent performance tests every 8,760 hrs. or 3 years, whichever comes first.
5. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower >500 that are limited use stationary RICE; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE located at an area source of HAP emissions with a brake horsepower >500 that are operated more than 24 hours per calendar year and are limited use stationary RICE	Limit or reduce CO or formaldehyde emissions	Conduct subsequent performance tests every 8,760 hrs. or 5 years, whichever comes first.

[1]After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[75 FR 51596, Aug. 20, 2010]

Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests

As stated in §§63.6610, 63.6611, 63.6612, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
1. 2SLB, 4SLB, and CI stationary RICE	a. Reduce CO emissions	i. Measure the O_2 at the inlet and outlet of the control device; and	(1) Portable CO and O_2 analyzer	(a) Using ASTM D6522–00 (2005)[a] (incorporated by reference, see §63.14). Measurements to determine O_2 must be made at the same time as the measurements for CO concentration.
		ii. Measure the CO at the inlet and the outlet of the control device	(1) Portable CO and O_2 analyzer	(a) Using ASTM D6522–00 (2005)[ab] (incorporated by reference, see §63.14) or Method 10 of 40 CFR appendix A. The CO concentration must be at 15 percent O_2, dry basis.
2. 4SRB stationary RICE	a. Reduce formaldehyde emissions	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A §63.7(d)(1)(i)	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O_2 at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522–00m (2005)	(a) Measurements to determine O_2 concentration must be made at the same time as the measurements for formaldehyde concentration.
		iii. Measure moisture content at the inlet and outlet of the control device; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
		iv. Measure formaldehyde at the inlet and the outlet of the control device	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03,[c]provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
3. Stationary RICE	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A §63.7(d)(1)(i)	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O_2concentration of the stationary RICE exhaust at the sampling port location; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522–00 (2005)	(a) Measurements to determine O_2concentration must be made at the same time and location as the measurements for formaldehyde concentration.
		iii. Measure moisture content of the stationary RICE exhaust at the sampling port location; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.
		iv. Measure formaldehyde at the exhaust of the stationary RICE; or	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03,[c]provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. Measure CO at the exhaust of the stationary RICE	(1) Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522–00 (2005),[a]Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03	(a) CO Concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour longer runs.

[a]You may also use Methods 3A and 10 as options to ASTM–D6522–00 (2005). You may obtain a copy of ASTM–D6522–00 (2005) from at least one of the following addresses: American Society for Testing and

Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106. ASTM–D6522–00 (2005) may be used to test both CI and SI stationary RICE.

[b]You may also use Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03.

[c]You may obtain a copy of ASTM–D6348–03 from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

[75 FR 51597, Aug. 20, 2010]

Table 5 to Subpart ZZZZ of Part 63—Initial Compliance With Emission Limitations and Operating Limitations

As stated in §§63.6612, 63.6625 and 63.6630, you must initially comply with the emission and operating limitations as required by the following:

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if. . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce CO emissions and using oxidation catalyst, and using a CPMS	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
2. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Limit the concentration of CO, using oxidation catalyst, and using a CPMS	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if. . .
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce CO emissions and not using oxidation catalyst	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test.
4. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Limit the concentration of CO, and not using oxidation catalyst	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test.
5. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce CO emissions, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O_2or CO_2at both the inlet and outlet of the oxidation catalyst according to the requirements in §63.6625(a); and ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and iii. The average reduction of CO calculated using §63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if. . .
6. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Limit the concentration of CO, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O_2or CO_2at the outlet of the oxidation catalyst according to the requirements in §63.6625(a); and ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and
		iii. The average concentration of CO calculated using §63.6620 is less than or equal to the CO emission limitation. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average concentration measured during the 4-hour period.
7. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce formaldehyde emissions and using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
8. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce formaldehyde emissions and not using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
9. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Limit the concentration of formaldehyde and not using NSCR	i. The average formaldehyde concentration determined from the initial performance test is less than or equal to the formaldehyde emission limitation; and

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if. . .
		ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
10. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
11. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
12. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Reduce CO or formaldehyde emissions	i. The average reduction of emissions of CO or formaldehyde, as applicable determined from the initial performance test is equal to or greater than the required CO or formaldehyde, as applicable, percent reduction.
13. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.

[76 FR 12867, Mar. 9, 2011]

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, Operating Limitations, Work Practices, and Management Practices

As stated in §63.6640, you must continuously comply with the emissions and operating limitations and work or management practices as required by the following:

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved;[a]and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
2. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and not using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved;[a]and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, new or reconstructed non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP, existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using a CEMS	i. Collecting the monitoring data according to §63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction or concentration of CO emissions according to §63.6620; and ii. Demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period, or that the emission remain at or below the CO concentration limit; and iii. Conducting an annual RATA of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B, as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.
4. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and using NSCR	i. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		iv. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
5. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. Collecting the approved operating parameter (if any) data according to §63.6625(b); and ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
6. Non-emergency 4SRB stationary RICE with a brake HP ≥5,000 located at a major source of HAP	a. Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved.[a]

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
7. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250 ≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit;[a]and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
8. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250 ≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit;[a]and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
9. Existing emergency and black start stationary RICE ≤500 HP located at a major source of HAP, existing non-emergency stationary RICE <100 HP located at a major source of HAP, existing emergency and black start stationary RICE located at an area source of HAP, existing non-emergency stationary CI RICE ≤300 HP located at an area source of HAP, existing non-emergency 2SLB stationary RICE located at an area source of HAP, existing non-emergency landfill or digester gas stationary SI RICE located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE ≤500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate 24 hours or less per calendar year	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
10. Existing stationary CI RICE >500 HP that are not limited use stationary RICE, and existing 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year and are not limited use stationary RICE	a. Reduce CO or formaldehyde emissions, or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and using oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
11. Existing stationary CI RICE >500 HP that are not limited use stationary RICE, and existing 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year and are not limited use stationary RICE	a. Reduce CO or formaldehyde emissions, or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and not using oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
12. Existing limited use CI stationary RICE >500 HP and existing limited use 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year	a. Reduce CO or formaldehyde emissions or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and using an oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
13. Existing limited use CI stationary RICE >500 HP and existing limited use 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year	a. Reduce CO or formaldehyde emissions or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and not using an oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.

[a]After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[76 FR 12870, Mar. 9, 2011]

Table 7 to Subpart ZZZZ of Part 63—Requirements for Reports

As stated in §63.6650, you must comply with the following requirements for reports:

For each ...	You must submit a ...	The report must contain ...	You must submit the report ...
1. Existing non-emergency, non-black start stationary RICE 100≤HP≤500 located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >500 HP located at a major source of HAP; existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >300 HP located at an area source of HAP; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP and operated more than 24 hours per calendar year; new or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP; and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	Compliance report	a. If there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in §63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), the information in §63.6650(e); or c. If you had a malfunction during the reporting period, the information in §63.6650(c)(4) i. Semiannually according to the requirements in §63.6650(b)(1)–(5) for engines that are not limited use stationary RICE subject to numerical emission limitations; and ii. Annually according to the requirements in §63.6650(b)(6)–(9) for engines that are limited use stationary RICE subject to numerical emission limitations. i. Semiannually according to the requirements in §63.6650(b). i. Semiannually according to the requirements in §63.6650(b).	

For each ...	You must submit a ...	The report must contain ...	You must submit the report ...
2. New or reconstructed non-emergency stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Report	a. The fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas or digester gas, is equivalent to 10 percent or more of the gross heat input on an annual basis; and i. Annually, according to the requirements in §63.6650.	
		b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and i. See item 2.a.i.	
		c. Any problems or errors suspected with the meters. i. See item 2.a.i.	

[75 FR 51603, Aug. 20, 2010]

Table 8 to Subpart ZZZZ of Part 63—Applicability of General Provisions to Subpart ZZZZ.

As stated in §63.6665, you must comply with the following applicable general provisions.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.1	General applicability of the General Provisions	Yes.	
§63.2	Definitions	Yes	Additional terms defined in §63.6675.
§63.3	Units and abbreviations	Yes.	
§63.4	Prohibited activities and circumvention	Yes.	
§63.5	Construction and reconstruction	Yes.	
§63.6(a)	Applicability	Yes.	
§63.6(b)(1)–(4)	Compliance dates for new and reconstructed sources	Yes.	
§63.6(b)(5)	Notification	Yes.	
§63.6(b)(6)	[Reserved]		

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources	Yes.	
§63.6(c)(1)–(2)	Compliance dates for existing sources	Yes.	
§63.6(c)(3)–(4)	[Reserved]		
§63.6(c)(5)	Compliance dates for existing area sources that become major sources	Yes.	
§63.6(d)	[Reserved]		
§63.6(e)	Operation and maintenance	No.	
§63.6(f)(1)	Applicability of standards	No.	
§63.6(f)(2)	Methods for determining compliance	Yes.	
§63.6(f)(3)	Finding of compliance	Yes.	
§63.6(g)(1)–(3)	Use of alternate standard	Yes.	
§63.6(h)	Opacity and visible emission standards	No	Subpart ZZZZ does not contain opacity or visible emission standards.
§63.6(i)	Compliance extension procedures and criteria	Yes.	
§63.6(j)	Presidential compliance exemption	Yes.	
§63.7(a)(1)–(2)	Performance test dates	Yes	Subpart ZZZZ contains performance test dates at §§63.6610, 63.6611, and 63.6612.
§63.7(a)(3)	CAA section 114 authority	Yes.	
§63.7(b)(1)	Notification of performance test	Yes	Except that §63.7(b)(1) only applies as specified in §63.6645.
§63.7(b)(2)	Notification of rescheduling	Yes	Except that §63.7(b)(2) only applies as specified in §63.6645.
§63.7(c)	Quality assurance/test plan	Yes	Except that §63.7(c) only applies as specified in §63.6645.
§63.7(d)	Testing facilities	Yes.	
§63.7(e)(1)	Conditions for conducting performance tests	No.	Subpart ZZZZ specifies conditions for conducting performance tests at §63.6620.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.7(e)(2)	Conduct of performance tests and reduction of data	Yes	Subpart ZZZZ specifies test methods at §63.6620.
§63.7(e)(3)	Test run duration	Yes.	
§63.7(e)(4)	Administrator may require other testing under section 114 of the CAA	Yes.	
§63.7(f)	Alternative test method provisions	Yes.	
§63.7(g)	Performance test data analysis, recordkeeping, and reporting	Yes.	
§63.7(h)	Waiver of tests	Yes.	
§63.8(a)(1)	Applicability of monitoring requirements	Yes	Subpart ZZZZ contains specific requirements for monitoring at §63.6625.
§63.8(a)(2)	Performance specifications	Yes.	
§63.8(a)(3)	[Reserved]		
§63.8(a)(4)	Monitoring for control devices	No.	
§63.8(b)(1)	Monitoring	Yes.	
§63.8(b)(2)–(3)	Multiple effluents and multiple monitoring systems	Yes.	
§63.8(c)(1)	Monitoring system operation and maintenance	Yes.	
§63.8(c)(1)(i)	Routine and predictable SSM	Yes.	
§63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan	Yes.	
§63.8(c)(1)(iii)	Compliance with operation and maintenance requirements	Yes.	
§63.8(c)(2)–(3)	Monitoring system installation	Yes.	
§63.8(c)(4)	Continuous monitoring system (CMS) requirements	Yes	Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).
§63.8(c)(5)	COMS minimum procedures	No	Subpart ZZZZ does not require COMS.
§63.8(c)(6)–(8)	CMS requirements	Yes	Except that subpart ZZZZ does not require COMS.
§63.8(d)	CMS quality control	Yes.	

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.8(e)	CMS performance evaluation	Yes	Except for §63.8(e)(5)(ii), which applies to COMS.
		Except that §63.8(e) only applies as specified in §63.6645.	
§63.8(f)(1)–(5)	Alternative monitoring method	Yes	Except that §63.8(f)(4) only applies as specified in §63.6645.
§63.8(f)(6)	Alternative to relative accuracy test	Yes	Except that §63.8(f)(6) only applies as specified in §63.6645.
§63.8(g)	Data reduction	Yes	Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§63.6635 and 63.6640.
§63.9(a)	Applicability and State delegation of notification requirements	Yes.	
§63.9(b)(1)–(5)	Initial notifications	Yes	Except that §63.9(b)(3) is reserved.
		Except that §63.9(b) only applies as specified in §63.6645.	
§63.9(c)	Request for compliance extension	Yes	Except that §63.9(c) only applies as specified in §63.6645.
§63.9(d)	Notification of special compliance requirements for new sources	Yes	Except that §63.9(d) only applies as specified in §63.6645.
§63.9(e)	Notification of performance test	Yes	Except that §63.9(e) only applies as specified in §63.6645.
§63.9(f)	Notification of visible emission (VE)/opacity test	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(1)	Notification of performance evaluation	Yes	Except that §63.9(g) only applies as specified in §63.6645.
§63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded	Yes	If alternative is in use.

General provisions citation	Subject of citation	Applies to subpart	Explanation
		Except that §63.9(g) only applies as specified in §63.6645.	
§63.9(h)(1)–(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. §63.9(h)(4) is reserved.
			Except that §63.9(h) only applies as specified in §63.6645.
§63.9(i)	Adjustment of submittal deadlines	Yes.	
§63.9(j)	Change in previous information	Yes.	
§63.10(a)	Administrative provisions for recordkeeping/reporting	Yes.	
§63.10(b)(1)	Record retention	Yes.	
§63.10(b)(2)(i)–(v)	Records related to SSM	No.	
§63.10(b)(2)(vi)–(xi)	Records	Yes.	
§63.10(b)(2)(xii)	Record when under waiver	Yes.	
§63.10(b)(2)(xiii)	Records when using alternative to RATA	Yes	For CO standard if using RATA alternative.
§63.10(b)(2)(xiv)	Records of supporting documentation	Yes.	
§63.10(b)(3)	Records of applicability determination	Yes.	
§63.10(c)	Additional records for sources using CEMS	Yes	Except that §63.10(c)(2)–(4) and (9) are reserved.
§63.10(d)(1)	General reporting requirements	Yes.	
§63.10(d)(2)	Report of performance test results	Yes.	
§63.10(d)(3)	Reporting opacity or VE observations	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.10(d)(4)	Progress reports	Yes.	
§63.10(d)(5)	Startup, shutdown, and malfunction reports	No.	

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.10(e)(1) and (2)(i)	Additional CMS Reports	Yes.	
§63.10(e)(2)(ii)	COMS-related report	No	Subpart ZZZZ does not require COMS.
§63.10(e)(3)	Excess emission and parameter exceedances reports	Yes.	Except that §63.10(e)(3)(i) (C) is reserved.
§63.10(e)(4)	Reporting COMS data	No	Subpart ZZZZ does not require COMS.
§63.10(f)	Waiver for recordkeeping/reporting	Yes.	
§63.11	Flares	No.	
§63.12	State authority and delegations	Yes.	
§63.13	Addresses	Yes.	
§63.14	Incorporation by reference	Yes.	
§63.15	Availability of information	Yes.	

[75 FR 9688, Mar. 3, 2010]

Attachment J
to Part 70 Operating Permit Renewal No. T085-29197-00102

Louis Dreyfus Agricultural Industries LLC
7344 State Road 15 South, Claypool, Indiana, 46510-9746

Subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

Source: 69 FR 55253, Sept. 13, 2004, unless otherwise noted.

What This Subpart Covers

§ 63.7480 What is the purpose of this subpart?

This subpart establishes national emission limits and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limits and work practice standards.

§ 63.7485 Am I subject to this subpart?

You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler or process heater as defined in §63.7575 that is located at, or is part of, a major source of HAP as defined in §63.2 or §63.761 (40 CFR part 63, subpart HH, National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities), except as specified in §63.7491.

§ 63.7490 What is the affected source of this subpart?

(a) This subpart applies to new, reconstructed, or existing affected sources as described in paragraphs (a)(1) and (2) of this section.

(1) The affected source of this subpart is the collection of all existing industrial, commercial, and institutional boilers and process heaters within a subcategory located at a major source as defined in §63.7575.

(2) The affected source of this subpart is each new or reconstructed industrial, commercial, or institutional boiler or process heater located at a major source as defined in §63.7575.

(b) A boiler or process heater is new if you commence construction of the boiler or process heater after January 13, 2003, and you meet the applicability criteria at the time you commence construction.

(c) A boiler or process heater is reconstructed if you meet the reconstruction criteria as defined in §63.2, you commence reconstruction after January 13, 2003, and you meet the applicability criteria at the time you commence reconstruction.

(d) A boiler or process heater is existing if it is not new or reconstructed.

§ 63.7491 Are any boilers or process heaters not subject to this subpart?

The types of boilers and process heaters listed in paragraphs (a) through (o) of this section are not subject to this subpart.

(a) A municipal waste combustor covered by 40 CFR part 60, subpart AAAA, subpart BBBB, subpart Cb or subpart Eb.

(b) A hospital/medical/infectious waste incinerator covered by 40 CFR part 60, subpart Ce or subpart Ec.

(c) An electric utility steam generating unit (including a unit covered by 40 CFR part 60, subpart Da) or a Mercury (Hg) Budget unit covered by 40 CFR part 60, subpart HHHH.

(d) A boiler or process heater required to have a permit under section 3005 of the Solid Waste Disposal Act or covered by 40 CFR part 63, subpart EEE (*e.g.* , hazardous waste boilers).

(e) A commercial and industrial solid waste incineration unit covered by 40 CFR part 60, subpart CCCC or subpart DDDD.

(f) A recovery boiler or furnace covered by 40 CFR part 63, subpart MM.

(g) A boiler or process heater that is used specifically for research and development. This does not include units that only provide heat or steam to a process at a research and development facility.

(h) A hot water heater as defined in this subpart.

(i) A refining kettle covered by 40 CFR part 63, subpart X.

(j) An ethylene cracking furnace covered by 40 CFR part 63, subpart YY.

(k) Blast furnace stoves as described in the EPA document, entitled “National Emission Standards for Hazardous Air Pollutants (NESHAP) for Integrated Iron and Steel Plants—Background Information for Proposed Standards,” (EPA–453/R–01–005).

(l) Any boiler and process heater specifically listed as an affected source in another standard(s) under 40 CFR part 63.

(m) Any boiler and process heater specifically listed as an affected source in another standard(s) established under section 129 of the Clean Air Act (CAA).

(n) Temporary boilers as defined in this subpart.

(o) Blast furnace gas fuel-fired boilers and process heaters as defined in this subpart.

[69 FR 55253, Sept. 13, 2004, as amended at 71 FR 70660, Dec. 6, 2006]

§ 63.7495 When do I have to comply with this subpart?

(a) If you have a new or reconstructed boiler or process heater, you must comply with this subpart by November 12, 2004 or upon startup of your boiler or process heater, whichever is later.

(b) If you have an existing boiler or process heater, you must comply with this subpart no later than September 13, 2007.

(c) If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, paragraphs (c)(1) and (2) of this section apply to you.

(1) Any new or reconstructed boiler or process heater at the existing facility must be in compliance with this subpart upon startup.

(2) Any existing boiler or process heater at the existing facility must be in compliance with this subpart within 3 years after the facility becomes a major source.

(d) You must meet the notification requirements in §63.7545 according to the schedule in §63.7545 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limits and work practice standards in this subpart.

Emission Limits and Work Practice Standards

§ 63.7499 What are the subcategories of boilers and process heaters?

The subcategories of boilers and process heaters are large solid fuel, limited use solid fuel, small solid fuel, large liquid fuel, limited use liquid fuel, small liquid fuel, large gaseous fuel, limited use gaseous fuel, and small gaseous fuel. Each subcategory is defined in §63.7575.

§ 63.7500 What emission limits, work practice standards, and operating limits must I meet?

(a) You must meet the requirements in paragraphs (a)(1) and (2) of this section.

(1) You must meet each emission limit and work practice standard in Table 1 to this subpart that applies to your boiler or process heater, except as provided under §63.7507.

(2) You must meet each operating limit in Tables 2 through 4 to this subpart that applies to your boiler or process heater. If you use a control device or combination of control devices not covered in Tables 2 through 4 to this subpart, or you wish to establish and monitor an alternative operating limit and alternative monitoring parameters, you must apply to the United States Environmental Protection Agency (EPA) Administrator for approval of alternative monitoring under §63.8(f).

(b) As provided in §63.6(g), EPA may approve use of an alternative to the work practice standards in this section.

General Compliance Requirements

§ 63.7505 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limits (including operating limits) and the work practice standards in this subpart at all times, except during periods of startup, shutdown, and malfunction.

(b) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i).

(c) You can demonstrate compliance with any applicable emission limit using fuel analysis if the emission rate calculated according to §63.7530(d) is less than the applicable emission limit. Otherwise, you must demonstrate compliance using performance testing.

(d) If you demonstrate compliance with any applicable emission limit through performance testing, you must develop a site-specific monitoring plan according to the requirements in paragraphs (d)(1) through (4) of this section. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under §63.8(f).

(1) For each continuous monitoring system (CMS) required in this section, you must develop and submit to the EPA Administrator for approval a site-specific monitoring plan that addresses paragraphs (d)(1)(i) through (iii) of this section. You must submit this site-specific monitoring plan at least 60 days before your initial performance evaluation of your CMS.

(i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (*e.g.* , on or downstream of the last control device);

(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and

(iii) Performance evaluation procedures and acceptance criteria (*e.g.* , calibrations).

(2) In your site-specific monitoring plan, you must also address paragraphs (d)(2)(i) through (iii) of this section.

(i) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1), (c)(3), and (c)(4)(ii);

(ii) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and

(iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c), (e)(1), and (e)(2)(i).

(3) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.

(4) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

(e) If you have an applicable emission limit or work practice standard, you must develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6(e)(3).

[69 FR 55253, Sept. 13, 2004, as amended at 71 FR 20467, Apr. 20, 2006]

§ 63.7506 Do any boilers or process heaters have limited requirements?

(a) New or reconstructed boilers and process heaters in the large liquid fuel subcategory or the limited use liquid fuel subcategory that burn only fossil fuels and other gases and do not burn any residual oil are subject to the emission limits and applicable work practice standards in Table 1 to this subpart. You are not required to conduct a performance test to demonstrate compliance with the emission limits. You are not required to set and maintain operating limits to demonstrate continuous compliance with the emission limits. However, you must meet the requirements in paragraphs (a)(1) and (2) of this section and meet the CO work practice standard in Table 1 to this subpart.

(1) To demonstrate initial compliance, you must include a signed statement in the Notification of Compliance Status report required in §63.7545(e) that indicates you burn only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels.

(2) To demonstrate continuous compliance with the applicable emission limits, you must also keep records that demonstrate that you burn only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels. You must also include a signed statement in each semiannual compliance report required in §63.7550 that indicates you burned only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels, during the reporting period.

(b) The affected boilers and process heaters listed in paragraphs (b)(1) through (3) of this section are subject to only the initial notification requirements in §63.9(b) (*i.e.* , they are not subject to the emission limits, work practice standards, performance testing, monitoring, SSMP, site-specific monitoring plans, recordkeeping and reporting requirements of this subpart or any other requirements in subpart A of this part).

(1) Existing large and limited use gaseous fuel units.

(2) Existing large and limited use liquid fuel units.

(3) New or reconstructed small liquid fuel units that burn only gaseous fuels or distillate oil. New or reconstructed small liquid fuel boilers and process heaters that commence burning of any other type of liquid fuel must comply with all applicable requirements of this subpart and subpart A of this part upon startup of burning the other type of liquid fuel.

(c) The affected boilers and process heaters listed in paragraphs (c)(1) through (4) of this section are not subject to the initial notification requirements in §63.9(b) and are not subject to any requirements in this subpart or in subpart A of this part (*i.e.* , they are not subject to the emission limits, work practice standards, performance testing, monitoring, SSM plans, site-specific monitoring plans, recordkeeping and reporting requirements of this subpart, or any other requirements in subpart A of this part.

(1) Existing small solid fuel boilers and process heaters.

(2) Existing small liquid fuel boilers and process heaters.

(3) Existing small gaseous fuel boilers and process heaters.

(4) New or reconstructed small gaseous fuel units.

§ 63.7507 What are the health-based compliance alternatives for the hydrogen chloride (HCl) and total selected metals (TSM) standards?

(a) As an alternative to the requirement to demonstrate compliance with the HCl emission limit in table 1 to this subpart, you may demonstrate eligibility for the health-based compliance alternative for HCl emissions under the procedures prescribed in appendix A to this subpart.

(b) As an alternative to the requirement to demonstrate compliance with the TSM emission limit in table 1 to this subpart based on the sum of emissions for the eight selected metals, you may demonstrate eligibility for the health-based alternative for manganese emissions under the procedures prescribed in appendix A to this subpart and comply with the TSM emission standards in table 1 based on the sum of emissions for seven selected metals (by excluding manganese emissions from the summation of TSM emissions).

[70 FR 76933, Dec. 28, 2005]

Testing, Fuel Analyses, and Initial Compliance Requirements

§ 63.7510 What are my initial compliance requirements and by what date must I conduct them?

(a) For affected sources that elect to demonstrate compliance with any of the emission limits of this subpart through performance testing, your initial compliance requirements include conducting performance tests according to §63.7520 and Table 5 to this subpart, conducting a fuel analysis for each type of fuel burned in your boiler or process heater according to §63.7521 and Table 6 to this subpart, establishing operating limits according to §63.7530 and Table 7 to this subpart, and conducting CMS performance evaluations according to §63.7525. For affected sources that burn a single type of fuel, you are exempted from the initial compliance requirements of conducting a fuel analysis for each type of fuel burned in your boiler or process heater according to §63.7521 and Table 6 to this subpart.

(b) For affected sources that elect to demonstrate compliance with the emission limits for HCl, mercury, or TSM through fuel analysis, your initial compliance requirement is to conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to §63.7521 and Table 6 to this subpart and establish operating limits according to §63.7530 and Table 8 to this subpart.

(c) For affected sources that have an applicable work practice standard, your initial compliance requirements depend on the subcategory and rated capacity of your boiler or process heater. If your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBtu per hour, your initial compliance demonstration is conducting a performance test for carbon monoxide according to Table 5 to this subpart. If your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 MMBtu per hour or greater, your initial compliance demonstration is conducting a performance evaluation of your continuous emission monitoring system for carbon monoxide according to §63.7525(a).

(d) For existing affected sources, you must demonstrate initial compliance no later than 180 days after the compliance date that is specified for your source in §63.7495 and according to the applicable provisions in §63.7(a)(2) as cited in Table 10 to this subpart.

(e) If your new or reconstructed affected source commenced construction or reconstruction between January 13, 2003 and November 12, 2004, you must demonstrate initial compliance with either the proposed emission limits and work practice standards or the promulgated emission limits and work practice standards no later than 180 days after November 12, 2004 or within 180 days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(f) If your new or reconstructed affected source commenced construction or reconstruction between January 13, 2003, and November 12, 2004, and you chose to comply with the proposed emission limits and work practice standards when demonstrating initial compliance, you must conduct a second compliance demonstration for the promulgated emission limits and work practice standards within 3 years after November 12, 2004 or within 3 years after startup of the affected source, whichever is later.

(g) If your new or reconstructed affected source commences construction or reconstruction after November 12, 2004, you must demonstrate initial compliance with the promulgated emission limits and work practice standards no later than 180 days after startup of the source.

[69 FR 55253, Sept. 13, 2004, as amended at 71 FR 70660, Dec. 6, 2006]

§ 63.7515 When must I conduct subsequent performance tests or fuel analyses?

(a) You must conduct all applicable performance tests according to §63.7520 on an annual basis, unless you follow the requirements listed in paragraphs (b) through (d) of this section. Annual performance tests

must be completed between 10 and 12 months after the previous performance test, unless you follow the requirements listed in paragraphs (b) through (d) of this section.

(b) You can conduct performance tests less often for a given pollutant if your performance tests for the pollutant (particulate matter, HCl, mercury, or TSM) for at least 3 consecutive years show that you comply with the emission limit. In this case, you do not have to conduct a performance test for that pollutant for the next 2 years. You must conduct a performance test during the third year and no more than 36 months after the previous performance test.

(c) If your boiler or process heater continues to meet the emission limit for particulate matter, HCl, mercury, or TSM, you may choose to conduct performance tests for these pollutants every third year, but each such performance test must be conducted no more than 36 months after the previous performance test.

(d) If a performance test shows noncompliance with an emission limit for particulate matter, HCl, mercury, or TSM, you must conduct annual performance tests for that pollutant until all performance tests over a consecutive 3-year period show compliance.

(e) If you have an applicable work practice standard for carbon monoxide and your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBtu per hour, you must conduct annual performance tests for carbon monoxide according to §63.7520. Each annual performance test must be conducted between 10 and 12 months after the previous performance test.

(f) You must conduct a fuel analysis according to §63.7521 for each type of fuel burned no later than 5 years after the previous fuel analysis for each fuel type. If you burn a new type of fuel, you must conduct a fuel analysis before burning the new type of fuel in your boiler or process heater. You must still meet all applicable continuous compliance requirements in §63.7540.

(g) You must report the results of performance tests and fuel analyses within 60 days after the completion of the performance tests or fuel analyses. This report should also verify that the operating limits for your affected source have not changed or provide documentation of revised operating parameters established according to §63.7530 and Table 7 to this subpart, as applicable. The reports for all subsequent performance tests and fuel analyses should include all applicable information required in §63.7550.

§ 63.7520 What performance tests and procedures must I use?

(a) You must conduct all performance tests according to §63.7(c), (d), (f), and (h). You must also develop a site-specific test plan according to the requirements in §63.7(c) if you elect to demonstrate compliance through performance testing.

(b) You must conduct each performance test according to the requirements in Table 5 to this subpart.

(c) New or reconstructed boilers or process heaters in one of the liquid fuel subcategories that burn only fossil fuels and other gases and do not burn any residual oil must demonstrate compliance according to §63.7506(a).

(d) You must conduct each performance test under the specific conditions listed in Tables 5 and 7 to this subpart. You must conduct performance tests at the maximum normal operating load while burning the type of fuel or mixture of fuels that have the highest content of chlorine, mercury, and total selected metals, and you must demonstrate initial compliance and establish your operating limits based on these tests. These requirements could result in the need to conduct more than one performance test.

(e) You may not conduct performance tests during periods of startup, shutdown, or malfunction.

(f) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.

(g) To determine compliance with the emission limits, you must use the F-Factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 of appendix A to part 60 of this chapter to convert the measured particulate matter concentrations, the measured HCl concentrations, the measured TSM concentrations, and the measured mercury concentrations that result from the initial performance test to pounds per million Btu heat input emission rates using F-factors.

§ 63.7521 What fuel analyses and procedures must I use?

(a) You must conduct fuel analyses according to the procedures in paragraphs (b) through (e) of this section and Table 6 to this subpart, as applicable.

(b) You must develop and submit a site-specific fuel analysis plan to the EPA Administrator for review and approval according to the following procedures and requirements in paragraphs (b)(1) and (2) of this section.

(1) You must submit the fuel analysis plan no later than 60 days before the date that you intend to demonstrate compliance.

(2) You must include the information contained in paragraphs (b)(2)(i) through (vi) of this section in your fuel analysis plan.

(i) The identification of all fuel types anticipated to be burned in each boiler or process heater.

(ii) For each fuel type, the notification of whether you or a fuel supplier will be conducting the fuel analysis.

(iii) For each fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the composite samples if your procedures are different from paragraph (c) or (d) of this section. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types.

(iv) For each fuel type, the analytical methods, with the expected minimum detection levels, to be used for the measurement of selected total metals, chlorine, or mercury.

(v) If you request to use an alternative analytical method other than those required by Table 6 to this subpart, you must also include a detailed description of the methods and procedures that will be used.

(vi) If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to this subpart.

(c) At a minimum, you must obtain three composite fuel samples for each fuel type according to the procedures in paragraph (c)(1) or (2) of this section.

(1) If sampling from a belt (or screw) feeder, collect fuel samples according to paragraphs (c)(1)(i) and (ii) of this section.

(i) Stop the belt and withdraw a 6-inch wide sample from the full cross-section of the stopped belt to obtain a minimum two pounds of sample. Collect all the material (fines and coarse) in the full cross-section. Transfer the sample to a clean plastic bag.

(ii) Each composite sample will consist of a minimum of three samples collected at approximately equal intervals during the testing period.

(2) If sampling from a fuel pile or truck, collect fuel samples according to paragraphs (c)(2)(i) through (iii) of this section.

(i) For each composite sample, select a minimum of five sampling locations uniformly spaced over the surface of the pile.

(ii) At each sampling site, dig into the pile to a depth of 18 inches. Insert a clean flat square shovel into the hole and withdraw a sample, making sure that large pieces do not fall off during sampling.

(iii) Transfer all samples to a clean plastic bag for further processing.

(d) Prepare each composite sample according to the procedures in paragraphs (d)(1) through (7) of this section.

(1) Throughly mix and pour the entire composite sample over a clean plastic sheet.

(2) Break sample pieces larger than 3 inches into smaller sizes.

(3) Make a pie shape with the entire composite sample and subdivide it into four equal parts.

(4) Separate one of the quarter samples as the first subset.

(5) If this subset is too large for grinding, repeat the procedure in paragraph (d)(3) of this section with the quarter sample and obtain a one-quarter subset from this sample.

(6) Grind the sample in a mill.

(7) Use the procedure in paragraph (d)(3) of this section to obtain a one-quarter subsample for analysis. If the quarter sample is too large, subdivide it further using the same procedure.

(e) Determine the concentration of pollutants in the fuel (mercury, chlorine, and/or total selected metals) in units of pounds per million Btu of each composite sample for each fuel type according to the procedures in Table 6 to this subpart.

§ 63.7522 Can I use emission averaging to comply with this subpart?

(a) As an alternative to meeting the requirements of §63.7500, if you have more than one existing large solid fuel boiler located at your facility, you may demonstrate compliance by emission averaging according to the procedures in this section in a State that does not choose to exclude emission averaging.

(b) Separate stack requirements. For a group of two or more existing large solid fuel boilers that each vent to a separate stack, you may average particulate matter or TSM, HCl and mercury emissions to demonstrate compliance with the limits in Table 1 to this subpart if you satisfy the requirements in paragraphs (c), (d), (e), (f), and (g) of this section.

(c) For each existing large solid fuel boiler in the averaging group, the emission rate achieved during the initial compliance test for the HAP being averaged must not exceed the emission level that was being achieved on November 12, 2004 or the control technology employed during the initial compliance test must not be less effective for the HAP being averaged than the control technology employed on November 12, 2004.

(d) The emissions rate from the existing large solid fuel boilers participating in the emissions averaging option must be in compliance with the limits in Table 1 to this subpart at all times following the compliance date specified in §63.7495.

(e) You must demonstrate initial compliance according to paragraph (e)(1) or (2) of this section.

(1) You must use Equation 1 of this section to demonstrate that the particulate matter or TSM, HCl, and mercury emissions from all existing large solid fuel boilers participating in the emissions averaging option do not exceed the emission limits in Table 1 to this subpart.

$$\text{Ave Weighted Emissions} = \sum_{i=1}^{n}(Er \times Hm) \div \sum_{i=1}^{n} Hm \qquad \text{(Eq. 1)}$$

Where:

Ave Weighted Emissions = Average weighted emissions for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as calculated according to Table 5 to this subpart or by fuel analysis (as calculated by the applicable equation in §63.7530(d))) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Hm = Maximum rated heat input capacity of boiler, i, in units of million Btu per hour.

n = Number of large solid fuel boilers participating in the emissions averaging option.

(2) If you are not capable of monitoring heat input, you may use Equation 2 of this section as an alternative to using Equation 1 of this section to demonstrate that the particulate matter or TSM, HCl, and mercury emissions from all existing large solid fuel boilers participating in the emissions averaging option do not exceed the emission limits in Table 1 to this subpart.

$$\text{Ave Weighted Emissions} = \sum_{i=1}^{n}(Er \times Sm \times Cf) \div \sum_{i=1}^{n} Sm \times Cf \qquad \text{(Eq. 2)}$$

Where:

Ave Weighted Emissions = Average weighted emission level for PM or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as calculated according to Table 5 to this subpart or by fuel analysis (as calculated by the applicable equation in §63.7530(d))) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Sm = Maximum steam generation by boiler, i, in units of pounds.

Cf = Conversion factor, calculated from the most recent compliance test, in units of million Btu of heat input per pounds of steam generated.

(f) You must demonstrate continuous compliance on a monthly basis determined at the end of every month (12 times per year) according to paragraphs (f)(1) through (3) of this section. The first monthly period begins on the compliance date specified in §63.7495.

(1) For each calendar month, you must use Equation 3 of this section to calculate the monthly average weighted emission rate using the actual heat capacity for each existing large solid fuel boiler participating in the emissions averaging option.

$$\text{Ave Weighted Emissions} = \sum_{i=1}^{n}(Er \times Hb) \div \sum_{i=1}^{n} Hb \qquad (Eq.3)$$

Where:

Ave Weighted Emissions = monthly average weighted emission level for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate, (as calculated during the most recent compliance test, (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in §63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Hb = The average heat input for each calendar month of boiler, i, in units of million Btu.

n = Number of large solid fuel boilers participating in the emissions averaging option.

(2) If you are not capable of monitoring heat input, you may use Equation 4 of this section as an alternative to using Equation 3 of this section to calculate the monthly weighted emission rate using the actual steam generation from the large solid fuel boilers participating in the emissions averaging option.

$$\text{Ave Weighted Emissions} = \sum_{i=1}^{n}(Er \times Sa \times Cf) \div \sum_{i=1}^{n} Sa \times Cf \qquad (Eq.4)$$

Where:

Ave Weighted Emissions = monthly average weighted emission level for PM or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate, (as calculated during the most recent compliance test (as calculated according to Table 5 to this subpart) or by fuel analysis (as calculated by the applicable equation in §63.7530(d))) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Sa = Actual steam generation for each calendar month by boiler, i, in units of pounds.

Cf = Conversion factor, as calculated during the most recent compliance test, in units of million Btu of heat input per pounds of steam generated.

(3) Until 12 monthly weighted average emission rates have been accumulated, calculate and report only the monthly average weighted emission rate determined under paragraph (f)(1) or (2) of this section. After 12 monthly weighted average emission rates have been accumulated, for each subsequent calendar

month, use Equation 4A of this section to calculate the 12-month rolling average of the monthly weighted average emission rates for the current month and the previous 11 months.

$$E_{avg} = \frac{\sum_{i=1}^{n} ER_i}{12} \qquad \text{(Eq. 4A)}$$

Where:

Eavg = 12-month rolling average emission rate, (pounds per million Btu heat input)

ERi = Monthly weighted average, for month “i”, (pounds per million Btu heat input)(as calculated by (f)(1) or (2))

(g) You must develop and submit an implementation plan for emission averaging to the applicable regulatory authority for review and approval according to the following procedures and requirements in paragraphs (g)(1) through (4).

(1) You must submit the implementation plan no later than 180 days before the date that the facility intends to demonstrate compliance using the emission averaging option.

(2) You must include the information contained in paragraphs (g)(2)(i) through (vii) of this section in your implementation plan for all emission sources included in an emissions average:

(i) The identification of all existing large solid fuel boilers in the averaging group, including for each either the applicable HAP emission level or the control technology installed on;

(ii) The process parameter (heat input or steam generated) that will be monitored for each averaging group of large solid fuel boilers;

(iii) The specific control technology or pollution prevention measure to be used for each emission source in the averaging group and the date of its installation or application. If the pollution prevention measure reduces or eliminates emissions from multiple sources, the owner or operator must identify each source;

(iv) The test plan for the measurement of particulate matter (or TSM), HCl, or mercury emissions in accordance with the requirements in §63.7520;

(v) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(vi) If you request to monitor an alternative operating parameter pursuant to §63.7525, you must also include:

(A) A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

(B) A description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the control device; the frequency and content of monitoring, reporting, and recordkeeping requirements; and a demonstration, to the satisfaction of the applicable regulatory authority, that the proposed monitoring frequency is sufficient to represent control device operating conditions; and

(vii) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

(3) Upon receipt, the regulatory authority shall review and approve or disapprove the plan according to the following criteria:

(i) Whether the content of the plan includes all of the information specified in paragraph (g)(2) of this section; and

(ii) Whether the plan presents sufficient information to determine that compliance will be achieved and maintained.

(4) The applicable regulatory authority shall not approve an emission averaging implementation plan containing any of the following provisions:

(i) Any averaging between emissions of differing pollutants or between differing sources; or

(ii) The inclusion of any emission source other than an existing large solid fuel boiler.

(h) Common stack requirements. For a group of two or more existing large solid fuel boilers, each of which vents through a single common stack, you may average particulate matter or TSM, HCl and mercury to demonstrate compliance with the limits in Table 1 to this subpart if you satisfy the requirements in paragraph (i) or (j) of this section.

(i) For a group of two or more existing large solid fuel boilers, each of which vents through a common emissions control system to a common stack, that does not receive emissions from units in other subcategories or categories, you may treat such averaging group as a single existing solid fuel boiler for purposes of this subpart and comply with the requirements of this subpart as if the group were a single boiler.

(j) For all other groups of boilers subject to paragraph (h) of this section, the owner or operator may elect to:

(1) Conduct performance tests according to procedures specified in §63.7520 in the common stack (if affected units from other subcategories (*e.g.* , gas-fired units) or nonaffected units vent to the common stack, the units from other subcategories and nonaffected units must be shut down or vented to a different stack during the performance test); and

(2) Meet the applicable operating limit specified in §63.7540 and Table 8 to this subpart for each emissions control system (except that, if each boiler venting to the common stack has an applicable opacity operating limit, then a single continuous opacity monitoring system may be located in the common stack instead of in each duct to the common stack).

(k) *Combination requirements.* The common stack of a group of two or more boilers subject to paragraph (h) of this section may be treated as a separate stack for purposes of paragraph (b) of this section and included in an emissions averaging group subject to paragraph (b) of this section.

[69 FR 55253, Sept. 13, 2004, as amended at 71 FR 70660, Dec. 6, 2006]

§ 63.7525 What are my monitoring, installation, operation, and maintenance requirements?

(a) If you have an applicable work practice standard for carbon monoxide, and your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 MMBtu per hour or greater, you must install, operate, and maintain a continuous emission monitoring system (CEMS) for carbon monoxide and oxygen according to the procedures in paragraphs (a)(1) through (6) of this section by the compliance date specified in §63.7495. The carbon monoxide and oxygen shall be monitored at the same location at the outlet of the boiler or process heater.

(1) Each CEMS must be installed, operated, and maintained according to the applicable procedures under Performance Specification (PS) 3 or 4A of 40 CFR part 60, appendix B, and according to the site-specific monitoring plan developed according to §63.7505(d).

(2) You must conduct a performance evaluation of each CEMS according to the requirements in §63.8 and according to PS 4A of 40 CFR part 60, appendix B.

(3) Each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(4) The CEMS data must be reduced as specified in §63.8(g)(2).

(5) You must calculate and record a 30-day rolling average emission rate on a daily basis. A new 30-day rolling average emission rate is calculated as the average of all of the hourly CO emission data for the preceding 30 operating days.

(6) For purposes of calculating data averages, you must not use data recorded during periods of monitoring malfunctions, associated repairs, out-of-control periods, required quality assurance or control activities, or when your boiler or process heater is operating at less than 50 percent of its rated capacity. You must use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out of control and data are not available for required calculations constitutes a deviation from the monitoring requirements.

(b) If you have an applicable opacity operating limit, you must install, operate, certify and maintain each continuous opacity monitoring system (COMS) according to the procedures in paragraphs (b)(1) through (7) of this section by the compliance date specified in §63.7495.

(1) Each COMS must be installed, operated, and maintained according to PS 1 of 40 CFR part 60, appendix B.

(2) You must conduct a performance evaluation of each COMS according to the requirements in §63.8 and according to PS 1 of 40 CFR part 60, appendix B.

(3) As specified in §63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(4) The COMS data must be reduced as specified in §63.8(g)(2).

(5) You must include in your site-specific monitoring plan procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in §63.8(d). At a minimum, the monitoring plan must include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of each COMS.

(6) You must operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of §63.8(e). Identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit.

(7) You must determine and record all the 6-minute averages (and 1-hour block averages as applicable) collected for periods during which the COMS is not out of control.

(c) If you have an operating limit that requires the use of a CMS, you must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the procedures in paragraphs (c)(1) through (5) of this section by the compliance date specified in §63.7495.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation to have a valid hour of data.

(2) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation at all times that the unit is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(3) For purposes of calculating data averages, you must not use data recorded during monitoring malfunctions, associated repairs, out of control periods, or required quality assurance or control activities. You must use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out-of-control and data are not available for required calculations constitutes a deviation from the monitoring requirements.

(4) Determine the 3-hour block average of all recorded readings, except as provided in paragraph (c)(3) of this section.

(5) Record the results of each inspection, calibration, and validation check.

(d) If you have an operating limit that requires the use of a flow measurement device, you must meet the requirements in paragraphs (c) and (d)(1) through (4) of this section.

(1) Locate the flow sensor and other necessary equipment in a position that provides a representative flow.

(2) Use a flow sensor with a measurement sensitivity of 2 percent of the flow rate.

(3) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(4) Conduct a flow sensor calibration check at least semiannually.

(e) If you have an operating limit that requires the use of a pressure measurement device, you must meet the requirements in paragraphs (c) and (e)(1) through (6) of this section.

(1) Locate the pressure sensor(s) in a position that provides a representative measurement of the pressure.

(2) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(3) Use a gauge with a minimum tolerance of 1.27 centimeters of water or a transducer with a minimum tolerance of 1 percent of the pressure range.

(4) Check pressure tap pluggage daily.

(5) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

(6) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(f) If you have an operating limit that requires the use of a pH measurement device, you must meet the requirements in paragraphs (c) and (f)(1) through (3) of this section.

(1) Locate the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

(2) Ensure the sample is properly mixed and representative of the fluid to be measured.

(3) Check the pH meter's calibration on at least two points every 8 hours of process operation.

(g) If you have an operating limit that requires the use of equipment to monitor voltage and secondary current (or total power input) of an electrostatic precipitator (ESP), you must use voltage and secondary current monitoring equipment to measure voltage and secondary current to the ESP.

(h) If you have an operating limit that requires the use of equipment to monitor sorbent injection rate (*e.g.* , weigh belt, weigh hopper, or hopper flow measurement device), you must meet the requirements in paragraphs (c) and (h)(1) through (3) of this section.

(1) Locate the device in a position(s) that provides a representative measurement of the total sorbent injection rate.

(2) Install and calibrate the device in accordance with manufacturer's procedures and specifications.

(3) At least annually, calibrate the device in accordance with the manufacturer's procedures and specifications.

(i) If you elect to use a fabric filter bag leak detection system to comply with the requirements of this subpart, you must install, calibrate, maintain, and continuously operate a bag leak detection system as specified in paragraphs (i)(1) through (8) of this section.

(1) You must install and operate a bag leak detection system for each exhaust stack of the fabric filter.

(2) Each bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in EPA–454/R–98–015, September 1997.

(3) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

(4) The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.

(5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

(6) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.

(7) For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a bag leak detection system must be installed in each baghouse compartment or cell.

(8) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.

[69 FR 55253, Sept. 13, 2004, as amended at 71 FR 70662, Dec. 6, 2006]

§ 63.7530 How do I demonstrate initial compliance with the emission limits and work practice standards?

(a) You must demonstrate initial compliance with each emission limit and work practice standard that applies to you by either conducting initial performance tests and establishing operating limits, as applicable, according to §63.7520, paragraph (c) of this section, and Tables 5 and 7 to this subpart OR conducting initial fuel analyses to determine emission rates and establishing operating limits, as applicable, according to §63.7521, paragraph (d) of this section, and Tables 6 and 8 to this subpart.

(b) New or reconstructed boilers or process heaters in one of the liquid fuel subcategories that burn only fossil fuels and other gases and do not burn any residual oil must demonstrate compliance according to §63.7506(a).

(c) If you demonstrate compliance through performance testing, you must establish each site-specific operating limit in Tables 2 through 4 to this subpart that applies to you according to the requirements in §63.7520, Table 7 to this subpart, and paragraph (c)(4) of this section, as applicable. You must also conduct fuel analyses according to §63.7521 and establish maximum fuel pollutant input levels according to paragraphs (c)(1) through (3) of this section, as applicable.

(1) You must establish the maximum chlorine fuel input (C_{input}) during the initial performance testing according to the procedures in paragraphs (c)(1)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of chlorine.

(ii) During the performance testing for HCl, you must determine the fraction of the total heat input for each fuel type burned (Q_i) based on the fuel mixture that has the highest content of chlorine, and the average chlorine concentration of each fuel type burned (C_i).

(iii) You must establish a maximum chlorine input level using Equation 5 of this section.

$$Cl_{input} = \sum_{i=1}^{n}\left[(C_i)(Q_i)\right] \qquad (Eq.\ 5)$$

Where:

Cl_{input}= Maximum amount of chlorine entering the boiler or process heater through fuels burned in units of pounds per million Btu.

C_i= Arithmetic average concentration of chlorine in fuel type, i, analyzed according to §63.7521, in units of pounds per million Btu.

Q_i= Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types during the performance testing, it is not necessary to determine the value of this term. Insert a value of "1" for Q_i.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

(2) If you choose to comply with the alternative TSM emission limit instead of the particulate matter emission limit, you must establish the maximum TSM fuel input level (TSM_{input}) during the initial performance testing according to the procedures in paragraphs (c)(2)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of TSM.

(ii) During the performance testing for TSM, you must determine the fraction of total heat input from each fuel burned (Q_i) based on the fuel mixture that has the highest content of total selected metals, and the average TSM concentration of each fuel type burned (M_i).

(iii) You must establish a baseline TSM input level using Equation 6 of this section.

$$TSM_{input} = \sum_{i=1}^{n}\left[(M_i)(Q_i)\right] \qquad (Eq.\ 6)$$

Where:

TSM_{input}= Maximum amount of TSM entering the boiler or process heater through fuels burned in units of pounds per million Btu.

M_i= Arithmetic average concentration of TSM in fuel type, i, analyzed according to §63.7521, in units of pounds per million Btu.

Q_i= Fraction of total heat input from based fuel type, i, based on the fuel mixture that has the highest content of TSM. If you do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of "1" for Q_i.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of TSM.

(3) You must establish the maximum mercury fuel input level ($Mercury_{input}$) during the initial performance testing using the procedures in paragraphs (c)(3)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of mercury.

(ii) During the compliance demonstration for mercury, you must determine the fraction of total heat input for each fuel burned (Q_i) based on the fuel mixture that has the highest content of mercury, and the average mercury concentration of each fuel type burned (HG_i).

(iii) You must establish a maximum mercury input level using Equation 7 of this section.

$$Mercury_{input} = \sum_{i=1}^{n}\left[\left(HG_i\right)\left(Q_i\right)\right] \qquad (Eq.\ 7)$$

Where:

$Mercury_{input}$= Maximum amount of mercury entering the boiler or process heater through fuels burned in units of pounds per million Btu.

HG_i= Arithmetic average concentration of mercury in fuel type, i, analyzed according to §63.7521, in units of pounds per million Btu.

Q_i= Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of “1” for Q_i.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of mercury.

(4) You must establish parameter operating limits according to paragraphs (c)(4)(i) through (iv) of this section.

(i) For a wet scrubber, you must establish the minimum scrubber effluent pH, liquid flowrate, and pressure drop as defined in §63.7575, as your operating limits during the three-run performance test. If you use a wet scrubber and you conduct separate performance tests for particulate matter, HCl, and mercury emissions, you must establish one set of minimum scrubber effluent pH, liquid flowrate, and pressure drop operating limits. The minimum scrubber effluent pH operating limit must be established during the HCl performance test. If you conduct multiple performance tests, you must set the minimum liquid flowrate and pressure drop operating limits at the highest minimum values established during the performance tests.

(ii) For an electrostatic precipitator, you must establish the minimum voltage and secondary current (or total power input), as defined in §63.7575, as your operating limits during the three-run performance test.

(iii) For a dry scrubber, you must establish the minimum sorbent injection rate, as defined in §63.7575, as your operating limit during the three-run performance test.

(iv) The operating limit for boilers or process heaters with fabric filters that choose to demonstrate continuous compliance through bag leak detection systems is that a bag leak detection system be installed according to the requirements in §63.7525, and that each fabric filter must be operated such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period.

(d) If you elect to demonstrate compliance with an applicable emission limit through fuel analysis, you must conduct fuel analyses according to §63.7521 and follow the procedures in paragraphs (d)(1) through (5) of this section.

(1) If you burn more than one fuel type, you must determine the fuel mixture you could burn in your boiler or process heater that would result in the maximum emission rates of the pollutants that you elect to demonstrate compliance through fuel analysis.

(2) You must determine the 90th percentile confidence level fuel pollutant concentration of the composite samples analyzed for each fuel type using the one-sided z-statistic test described in Equation 8 of this section.

$$P_{90} = mean + (SD \times t) \qquad (Eq.\ 8)$$

Where:

P_{90}= 90th percentile confidence level pollutant concentration, in pounds per million Btu.

mean = Arithmetic average of the fuel pollutant concentration in the fuel samples analyzed according to §63.7521, in units of pounds per million Btu.

SD = Standard deviation of the pollutant concentration in the fuel samples analyzed according to §63.7521, in units of pounds per million Btu.

t = t distribution critical value for 90th percentile (0.1) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a Distribution Critical Value Table.

(3) To demonstrate compliance with the applicable emission limit for HCl, the HCl emission rate that you calculate for your boiler or process heater using Equation 9 of this section must be less than the applicable emission limit for HCl.

$$HCl = \sum_{i=1}^{n}\left[(C_{i90})(Q_i)(1.028)\right] \qquad (Eq.\ 9)$$

Where:

HCl = HCl emission rate from the boiler or process heater in units of pounds per million Btu.

C_{i90}= 90th percentile confidence level concentration of chlorine in fuel type, i, in units of pounds per million Btu as calculated according to Equation 8 of this section.

Q_i= Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of “1” for Q_i.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

1.028 = Molecular weight ratio of HCl to chlorine.

(4) To demonstrate compliance with the applicable emission limit for TSM, the TSM emission rate that you calculate for your boiler or process heater using Equation 10 of this section must be less than the applicable emission limit for TSM.

$$TSM = \sum_{i=1}^{n}\left[\left(M_{i90}\right)\left(Q_i\right)\right] \qquad (Eq.\ 10)$$

Where:

TSM = TSM emission rate from the boiler or process heater in units of pounds per million Btu.

M_{i90}= 90th percentile confidence level concentration of TSM in fuel, i, in units of pounds per million Btu as calculated according to Equation 8 of this section.

Q_i= Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of total selected metals. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of “1” for Q_i.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of TSM.

(5) To demonstrate compliance with the applicable emission limit for mercury, the mercury emission rate that you calculate for your boiler or process heater using Equation 11 of this section must be less than the applicable emission limit for mercury.

$$Mercury = \sum_{i=1}^{n}\left[\left(HG_{i90}\right)\left(Q_i\right)\right] \qquad (Eq.\ 11)$$

Where:

Mercury = Mercury emission rate from the boiler or process heater in units of pounds per million Btu.

HG_{i90}= 90th percentile confidence level concentration of mercury in fuel, i, in units of pounds per million Btu as calculated according to Equation 8 of this section.

Q_i= Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of “1” for Q_i.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest mercury content.

(e) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.7545(e).

Continuous Compliance Requirements

§ 63.7535 How do I monitor and collect data to demonstrate continuous compliance?

(a) You must monitor and collect data according to this section and the site-specific monitoring plan required by §63.7505(d).

(b) Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must

monitor continuously (or collect data at all required intervals) at all times that the affected source is operating.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, or required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system. Boilers and process heaters that have an applicable carbon monoxide work practice standard and are required to install and operate a CEMS, may not use data recorded during periods when the boiler or process heater is operating at less than 50 percent of its rated capacity.

§ 63.7540 How do I demonstrate continuous compliance with the emission limits and work practice standards?

(a) You must demonstrate continuous compliance with each emission limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that applies to you according to the methods specified in Table 8 to this subpart and paragraphs (a)(1) through (10) of this section.

(1) Following the date on which the initial performance test is completed or is required to be completed under §§63.7 and 63.7510, whichever date comes first, you must not operate above any of the applicable maximum operating limits or below any of the applicable minimum operating limits listed in Tables 2 through 4 to this subpart at all times except during periods of startup, shutdown and malfunction. Operating limits do not apply during performance tests. Operation above the established maximum or below the established minimum operating limits shall constitute a deviation of established operating limits.

(2) You must keep records of the type and amount of all fuels burned in each boiler or process heater during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would either result in lower emissions of TSM, HCl, and mercury, than the applicable emission limit for each pollutant (if you demonstrate compliance through fuel analysis), or result in lower fuel input of TSM, chlorine, and mercury than the maximum values calculated during the last performance tests (if you demonstrate compliance through performance testing).

(3) If you demonstrate compliance with an applicable HCl emission limit through fuel analysis and you plan to burn a new type of fuel, you must recalculate the HCl emission rate using Equation 9 of §63.7530 according to paragraphs (a)(3)(i) through (iii) of this section.

(i) You must determine the chlorine concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to §63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of chlorine.

(iii) Recalculate the HCl emission rate from your boiler or process heater under these new conditions using Equation 9 of §63.7530. The recalculated HCl emission rate must be less than the applicable emission limit.

(4) If you demonstrate compliance with an applicable HCl emission limit through performance testing and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum chlorine input using Equation 5 of §63.7530. If the results of recalculating the maximum chlorine input using Equation 5 of §63.7530 are higher than the maximum chlorine input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in §63.7520 to demonstrate that the HCl emissions do

not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in §63.7530(c).

(5) If you demonstrate compliance with an applicable TSM emission limit through fuel analysis, and you plan to burn a new type of fuel, you must recalculate the TSM emission rate using Equation 10 of §63.7530 according to the procedures specified in paragraphs (a)(5)(i) through (iii) of this section.

(i) You must determine the TSM concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to §63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of TSM.

(iii) Recalculate the TSM emission rate from your boiler or process heater under these new conditions using Equation 10 of §63.7530. The recalculated TSM emission rate must be less than the applicable emission limit.

(6) If you demonstrate compliance with an applicable TSM emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum TSM input using Equation 6 of §63.7530. If the results of recalculating the maximum total selected metals input using Equation 6 of §63.7530 are higher than the maximum TSM input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in §63.7520 to demonstrate that the TSM emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in §63.7530(c).

(7) If you demonstrate compliance with an applicable mercury emission limit through fuel analysis, and you plan to burn a new type of fuel, you must recalculate the mercury emission rate using Equation 11 of §63.7530 according to the procedures specified in paragraphs (a)(7)(i) through (iii) of this section.

(i) You must determine the mercury concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to §63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of mercury.

(iii) Recalculate the mercury emission rate from your boiler or process heater under these new conditions using Equation 11 of §63.7530. The recalculated mercury emission rate must be less than the applicable emission limit.

(8) If you demonstrate compliance with an applicable mercury emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum mercury input using Equation 7 of §63.7530. If the results of recalculating the maximum mercury input using Equation 7 of §63.7530 are higher than the maximum mercury input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in §63.7520 to demonstrate that the mercury emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in §63.7530(c).

(9) If your unit is controlled with a fabric filter, and you demonstrate continuous compliance using a bag leak detection system, you must initiate corrective action within 1 hour of a bag leak detection system alarm and complete corrective actions as soon as practical, and operate and maintain the fabric filter system such that the alarm does not sound more than 5 percent of the operating time during a 6-month

period. You must also keep records of the date, time, and duration of each alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken. You must also record the percent of the operating time during each 6-month period that the alarm sounds. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If you take longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken to initiate corrective action.

(10) If you have an applicable work practice standard for carbon monoxide, and you are required to install a CEMS according to §63.7525(a), then you must meet the requirements in paragraphs (a)(10)(i) through (iii) of this section.

(i) You must continuously monitor carbon monoxide according to §§63.7525(a) and 63.7535.

(ii) Maintain a carbon monoxide emission level below your applicable carbon monoxide work practice standard in Table 1 to this subpart at all times except during periods of startup, shutdown, malfunction, and when your boiler or process heater is operating at less than 50 percent of rated capacity.

(iii) Keep records of carbon monoxide levels according to §63.7555(b).

(b) You must report each instance in which you did not meet each emission limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that apply to you. You must also report each instance during a startup, shutdown, or malfunction when you did not meet each applicable emission limit, operating limit, and work practice standard. These instances are deviations from the emission limits and work practice standards in this subpart. These deviations must be reported according to the requirements in §63.7550.

(c) [Reserved]

(d) Consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the EPA Administrator's satisfaction that you were operating in accordance with §63.6(e)(1). The EPA Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e).

[69 FR 55253, Sept. 13, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 71 FR 70662, Dec. 6, 2006]

§ 63.7541 How do I demonstrate continuous compliance under the emission averaging provision?

(a) Following the compliance date, the owner or operator must demonstrate compliance with this subpart on a continuous basis by meeting the requirements of paragraphs (a)(1) through (5) of this section.

(1) For each calendar month, demonstrate compliance with the average weighted emissions limit for the existing large solid fuel boilers participating in the emissions averaging option as determined in §63.7522(f) and (g);

(2) You must maintain the applicable opacity limit according to paragraphs (a)(2)(i) through (ii) of this section.

(i) For each existing solid fuel boiler participating in the emissions averaging option that is equipped with a dry control system and not vented to a common stack, maintain opacity at or below the applicable limit.

(ii) For each group of boilers participating in the emissions averaging option where each boiler in the group is an existing solid fuel boiler equipped with a dry control system and vented to a common stack that does not receive emissions from affected units from other subcategories or nonaffected units, maintain opacity at or below the applicable limit at the common stack;

(3) For each existing solid fuel boiler participating in the emissions averaging option that is equipped with a wet scrubber, maintain the 3-hour average parameter values at or below the operating limits established during the most recent performance test; and

(4) For each existing solid fuel boiler participating in the emissions averaging option that has an approved alternative operating plan, maintain the 3-hour average parameter values at or below the operating limits established in the most recent performance test.

(5) For each existing large solid fuel boiler participating in the emissions averaging option venting to a common stack configuration containing affected units from other subcategories and/or nonaffected units, maintain the appropriate operating limit for each unit as specified in Tables 2 through 4 to this subpart that applies.

(b) Any instance where the owner or operator fails to comply with the continuous monitoring requirements in paragraphs (a)(1) through (5) of this section, except during periods of startup, shutdown, and malfunction, is a deviation.

[69 FR 55253, Sept. 13, 2004, as amended at 71 FR 70662, Dec. 6, 2006]

Notification, Reports, and Records

§ 63.7545 What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h) that apply to you by the dates specified.

(b) As specified in §63.9(b)(2), if you startup your affected source before November 12, 2004, you must submit an Initial Notification not later than 120 days after November 12, 2004. The Initial Notification must include the information required in paragraphs (b)(1) and (2) of this section, as applicable.

(1) If your affected source has an annual capacity factor of greater than 10 percent, your Initial Notification must include the information required by §63.9(b)(2).

(2) If your affected source has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent such that the unit is in one of the limited use subcategories (the limited use solid fuel subcategory, the limited use liquid fuel subcategory, or the limited use gaseous fuel subcategory), your Initial Notification must include the information required by §63.9(b)(2) and also a signed statement indicating your affected source has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent.

(c) As specified in §63.9(b)(4) and (b)(5), if you startup your new or reconstructed affected source on or after November 12, 2004, you must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source.

(d) If you are required to conduct a performance test you must submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin.

(e) If you are required to conduct an initial compliance demonstration as specified in §63.7530(a), you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii). For each initial compliance demonstration, you must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of the performance test and/or other initial compliance demonstrations according to §63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (9), as applicable.

(1) A description of the affected source(s) including identification of which subcategory the source is in, the capacity of the source, a description of the add-on controls used on the source description of the fuel(s) burned, and justification for the fuel(s) burned during the performance test.

(2) Summary of the results of all performance tests, fuel analyses, and calculations conducted to demonstrate initial compliance including all established operating limits.

(3) Identification of whether you are complying with the particulate matter emission limit or the alternative total selected metals emission limit.

(4) Identification of whether you plan to demonstrate compliance with each applicable emission limit through performance testing or fuel analysis.

(5) Identification of whether you plan to demonstrate compliance by emissions averaging.

(6) A signed certification that you have met all applicable emission limits and work practice standards.

(7) A summary of the carbon monoxide emissions monitoring data and the maximum carbon monoxide emission levels recorded during the performance test to show that you have met any applicable work practice standard in Table 1 to this subpart.

(8) If your new or reconstructed boiler or process heater is in one of the liquid fuel subcategories and burns only liquid fossil fuels other than residual oil either alone or in combination with gaseous fuels, you must submit a signed statement certifying this in your Notification of Compliance Status report.

(9) If you had a deviation from any emission limit or work practice standard, you must also submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report.

§ 63.7550 What reports must I submit and when?

(a) You must submit each report in Table 9 to this subpart that applies to you.

(b) Unless the EPA Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 9 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for your source in §63.7495.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.7495.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) The compliance report must contain the information required in paragraphs (c)(1) through (11) of this section.

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel and the total fuel usage amount with units of measure.

(5) A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during this test, if applicable.

(6) A signed statement indicating that you burned no new types of fuel. Or, if you did burn a new type of fuel, you must submit the calculation of chlorine input, using Equation 5 of §63.7530, that demonstrates that your source is still within its maximum chlorine input level established during the previous performance testing (for sources that demonstrate compliance through performance testing) or you must submit the calculation of HCl emission rate using Equation 9 of §63.7530 that demonstrates that your source is still meeting the emission limit for HCl emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel, you must submit the calculation of TSM input, using Equation 6 of §63.7530, that demonstrates that your source is still within its maximum TSM input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of TSM emission rate using Equation 10 of §63.7530 that demonstrates that your source is still meeting the emission limit for TSM emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel, you must submit the calculation of mercury input, using Equation 7 of §63.7530, that demonstrates that your source is still within its maximum mercury input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of mercury emission rate using Equation 11 of §63.7530 that demonstrates that your source is still meeting the emission limit for mercury emissions (for boilers or process heaters that demonstrate compliance through fuel analysis).

(7) If you wish to burn a new type of fuel and you can not demonstrate compliance with the maximum chlorine input operating limit using Equation 5 of §63.7530, the maximum TSM input operating limit using Equation 6 of §63.7530, or the maximum mercury input operating limit using Equation 7 of §63.7530, you must include in the compliance report a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel.

(8) The hours of operation for each boiler and process heater that is subject to an emission limit for each calendar month within the semiannual reporting period. This requirement applies only to limited use boilers and process heaters.

(9) If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in §63.10(d)(5)(i).

(10) If there are no deviations from any emission limits or operating limits in this subpart that apply to you, and there are no deviations from the requirements for work practice standards in this subpart, a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.

(11) If there were no periods during which the CMSs, including CEMS, COMS, and CPMS, were out of control as specified in §63.8(c)(7), a statement that there were no periods during which the CMSs were out of control during the reporting period.

(d) For each deviation from an emission limit or operating limit in this subpart and for each deviation from the requirements for work practice standards in this subpart that occurs at an affected source where you are not using a CMSs to comply with that emission limit, operating limit, or work practice standard, the compliance report must contain the information in paragraphs (c)(1) through (10) of this section and the information required in paragraphs (d)(1) through (4) of this section. This includes periods of startup, shutdown, and malfunction.

(1) The total operating time of each affected source during the reporting period.

(2) A description of the deviation and which emission limit, operating limit, or work practice standard from which you deviated.

(3) Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken.

(4) A copy of the test report if the annual performance test showed a deviation from the emission limit for particulate matter or the alternative TSM limit, a deviation from the HCl emission limit, or a deviation from the mercury emission limit.

(e) For each deviation from an emission limitation and operating limit or work practice standard in this subpart occurring at an affected source where you are using a CMS to comply with that emission limit, operating limit, or work practice standard, you must include the information in paragraphs (c) (1) through (10) of this section and the information required in paragraphs (e) (1) through (12) of this section. This includes periods of startup, shutdown, and malfunction and any deviations from your site-specific monitoring plan as required in §63.7505(d).

(1) The date and time that each malfunction started and stopped and description of the nature of the deviation (*i.e.* , what you deviated from).

(2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each CMS was out of control, including the information in §63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMSs downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.

(8) An identification of each parameter that was monitored at the affected source for which there was a deviation, including opacity, carbon monoxide, and operating parameters for wet scrubbers and other control devices.

(9) A brief description of the source for which there was a deviation.

(10) A brief description of each CMS for which there was a deviation.

(11) The date of the latest CMS certification or audit for the system for which there was a deviation.

(12) A description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 9 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

(g) If you operate a new gaseous fuel unit that is subject to the work practice standard specified in Table 1 to this subpart, and you intend to use a fuel other than natural gas or equivalent to fire the affected unit, you must submit a notification of alternative fuel use within 48 hours of the declaration of a period of natural gas curtailment or supply interruption, as defined in §63.7575. The notification must include the information specified in paragraphs (g)(1) through (5) of this section.

(1) Company name and address.

(2) Identification of the affected unit.

(3) Reason you are unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began.

(4) Type of alternative fuel that you intend to use.

(5) Dates when the alternative fuel use is expected to begin and end.

§ 63.7555 What records must I keep?

(a) You must keep records according to paragraphs (a)(1) through (3) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in §63.10(b)(2)(xiv).

(2) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests, fuel analyses, or other compliance demonstrations, performance evaluations, and opacity observations as required in §63.10(b)(2)(viii).

(b) For each CEMS, CPMS, and COMS, you must keep records according to paragraphs (b)(1) through (5) of this section.

(1) Records described in §63.10(b)(2) (vi) through (xi).

(2) Monitoring data for continuous opacity monitoring system during a performance evaluation as required in §63.6(h)(7)(i) and (ii).

(3) Previous (*i.e.,* superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(4) Request for alternatives to relative accuracy test for CEMS as required in §63.8(f)(6)(i).

(5) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(c) You must keep the records required in Table 8 to this subpart including records of all monitoring data and calculated averages for applicable operating limits such as opacity, pressure drop, carbon monoxide, and pH to show continuous compliance with each emission limit, operating limit, and work practice standard that applies to you.

(d) For each boiler or process heater subject to an emission limit, you must also keep the records in paragraphs (d)(1) through (5) of this section.

(1) You must keep records of monthly fuel use by each boiler or process heater, including the type(s) of fuel and amount(s) used.

(2) You must keep records of monthly hours of operation by each boiler or process heater. This requirement applies only to limited-use boilers and process heaters.

(3) A copy of all calculations and supporting documentation of maximum chlorine fuel input, using Equation 5 of §63.7530, that were done to demonstrate continuous compliance with the HCl emission limit, for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of HCl emission rates, using Equation 9 of §63.7530, that were done to demonstrate compliance with the HCl emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum chlorine fuel input or HCl emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate chlorine fuel input, or HCl emission rate, for each boiler and process heater.

(4) A copy of all calculations and supporting documentation of maximum TSM fuel input, using Equation 6 of §63.7530, that were done to demonstrate continuous compliance with the TSM emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of TSM emission rates, using Equation 10 of §63.7530, that were done to demonstrate compliance with the TSM emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum TSM fuel input or TSM emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate TSM fuel input, or TSM emission rates, for each boiler and process heater.

(5) A copy of all calculations and supporting documentation of maximum mercury fuel input, using Equation 7 of §63.7530, that were done to demonstrate continuous compliance with the mercury emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of mercury emission rates, using Equation 11 of §63.7530, that were done to demonstrate compliance with the mercury emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum mercury fuel input or mercury emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate mercury fuel input, or mercury emission rates, for each boiler and process heater.

(e) If your boiler or process heater is subject to an emission limit or work practice standard in Table 1 to this subpart and has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent such that the unit is in one of the limited use subcategories, you must keep the records in paragraphs (e)(1) and (2) of this section.

(1) A copy of the federally enforceable permit that limits the annual capacity factor of the source to less than or equal to 10 percent.

(2) Fuel use records for the days the boiler or process heater was operating.

§ 63.7560 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to §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, according to §63.10(b)(1). You can keep the records off site for the remaining 3 years.

Other Requirements and Information

§ 63.7565 What parts of the General Provisions apply to me?

Table 10 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

§ 63.7570 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your 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 40 CFR part 63, subpart E, the authorities listed in paragraphs (b)(1) through (5) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency, however, the U.S. EPA retains oversight of this subpart and can take enforcement actions, as appropriate.

(1) Approval of alternatives to the non-opacity emission limits and work practice standards in §63.7500(a) and (b) under §63.6(g).

(2) Approval of alternative opacity emission limits in §63.7500(a) under §63.6(h)(9).

(3) Approval of major change to test methods in Table 5 to this subpart under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(4) Approval of major change to monitoring under §63.8(f) and as defined in §63.90.

(5) Approval of major change to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

§ 63.7575 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in §63.2 (the General Provisions), and in this section as follows:

Annual capacity factor means the ratio between the actual heat input to a boiler or process heater from the fuels burned during a calendar year, and the potential heat input to the boiler or process heater had it been operated for 8,760 hours during a year at the maximum steady state design heat input capacity.

Bag leak detection system means an instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter (*i.e.* , baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on electrodynamic, triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.

Biomass fuel means unadulterated wood as defined in this subpart, wood residue, and wood products (*e.g.* , trees, tree stumps, tree limbs, bark, lumber, sawdust, sanderdust, chips, scraps, slabs, millings, and shavings); animal litter; vegetative agricultural and silvicultural materials, such as logging residues (slash), nut and grain hulls and chaff (*e.g.* , almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds.

Blast furnace gas fuel-fired boiler or process heater means an industrial/commercial/institutional boiler or process heater that receives 90 percent or more of its total heat input (based on an annual average) from blast furnace gas.

Boiler means an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water. Waste heat boilers are excluded from this definition.

Coal means all solid fuels classifiable as anthracite, bituminous, sub-bituminous, or lignite by the American Society for Testing and Materials in ASTM D388–991e1., "Standard Specification for Classification of Coals by Rank[1] " (incorporated by reference, see §63.14(b)), coal refuse, and petroleum coke. Synthetic fuels derived from coal for the purpose of creating useful heat including but not limited to, solvent-refined coal, coal-oil mixtures, and coal-water mixtures, for the purposes of this subpart. Coal derived gases are excluded from this definition.

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

Commercial/institutional boiler means a boiler used in commercial establishments or institutional establishments such as medical centers, research centers, institutions of higher education, hotels, and laundries to provide electricity, steam, and/or hot water.

Common Stack means the exhaust of emissions from two or more affected units through a single flue.

Construction/demolition material means waste building material that result from the construction or demolition operations on houses and commercial and industrial buildings.

Deviation. (1) Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(i) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard;

(ii) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(iii) Fails to meet any emission limit, operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless or whether or not such failure is permitted by this subpart.

(2) A deviation is not always a violation. The determination of whether a deviation constitutes a violation of the standard is up to the discretion of the entity responsible for enforcement of the standards.

Distillate oil means fuel oils, including recycled oils, that comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society for Testing and Materials in ASTM D396–02a, "Standard Specifications for Fuel Oils[1] " (incorporated by reference, see §63.14(b)).

Dry scrubber means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gas in the exhaust stream forming a dry powder material. Sorbent injection systems in fluidized bed boilers and process heaters are included in this definition.

Electric utility steam generating unit means a fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 megawatts electrical output to any utility power distribution system for sale is considered an electric utility steam generating unit.

Electrostatic precipitator means an add-on air pollution control device used to capture particulate matter by charging the particles using an electrostatic field, collecting the particles using a grounded collecting surface, and transporting the particles into a hopper.

Equivalent means the following only as this term is used in Table 6 to subpart DDDDD:

(1) An equivalent sample collection procedure means a published voluntary consensus standard or practice (VCS) or EPA method that includes collection of a minimum of three composite fuel samples, with each composite consisting of a minimum of three increments collected at approximately equal intervals over the test period.

(2) An equivalent sample compositing procedure means a published VCS or EPA method to systematically mix and obtain a representative subsample (part) of the composite sample.

(3) An equivalent sample preparation procedure means a published VCS or EPA method that: Clearly states that the standard, practice or method is appropriate for the pollutant and the fuel matrix; or is cited as an appropriate sample preparation standard, practice or method for the pollutant in the chosen VCS or EPA determinative or analytical method.

(4) An equivalent procedure for determining heat content means a published VCS or EPA method to obtain gross calorific (or higher heating) value.

(5) An equivalent procedure for determining fuel moisture content means a published VCS or EPA method to obtain moisture content. If the sample analysis plan calls for determining metals (especially the mercury, selenium, or arsenic) using an aliquot of the dried sample, then the drying temperature must be modified to prevent vaporizing these metals. On the other hand, if metals analysis is done on an “as received” basis, a separate aliquot can be dried to determine moisture content and the metals concentration mathematically adjusted to a dry basis.

(6) An equivalent pollutant (mercury, TSM, or total chlorine) determinative or analytical procedure means a published VCS or EPA method that clearly states that the standard, practice, or method is appropriate for the pollutant and the fuel matrix and has a published detection limit equal or lower than the methods listed in Table 6 to subpart DDDDD for the same purpose.

Fabric filter means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse.

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

Firetube boiler means a boiler that utilizes a containment shell that encloses firetubes (tubes in a boiler having water on the outside and carrying the hot gases of combustion inside), and allows the water to vaporize and steam to separate. Hybrid boilers that have been registered/certified by the National Board of Boiler and Pressure Vessel Inspectors and/or the State as firetube boilers as indicated by “Form P–2” (Manufacturers' Data Report for All Types of Boilers Except Watertube and Electric, As Required by the Provisions of the ASME Code Rules, Section I), are considered to be firetube boilers for the purpose of this subpart.

Fuel type means each category of fuels that share a common name or classification. Examples include, but are not limited to, bituminous coal, subbituminous coal, lignite, anthracite, biomass, construction/demolition material, salt water laden wood, creosote treated wood, tires, residual oil.

Individual fuel types received from different suppliers are not considered new fuel types except for construction/demolition material. Contraband, prohibited goods, or retired U.S. flags, burned at the request of a government agency, are not considered a fuel type for the purpose of this subpart.

Gaseous fuel includes, but is not limited to, natural gas, process gas, landfill gas, coal derived gas, refinery gas, and biogas. Blast furnace gas is exempted from this definition.

Heat input means heat derived from combustion of fuel in a boiler or process heater and does not include the heat input from preheated combustion air, recirculated flue gases, or exhaust gases from other sources such as gas turbines, internal combustion engines, kilns, etc.

Hot water heater means a closed vessel with a capacity of no more than 120 U.S. gallons in which water is heated by combustion of gaseous or liquid fuel and is withdrawn for use external to the vessel at pressures not exceeding 160 psig, including the apparatus by which the heat is generated and all controls and devices necessary to prevent water temperatures from exceeding 210 °F (99 °C).

Industrial boiler means a boiler used in manufacturing, processing, mining, and refining or any other industry to provide steam, hot water, and/or electricity.

Large gaseous fuel subcategory includes any watertube boiler or process heater that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment, gas supply emergencies, or for periodic testing of liquid fuel, has a rated capacity of greater than 10 MMBtu per hour heat input, and does not have a federally enforceable annual average capacity factor of equal to or less than 10 percent. Periodic testing of liquid fuel is not to exceed a combined total of 48 hours during any calendar year.

Large liquid fuel subcategory includes any watertube boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and does not have a federally enforceable annual average capacity factor of equal to or less than 10 percent. Large gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment, gas supply emergencies or for periodic testing of liquid fuel not to exceed a combined total of 48 hours during any calendar year are not included in this definition.

Large solid fuel subcategory includes any watertube boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and does not have a federally enforceable annual average capacity factor of equal to or less than 10 percent.

Limited use gaseous fuel subcategory includes any watertube boiler or process heater that burns gaseous fuels not combined with any liquid or solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply emergencies, has a rated capacity of greater than 10 MMBtu per hour heat input, and has a federally enforceable annual average capacity factor of equal to or less than 10 percent.

Limited use liquid fuel subcategory includes any watertube boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has a federally enforceable annual average capacity factor of equal to or less than 10 percent. Limited use gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies are not included in this definition.

Limited use solid fuel subcategory includes any watertube boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, has a rated capacity of greater

than 10 MMBtu per hour heat input, and has a federally enforceable annual average capacity factor of equal to or less than 10 percent.

Liquid fossil fuel means petroleum, distillate oil, residual oil and any form of liquid fuel derived from such material.

Liquid fuel includes, but is not limited to, distillate oil, residual oil, waste oil, and process liquids.

Minimum pressure drop means 90 percent of the lowest test-run average pressure drop measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum scrubber effluent pH means 90 percent of the lowest test-run average effluent pH measured at the outlet of the wet scrubber according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable hydrogen chloride emission limit.

Minimum scrubber flow rate means 90 percent of the lowest test-run average flow rate measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum sorbent flow rate means 90 percent of the lowest test-run average sorbent (or activated carbon) flow rate measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits.

Minimum voltage or amperage means 90 percent of the lowest test-run average voltage or amperage to the electrostatic precipitator measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits.

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) Liquid petroleum gas, as defined by the American Society for Testing and Materials in ASTM D1835–03a, “Standard Specification for Liquid Petroleum Gases” (incorporated by reference, see §63.14(b)).

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

Particulate matter means any finely divided solid or liquid material, other than uncombined water, as measured by the test methods specified under this subpart, or an alternative method.

Period of natural gas curtailment or supply interruption means a period of time during which the supply of natural gas to an affected facility is halted for reasons beyond the control of the facility. An increase in the cost or unit price of natural gas does not constitute a period of natural gas curtailment or supply interruption.

Process heater means an enclosed device using controlled flame, that is not a boiler, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to a heat transfer material for use in a process unit, instead of generating steam. Process heaters are devices in which the combustion gases do not directly come into contact with process materials. Process heaters do not include units used for comfort heat or space heat, food preparation for on-site consumption, or autoclaves.

Residual oil means crude oil, and all fuel oil numbers 4, 5 and 6, as defined by the American Society for Testing and Materials in ASTM D396–02a, "Standard Specifications for Fuel Oils[1] " (incorporated by reference, see §63.14(b)).

Responsible official means responsible official as defined in 40 CFR 70.2.

Small gaseous fuel subcategory includes any size of firetube boiler and any other boiler or process heater with a rated capacity of less than or equal to 10 MMBtu per hour heat input that burn gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply emergencies, or for periodic testing of liquid fuel. Periodic testing is not to exceed a combined total of 48 hours during any calendar year.

Small liquid fuel subcategory includes any size of firetube boiler and any other boiler or process with a rated capacity of less than or equal to 10 MMBtu per hour heat input that do not burn any solid fuel and burn any liquid fuel either alone or in combination with gaseous fuels. Small gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment, gas supply emergencies or for periodic testing of liquid fuel not to exceed a combined total of 48 hours during any calendar year are not included in this definition.

Small solid fuel subcategory includes any firetube boiler that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, and any other boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels and has a rated capacity of less than or equal to 10 MMBtu per hour heat input.

Solid fuel includes, but is not limited to, coal, wood, biomass, tires, plastics, and other nonfossil solid materials.

Temporary boiler means any gaseous or liquid fuel boiler that is designed to, and is capable of, being carried or moved from one location to another. A temporary boiler that remains at a location for more than 180 consecutive days is no longer considered to be a temporary boiler. Any temporary boiler that replaces a temporary boiler at a location and is intended to perform the same or similar function will be included in calculating the consecutive time period.

Total selected metals means the combination of the following metallic HAP: arsenic, beryllium, cadmium, chromium, lead, manganese, nickel and selenium.

Unadulterated wood means wood or wood products that have not been painted, pigment-stained, or pressure treated with compounds such as chromate copper arsenate, pentachlorophenol, and creosote. Plywood, particle board, oriented strand board, and other types of wood products bound by glues and resins are included in this definition.

Voluntary Consensus Standards or VCS mean technical standards (*e.g.* , materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. EPA/OAQPS has by precedent only used VCS that are written in English. Examples of VCS bodies are: American Society of Testing and Materials (ASTM), American Society of Mechanical Engineers (ASME), International Standards Organization (ISO), Standards Australia (AS), British Standards (BS), Canadian Standards (CSA), European Standard (EN or CEN) and German Engineering Standards (VDI). The types of standards that are not considered VCS are standards developed by: the U.S. states, *e.g.* , California (CARB) and Texas (TCEQ); industry groups, such as American Petroleum Institute (API), Gas Processors Association (GPA), and Gas Research Institute (GRI); and other branches of the U.S. government, *e.g.* Department of Defense (DOD) and Department of Transportation (DOT). This does not preclude EPA from using standards developed by groups that are not VCS bodies within their rule. When this occurs, EPA has done searches and reviews for VCS equivalent to these non-EPA methods.

Waste heat boiler means a device that recovers normally unused energy and converts it to usable heat. Waste heat boilers incorporating duct or supplemental burners that are designed to supply 50 percent or more of the total rated heat input capacity of the waste heat boiler are not considered waste heat boilers, but are considered boilers. Waste heat boilers are also referred to as heat recovery steam generators.

Watertube boiler means a boiler that incorporates a steam drum with tubes connected to the drum to separate steam from water.

Wet scrubber means any add-on air pollution control device that mixes an aqueous stream or slurry with the exhaust gases from a boiler or process heater to control emissions of particulate matter and/or to absorb and neutralize acid gases, such as hydrogen chloride.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

[69 FR 55253, Sept. 13, 2004, as amended at 71 FR 70662, Dec. 6, 2006]

Table 1 to Subpart DDDDD of Part 63—Emission Limits and Work Practice Standards

As stated in §63.7500, you must comply with the following applicable emission limits and work practice standards:

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	You must meet the following emission limits and work practice standards . . .
1. New or reconstructed large solid fuel	a. Particulate Matter (or Total Selected Metals)	0.025 lb per MMBtu of heat input; or (0.0003 lb per MMBtu of heat input).
	b. Hydrogen Chloride	0.02 lb per MMBtu of heat input.
	c. Mercury	0.000003 lb per MMBtu of heat input.
	d. Carbon Monoxide	400 ppm by volume on a dry basis corrected to 7 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr).
2. New or reconstructed limited use solid fuel	a. Particulate Matter (or Total Selected Metals)	0.025 lb per MMBtu of heat input; or (0.0003 lb per MMBtu of heat input).
	b. Hydrogen Chloride	0.02 lb per MMBtu of heat input.
	c. Mercury	0.000003 lb per MMBtu of heat input.
	d. Carbon Monoxide	400 ppm by volume on a dry basis corrected to 7 percent oxygen (3-run average).
3. New or reconstructed small solid fuel	a. Particulate Matter (or Total Selected Metals)	0.025 lb per MMBtu of heat input; or (0.0003 lb per MMBtu of heat input).

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	You must meet the following emission limits and work practice standards . . .
	b. Hydrogen Chloride	0.02 lb per MMBtu of heat input.
	c. Mercury	0.000003 lb per MMBtu of heat input.
4. New reconstructed large liquid fuel	a. Particulate Matter	0.03 lb per MMBtu of heat input.
	b. Hydrogen Chloride	0.0005 lb per MMBtu of heat input.
	c. Carbon Monoxide	400 ppm by volume on a dry basis corrected to 3 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr).
5. New or reconstructed limited use liquid fuel	a. Particulate Matter	0.03 lb per MMBtu of heat input.
	b. Hydrogen Chloride	0.0009 lb per MMBtu of heat input.
	c. Carbon Monoxide	400 ppm by volume on a dry basis liquid corrected to 3 percent oxygen (3-run average).
6. New or reconstructed small liquid fuel	a. Particulate Matter	0.03 lb per MMBtu of heat input.
	b. Hydrogen Chloride	0.0009 lb per MMBtu of heat input.
7. New reconstructed large gaseous fuel	Carbon Monoxide	400 ppm by volume on a dry basis corrected to 3 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr).
8. New or reconstructed limited use gaseous fuel	Carbon Monoxide	400 ppm by volume on a dry basis corrected to 3 percent oxygen (3-run average).
9. Existing large solid fuel	a. Particulate Matter (or Total Selected Metals)	0.07 lb per MMBtu of heat input; or (0.001 lb per MMBtu of heat input).
	b. Hydrogen Chloride	0.09 lb per MMBtu of heat input.
	c. Mercury	0.000009 lb per MMBtu of heat input.
10. Existing limited use solid fuel	Particulate Matter (or Total Selected Metals)	0.21 lb per MMBtu of heat input; or (0.004 lb per MMBtu of heat input).

Table 2 to Subpart DDDDD of Part 63—Operating Limits for Boilers and Process Heaters With Particulate Matter Emission Limits

As stated in §63.7500, you must comply with the applicable operating limits:

If you demonstrate compliance with applicable particulate matter emission limits using . . .	You must meet these operating limits . . .
1. Wet scrubber control	a. Maintain the minimum pressure drop and liquid flow-rate at or above the operating levels established during the performance test according to §63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for particulate matter.
2. Fabric filter control	a. Install and operate a bag leak detection system according to §63.7525 and operate the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during each 6-month period; or
	b. This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).
3. Electrostatic precipitator control	a. This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (1-hour block average); or
	b. This option is only for boilers and process heaters that operate additional wet control systems. Maintain the minimum voltage and secondary current or total power input of the electrostatic precipitator at or above the operating limits established during the performance test according to §63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for particulate matter.
4. Any other control type	This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).

Table 3 to Subpart DDDDD of Part 63—Operating Limits for Boilers and Process Heaters With Mercury Emission Limits and Boilers and Process Heaters That Choose To Comply With the Alternative Total Selected Metals Emission Limits

As stated in §63.7500, you must comply with the applicable operating limits:

If you demonstrate compliance with applicable mercury and/or total selected metals emission limits using . . .	You must meet these operating limits . . .
1. Wet scrubber control	Maintain the minimum pressure drop and liquid flow-rate at or above the operating levels established during the performance test according to §63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limits for mercury and/or total selected metals.
2. Fabric filter control	a. Install and operate a bag leak detection system according to §63.7525 and operate the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period; or
	b. This option is for boilers and process heaters that operate dry control systems. Existing sources must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New sources must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).
3. Electrostatic precipitator control	a. This option is for boilers and process heaters that operate dry control systems. Existing sources must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New sources must maintain opacity to less than or equal to 10 percent opacity (1-hour block average); or
	b. This option is only for boilers and process heaters that operate additional wet control systems. Maintain the minimum voltage and secondary current or total power input of the electrostatic precipitator at or above the operating limits established during the performance test according to §63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limits for mercury and/or total selected metals.
4. Dry scrubber or carbon injection control	Maintain the minimum sorbent or carbon injection rate at or above the operating levels established during the performance test according to §63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for mercury.
5. Any other control type	This option is only for boilers and process heaters that operate dry control systems. Existing sources must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New sources must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).

If you demonstrate compliance with applicable mercury and/or total selected metals emission limits using . . .	You must meet these operating limits . . .
6. Fuel analysis	Maintain the fuel type or fuel mixture such that the mercury and/or total selected metals emission rates calculated according to §63.7530(d)(4) and/or (5) is less than the applicable emission limits for mercury and/or total selected metals.

Table 4 to Subpart DDDDD of Part 63—Operating Limits for Boilers and Process Heaters With Hydrogen Chloride Emission Limits

As stated in §63.7500, you must comply with the following applicable operating limits:

If you demonstrate compliance with applicable hydrogen chloride emission limits using . . .	You must meet these operating limits . . .
1. Wet scrubber control	Maintain the minimum scrubber effluent pH, pressure drop, and liquid flow-rate at or above the operating levels established during the performance test according to §63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for hydrogen chloride.
2. Dry scrubber control	Maintain the minimum sorbent injection rate at or above the operating levels established during the performance test according to §63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for hydrogen chloride.
3. Fuel analysis	Maintain the fuel type or fuel mixture such that the hydrogen chloride emission rate calculated according to §63.7530(d)(3) is less than the applicable emission limit for hydrogen chloride.

Table 5 to Subpart DDDDD of Part 63—Performance Testing Requirements

As stated in §63.7520, you must comply with the following requirements for performance test for existing, new or reconstructed affected sources:

To conduct a performance test for the following pollutant . . .	You must . . .	Using . . .
1. Particulate Matter	a. Select sampling ports location and the number of traverse points	Method 1 in appendix A to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G in appendix A to part 60 of this chapter.

To conduct a performance test for the following pollutant . . .	You must . . .	Using . . .
	c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B in appendix A to part 60 of this chapter, or ASME PTC 19, Part 10 (1981) (IBR, see §63.14(i)).
	d. Measure the moisture content of the stack gas	Method 4 in appendix A to part 60 of this chapter.
	e. Measure the particulate matter emission concentration	Method 5 or 17 (positive pressure fabric filters must use Method 5D) in appendix A to part 60 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates	Method 19 F-factor methodology in appendix A to part 60 of this chapter.
2. Total selected metals	a. Select sampling ports location and the number of traverse points	Method 1 in appendix A to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G in appendix A to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B in appendix A to part 60 of this chapter, or ASME PTC 19, Part 10 (1981) (IBR, see §63.14(i)).
	d. Measure the moisture content of the stack gas	Method 4 in appendix A to part 60 of this chapter.
	e. Measure the total selected metals emission concentration	Method 29 in appendix A to part 60 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates	Method 19 F-factor methodology in appendix A to part 60 of this chapter.
3. Hydrogen chloride	a. Select sampling ports location and the number of traverse points	Method 1 in appendix A to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G in appendix A to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B in appendix A to part 60 of this chapter, or ASME PTC 19, Part 10 (1981) (IBR, see §63.14(i)).
	d. Measure the moisture content of the stack gas	Method 4 in appendix A to part 60 of this chapter.

To conduct a performance test for the following pollutant . . .	You must . . .	Using . . .
	e. Measure the hydrogen chloride emission concentration	Method 26 or 26A in appendix A to part 60 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates	Method 19 F-factor methodology in appendix A to part 60 of this chapter.
4. Mercury	a. Select sampling ports location and the number of traverse points	Method 1 in appendix A to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G in appendix A to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B in appendix A to part 60 of this chapter, or ASME PTC 19, Part 10 (1981) (IBR, see §62.14(i)).
	d. Measure the moisture content of the stack gas	Method 4 in appendix A to part 60 of this chapter.
	e. Measure the mercury emission concentration	Method 29 in appendix A to part 60 of this chapter or Method 101A in appendix B to part 61 of this chapter or ASTM Method D6784–02 (IBR, see §63.14(b)).
	f. Convert emissions concentration to lb per MMBtu emission rates	Method 19 F-factor methodology in appendix A to part 60 of this chapter.
5. Carbon Monoxide	a. Select the sampling ports location and the number of traverse points	Method 1 in appendix A to part 60 of this chapter.
	b. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B in appendix A to part 60 of this chapter, or ASTM D6522–00 (IBR, see §63.14(b)), or ASME PTC 19, Part 10 (1981) (IBR, see §63.14(i)).
	c. Measure the moisture content of the stack gas	Method 4 in appendix A to part 60 of this chapter.
	d. Measure the carbon monoxide emission concentration	Method 10, 10A, or 10B in appendix A to part 60 of this chapter, or ASTM D6522–00 (IBR, see §63.14(b)) when the fuel is natural gas.

Table 6 to Subpart DDDDD of Part 63—Fuel Analysis Requirements

As stated in §63.7521, you must comply with the following requirements for fuel analysis testing for existing, new or reconstructed affected sources. However, equivalent methods may be used in lieu of the prescribed methods at the discretion of the source owner or operator:

To conduct a fuel analysis for the following pollutant * * *	You must * * *	Using * * *
1. Mercury * * *	a. Collect fuel samples * * *	Procedure in §63.7521(c) or ASTM D2234–D2234M–03(for coal) (IBR, see §63.14(b)) or ASTM D6323–98 (2003) (for biomass) (IBR, See §63.14(b)) or equivalent.
	b. Composite fuel samples * * *	Procedure in §63.7521(d) or equivalent.
	c. Prepare composited fuel samples * * *	SW–846–3050B (for solid samples) or SW–846–3020A (for liquid samples) or ASTM D2013–04 (for coal) (IBR, see §63.14(b)) or ASTM D5198–92 (2003) (for biomass) (IBR, see §63.14(b)) or equivalent.
	d. Determine heat content of the fuel type * * *	ASTM D5865–04 (for coal) (IBR, see §63.24(b)) or ASTM E711–87 (for biomass) (IBR, see §63.14(b)) or equivalent.
	e. Determine moisture content of the fuel type * * *	ASTM D3173–03 (IBR, see §63.14(b)) or ASTM E871–82 (1998) (IBR, see §63.14(b)) or equivalent.
	f. Measure mercury concentration in fuel sample * * *	ASTM D6722–01 (for coal) (IBR, see §6314(b)) or SW–846–7471A (for solid samples) or SW–846–7470A (for liquid samples or equivalent.
	g. Convert concentration into units of pounds of pollutant per MMBtu of heat content.	
2. Total Selected metals * * *	a. Collect fuel samples * * *	Procedure in §63.7521(c) or ASTM D2234–D2234M–03(for coal) (IBR, see §63.14(b)) or ASTM D6323–98 (2003) (for biomass) (IBR, see §63.14(b)) or equivalent.
	b. Composite fuel samples * * *	Procedure in §63.7521(d) or equivalent.
	c. Prepare composited fuel samples * * *	SW–846–3050B (for solid samples) or SW–846–3020A (for liquid samples) or ASTM D2013–04 (for coal) (IBR, see §63.14(b)) or ASTM D5198–92 (2003) (for biomass (IBR, see §63.14(b)) or equivalent.
	d. Determine heat content of the fuel type * * *	ASTM D5865–04 (for coal) (IBR, see §63.14(b)) or ASTM E711–87 (for biomass) (IBR, see §63.14(b)) or equivalent.
	e. Determine moisture content of the fuel type * * *	ASTM D3173–03 (IBR, see §63.14(b)) or ASTM E871–82 (IBR, see §63.14(b)) or equivalent.

To conduct a fuel analysis for the following pollutant * * *	You must * * *	Using * * *
	f. Measure total selected metals concentration in fuel sample * * *	SW–846–6010B or ASTM D6357–04 (for arsenic, beryllium, cadmium, chromium, lead, manganese, and nickel for all solid fuels) and ASTM D4606–03 (for selenium in coal) (IBR, see §63.14(b)) or ASTM E885–88 (1996) for biomass) (IBR, see §63.14(b)) or equivalent.
	g. Convert concentrations into units of pounds of pollutant per MMBtu of heat content.	
3. Hydrogen Chloride * * *	a. Collect fuel samples * * *	Procedure in §63.7521(c) or ASTM D2234–D2234M–03(for coal) (IBR, see §63.14(b)) or ASTM D6323–98 (2003) (for biomass) (IBR, see §63.14(b)) or equivalent.
	b. Composite fuel samples * * *	Procedure in §63.7521(d) or equivalent.
	c. Prepare composited fuel samples * * *	SW–846–3050B (for solid samples) or SW–846–3020A (for liquid samples) or ASTM D2013–04 (for coal) (IBR, see §63.14(b)) or ASTM D5198–92 (2003) (for biomass) (IBR, see §63.14(b)) or equivalent.
	d. Determine heat content of the fuel type * * *	ASTM D5865–04 (for coal) (IBR, see §63.14(b)) or ASTM E711–87 (1996) (for biomass) (IBR, see §63.14(b)) or equivalent.
	e. Determine moisture content of the fuel type * * *	ASTM D3173–03 (IBR, see §63.14(b)) or ASTM E871–82 (1998) or equivalent.
	f. Measure chlorine concentration in fuel sample * * *	SW–846–9250 or ASTM D6721–01 (for coal) or ASTM E776–87 (1996) (for biomass) (IBR, see §63.14(b)) or equivalent.
	g. Convert concentrations into units of pounds of pollutant per MMBtu of heat content.	

[71 FR 70663, Dec. 6, 2006]

Table 7 to Subpart DDDDD of Part 63—Establishing Operating Limits

As stated in §63.7520, you must comply with the following requirements for establishing operating limits:

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
1. Particulate matter, mercury, or total selected metals	a. Wet scrubber operating parameters	i. Establish a site-specific minimum pressure drop and minimum flow rate operating limit according to §63.7530(c)	(1) Data from the pressure drop and liquid flow rate monitors and the particulate matter, mercury, or total selected metals performance test	(a) You must collect pressure drop and liquid flow-rate data every 15 minutes during the entire period of the performance tests;
				(b) Determine the average pressure drop and liquid flow-rate for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.
	b. Electrostatic precipitator operating parameters (option only for units with additional wet scrubber control)	i. Establish a site-specific minimum voltage and secondary current or total power input according to §63.7530(c)	(1) Data from the pressure drop and liquid flow rate monitors and the particulate matter, mercury, or total selected metals performance test	(a) You must collect voltage and secondary current or total power input data every 15 minutes during the entire period of the performance tests;
				(b) Determine the average voltage and secondary current or total power input for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.
2. Hydrogen Chloride	a. Wet scrubber operating parameters	i. Establish a site-specific minimum pressure drop and minimum flow rate operating limit according to §63.7530(c)	(1) Data from the pH, pressure drop, and liquid flow-rate monitors and the hydrogen chloride performance test	(a) You must collect pH, pressure drop, and liquid flow-rate data every 15 minutes during the entire period of the performance tests;

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
				(b) Determine the average pH, pressure drop, and liquid flow-rate for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.
	b. Dry scrubber operating parameters	i. Establish a site-specific minimum sorbent injection rate operating limit according to §63.7530(c)	(1) Data from the sorbent injection rate monitors and hydrogen chloride performance test	(a) You must collect sorbent injection rate data every 15 minutes during the entire period of the performance tests;
				(b) Determine the average sorbent injection rate for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.

Table 8 to Subpart DDDDD of Part 63—Demonstrating Continuous Compliance

As stated in §63.7540, you must show continuous compliance with the emission limitations for affected sources according to the following:

If you must meet the following operating limits or work practice standards . . .	You must demonstrate continuous compliance by . . .
1. Opacity	a. Collecting the opacity monitoring system data according to §§63.7525(b) and 63.7535; and
	b. Reducing the opacity monitoring data to 6-minute averages; and
	c. Maintaining opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent for existing sources; or maintaining opacity to less than or equal to 10 percent (1-hour block average) for new sources.
2. Fabric Filter Bag Leak Detection Operation	Installing and operating a bag leak detection system according to §63.7525 and operating the fabric filter such that the requirements in §63.7540(a)(9) are met.
3. Wet Scrubber Pressure Drop and Liquid Flow-rate	a. Collecting the pressure drop and liquid flow rate monitoring system data according to §§63.7525 and 63.7535; and

If you must meet the following operating limits or work practice standards . . .	You must demonstrate continuous compliance by . . .
	b. Reducing the data to 3-hour block averages; and
	c. Maintaining the 3-hour average pressure drop and liquid flow-rate at or above the operating limits established during the performance test according to §63.7530(c).
4. Wet Scrubber pH	a. Collecting the pH monitoring system data according to §§63.7525 and 63.7535; and
	b. Reducing the data to 3-hour block averages; and
	c. Maintaining the 3-hour average pH at or above the operating limit established during the performance test according to §63.7530(c).
5. Dry Scrubber Sorbent or Carbon Injection Rate	a. Collecting the sorbent or carbon injection rate monitoring system data for the dry scrubber according to §§63.7525 and 63.7535; and
	b. Reducing the data to 3-hour block averages; and
	c. Maintaining the 3-hour average sorbent or carbon injection rate at or above the operating limit established during the performance test according to §§63.7530(c).
6. Electrostatic Precipitator Secondary Current and Voltage or Total Power Input	a. Collecting the secondary current and voltage or total power input monitoring system data for the electrostatic precipitator according to §§63.7525 and 63.7535; and
	b. Reducing the data to 3-hour block averages; and
	c. Maintaining the 3-hour average secondary current and voltage or total power input at or above the operating limits established during the performance test according to §§63.7530(c).
7. Fuel Pollutant Content	a. Only burning the fuel types and fuel mixtures used to demonstrate compliance with the applicable emission limit according to §63.7530(c) or (d) as applicable; and
	b. Keeping monthly records of fuel use according to §63.7540(a).

Table 9 to Subpart DDDDD of Part 63—Reporting Requirements

As stated in §63.7550, you must comply with the following requirements for reports:

You must submit a(n)	The report must contain . . .	You must submit the report . . .
1. Compliance report	a. Information required in §63.7550(c)(1) through (11); and	Semiannually according to the requirements in §63.7550(b).
	b. If there are no deviations from any emission limitation (emission limit and operating limit) that applies to you and there are no deviations from the requirements for work practice standards in Table 8 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CMSs were out-of-control during the reporting period; and	
	c. If you have a deviation from any emission limitation (emission limit and operating limit) or work practice standard during the reporting period, the report must contain the information in §63.7550(d). If there were periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control, as specified in §63.8(c)(7), the report must contain the information in §63.7550(e); and	
	d. If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in §63.10(d)(5)(i)	

You must submit a(n)	The report must contain . . .	You must submit the report . . .
2. An immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard	a. Actions taken for the event; and	i. By fax or telephone within 2 working days after starting actions inconsistent with the plan; and
	b. The information in §63.10(d)(5)(ii)	ii. By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority.

Table 10 to Subpart DDDDD of Part 63—Applicability of General Provisions to Subpart DDDDD

As stated in §63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§63.1	Applicability	Initial Applicability Determination; Applicability After Standard Established; Permit Requirements; Extensions, Notifications	Yes.
§63.2	Definitions	Definitions for part 63 standards	Yes.
§63.3	Units and Abbreviations	Units and abbreviations for part 63 standards	Yes.
§63.4	Prohibited Activities	Prohibited Activities; Compliance date; Circumvention, Severability	Yes.
§63.5	Construction/Reconstruction	Applicability; applications; approvals	Yes.
§63.6(a)	Applicability	GP apply unless compliance extension; and GP apply to area sources that become major	Yes.
§63.6(b)(1)–(4)	Compliance Dates for New and Reconstructed sources	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for 112(f)	Yes.
§63.6(b)(5)	Notification	Must notify if commenced construction or reconstruction after proposal	Yes.
§63.6(b)(6)	[Reserved]		

Citation	Subject	Brief description	Applicable
§63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source	Yes.
§63.6(c)(1)–(2)	Compliance Dates for Existing Sources	Comply according to date in subpart, which must be no later than 3 years after effective date; and for 112(f) standards, comply within 90 days of effective date unless compliance extension	Yes.
§63.6(c)(3)–(4)	[Reserved]		
§63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major	Area sources that become major must comply with major source standards by date indicated in subpart or by equivalent time period (for example, 3 years)	Yes.
§63.6(d)	[Reserved]		
§63.6(e)(1)–(2)	Operation & Maintenance	Operate to minimize emissions at all times; and Correct malfunctions as soon as practicable; and Operation and maintenance requirements independently enforceable; information Administrator will use to determine if operation and maintenance requirements were met	Yes.
§63.6(e)(3)	Startup, Shutdown, and Malfunction Plan (SSMP)	Requirement for SSM and startup, shutdown, malfunction plan; and content of SSMP	Yes.
§63.6(f)(1)	Compliance Except During SSM	Comply with emission standards at all times except during SSM	Yes.
§63.6(f)(2)–(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection	Yes.
§63.6(g)(1)–(3)	Alternative Standard	Procedures for getting an alternative standard	Yes.
§63.6(h)(1)	Compliance with Opacity/VE Standards	Comply with opacity/VE emission limitations at all times except during SSM	Yes.
§63.6(h)(2)(i)	Determining Compliance with Opacity/Visible Emission (VE) Standards	If standard does not state test method, use Method 9 for opacity and Method 22 for VE	No.
§63.6(h)(2)(ii)	[Reserved]		
§63.6(h)(2)(iii)	Using Previous Tests to Demonstrate Compliance with Opacity/VE Standards	Criteria for when previous opacity/VE testing can be used to show compliance with this subpart	Yes.
§63.6(h)(3)	[Reserved]		

Citation	Subject	Brief description	Applicable
§63.6(h)(4)	Notification of Opacity/VE Observation Date	Notify Administrator of anticipated date of observation	No.
§63.6(h)(5)(i),(iii)–(v)	Conducting Opacity/VE Observations	Dates and Schedule for conducting opacity/VE observations	No.
§63.6(h)(5)(ii)	Opacity Test Duration and Averaging Times	Must have at least 3 hours of observation with thirty, 6-minute averages	No.
§63.6(h)(6)	Records of Conditions During Opacity/VE observations	Keep records available and allow Administrator to inspect	No.
§63.6(h)(7)(i)	Report continuous opacity monitoring system Monitoring Data from Performance Test	Submit continuous opacity monitoring system data with other performance test data	Yes.
§63.6(h)(7)(ii)	Using continuous opacity monitoring system instead of Method 9	Can submit continuous opacity monitoring system data instead of Method 9 results even if subpart requires Method 9, but must notify Administrator before performance test	No.
§63.6(h)(7)(iii)	Averaging time for continuous opacity monitoring system during performance test	To determine compliance, must reduce continuous opacity monitoring system data to 6-minute averages	Yes.
§63.6(h)(7)(iv)	Continuous opacity monitoring system requirements	Demonstrate that continuous opacity monitoring system performance evaluations are conducted according to §§63.8(e), continuous opacity monitoring systems are properly maintained and operated according to §63.8(c) and data quality as §63.8(d)	Yes.
§63.6(h)(7)(v)	Determining Compliance with Opacity/VE Standards	Continuous opacity monitoring system is probative but not conclusive evidence of compliance with opacity standard, even if Method 9 observation shows otherwise. Requirements for continuous opacity monitoring system to be probative evidence-proper maintenance, meeting PS 1, and data have not been altered	Yes.
§63.6(h)(8)	Determining Compliance with Opacity/VE Standards	Administrator will use all continuous opacity monitoring system, Method 9, and Method 22 results, as well as information about operation and maintenance to determine compliance	Yes.
§63.6(h)(9)	Adjusted Opacity Standard	Procedures for Administrator to adjust an opacity standard	Yes.
§63.6(i)(1)–(14)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension	Yes.
§63.6(j)	Presidential Compliance Exemption	President may exempt source category from requirement to comply with rule	Yes.

Citation	Subject	Brief description	Applicable
§63.7(a)(1)	Performance Test Dates	Dates for Conducting Initial Performance Testing and Other Compliance Demonstrations	Yes.
§63.7(a)(2)	Performance Test Dates	New source with initial startup date before effective date has 180 days after effective date to demonstrate compliance	Yes.
§63.7(a)(2)(ii-viii)	[Reserved]		
§63.7(a)(2)(ix)	Performance Test Dates	1. New source that commenced construction between proposal and promulgation dates, when promulgated standard is more stringent than proposed standard, has 180 days after effective date or 180 days after startup of source, whichever is later, to demonstrate compliance; and	Yes.
		2. If source initially demonstrates compliance with less stringent proposed standard, it has 3 years and 180 days after the effective date of the standard or 180 days after startup of source, whichever is later, to demonstrate compliance with promulgated standard	No.
§63.7(a)(3)	Section 114 Authority	Administrator may require a performance test under CAA Section 114 at any time	Yes.
§63.7(b)(1)	Notification of Performance Test	Must notify Administrator 60 days before the test	No.
§63.7(b)(2)	Notification of Rescheduling	If rescheduling a performance test is necessary, must notify Administrator 5 days before scheduled date of rescheduled date	Yes.
§63.7(c)	Quality Assurance/Test Plan	Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with: test plan approval procedures; and performance audit requirements; and internal and external QA procedures for testing	Yes.
§63.7(d)	Testing Facilities	Requirements for testing facilities	Yes.
§63.7(e)(1)	Conditions for Conducting Performance Tests	1. Performance tests must be conducted under representative conditions; and	No.
		2. Cannot conduct performance tests during SSM; and	Yes.
		3. Not a deviation to exceed standard during SSM; and	Yes.

Citation	Subject	Brief description	Applicable
		4. Upon request of Administrator, make available records necessary to determine conditions of performance tests	Yes.
§63.7(e)(2)	Conditions for Conducting Performance Tests	Must conduct according to rule and EPA test methods unless Administrator approves alternative	Yes.
§63.7(e)(3)	Test Run Duration	Must have three separate test runs; and Compliance is based on arithmetic mean of three runs; and conditions when data from an additional test run can be used	Yes.
§63.7(e)(4)	Interaction with other sections of the Act	Nothing in §63.7(e)(1) through (4) can abrogate the Administrator's authority to require testing under Section 114 of the Act	Yes.
§63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an alternative test method	Yes.
§63.7(g)	Performance Test Data Analysis	Must include raw data in performance test report; and must submit performance test data 60 days after end of test with the Notification of Compliance Status; and keep data for 5 years	Yes.
§63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test	Yes.
§63.8(a)(1)	Applicability of Monitoring Requirements	Subject to all monitoring requirements in standard	Yes.
§63.8(a)(2)	Performance Specifications	Performance Specifications in appendix B of part 60 apply	Yes.
§63.8(a)(3)	[Reserved]		
§63.8(a)(4)	Monitoring with Flares	Unless your rule says otherwise, the requirements for flares in §63.11 apply	No.
§63.8(b)(1)(i)–(ii)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative	Yes.
§63.8(b)(1)(iii)	Monitoring	Flares not subject to this section unless otherwise specified in relevant standard	No.
§63.8(b)(2)–(3)	Multiple Effluents and Multiple Monitoring Systems	Specific requirements for installing monitoring systems; and must install on each effluent before it is combined and before it is released to the atmosphere unless Administrator approves otherwise; and if more than one monitoring system on an emission point, must report all monitoring system results, unless one monitoring system is a backup	Yes.

Citation	Subject	Brief description	Applicable
§63.8(c)(1)	Monitoring System Operation and Maintenance	Maintain monitoring system in a manner consistent with good air pollution control practices	Yes.
§63.8(c)(1)(i)	Routine and Predictable SSM	Maintain and operate CMS according to §63.6(e)(1)	Yes.
§63.8(c)(1)(ii)	SSM not in SSMP	Must keep necessary parts available for routine repairs of CMSs	Yes.
§63.8(c)(1)(iii)	Compliance with Operation and Maintenance	Must develop an SSMP for CMS	Yes.
§63.8(c)(2)–(3)	Monitoring System Installation	Must install to get representative emission and parameter measurements; and must verify operational status before or at performance test	Yes.
§63.8(c)(4)	Continuous Monitoring System (CMS) Requirements	CMSs must be operating except during breakdown, out-of-control, repair, maintenance, and high-level calibration drifts	No.
§63.8(c)(4)(i)	Continuous Monitoring System (CMS) Requirements	Continuous opacity monitoring system must have a minimum of one cycle of sampling and analysis for each successive 10-second period and one cycle of data recording for each successive 6-minute period	Yes.
§63.8(c)(4)(ii)	Continuous Monitoring System (CMS) Requirements	Continuous emissions monitoring system must have a minimum of one cycle of operation for each successive 15-minute period	No.
§63.8(c)(5)	Continuous Opacity Monitoring system (COMS) Requirements	Must do daily zero and high level calibrations	Yes.
§63.8(c)(6)	Continuous Monitoring System (CMS) Requirements	Must do daily zero and high level calibrations	No.
§63.8(c)(7)–(8)	Continuous Monitoring Systems Requirements	Out-of-control periods, including reporting	Yes.
§63.8(d)	Continuous Monitoring Systems Quality Control	Requirements for continuous monitoring systems quality control, including calibration, etc.; and must keep quality control plan on record for the life of the affected source. Keep old versions for 5 years after revisions	Yes.
§63.8(e)	Continuous monitoring systems Performance Evaluation	Notification, performance evaluation test plan, reports	Yes.
§63.8(f)(1)–(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring	Yes.

Citation	Subject	Brief description	Applicable
§63.8(f)(6)	Alternative to Relative Accuracy Test	Procedures for Administrator to approve alternative relative accuracy tests for continuous emissions monitoring system	No.
§63.8(g)(1)–(4)	Data Reduction	Continuous opacity monitoring system 6-minute averages calculated over at least 36 evenly spaced data points; and continuous emissions monitoring system 1-hour averages computed over at least 4 equally spaced data points	Yes.
§63.8(g)(5)	Data Reduction	Data that cannot be used in computing averages for continuous emissions monitoring system and continuous opacity monitoring system	No.
§63.9(a)	Notification Requirements	Applicability and State Delegation	Yes.
§63.9(b)(1)–(5)	Initial Notifications	Submit notification 120 days after effective date; and Notification of intent to construct/reconstruct; and Notification of commencement of construct/reconstruct; Notification of startup; and Contents of each	Yes.
§63.9(c)	Request for Compliance Extension	Can request if cannot comply by date or if installed BACT/LAER	Yes.
§63.9(d)	Notification of Special Compliance Requirements for New Source	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date	Yes.
§63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	No.
§63.9(f)	Notification of VE/Opacity Test	Notify Administrator 30 days prior	No.
§63.9(g)	Additional Notifications When Using Continuous Monitoring Systems	Notification of performance evaluation; and notification using continuous opacity monitoring system data; and notification that exceeded criterion for relative accuracy	Yes.
§63.9(h)(1)–(6)	Notification of Compliance Status	Contents; and due 60 days after end of performance test or other compliance demonstration, and when to submit to Federal vs. State authority	Yes.
§63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change in when notifications must be submitted	Yes.
§63.9(j)	Change in Previous Information	Must submit within 15 days after the change	Yes.

Citation	Subject	Brief description	Applicable
§63.10(a)	Recordkeeping/Reporting	Applies to all, unless compliance extension; and when to submit to Federal vs. State authority; and procedures for owners of more than 1 source	Yes.
§63.10(b)(1)	Recordkeeping/Reporting	General Requirements; and keep all records readily available and keep for 5 years	Yes.
§63.10(b)(2)(i)–(v)	Records related to Startup, Shutdown, and Malfunction	Occurrence of each of operation (process, equipment); and occurrence of each malfunction of air pollution equipment; and maintenance of air pollution control equipment; and actions during startup, shutdown, and malfunction	Yes.
§63.10(b)(2)(vi) and (x-xi)	Continuous monitoring systems Records	Malfunctions, inoperative, out-of-control; and calibration checks; and adjustments, maintenance	Yes.
§63.10(b)(2)(vii)-(ix)	Records	Measurements to demonstrate compliance with emission limitations; and performance test, performance evaluation, and visible emission observation results; and measurements to determine conditions of performance tests and performance evaluations.	Yes.
§63.10(b)(2)(xii)	Records	Records when under waiver	Yes.
§63.10(b)(2)(xiii)	Records	Records when using alternative to relative accuracy test	No.
§63.10(b)(2)(xiv)	Records	All documentation supporting Initial Notification and Notification of Compliance Status	Yes.
§63.10(b)(3)	Records	Applicability Determinations	Yes.
§63.10(c)(1),(5)–(8),(10)–(15)	Records	Additional Records for continuous monitoring systems	Yes.
§63.10(c)(7)–(8)	Records	Records of excess emissions and parameter monitoring exceedances for continuous monitoring systems	No.
§63.10(d)(1)	General Reporting Requirements	Requirement to report	Yes.
§63.10(d)(2)	Report of Performance Test Results	When to submit to Federal or State authority	Yes.
§63.10(d)(3)	Reporting Opacity or VE Observations	What to report and when	Yes.
§63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension	Yes.

Citation	Subject	Brief description	Applicable
§63.10(d)(5)	Startup, Shutdown, and Malfunction Reports	Contents and submission	Yes.
§63.10(e)(1)(2)	Additional continuous monitoring systems Reports	Must report results for each CEM on a unit; and written copy of performance evaluation; and 3 copies of continuous opacity monitoring system performance evaluation	Yes.
§63.10(e)(3)	Reports	Excess Emission Reports	No.
§63.10(e)(3)(i-iii)	Reports	Schedule for reporting excess emissions and parameter monitor exceedance (now defined as deviations)	No.
§63.10(e)(3)(iv-v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedance (now defined as deviations); and provision to request semiannual reporting after compliance for one year; and submit report by 30th day following end of quarter or calendar half; and if there has not been an exceedance or excess emission (now defined as deviations), report contents is a statement that there have been no deviations	No.
§63.10(e)(3)(iv-v)	Excess Emissions Reports	Must submit report containing all of the information in §63.10(c)(5–13), §63.8(c)(7–8)	No.
§63.10(e)(3)(vi-viii)	Excess Emissions Report and Summary Report	Requirements for reporting excess emissions for continuous monitoring systems (now called deviations); Requires all of the information in §63.10(c)(5–13), §63.8(c)(7–8)	No.
§63.10(e)(4)	Reporting continuous opacity monitoring system data	Must submit continuous opacity monitoring system data with performance test data	Yes.
§63.10(f)	Waiver for Recordkeeping/Reporting	Procedures for Administrator to waive	Yes.
§63.11	Flares	Requirements for flares	No.
§63.12	Delegation	State authority to enforce standards	Yes.
§63.13	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	Public and confidential Information	Yes.

[69 FR 55253, Sept. 13, 2004, as amended at 71 FR 20468, Apr. 20, 2006]

Appendix A to Subpart DDDDD of Part 63—Methodology and Criteria for Demonstrating Eligibility for the Health-Based Compliance Alternatives

1. Purpose/Introduction

This appendix provides the methodology and criteria for demonstrating that your affected source is eligible for the compliance alternative for the HCl emission limit and/or the total selected metals (TSM) emission limit. This appendix specifies emissions testing methods that you must use to determine HCl, chlorine, and manganese emissions from the affected units and what parts of the affected source facility must be included in the eligibility demonstration. You must demonstrate that your affected source is eligible for the health-based compliance alternatives using either a look-up table analysis (based on the look-up tables included in this appendix) or a site-specific compliance demonstration performed according to the criteria specified in this appendix. This appendix also specifies how and when you file any eligibility demonstrations for your affected source and how to show that your affected source remains eligible for the health-based compliance alternatives in the future.

2. Who Is Eligible To Demonstrate That They Qualify for the Health-Based Compliance Alternatives?

Each new, reconstructed, or existing affected source may demonstrate that they are eligible for the health-based compliance alternatives. Section 63.7490 of subpart DDDDD defines the affected source and explains which affected sources are new, existing, or reconstructed.

3. What Parts of My Facility Have To Be Included in the Health-Based Eligibility Demonstration?

If you are attempting to determine your eligibility for the compliance alternative for HCl, you must include every emission point subject to subpart DDDDD that emits either HCl or Cl_2in the eligibility demonstration.

If you are attempting to determine your eligibility for the compliance alternative for TSM, you must include every emission point subject to subpart DDDDD that emits manganese in the eligibility demonstration.

4. How Do I Determine HAP Emissions From My Affected Source?

(a) You must conduct HAP emissions tests or fuel analysis for every emission point covered under subpart DDDDD within the affected source facility according to the requirements in paragraphs (b) through (f) of this section and the methods specified in Table 1 of this appendix.

(1) If you are attempting to determine your eligibility for the compliance alternative for HCl, you must test the subpart DDDDD units at your facility for both HCl and Cl_2. When conducting fuel analysis, you must assume any chlorine detected will be emitted as Cl_2.

(2) If you are attempting to determine your eligibility for the compliance alternative for TSM, you must test the subpart DDDDD units at your facility for manganese.

(b) *Periods when emissions tests must be conducted.* (1) You must not conduct emissions tests during periods of startup, shutdown, or malfunction, as specified in §63.7(e)(1).

(2) You must test under worst-case operating conditions as defined in this appendix. You must describe your worst-case operating conditions in your performance test report for the process and control systems (if applicable) and explain why the conditions are worst-case.

(c) *Number of test runs.* You must conduct three separate test runs for each test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.

(d) *Sampling locations.* Sampling sites must be located at the outlet of the control device and prior to any releases to the atmosphere.

(e) *Collection of monitoring data for HAP control devices.* During the emissions test, you must collect operating parameter monitoring system data at least every 15 minutes during the entire emissions test and establish the site-specific operating requirements in Tables 3 or 4, as appropriate, of subpart DDDDD using data from the monitoring system and the procedures specified in §63.7530 of subpart DDDDD.

(f) *Nondetect data.* You may treat emissions of an individual HAP as zero if all of the test runs result in a nondetect measurement and the condition in paragraph (f)(1) of this section is met for the manganese test method. Otherwise, nondetect data for individual HAP must be treated as one-half of the method detection limit.

(1) For manganese measured using Method 29 in appendix A to 40 CFR part 60, you analyze samples using atomic absorption spectroscopy (AAS).

(g) You must determine the maximum hourly emission rate for each appropriate emission point according to Equation 1 of this appendix. An appropriate emission point is any emission point emitting HCl, Cl_2, or Manganese from a subpart DDDDD emission unit.

$$E_{i,s} = \sum_{j=1}^{t} \left(R_{i,j} \times I_j \right) \qquad \text{(Eq. 1)}$$

Where:

$E_{i,s}$= maximum hourly emission rate for HAP i at each emission point s associated with a subpart DDDDD emission unit j, lbs/hr

i = applicable HAP, where i = (HCl, Cl_2, or Manganese) s = individual emission point

j = each subpart DDDDD emission unit associated with an emission point, s

t = total number of subpart DDDDD emission units associated with an emission point s

$R_{i,j}$= emission rate (the 3-run average as determined according to table 1 of this appendix or the pollutant concentration in the fuel samples analyzed according to §63.7521) for HAP i at subpart DDDDD emission unit j associated with emission point s, lb per million Btu.

I_j= Maximum rated heat input capacity of each subpart DDDDD unit j emitting HAP i associated with emission point s, million Btu per hour.

5. What Are the Criteria for Determining If My Facility Is Eligible for the Health-Based Compliance Alternatives?

(a) Determine the HAP emissions from each appropriate emission point within the affected source facility using the procedures specified in section 4 of this appendix.

(b) Demonstrate that your facility is eligible for either of the health-based compliance alternatives using either the methods described in section 6 of this appendix (look-up table analysis) or section 7 of this appendix (site-specific compliance demonstration).

(c) Your facility is eligible for the health-based compliance alternative for HCl if one of the following two statements is true:

(1) The calculated HCl-equivalent emission rate is below the appropriate value in the look-up table;

(2) Your site-specific compliance demonstration indicates that none of your HI values for HCl and $CL_2$are greater than 1.0 at locations where people live or congregate (e.g., schools, daycare centers, etc.);

(d) Your facility is eligible for the health-based compliance alternative for TSM if one of the following two statements is true:

(1) The manganese emission rate for all your subpart DDDDD sources is below the appropriate value in the look-up table;

(2) Your site-specific compliance demonstration indicates that none of your HQ values for manganese are greater than 1.0 at locations where people live or congregate (e.g., schools, daycare centers, etc.).

6. How Do I Conduct a Look-Up Table Analysis?

You may use look-up tables to demonstrate that your facility is eligible for either the compliance alternative for HCl emissions limit or the compliance alternative for the TSM emissions limit, unless your permitting authority determines that the look-up table analysis in this section is not applicable to your facility on technical grounds due to site-specific variations that are not accounted for in the look-up table analysis (e.g. presence of complex terrain, rain caps, or building downwash effects).

(a) *HCl compliance alternative.* (1) Using the emission rates for HCl and Cl_2determined according to section 4 of this appendix, calculate, using equation 2 of this appendix, the toxicity-weighted emission rate (expressed in HCl-equivalents) for each emission point that emits HCl or $Cl_2$from any subpart DDDDD sources. Then, calculate the weighted average stack height using equation 3 of this appendix.

$$TW_s = E_{HCl,s} + E_{Cl_2,s}\left(\frac{RV_{HCl}}{RV_{Cl_2}}\right) \qquad \text{(Eq. 2)}$$

Where:

TW_s= the toxicity-weighted emission rate (in HCl-equivalent) for each emission point s, lb/hr.

s = individual emission points

$E_{HCl,s}$= the maximum hourly emission rate for HCl at emission point s, lb/hr

$E_{Cl2,s}$= the maximum hourly emission rate for Cl_2at emission point s, lb/hr

RV_{Cl2}= the reference value for Cl_2

RV_{HCl}= the reference value for HCl

(reference values for HCl and Cl_2can be found at *http://www.epa.gov/ttn/atw/toxsource/summary.html*).

$$H_{HCl} = \frac{\sum_{s=1}^{n}(TW_s \times H_s)}{TW_T} \qquad \text{(Eq. 3)}$$

Where:

H_{HCl}= weighted average stack height for determining the maximum allowable HCl-equivalent emission rate (in Table 2 to this appendix), m.

s = individual emission points

n = total number of emission points

TW_s= toxicity-weighted HCl-equivalent emission rate from each emission point (from equation 2), lb/hr.

H_s= height of each individual stack, m

TW_T= total toxicity-weighted HCl-equivalent emission rate from the source (summed for all emission points), lb/hr.

(2) Calculate the total toxicity-weighted emission rate for your affected source by summing the toxicity-weighted emission rate for each appropriate subpart DDDDD emission point.

(3) Using the weighted average stack height and the minimum distance between any appropriate subpart DDDDD emission point at the source and the property boundary, identify the appropriate maximum allowable toxicity weighted emission rate for your affected source, expressed in HCl-equivalents, from table 2 of this appendix. Appropriate emission points are those that emit HCl or Cl_2, or both, from subpart DDDDD units. If one or both of these values does not match the exact values in the look-up tables, then use the next lowest table value. (Note:If your weighted average stack height is less than 5 meters (m), you must use the 5 meter row.) Your affected source is eligible to comply with the health-based alternative for HCl emissions if the value calculated in paragraph (a)(2) of this section, determined using the methods specified in this appendix, does not exceed the appropriate value in table 2 of this appendix.

(b) *TSM Compliance Alternative.* Using the emission rates for manganese determined according to section 4 of this appendix, calculate the total manganese emission rate for your affected source by summing the maximum hourly manganese emission rates for all your subpart DDDDD units. Identify the appropriate allowable emission rate in table 3 of this appendix for your affected source using the weighted average stack height value and the minimum distance between any appropriate subpart DDDDD emission point at the facility and the property boundary. Appropriate emission points are those that emit manganese from subpart DDDDD units. If one or both of these values does not match the exact values in the look-up tables, then use the next lowest table value. (Note:If your weighted average stack height is less than 5 meters, you must use the 5 meter row.) Your affected source is eligible to comply with the health-based alternative for manganese emissions and may exclude manganese when demonstrating compliance with the TSM emission limit if the total manganese emission rate, determined using the methods specified in this appendix, does not exceed the appropriate value specified in table 3 of this appendix.

$$H_{Mn} = \frac{\sum_{s=1}^{n}(E_{Mn,s} \times H_s)}{E_{Mn,T}} \qquad \text{(Eq. 4)}$$

Where:

H_{Mn}= weighted average stack height for determining the maximum allowable emission rate for manganese (in table 3 to this appendix), m.

s = individual emission points

n = total number of emission points

$E_{Mn,s}$= maximum hourly manganese emissions from emission point s, lbs/hr.

H_s= height of each individual stack s

$E_{Mn,T}$= total maximum hourly manganese emissions from affected source (sum emission rates from all emission points), lb/hr

7. How Do I Conduct a Site-Specific Compliance Demonstration?

If you fail to demonstrate that your facility is able to comply with one or both of the alternative health-based emission standards using the look-up table approach, you may choose to perform a site-specific compliance demonstration for your facility. You may use any scientifically-accepted peer-reviewed risk assessment methodology for your site-specific compliance demonstration. An example of one approach for performing a site-specific compliance demonstration for air toxics can be found in the EPA's “Air Toxics Risk Assessment Reference Library, Volume 2, Site-Specific Risk Assessment Technical Resource Document”, which may be obtained through the EPA's Air Toxics Web site at *http://www.epa.gov/ttn/fera/risk_atoxic.html.*

(a) Your facility is eligible for the HCl alternative compliance option if your site-specific compliance demonstration shows that the maximum HI for HCl and $Cl_2$from your subpart DDDDD sources is less than or equal to 1.0.

(b) Your facility is eligible for the TSM alternative compliance option if your site-specific compliance demonstration shows that the maximum HQ for manganese from your subpart DDDDD sources is less than or equal to 1.0.

(c) At a minimum, your site-specific compliance demonstration must:

(1) Estimate long-term inhalation exposures through the estimation of annual or multi-year average ambient concentrations;

(2) Estimate the inhalation exposure for the individual most exposed to the facility's emissions;

(3) Use site-specific, quality-assured data wherever possible;

(4) Use health-protective default assumptions wherever site-specific data are not available, and;

(5) Contain adequate documentation of the data and methods used for the assessment so that it is transparent and can be reproduced by an experienced risk assessor and emissions measurement expert.

(d) Your site-specific compliance demonstration need not:

(1) Assume any attenuation of exposure concentrations due to the penetration of outdoor pollutants into indoor exposure areas;

(2) Assume any reaction or deposition of the emitted pollutants during transport from the emission point to the point of exposure.

8. What Must My Health-Based Eligibility Demonstration Contain?

(a) Your health-based eligibility demonstration must contain, at a minimum, the information specified in paragraphs (a)(1) through (6) of this section.

(1) Identification of each appropriate emission point at the affected source facility, including the maximum rated capacity of each appropriate emission point.

(2) Stack parameters for each appropriate emission point including, but not limited to, the parameters listed in paragraphs (a)(2)(i) through (iv) below:

(i) Emission release type.

(ii) Stack height, stack area, stack gas temperature, and stack gas exit velocity.

(iii) Plot plan showing all emission points, nearby residences, and fenceline.

(iv) Identification of any control devices used to reduce emissions from each appropriate emission point.

(3) Emission test reports for each pollutant and appropriate emission point which has been tested using the test methods specified in Table 1 of this appendix, including a description of the process parameters identified as being worst case. Fuel analyses for each fuel and emission point which has been conducted including collection and analytical methods used.

(4) Identification of the RfC values used in your look-up table analysis or site-specific compliance demonstration.

(5) Calculations used to determine the HCl-equivalent or manganese emission rates according to sections 6(a) or (b) of this appendix.

(6) Identification of the controlling process factors (including, but not limited to, fuel type, heat input rate, type of control devices, process parameters reflecting the emissions rates used for your eligibility demonstration) that will become Federally enforceable permit conditions used to show that your facility remains eligible for the health-based compliance alternatives.

(b) If you use the look-up table analysis in section 6 of this appendix to demonstrate that your facility is eligible for either health-based compliance alternative, your eligibility demonstration must contain, at a minimum, the information in paragraphs (a) and (b)(1) through (3) of this section.

(1) Calculations used to determine the weighted average stack height of the subpart DDDDD emission points that emit manganese, HCl, or Cl_2.

(2) Identification of the subpart DDDDD emission point, that emits either manganese or HCl and Cl_2, with the minimum distance to the property boundary of the facility.

(3) Comparison of the values in the look-up tables (Tables 2 and 3 of this appendix) to your maximum HCl-equivalent or manganese emission rates.

(c) If you use a site-specific compliance demonstration as described in section 7 of this appendix to demonstrate that your facility is eligible, your eligibility demonstration must contain, at a minimum, the information in paragraphs (a) and (c)(1) through (7) of this section:

(1) Identification of the risk assessment methodology used.

(2) Documentation of the fate and transport model used.

(3) Documentation of the fate and transport model inputs, including the information described in paragraphs (a)(1) through (5) of this section converted to the dimensions required for the model and all of the following that apply: meteorological data; building, land use, and terrain data; receptor locations and population data; and other facility-specific parameters input into the model.

(4) Documentation of the fate and transport model outputs.

(5) Documentation of any exposure assessment and risk characterization calculations.

(6) Comparison of the HQ HI to the limit of 1.0.

(d) To be eligible for either health-based compliance alternative, the parameters that defined your affected source as eligible for the health-based compliance alternatives must be submitted to your permitting authority for incorporation into your title V permit, as federally enforceable limits, at the same time you submit your health-based eligibility demonstration. These parameters include, but are not limited to, fuel type, fuel mix (annual average), emission rate, type of control devices, process parameters (e.g., maximum heat input), and non-process parameters (e.g., stack height).

9. When Do I Have To Complete and Submit My Health-Based Eligibility Demonstration?

(a) If you have an existing affected source, you must complete and submit your eligibility demonstration to your permitting authority, along with a signed certification that the demonstration is an accurate depiction of your facility, no later than the date one year prior to the compliance date of subpart DDDDD. A separate copy of the eligibility demonstration must be submitted to: U.S. EPA, Risk and Exposure Assessment Group, Emission Standards Division (C404–01), Attn: Group Leader, Research Triangle Park, North Carolina 27711, electronic mail address *REAG@epa.gov.*

(b) If you have a new or reconstructed affected source that starts up before the effective date of subpart DDDDD, or an affected source that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP before the effective date of subpart DDDDD, then you may submit an eligibility demonstration at any time after September 13, 2004 but you must comply with the emissions limits in table 1 to this subpart and all other requirements of subpart DDDDD until your eligibility demonstration is submitted to your permitting authority in accordance with the requirements of section 10 of this appendix.

(c) If you have a new or reconstructed affected source that starts up after the effective date of subpart DDDDD, or an affected source that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP after the effective date for subpart DDDDD, then you must follow the schedule in paragraphs (c)(1) and (2) of this section.

(1) You must complete and submit a preliminary eligibility demonstration based on the information (e.g., equipment types, estimated emission rates, process and non-process parameters, reference values, etc.)

that will be used to apply for your title V permit. This preliminary eligibility demonstration must be submitted with your application for approval of construction or reconstruction. You must base your preliminary eligibility demonstration on the maximum emissions allowed under your title V permit. If the preliminary eligibility demonstration indicates that your affected source facility is eligible for either compliance alternative, then you may start up your new affected source and your new affected source will be considered in compliance with the alternative standard and subject to the compliance requirements in this appendix.

(2) You must conduct the emission tests or analyses specified in section 4 of this appendix upon initial startup and use the results of these emissions tests to complete and submit your eligibility demonstration within 180 days following your initial startup date.

10. When Do I Become Eligible for the Health-Based Compliance Alternatives?

(a) For existing sources, new sources, or reconstructed sources that start up before the effective date of subpart DDDDD, or an affected source that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP before the effective date of subpart DDDDD, you are eligible to comply with a health-based compliance alternative upon submission of a complete demonstration meeting all the requirements of paragraph 8 for the applicable alternative. However, your eligibility demonstration may be reviewed by the permitting authority or by EPA to verify that the demonstration meets the requirements of appendix A to this subpart and is technically sound (i.e. use of the look-up tables is appropriate or the site-specific assessment is technically valid). If you are notified by the permitting authority or by EPA of any deficiencies in your submission, then you are not eligible for the health-based compliance alternative until the permitting authority or EPA verifies that the deficiencies are corrected.

(b) For new or reconstructed sources that start up after the effective date of subpart DDDDD, you are eligible to comply with a the health-based compliance alternatives upon submission of a complete preliminary eligibility determination in accordance with paragraph (c)(1) of section 9 that demonstrates your affected source is eligible for the applicable alternative. You may then start up your source and conduct the necessary testing in accordance with paragraph (c)(2) of section 9. The eligibility demonstration submitted in accordance with paragraph (c)(2) of section 9 may be reviewed by the permitting authority or by EPA to verify that the demonstration meets the requirements of appendix A to this subpart and is technically sound (i.e. use of the look-up tables is appropriate or the site-specific assessment is technically valid). If you are notified in writing by the permitting authority of any deficiencies in your submission, then you have 30 days to correct the deficiencies unless the permitting authority agrees to extend this time to a period not to exceed 90 days. If the deficiencies are not corrected within the applicable time period, you will not be eligible for the health-based compliance alternative until the permitting authority verifies that the deficiencies are corrected.

(c) If the title V permit conditions requested in accordance with paragraph (d) of section 8 are disapproved by the permitting authority, then your affected source must comply with the applicable emission limits, operating limits, and work practice standards in subpart DDDDD by the compliance dates specified in §63.7495. Until the requested conditions (or alternative conditions meeting the requirements of paragraph (d) of section 8) are incorporated into the permit, compliance with the proposed conditions shall be considered compliance with the health-based alternative.

11. How Do I Ensure That My Facility Remains Eligible for the Health-Based Compliance Alternatives?

(a) You must update your eligibility demonstration and resubmit it each time that any of the parameters that defined your affected source as eligible for the health-based compliance alternatives changes in a way that could result in increased HAP emissions or increased risk from exposure to emissions. These parameters include, but are not limited to, fuel type, fuel mix (annual average), type of control devices,

HAP emission rate, stack height, process parameters (e.g., heat input capacity), relevant reference values, and locations where people live).

(b) If you are updating your eligibility demonstration to account for an action in paragraph (a) of this section that is under your control (e.g. change in heat input capacity of your boiler), you must submit your revised eligibility demonstration to the permitting authority prior to making the change and revise your permit to incorporate the change. If your affected source is no longer eligible for the health-based compliance alternatives, then you must comply with the applicable emission limits, operating limits, and compliance requirements in subpart DDDDD prior to making the process change and revising your permit. If you are updating your eligibility demonstration to account for an action in paragraph (a) of this section that is outside of your control (e.g. change in a reference value), and that change causes your source to no longer be able to meet the criteria for the health-based compliance alternatives, your source must comply with the applicable emission limits, operating limits, and compliance requirements in subpart DDDDD within 3 years.

(c) Your revised eligibility demonstration may be reviewed by the permitting authority or EPA to verify that the demonstration meets the requirements of appendix A to this subpart and is technically sound (i.e. use of the look-up tables is appropriate or the site-specific assessment is technically valid). If you are notified by the permitting authority or EPA of any deficiencies in your submission, you will not remain eligible for the health-based compliance alternatives until the permitting authority or EPA verifies that the deficiencies are corrected.

12. What Records Must I Keep?

You must keep records of the information used in developing the eligibility demonstration for your affected source, including all of the information specified in section 8 of this appendix.

13. Definitions

The definitions in §63.7575 of subpart DDDDD apply to this appendix. Additional definitions applicable for this appendix are as follows:

Hazard Index (HI) means the sum of more than one hazard quotient for multiple substances and/or multiple exposure pathways.

Hazard Quotient (HQ) means the ratio of the predicted media concentration of a pollutant to the media concentration at which no adverse effects are expected. For inhalation exposures, the HQ is calculated as the air concentration divided by the RfC.

Look-up table analysis means a risk screening analysis based on comparing the HAP or HAP-equivalent emission rate from the affected source to the appropriate maximum allowable HAP or HAP-equivalent emission rates specified in Tables 2 and 3 of this appendix.

Reference Concentration (RfC) means an estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime. It can be derived from various types of human or animal data, with uncertainty factors generally applied to reflect limitations of the data used.

Worst-case operating conditions means operation of an affected unit during emissions testing under the conditions that result in the highest HAP emissions or that result in the emissions stream composition (including HAP and non-HAP) that is most challenging for the control device if a control device is used.

For example, worst-case conditions could include operation of an affected unit firing solid fuel likely to produce the most HAP.

Table 1 to Appendix B of Subpart DDDDD—Emission Test Methods

For . . .	You must . . .	Using . . .
(1) Each subpart DDDDD emission point for which you choose to use a compliance alternative	Select sampling ports' location and the number of traverse points	Method 1 of 40 CFR part 60, appendix A.
(2) Each subpart DDDDD emission point for which you choose to use a compliance alternative	Determine velocity and volumetric flow rate;	Method 2, 2F, or 2G in appendix A to 40 CFR part 60.
(3) Each subpart DDDDD emission point for which you choose to use a compliance alternative	Conduct gas molecular weight analysis	Method 3A or 3B in appendix A to 40 CFR part 60.
(4) Each subpart DDDDD emission point for which you choose to use a compliance alternative	Measure moisture content of the stack gas	Method 4 in appendix A to 40 CFR part 60.
(5) Each subpart DDDDD emission point for which you choose to use the HCl compliance alternative	Measure the hydrogen chloride and chlorine emission concentrations	Method 26 or 26A in appendix A to 40 CFR part 60.
(6) Each subpart DDDDD emission point for which you choose to use the TSM compliance alternative	Measure the manganese emission concentration	Method 29 in appendix A to 40 CFR part 60.
(7) Each subpart DDDDD emission point for which you choose to use a compliance alternative	Convert emissions concentration to lb per MMBtu emission rates	Method 19 F-factor methodology in appendix A to part 60 of this chapter.

Table 2 to Appendix A of Subpart DDDDD—Allowable Toxicity-Weighted Emission Rate Expressed in HCl Equivalents (lbs/hr)

Stack ht. (m)	Distance to property boundary (m)											
	0	50	100	150	200	250	500	1000	1500	2000	3000	5000
5	114.9	114.9	114.9	114.9	114.9	114.9	144.3	287.3	373.0	373.0	373.0	373.0
10	188.5	188.5	188.5	188.5	188.5	188.5	195.3	328.0	432.5	432.5	432.5	432.5
20	386.1	386.1	386.1	386.1	386.1	386.1	386.1	425.4	580.0	602.7	602.7	602.7
30	396.1	396.1	396.1	396.1	396.1	396.1	396.1	436.3	596.2	690.6	807.8	816.5
40	408.1	408.1	408.1	408.1	408.1	408.1	408.1	448.2	613.3	715.5	832.2	966.0
50	421.4	421.4	421.4	421.4	421.4	421.4	421.4	460.6	631.0	746.3	858.2	1002.8
60	435.5	435.5	435.5	435.5	435.5	435.5	435.5	473.4	649.0	778.6	885.0	1043.4
70	450.2	450.2	450.2	450.2	450.2	450.2	450.2	486.6	667.4	813.8	912.4	1087.4
80	465.5	465.5	465.5	465.5	465.5	465.5	465.5	500.0	685.9	849.8	940.9	1134.8
100	497.5	497.5	497.5	497.5	497.5	497.5	497.5	527.4	723.6	917.1	1001.2	1241.3
200	677.3	677.3	677.3	677.3	677.3	677.3	677.3	682.3	919.8	1167.1	1390.4	1924.6

Table 3 to Appendix A of Subpart DDDDD—Allowable Manganese Emission Rate (lbs/hr)

Stack ht. (m)	Distance to property boundary (m)											
	0	50	100	150	200	250	500	1000	1500	2000	3000	5000
5	0.29	0.29	0.29	0.29	0.29	0.29	0.36	0.72	0.93	0.93	0.93	0.94
10	0.47	0.47	0.47	0.47	0.47	0.47	0.49	0.82	1.08	1.08	1.08	1.08
20	0.97	0.97	0.97	0.97	0.97	0.97	0.97	1.06	1.45	1.51	1.51	1.51
30	0.99	0.99	0.99	0.99	0.99	0.99	0.99	1.09	1.49	1.72	2.02	2.04
40	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.12	1.53	1.79	2.08	2.42
50	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.15	1.58	1.87	2.15	2.51
60	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.18	1.62	1.95	2.21	2.61
70	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.22	1.67	2.03	2.28	2.72
80	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.25	1.71	2.12	2.35	2.84
100	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.32	1.81	2.29	2.50	3.10
200	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.71	2.30	2.92	3.48	4.81

[69 FR 55253, Sept. 13, 2004, as amended at 70 FR 76933, Dec. 28, 2005]

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Significant Source Modification and a Part 70 Significant Permit Modification

Source Description and Location

Source Name:	Louis Dreyfus Agricultural Industries LLC
Source Location:	7344 State Road 15 South, Claypool, IN 46510-9746
County:	Kosciusko
SIC Code:	2075, 2079, and 2869
Operation Permit No.:	T085-29197-00102
Operation Permit Issuance Date:	November 22, 2011
Significant Source Modification No.:	085-31960-00102
Significant Permit Modification No.:	085-31979-00102
Permit Reviewer:	John Haney

Existing Approvals

The source was issued Part 70 Operating Permit No. T085-29197-00102 on November 22, 2011. The source has since received the following approvals:

(a) Significant Permit Modification No. 085-31343-00102, issued on April 18, 2012; and

(b) Administrative Amendment No. 085-31787-00102, issued on May 23, 2012.

County Attainment Status

The source is located in Kosciusko County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment as of June 15, 2004, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.

[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.
Unclassifiable or attainment effective April 5, 2005, for $PM_{2.5}$.

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Kosciusko County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$
Kosciusko County has been classified as attainment for $PM_{2.5}$. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for $PM_{2.5}$ emissions. These rules became effective on July 15, 2008. On May 4, 2011, the air pollution control board issued an emergency rule establishing the direct $PM_{2.5}$ significant level at ten (10) tons per year. This rule became effective June 28, 2011. Therefore, direct $PM_{2.5}$ and SO_2 emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

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

Fugitive Emissions

(a) Louis Dreyfus is a nested source, with a biodiesel production plant (one of the twenty-eight (28) listed source categories) and a soybean oil extraction plant (a non-listed source). Therefore, the fugitive emissions from the biodiesel production plant (including the associated paved road emissions) are counted toward the determination of PSD, Emission Offset, and Part 70 applicability. However, the fugitive emissions from the soybean oil extraction plant are not counted toward the determination of PSD, Emission Offset, and Part 70 applicability, except as required in paragraph (b).

(b) There is an applicable New Source Performance Standard that was in effect on August 7, 1980. Therefore, fugitive emissions from the grain elevator (including the associated paved road emissions) are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Source Status

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

Entire Source	
Pollutant	**Emissions** (tons/yr)
PM	234.01
PM_{10}	165.59
$PM_{2.5}$	151.46
SO_2	248.98
VOC	214.94
CO	82.24
NO_X	145.63
GHGs as CO_2e	< 100,000
Hexane	> 10
Total HAPs	> 25

Biodiesel Plant	
Pollutant	**Emissions** (tons/yr)
PM	< 100
PM_{10}	< 100
$PM_{2.5}$	< 100
SO_2	< 100
VOC	< 100
CO	< 100
NO_X	< 100
GHGs as CO_2e	< 100,000
Hexane	> 10
Total HAPs	> 25

(a) This existing source consists of a soybean oil extraction plant (primary operation and a non-listed source) and a biodiesel production plant (one of the 28 listed source categories, which is a nested source for PSD applicability determination).

(1) The biodiesel production plant (one of the 28 source categories) is considered "nested" within a non-listed source. This existing biodiesel plant is a minor stationary source, under PSD (326 IAC 2-2) because no regulated pollutant is emitted at 100 tons per year or more.

(2) This existing entire source is not a major stationary source, under PSD (326 IAC 2-2), because no regulated pollutant, excluding GHGs, is emitted at a rate of two hundred fifty (250) tons per year or more, emissions of GHGs are less than one hundred thousand (100,000) tons of CO_2 equivalent emissions (CO_2e) per year, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).

(b) This existing source is a major source of HAPs, as defined in 40 CFR 63.2, because HAP emissions are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

(c) These emissions are based upon the Technical Support Documents for Part 70 Operating Permit Renewal No. T085-29197-00102 and Administrative Amendment No. 085-31787-00102.

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Louis Dreyfus Agricultural Industries LLC on May 29, 2012. The source has requested to make modifications to its soybean processing operations and its biodiesel production plant, resulting in an increase in the maximum operating capacity of the soybean oil extraction plant. The requested changes are summarized below:

Soybean Oil Extraction Plant

(a) The unfiltered exhaust from the Meal Loadout Bins (G130000 and G070000) will be redirected from Baghouse AF-2 to a new 1,250 cfm collector. The new collector will be identified as Meal Loadout Bin Filter #1 (G071000).

(b) Flaker #4 (C040000) and Flaker #7 (C040000) will be replaced with new units that will increase the hourly production capacity for each unit from 20.3 tons per hour to 22.9 tons per hour.

(c) A new meal hammer mill, identified as Meal Hammer Mill #5 (E230000), will be installed. This unit will have a capacity of 74 tons per hour and will exhaust to the existing Meal Grinding Baghouse. A supporting conveyor, identified as Meal Hammer Mill Feeder #5 (E230200), and a supporting bin, identified as Meal Hammer Mill Bin #5 (E230100), will also be installed, each with a capacity of 74 tons per hour.

(d) The existing aspiration system for the day tank will be replaced with a larger unit, identified as Day Tank Aspirator (A160500). This unit will have an air flow rate of 6,000 cfm and will exhaust to the Dehulling Baghouse (AF-5).

(e) As a result of the changes described above, the hourly processing capacity of several emission units at the plant will increase above levels currently described in the permit as follows:

(1) The capacity of the following emission units will be changed to 17.0 tons per hour: Hull Collection Conveyor (B030900), Secondary Hull Collection L-Path (B440000), Secondary Hull Collection Conveyor (B430000), 4 Hour Hull Tank (E070300), Pellet Cooler (E080000), Pellet Cooler Cyclone (E090000), Hull Hammer Mill Feeder (E050200), Hull Hammer Mill (E050000), Hull Hammer Mill Plenum (E050100), Pelleted Hulls Leg (G050100), Pelleted Hulls Storage Conveyor (G050300), Hulls Addition Screw Collection Conveyor (E050400), Pellet Hulls Conveyor to Loadout (G160000), and Hull Overflow Tank;

(2) The capacity of the following emission units will be changed to 264 tons per hour: Bean Weigh Scale (B011300), VSC Feed Leg (B011200), Screener (A060000), Screener Feed Conveyor (A060400), Whole Bean Aspirator No. 1 (B010100), Whole Bean Aspirator No. 2 (B020100), Whole Bean Aspirator Cyclone (B010900), Conditioned Bean Feed Conveyor (B030800), Conditioned Bean Conveyor (B010300), Soybean Extractor (D010000), VSC Air Heater (B010500), VSC Leg Feed Conveyor (A160300), and Day Tank (A160000);

(3) The capacity of the following emission units will be changed to 247 tons per hour: Flaker Feed Loop Conveyor (C200100) and Flaker Collection Conveyor (C010600);

(4) The capacity of the following emission units will be changed to 66 tons per hour: Hulloosenator No. 1 (B040000), Hulloosenator No. 2 (B080100), Hulloosenator No. 3 (B130000), Hulloosenator No. 4 (B170000), Cascade Dryer No. 1 (B050000), Cascade Dryer No. 2 (B090000), Cascade Dryer No. 3 (B140000), Cascade Dryer No. 4 (B180000), Cracking Roll No. 1 (B060000), Cracking Roll No. 2 (B100000), Cracking Roll No. 3 (B150000), Cracking Roll No. 4 (B190000), Cascade Conditioner No. 1 (B070000), Cascade Conditioner No. 2 (B110000), Cascade Conditioner No. 3 (B160000), and Cascade Conditioner No. 4 (B200000);

(5) The capacity of the following emission units will be changed to 198 tons per hour: Grinding Discharge Conveyor (E020300), Hammer Mill Mixing Conveyor (E020400), Meal L-Path Conveyor (E010100), Meal Hammer Mill Feed Conveyor (E010300), Meal Leg (G010300), Meal Conveyor to Loadout (G150000), Meal Bin No. 1 (G010000), Meal Bin No. 2 (G020000), Meal Bin No. 3 (G030000), Meal Bin No. 4 (G040000), and Meal Bin No. 5 (G050000);

(6) The capacity of the following emission units will be changed to 132 tons per hour: VSC No. 1 (B010000), VSC No. 2 (B020000), Jet Dryer No. 1 (B120000), and Jet Dryer No. 2 (B030000); and

(7) The capacity of the following emission units will be changed to 208 tons per hour: DC Deck 1 (D310000-1), DC Deck 2 (D310000-2), DC Deck 3 (D310000-3), and DC Deck 4 (D310000-4).

(f) As a result of the changes described above, the source requests that the annual production limit for the extraction plant be increased from 1,686,300 tons per year to 2,251,836 tons per year. Consequently, LDAI also requests a re-evaluation of the BACT determination for the soybean oil extraction plant to include this increase in production.

Biodiesel Production Plant

(g) A new methanol/sodium methylate unloading pump will be installed, allowing the unloading rate for the methanol tanks and sodium methylate tanks to increase.

"Integral Part of the Process" Determination

The Permittee has submitted the following information to justify why the flaker aspiration baghouse AF-4 should be considered an integral part of Flaking Roll No. 4 and Flaking Roll No. 7:

(a) The flakers perform two functions; first they flake or break apart the beans and remove heat and moisture. The second task is accomplished with the aspiration function, which pulls air through the product stream. This aspiration process is necessary to the flaking process, as without it the material would become clumped and cause the process to clog. The aspiration must occur for the process to operate. Since the air picks up some product, the separation from the airstream must also occur so the product is not lost and the fan that provides the aspiration to the process is not exposed directly to the airstream, which would cause the fan to clog and become inoperable.

IDEM, OAQ has evaluated the information submitted and agrees that the flaker aspiration baghouse AF-4 should be considered an integral part of Flaking Roll No. 4 and Flaking Roll No. 7. Therefore, the permitting level will be determined using the potential to emit after the flaker aspiration baghouse AF-4. Operating conditions in the proposed permit will specify that the flaker aspiration baghouse AF-4 shall operate at all times when Flaking Roll No. 4 and Flaking Roll No. 7 are in operation. This determination is similar to the initial determination made under Administrative Amendment No. 085-27694-00102, issued on April 16, 2009, for Flaking Rolls No. 11 and No. 12 and a subsequent determination made under Significant Permit Modification No. 085-27442-00102, issued on January 25, 2010, for Flaking Roll No. 10.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

Permit Level Determination – Part 70

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency."

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Increase in PTE Before Controls of the New Emission Units	
Pollutant	**Potential To Emit** (tons/yr)
PM	2,228.89
PM_{10}	557.88
$PM_{2.5}$	552.82
SO_2	0
VOC	0
CO	0
NO_X	0
Hexane	0

Appendix A of this TSD reflects the unrestricted potential emissions of the modification.

PTE Change of the Modified Process			
Pollutant	**PTE Before Modification** (tons/yr)	**PTE After Modification** (tons/yr)	**Increase from Modification** (tons/yr)
PM	12,929.65	17,627.87	4,698.22
PM_{10}	3,586.23	4,893.32	1,307.09
$PM_{2.5}$	3,139.25	4,292.61	1,153.36
SO_2	0	0	0
VOC	4,517.79	6,188.08	1,670.29
CO	0	0	0
NO_X	0	0	0
Hexane	4,517.79	6,188.08	1,670.29

Total PTE Increase due to the Modification			
Pollutant	**PTE New Emission Units** (tons/yr)	**Net Increase to PTE of Modified Process** (tons/yr)	**Total PTE for New Emissions Units and the Modified Process** (tons/yr)
PM	2,228.89	4,698.22	6,927.11
PM_{10}	557.88	1,307.09	1,864.97
$PM_{2.5}$	552.82	1,153.36	1,706.18
SO_2	0	0	0
VOC	0	1,670.29	1,670.29
CO	0	0	0
NO_X	0	0	0
Hexane	0	1,670.29	1,670.29

This source modification is subject to 326 IAC 2-7-10.5(f)(4) because the potential to emit PM, PM_{10}, and VOC is greater than twenty-five (25) tons per year before control, each. This source modification is also subject to 326 IAC 2-7-10.5(f)(6) because the potential to emit of hexane is greater than twenty-five (25) tons per year before control.

Additionally, the modification will be incorporated into the Part 70 Operating Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12(d) because the modification requires significant changes in existing monitoring Part 70 permit terms and conditions as well as a case-by-case determination of an emission limitation.

Permit Level Determination – PSD

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 source and permit modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential to Emit (tons/yr)								
Process / Emission Unit	**PM**	**PM_{10}**	**$PM_{2.5}$***	**SO_2**	**VOC**	**CO**	**NO_X**	**GHGs**	**Total HAPs**
Soybean Oil Extraction Plant									
Stack AF-2	29.39	13.84	12.40	0	0	0	0	0	0
Meal Loadout Bin Filter MLBF-1	16.44	4.28	4.28	0	0	0	0	0	0
Meal Bin Filters MBF-1, MBF-2, MBF-3, MBF-4, and MBF-5	20.37	20.37	20.37	0	0	0	0	0	0
Piles #1 and #2	7.32	4.08	0.70	0	0	0	0	0	0
Stack AF-3	5.52	5.52	5.52	0	0	0	0	0	0
Stack AF-7	6.57	6.57	6.57	0	0	0	0	0	0
Stack S-1	21.59	14.67	14.67	0	0	0	0	0	0
Stack AF-5	11.21	11.21	11.21	0	0	0	0	0	0
Stack AF-4	4.51	4.51	4.51	0	0	0	0	0	0
Stack AF-6	4.14	4.14	4.14	0	0	0	0	0	0
Stack S-2	47.04	31.89	31.89	0	0	0	0	0	0
Bin Filter	8.32	8.32	8.32	0	0	0	0	0	0
Hull Bin Filter	0.84	0.21	0.04	0	0	0	0	0	0
Bean Storage Bins 1, 2, 3, and 4 & Bean Storage Silos 1 and 2	30.02	7.57	1.32	0	0	0	0	0	0
Diatomaceous Earth Storage Bin	0.38	0.06	0.02	0	0	0	0	0	0
Main Gas Vent (Soybean Oil Extractor System)	0	0	0	0	40.73	0	0	0	26.07
Desolventized Meal Dryers and Cooler	0	0	0	0	143.66	0	0	0	91.94
Meal Storage	0	0	0	0	Fugitive	0	0	0	1.21
Bound In Product and Byproduct Desolventized Meal	0	0	0	0	Fugitive	0	0	0	113.00
Plant Startup/Shutdown	0	0	0	0	Fugitive	0	0	0	10.75
General	0	0	0	0	Fugitive	0	0	0	207.21

	Potential to Emit (tons/yr)								
Process / Emission Unit	**PM**	**PM_{10}**	**$PM_{2.5}$***	**SO_2**	**VOC**	**CO**	**NO_X**	**GHGs**	**Total HAPs**
Soybean Oil Extraction Plant									
Plant Upsets	0	0	0	0	Fugitive	0	0	0	16.90
Combustion Sources	14.70	23.68	23.68	248.94	7.71	72.35	129.15	99,941.60	1.84
Total PTE from Soybean Oil Extraction Plant (with Roads)	244.55	164.16	150.43	248.94	192.11	72.35	129.15	99,941.60	468.93
Total PTE from Entire Source (including Fugitives from Roads)	248.89	168.50	154.77	248.94	212.64	72.35	129.15	99,941.60	489.46
PSD Major Source Thresholds (Not 1 of 28)	250	250	250	250	250	250	250	100,000 CO_2e	N/A
Biodiesel Production Plant									
Biodiesel Methanol Absorbers	0	0	0	0	1.83	0	0	0	1.83
Loading Racks	0	0	0	0	1.10	0	0	0	1.10
Biodiesel Storage Tanks	0	0	0	0	4.31	0	0	0	4.31
Glycerin Storage Tanks	0	0	0	0	0.00	0	0	0	0.00
Biodiesel Wastewater (fugitive)	0	0	0	0	3.37	0	0	0	3.37
Equipment Leaks (fugitive)	0	0	0	0	2.80	0	0	0	2.80
Diesel/#2 Fuel Oil Storage Tank	0	0	0	0	0.01	0	0	0	0.01
One (1) Soybean Oil Pre-Treat Tank	0	0	0	0	0.01	0	0	0	0.01
Six (6) Methanol Tanks	0	0	0	0	0.07	0	0	0	0.07
Three (3) Soybean Oil Tanks	0	0	0	0	1.00	0	0	0	1.00
Purchased Soybean Oil Unloading	0	0	0	0	4.00	0	0	0	4.00
Two (2) Sodium Methylate Tanks	0	0	0	0	0.01	0	0	0	0.01
Five (5) Hexane Tanks	0	0	0	0	2.01	0	0	0	2.01
Road Traffic at Source	16.18	3.24	0.79	0	0	0	0	0	0
Cooling Towers	4.34	4.34	4.34	0	0	0	0	0	0
Total PTE from Biodiesel Production Plant	20.52	7.58	5.14	0.00	20.54	0.00	0.00	0.00	20.54
PSD Major Source Thresholds (1 of 28)	100	100	100	100	100	100	100	100,000 CO_2e	N/A

*$PM_{2.5}$ listed is direct $PM_{2.5}$.

This modification to an existing minor stationary source is not major because the emissions increase is less than the PSD major source thresholds. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

PSD Minor Limits

The source has the potential to emit greater than 250 tons per year of PM, PM_{10}, $PM_{2.5}$, and VOC. Therefore, 326 IAC 2-2 would have applied to the source. However, the source has decided to limit their emissions below the major source thresholds. The source has decided to limit the emissions due to this modification as follows:

(a) The amount of soybeans processed shall be less than 2,251,836 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The PM, PM_{10}, and $PM_{2.5}$ emissions from the following processes shall be less than the emission limits listed in the table below:

Process	Control	PM Limit (lbs/hour)	PM_{10} Limit (lbs/hour)	$PM_{2.5}$ Limit (lbs/hour)
Grain Receiving/Meal Loadout	Baghouse AF-2	1.64	1.64	1.64
Meal Loadout Bins	Meal Loadout Bin Filter MLBF-1	0.054	0.054	0.054
Prep Area	Baghouse AF-3	1.26	1.26	1.26

(c) The PM, PM_{10}, and $PM_{2.5}$ emissions from the following processes shall be less than the emission limits listed in the table below:

Process	Control	PM Limit (lbs/hour)	PM_{10} Limit (lbs/hour)	$PM_{2.5}$ Limit (lbs/hour)
Jet Dryer/VSC	VSC cyclone and Jet Dryer Baghouses AF-8 and AF-9	4.93	3.35	3.35
Hot Dehulling	Baghouse AF-5	2.56	2.56	2.56
Flaker Aspiration	Baghouse AF-4	1.03	1.03	1.03
Meal Grinding	Baghouse AF-6	0.945	0.945	0.945

(d) The PM, PM_{10}, and $PM_{2.5}$ emissions from the following processes shall be less than the emission limits listed in the table below:

Process	Control	PM Limit (lbs/hour)	PM_{10} Limit (lbs/hour)	$PM_{2.5}$ Limit (lbs/hour)
DC Decks	DC Deck Cyclone No. 1 DC Deck Cyclone No. 2 DC Deck Cyclone No. 3 DC Deck Cyclone No. 4	10.74	7.28	7.28

(e) The PM, PM_{10} and $PM_{2.5}$ emissions from the following processes shall be less than the emission limits listed in the table below:

Process	Control	PM Limit (lbs/hour)	PM_{10} Limit (lbs/hour)	$PM_{2.5}$ Limit (lbs/hour)
Meal Bin No. 1	Meal Bin Filter No. 1	0.93	0.93	0.93
Meal Bin No. 2	Meal Bin Filter No. 2	0.93	0.93	0.93
Meal Bin No. 3	Meal Bin Filter No. 3	0.93	0.93	0.93
Meal Bin No. 4	Meal Bin Filter No. 4	0.93	0.93	0.93
Meal Bin No. 5	Meal Bin Filter No. 5	0.93	0.93	0.93

Compliance with the above limits, combined with the potential to emit PM, PM_{10}, $PM_{2.5}$, and VOC from other units at the source, shall limit the PM, PM_{10}, $PM_{2.5}$, and VOC emissions from the entire source (soybean oil extraction plant and the biodiesel production plant) to less than 250 tons per twelve (12) consecutive month period and render the requirements of 326 IAC 2-2 not applicable. In addition, compliance with the above limits, combined with the potential to emit VOC from other units at the source shall limit the VOC emissions from the biodiesel production plant to less than 100 tons per year.

Federal Rule Applicability Determination

NSPS:

(a) The source is still subject to the New Source Performance Standards for Grain Elevators (40 CFR 60.300, Subpart DD), which is incorporated by reference as 326 IAC 12. The facilities affected by this modification that are still subject to this rule include the following: Bean Weigh Scale (B011300), Whole Bean Aspirator No. 1 (B010100), Whole Bean Aspirator No. 2 (B020100), Whole Bean Aspirator Cyclone (B010900), and Day Tank (A160000). However, there are no changes to rule applicability for these emission units due to this modification. The entire rule has been included as Attachment B to the permit.

NESHAP:

(b) The storage tanks at this source are not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline), Subpart EEEE because, pursuant to 40 CFR 63.2338(c)(1), the tanks are part of an affected source under another NESHAP and will comply with the requirements of Subpart FFFF or Subpart GGGG.

(c) The source is still subject to the National Emission Standard for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production (40 CFR 63.2830, Subpart GGGG), which is incorporated by reference as 326 IAC 20-60. The facilities affected by this modification that are still subject to this rule include the following: Truck Meal Loadout Bin (G070000), Rail Meal Loadout Bin (G130000), Pellet Hulls Conveyor to Loadout (G160000), Screener (A060000), VSC Leg Feed Conveyor (A160300), Bean Weigh Scale (B011300), VSC Feed Leg (B011200), Screener Feed Conveyor (A060400), Whole Bean Aspirator No. 1 (B010100), Whole Bean Aspirator No. 2 (B020100), Whole Bean Aspirator Cyclone (B010900), Conditioned Bean Feed Conveyor (B030800), Hull Collection Conveyor (B030900), Secondary Hull Collection L-Path (B440000), Secondary Hull Collection Conveyor (B430000), 4 Hour Hull Tank (E070300), Pellet Cooler (E080000), Pellet Cooler Cyclone (E090000), Hull Hammer Mill Feeder (E050200), Hull Hammer Mill (E050000), Hull Hammer Mill Plenum (E050100), Pelleted Hulls Leg (G050100), Pelleted Hulls Storage Conveyor (G050300), Hulls Addition Screw (E050400), Conditioner Bean Loop

Path (B010300), Flaker Feed Loop Conveyor (C200100), Flake Collection Conveyor (C010600), Hulloosenator No. 1 (B040000), Hulloosenator No. 2 (B080100), Hulloosenator No. 3 (B130000), Hulloosenator No. 4 (B170000), Cascade Dryer No. 1 (B050000), Cascade Dryer No. 2 (B090000), Cascade Dryer No. 3 (B140000), Cascade Dryer No. 4 (B180000), Cracking Roll No. 1 (B060000), Cracking Roll No. 2 (B100000), Cracking Roll No. 3 (B150000), Cracking Roll No. 4 (B190000), Cascade Conditioner No. 1 (B070000), Cascade Conditioner No. 2 (B110000), Cascade Conditioner No. 3 (B160000), Cascade Conditioner No. 4 (B200000), Grinding Discharge Conveyor (E020300), Hammer Mill Mixing Conveyor (E020400), Meal L-Path Conveyor (E010100), Meal Hammer Mill Feed Conveyor (E010300), Meal Leg (G010300), Meal Conveyor to Loadout (G150000), VSC No. 1 (B010000), VSC No. 2 (B020000), VSC Air Heater (B010500), Jet Dryer No. 1 (B120000), Jet Dryer No. 2 (B030000), Soybean Oil Extractor (D010000), DC Deck No. 1 (D310000-1), DC Deck No. 2 (D310000-2), DC Deck No. 3 (D310000-3), DC Deck No. 4 (D310000-4), Meal Bin No. 1 (G010000), Meal Bin No. 2 (G020000), Meal Bin No. 3 (G030000), Meal Bin No. 4 (G040000), and Meal Bin No. 5 (G050000). However, there are no changes to rule applicability for these emission units due to this modification. The entire rule has been included as Attachment H to the permit.

(d) Several proposed facilities are subject to the National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production (40 CFR 63.2830, Subpart GGGG), which is incorporated by reference as 326 IAC 20-60. The proposed facilities subject to this rule include the following:

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
C040000	Flaking Roll No. 4 *2012	22.9	***Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C070000	Flaking Roll No. 7 *2012	22.9	***Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
E230200	Meal Hammer Mill Feeder No. 5 *2012	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E230000	Meal Hammer Mill No. 5 *2012	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E230100	Meal Hammer Mill Bin No. 5 *2012	74.0	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.
Note ***The Flaker aspiration baghouse has been determined to be integral to the process for this unit.

The entire rule has been included as Attachment H to the permit. These units are subject to the following portions of 40 CFR 63, Subpart GGGG:

(1) 40 CFR 63.2830;
(2) 40 CFR 63.2831;
(3) 40 CFR 63.2832(a);
(4) 40 CFR 63.2833;
(5) Table 1 to 63.2833(6);
(6) 40 CFR 63.2834;
(7) Table 1 of 63.2834(c);
(8) 40 CFR 63.2840(a), (b), (c), (d), (f);
(9) Table 1 of 63.2840(ix);
(10) 40 CFR 63.2850(a), (c), (d), (e);

(11) Table 1 of 63.2850;
(12) Table 2 of 63.2850(b), (c);
(13) 40 CFR 63.2851;
(14) 40 CFR 63.2852;
(15) 40 CFR 63.2853;
(16) Table 1 of 63.2853;
(17) 40 CFR 63.2854;
(18) 40 CFR 63.2855;
(19) 40 CFR 63.2860(b), (c), (d);
(20) 40 CFR 63.2861;
(21) 40 CFR 63.2862;
(22) 40 CFR 63.2863;
(23) 40 CFR 63.2870;
(24) Table 1 of 63.2870;
(25) 40 CFR 63.2871; and
(26) 40 CFR 63.2872.

The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63 Subpart GGGG.

(e) The source is subject to the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters (40 CFR 63.7480, Subpart DDDDD), which is incorporated by reference as 326 IAC 20-95. The facilities subject to this rule include the following:

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
B-1	Main Boiler, natural gas fired and #2 fuel oil as back up fuel *2006	220 MMBtu/hr	Low NOx burner and Flue gas recirculation	Stack S-3	Yes under NSPS Db and NESHAP DDDDD

Note *Approved in the year indicated above for construction.

The entire rule has been included as Attachment J to the permit. These units are subject to the following portions of 40 CFR 63, Subpart DDDDD:

(1) 40 CFR 63.7480;
(2) 40 CFR 63.7485;
(3) 40 CFR 63.7490(a)(2), (b);
(4) 40 CFR 63.7495(a), (d);
(5) 40 CFR 63.7499;
(6) 40 CFR 63.7500(a)(1), (b);
(7) 40 CFR 63.7505;
(8) 40 CFR 63.7506(a);
(9) 40 CFR 63.7510(c), (g);
(10) 40 CFR 63.7525(a), (c);
(11) 40 CFR 63.7530(b);
(12) 40 CFR 63.7535;
(13) 40 CFR 63.7540(a)(10), (b), (d);
(14) 40 CFR 63.7545(a), (c);
(15) 40 CFR 63.7550(a), (b), (c), (d), (e);
(16) 40 CFR 63.7555(a), (b), (d)(1);
(17) 40 CFR 63.7560;
(18) 40 CFR 63.7565;
(19) 40 CFR 63.7570;
(20) 40 CFR 63.7575;
(21) Table 1 to 40 CFR 63 Subpart DDDDD; and
(22) Table 9 to 40 CFR 63 Subpart DDDDD.

The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63 Subpart DDDDD.

(f) The requirements of the National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, Subpart DDDDD are not included in the permit as follows:

(1) The following units are not subject to the requirements of 40 CFR 63, Subpart DDDDD because they do not meet the definition of “boiler” or "process heater" pursuant to 40 CFR 63.7575 since they are steam or electric heated and do not generate combustion gases:

Cascade Dryer No. 1 (B050000), Cascade Dryer No. 2 (B090000), Cascade Dryer No. 3 (B140000), Cascade Dryer No. 4 (B180000), VSC Air Heater (B010500), Jet Dryer No. 1 (B120000), and Jet Dryer No. 2 (B030000)

(2) The space heaters are not subject to the requirements of 40 CFR 63, Subpart DDDDD because they do not meet the definition of "process heater" pursuant to 40 CFR 63.7575. Specifically, process heaters do not include units used for comfort heat or space heat.

(3) The remaining combustion units are not subject to the requirements of 40 CFR 63, Subpart DDDDD because they do not meet the definition of "process heater" pursuant to 40 CFR 63.7575. Specifically, process heaters are units in which the combustion gases do not directly come into contact with process materials. All remaining combustion units are direct-fired.

(g) The requirements of the following NESHAPs under 40 CFR Part 63 are not included in the permit:

- NESHAP for Industrial, Commercial, and Institutional Boilers Area Sources (40 CFR 63.11193, Subpart JJJJJJ).

This NESHAP applies only to area sources of hazardous air pollutants. Since the potential to emit of any single HAP is greater than 10 tons per year and the potential to emit of all combined HAPs is greater than 25 tons per year, Louis Dreyfus Agricultural Industries LLC is a major source of HAPs; therefore, Louis Dreyfus Agricultural Industries LLC is not subject to this NESHAP.

CAM:

(h) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:

(1) has a potential to emit before controls equal to or greater than the Part 70 major source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that 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 or modified emission unit involved:

CAM Applicability Analysis							
Emission Unit	**Control Device Used**	**Emission Limitation** (Y/N)	**Uncontrolled PTE** (tons/yr)	**Controlled PTE** (tons/yr)	**Part 70 Major Source Threshold** (tons/yr)	**CAM Applicable** (Y/N)	**Large Unit** (Y/N)
Flaking Roll No. 4 – PM	Flaker aspiration baghouse	Y	< 61.47	---	100	N	---
Flaking Roll No. 7 – PM	Flaker aspiration baghouse	Y	< 61.47	---	100	N	---
Flaking Roll No. 4 - PM_{10}	Flaker aspiration baghouse	Y	< 81.96	---	100	N	---
Flaking Roll No. 7 - PM_{10}	Flaker aspiration baghouse	Y	< 81.96	---	100	N	---
Flaking Roll No. 4 - $PM_{2.5}$	Flaker aspiration baghouse	Y	< 81.96	---	100	N	---
Flaking Roll No. 7 - $PM_{2.5}$	Flaker aspiration baghouse	Y	< 81.96	---	100	N	---
Meal Hammer Mill Feeder No. 5 - PM	Meal Grinding Baghouse	Y	2,204.02	11.02	100	Y	N
Meal Hammer Mill No. 5 – PM	Meal Grinding Baghouse	Y	2,204.02	11.02	100	Y	N
Meal Hammer Mill Bin No. 5 – PM	Meal Grinding Baghouse	Y	24.31	---	100	N	---
Meal Hammer Mill Feeder No. 5 - PM_{10}	Meal Grinding Baghouse	Y	551.00	2.76	100	Y	N
Meal Hammer Mill No. 5 - PM_{10}	Meal Grinding Baghouse	Y	551.00	2.76	100	Y	N
Meal Hammer Mill Bin No. 5 - PM_{10}	Meal Grinding Baghouse	Y	6.13	---	100	N	---
Meal Hammer Mill Feeder No. 5 - $PM_{2.5}$	Meal Grinding Baghouse	Y	551.00	2.76	100	Y	N
Meal Hammer Mill No. 5 - $PM_{2.5}$	Meal Grinding Baghouse	Y	551.00	2.76	100	Y	N
Meal Hammer Mill Bin No. 5 - $PM_{2.5}$	Meal Grinding Baghouse	Y	1.07	---	100	N	---

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to the Meal Hammer Mill Feeder No. 5 for PM, PM_{10}, and $PM_{2.5}$ and the Meal Hammer Mill No. 5 for PM,

PM_{10}, and $PM_{2.5}$ upon issuance of the Title V Renewal. A CAM plan must be submitted as part of the Renewal application.

Based on the CAM evaluation given in the Technical Support Document (TSD) for Part 70 Operating Permit Renewal No. T085-29197-00102, the requirements of 40 CFR Part 64, CAM are still applicable to the following emission units:

(1) for PM: VSC Air Heater, Hulloosenator No. 1, Hulloosenator No. 2, Hulloosenator No. 3, Hulloosenator No. 4, Cracking Roll No. 1, Cracking Roll No. 2, Cracking Roll No. 3, Cracking Roll No. 4, Flaker Feed Loop Conveyor, Flake Collection Conveyor, DC Deck No. 1, DC Deck No. 2, DC Deck No. 3, and DC Deck No. 4;

(2) for PM_{10}: Hulloosenator No. 1, Hulloosenator No. 2, Hulloosenator No. 3, Hulloosenator No. 4, Cracking Roll No. 1, Cracking Roll No. 2, Cracking Roll No. 3, Cracking Roll No. 4, Flaker Feed Loop Conveyor, Flake Collection Conveyor, DC Deck No. 1, DC Deck No. 2, DC Deck No. 3, and DC Deck No. 4;

(3) for $PM_{2.5}$: Hulloosenator No. 1, Hulloosenator No. 2, Hulloosenator No. 3, Hulloosenator No. 4, Cracking Roll No. 1, Cracking Roll No. 2, Cracking Roll No. 3, Cracking Roll No. 4, Flaker Feed Loop Conveyor, Flake Collection Conveyor, DC Deck No. 1, DC Deck No. 2, DC Deck No. 3, and DC Deck No. 4; and

(4) for VOC: Soybean Oil Extractor.

The Compliance Determination and Monitoring Requirements section includes a detailed description of the CAM requirements.

State Rule Applicability Determination

326 IAC 2-2 (PSD)
PSD applicability is discussed under the Permit Level Determination – PSD section.

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

(a) The operation of the soybean oil extraction plant will emit greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs; however, pursuant to 326 IAC 2-4.1-1(b)(2), because these facilities are regulated by NESHAP 40 CFR 63, Subpart GGGG, which was issued pursuant to Section 112(d) of the CAA, these facilites are exempt from the requirements of 326 IAC 2-4.1.

(b) The operation of the biodiesel plant is limited to less than 10 tons per year of a single HAP and less than 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

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

(a) Pursuant to 326 IAC 6-3-2(e)(1), the particulate emissions from each of the following processes shall not exceed the pound per hour limitations specified in the following table:

Emission unit ID	Emissions Units	Baghouse ID	Maximum Process Weight (tons/hour) for each unit	326 IAC 6-3 Limit (lbs/hr) for each unit
G160000	Pellet Hulls Conveyor to Loadout	AF-2	~~15~~ **17.0**	~~25.16~~ **27.36**
B030900	Hull Collection Conveyor	AF-3	~~15~~ **17.0**	~~18.64~~ **27.36**
B430000	Secondary Hull Collection Conveyor	AF-3	~~9.6~~ **17.0**	~~18.64~~ **27.36**
B440000	Secondary Hull Collection L-Path	AF-3	~~12.0~~ **17.0**	~~21.67~~ **27.36**
E080000	Pellet Cooler	AF-3	~~9.6~~ **17.0**	~~18.64~~ **27.36**
E050000, E050200, and E050100	Hull Hammer Mill, Hull Hammer Mill Feeder, and Hull Hammer Mill Plenum	AF-3	~~9.6~~ **17.0**	~~18.64~~ **27.36**
G050100	Pelleted Hulls Leg	AF-3	~~9.6~~ **17.0**	~~18.64~~ **27.36**
G050300 and E050400	Pelleted Hulls Storage Conveyor and Hulls Addition Screw	AF-3	~~15.0~~ **17.0**	~~25.16~~ **27.36**

The particulate emissions limitations from the above table shall be calculated using the following equation:

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

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

Baghouse AF-3 shall be in operation and control emissions from the Hull Hammer Mill, Hull Hammer Mill Feeder, and Hull Hammer Mill Plenum at all times the Hull Hammer Mill, Hull Hammer Mill Feeder, and Hull Hammer Mill Plenum are in operation in order to comply with 326 IAC 6-3-2.

All other emission units in the above table are able to comply with the limits established in 326 IAC 6-3-2 without the use of controls.

(b) Pursuant to 326 IAC 6-3-2(e)(1), the particulate emissions from each of the following processes shall not exceed the pound per hour limitations specified in the following table:

Emission unit ID	Emissions Units	[1]Baghouse ID	Maximum Process Weight (tons/hour) for each unit	326 IAC 6-3 Limit (lbs/hr) for each unit
G130000 and G070000	Rail Meal Loadout Bin and Truck Meal Loadout Bin	~~AF-2~~ **MLBF-1**	300	63.00
G010000, G020000, G030000, G040000, and G050000	Meal Bin No. 1 thru No. 5	MBF-1, MBF-2, MBF-3, MBF-4, and MBF-5	~~148~~ **198**	~~55.30~~ **58.40**
A060000	Screener	AF-3	~~230~~ **264**	~~60.04~~ **61.56**
B011300	Bean Weigh Scale	AF-3	~~192.5~~ **264**	~~58.10~~ **61.56**

Emission unit ID	Emissions Units	[1]Baghouse ID	Maximum Process Weight (tons/hour) for each unit	326 IAC 6-3 Limit (lbs/hr) for each unit
B011200, A160300, B060400, and B030800	VSC Feed Leg, VSC Leg Feed Conveyor, Screener Feed Conveyor and Conditioned Bean Feed Conveyor	AF-3	~~192.5~~ **264**	~~58.10~~ **61.56**
B010100 and B020100	Whole Bean Aspiration No. 1 and No. 2	AF-3	~~192.5~~ **264**	~~58.10~~ **61.56**
B010300	Conditioner Bean Loop Path	AF-3	~~192.5~~ **264**	~~58.10~~ **61.56**
B120000 and B030000	Jet Dryer No. 1 and No. 2	Jet Dryer Baghouses AF-8 and AF-9	~~96.3~~ **132**	~~50.89~~ **54.11**
B010500	VSC Air Heater	VSC Cyclone	~~192.5~~ **264**	~~58.10~~ **61.56**
B010000 and B020000	Vertical Seed Conditioner (VSC) No. 1 and No. 2	VSC Cyclone	~~96.25~~ **132**	~~50.89~~ **54.11**
B040000, B080100, B130000, and B170000	Hulloosenator No. 1, No. 2, No. 3, and No. 4	AF-5	~~48.1~~ **66**	~~44.22~~ **47.20**
B050000, B090000, B140000, and B180000	Cascade Dryer No. 1, No. 2, No. 3, and No. 4	AF-5	~~48.1~~ **66**	~~44.22~~ **47.20**
B060000, B100000, B150000, and B190000	Cracking Roll No. 1, No. 2, No. 3 and No. 4	AF-5	~~48.1~~ **66**	~~44.22~~ **47.20**
B070000, B110000, B160000, and B200000	Cascade Conditioner No. 1, No. 2, No. 3, and No. 4	AF-5	~~48.1~~ **66**	~~44.22~~ **47.20**
A160000	Day Tank	AF-5	~~192.5~~ **264**	~~58.10~~ **61.56**
C200100 and C010600	Flaker Feed Loop Conveyor and Flake Collection Conveyor	AF-4	~~183.3~~ **247**	~~57.57~~ **60.82**
E020300, E020400, E010100, and E010300	Grinding Discharge Conveyor, Hammer Mill Mixing Conveyor, Meal L-Path Conveyor, and Meal Hammer Mill Feed Conveyor	AF-6	~~148~~ **198**	~~55.30~~ **58.40**
E230200 and E230000	Meal Hammer Mill Feeder No. 5, Meal Hammer Mill No. 5	AF-6	74	48.30
G010300 and G150000	Meal Leg, and Meal Conveyor to Loadout	AF-6	~~150~~ **198**	~~55.44~~ **58.40**
E230100	Meal Hammer Mill Bin No. 5	AF-6	74	48.30
D310000-1, D310000-2, D310000-3, and D310000-4	DC Decks No. 1, No. 2, No. 3, and No. 4	DC Deck Cyclones No. 1 through 4	~~156~~ **208**	~~55.85~~ **58.93**

[1] For emission units that exhaust through the same stack, the source will need to demonstrate compliance with 326 IAC 6-3-2 during normal operations using the most stringent limit (e.g. calculated from the emission unit operating at the lowest process weight in tons/hr).

The particulate emissions limitations from the above table shall be calculated using the following equation:

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

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

Meal Loadout Bin Filter MLBF-1 shall be in operation and control emissions from the Rail Meal Loadout Bin and Truck Meal Loadout Bin at all times the Rail Meal Loadout Bin and Truck Meal Loadout Bin are in operation in order to comply with 326 IAC 6-3-2.

Baghouse AF-5 shall be in operation and control emissions from the Hulloosenators No. 1, No. 2, No. 3, and No. 4 and Cracking Rolls No.1, No. 2, No. 3 and No. 4 at all times the Hulloosenators No. 1, No. 2, No. 3, and No. 4, Cracking Rolls No.1, No. 2, No. 3 and No. 4 are in operation in order to comply with 326 IAC 6-3-2.

Baghouse AF-4 shall be in operation and control emissions from the Flaker Feed Loop Conveyor and Flake Collection Conveyor at all times the Flaker Feed Loop Conveyor and Flake Collection Conveyor are in operation in order to comply with 326 IAC 6-3-2.

Baghouse AF-6 shall be in operation and control emissions from the Meal Hammer Mill Feeder No. 5 and Meal Hammer Mill No. 5 at all times the Meal Hammer Mill Feeder No. 5 and Meal Hammer Mill No. 5 are in operation in order to comply with 326 IAC 6-3-2.

DC Deck Cyclones No. 1, No. 2, No. 3, and No. 4 shall be in operation and control emissions from the DC Decks No. 1, No. 2, No. 3, and No. 4 at all times the DC Decks No. 1, No. 2, No. 3, and No. 4 are in operation in order to comply with 326 IAC 6-3-2.

All other emission units in the above table are able to comply with the limits established in 326 IAC 6-3-2 without the use of controls.

(c) Pursuant to 326 IAC 6-3-2(e)(3), when the process weight exceeds 200 tons per hour, the maximum allowable emissions may exceed the emission limits in paragraph (b), provided the concentration of particulate matter in the gas discharged to the atmosphere is less than 0.10 pounds per 1,000 pounds of gases.

(d) The Truck Pelleted Hull Loadout Bin (G080000), Rail Pelleted Hull Loadout Bin (G180000), 4 Hour Hull Tank (E070300), Flaking Roll No. 4 (C040000), Flaking Roll No. 7 (C070000), Flaking Roll No. 10 (C100000), Flaking Roll No. 11 (C110000), Flaking Roll No. 12 (C120000), and the Hull Overflow Tank have potential PM emissions less than 0.551 lb/hr, each. Therefore, pursuant to 326 IAC 6-3-1(b)(14), the requirements of 326 IAC 6-3-2 are not applicable to these emission units.

326 IAC 8-1-6 (VOC BACT)

(a) The potential VOC emissions from the biodiesel loading racks, storage tanks, and biodiesel wastewater are each less than 25 tons per year. Based on stack test results for the vent exhaust from the biodiesel manufacturing process, the potential VOC emissions (prior to the control device) from this facility are also less than 25 tons per year. Therefore, these units are not subject to the requirements of 326 IAC 8-1-6 (BACT).

(b) The soybean oil extraction plant is subject to 326 IAC 8-1-6 because it has potential VOC emissions greater than 25 tons per year. LDAI is requesting a re-evaluation of the BACT determination in which LDAI proposes to increase the maximum annual processed soybean throughput of the facility. Therefore, IDEM, OAQ has performed a BACT analysis, which was based on the Draft "Top Down Approach: BACT Guidance" by USEPA, Office of Air Quality Planning Standards, March 15, 1990.

IDEM, OAQ has determined that the following requirements represent BACT for the soybean oil extraction plant:

(1) The VOC emissions from the combined condenser and mineral oil scrubber system for the extractor vent system shall not exceed 0.048 pounds per ton of soybean processed and shall not exceed 9.3 pounds per hour.

(2) The VOC emissions from the meal dryers and meal cooler (DC Decks No. 1, No. 2, No. 3, and No. 4) shall not exceed 0.03 gallons of VOC per ton of soybean processed and shall not exceed 32.8 pounds per hour.

(3) The overall solvent loss ratio shall not exceed 0.141 gallons per ton of soybean crushed from the whole plant per twelve (12) consecutive month period, with compliance determined at the end of each month. The Permittee shall also follow the leak detection and repair program as part of BACT.

(4) The maximum annual throughput of soybeans processed shall not exceed 2,251,836 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(5) BACT for the fugitive hexane loss shall include an enhanced inspection, maintenance, and repair program (LDAR Program). No later than 60 days of achieving full production, but in no case later than 180 days after initial startup, the Permittee shall institute the following enhanced inspection, maintenance, and repair program for equipment in VOC service located in the solvent extraction portion of the installation. Equipment in vacuum service is exempt from this monitoring requirement pursuant to 40 CFR Part 60.482-1(d).

Table 1

Equipment	Leak Standard
Pumps	500 ppm
Valves	500 ppm
Pressure relief Devices	500 ppm
Flanges, Connectors, and Seals	10,000 ppm

(A) The Permittee shall determine compliance with the standards in Table 1 by using the procedures of 40 CFR Part 60, Appendix A, Method 21. The instrument shall be calibrated before each day of its use by the procedures as specified in Method 21. A leak is defined as an instrument reading of 500 ppm above background or greater, except for flanges, and connectors where a leak is defined as 10,000 ppm above background.

(B) The Permittee shall immediately tag all detected leaks with a weatherproof, and readily visible, identification tag with a distinct number. Once a leaking component is detected, first-attempt repairs must be done no later than five days and be completed no later than 15 days of detecting the leaking components. If the repair cannot be accomplished no later than 15 days, then the Permittee shall send a notice of inability to repair to the OAQ no later than 20 days of detecting the leak. The notice must be received by the Compliance Branch, Office of Air Quality, 100 North Senate Avenue, Indianapolis, Indiana 46204-2251, no later than 20 days after the leak was detected. At a minimum the notice shall include the following:

(i) Equipment, operator, and instrument identification number;

(ii) Date of leak detection;

(iii) Measured concentration (ppm) and background (ppm);

(iv) Leak identification number associated with the corresponding tag; and

(v) Reason of inability to repair no later than 5 to 15 days of detection.

(C) The Permittee shall maintain records of the following to verify compliance with the enhanced inspection, maintenance, and repair program:

(i) Equipment inspected;

(ii) Date of inspection; and

(iii) Determination of whether a leak was detected.

(D) If a leak is detected, the Permittee shall record the following information to verify compliance with the enhanced inspection, maintenance, and repair program:

(i) The equipment, operator, and instrument identification number;

(ii) Measured concentration;

(iii) Leak identification number associated with the corresponding tag;

(iv) Date of repair;

(v) Reason for non-repair if unable to repair no later than 5 to 15 days of detection; and

(vi) Maintenance recheck if repaired-date, concentration, background.

(E) Definitions contained in 40 CFR Part 60, Subpart VV shall be utilized where necessary to implement this program.

326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)
326 IAC 8-4-3 applies to all petroleum liquid storage vessels with capacities greater than one hundred fifty thousand (150,000) liters (thirty-nine thousand (39,000) gallons) containing volatile organic compounds whose true vapor pressure is greater than 10.5 kPa (1.52 psi). The diesel/#2 fuel oil storage tank does not store petroleum liquid; therefore, the diesel/#2 fuel oil storage tank is not subject to the requirements of 326 IAC 8-4-3.

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)
The source is not located in Clark, Floyd, Lake, or Porter County. Therefore, the requirements of 326 IAC 8-9 are not applicable to the tanks at this source.

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 determination requirements applicable to this modification are as follows:

(a) Particulate Matter Control

(1) In order to comply with 326 IAC 2-2 (PSD Minor Limits), baghouses AF-2 and AF-3 shall be in operation and control emissions from all emission units exhausting to stacks AF-2 and AF-3 at all times when an emission unit that the baghouses control is in operation.

(2) In order to comply with 326 IAC 2-2 (PSD Minor Limits) and 326 IAC 6-3-2 , meal loadout bin filter MLBF-1 shall be in operation and control emissions from all emission units exhausting to stack MLBF-1 at all times when an emission unit that the bin filter controls is in operation.

(3) In order to comply with 326 IAC 6-3-2, baghouse AF-3 shall be in operation and control emissions from Hull Hammer Mill, Hull Hammer Mill Feeder, and Hull Hammer Mill Plenum at all times the Hull Hammer Mill, Hull Hammer Mill Feeder, and Hull Hammer Mill Plenum are in operation.

(4) In order to comply with 326 IAC 6-3-2, baghouses AF-4, AF-5, AF-6, VSC cyclone, and jet dryers baghouses AF-8 and AF-9, shall be in operation and control emissions from all emission units exhausting to stacks AF-4, AF-5, AF-6, AF-8, AF-9, and S-1 at all times when an emission unit that the baghouse or the cyclones control is in operation.

(5) In order to comply with 326 IAC 6-3-2, baghouse AF-4 shall be in operation and control emissions from the Flaker Feed Loop Conveyor and Flake Collection Conveyor at all times the Flaker Feed Loop Conveyor and Flake Collection Conveyor are in operation.

(6) In order to comply with 326 IAC 6-3-2, baghouse AF-5 shall be in operation and control emissions from the Hulloosenators No. 1, No. 2, No. 3, and No. 4 and Cracking Rolls No.1, No. 2, No. 3 and No. 4 at all times the Hulloosenators No. 1, No. 2, No. 3, and No. 4 and Cracking Rolls No.1, No. 2, No. 3 and No. 4 are in operation.

(7) In order to comply with 326 IAC 6-3-2, baghouse AF-6 shall be in operation and control emissions from the Meal Hammer Mill Feeder No. 5 and Meal Hammer Mill No. 5 at all times the Meal Hammer Mill Feeder No. 5 and Meal Hammer Mill No. 5 are in operation.

(8) In order to comply with 326 IAC 2-2 (PSD Minor Limits) and 326 IAC 6-3-2, DC Deck Cyclones No. 1, No. 2, No. 3, and No. 4 shall be in operation and control emissions from the DC Decks No. 1, No. 2, No. 3, and No. 4 at all times the DC Decks No. 1, No. 2, No. 3, and No. 4 are in operation.

(9) In order to comply with 326 IAC 2-2 (PSD Minor Limits), Meal Bin Filters No. 1 thru No. 5 shall be in operation and control emissions from the Meal Bins No. 1 thru 5 at all times the Meal Bins No. 1 thru 5 are in operation.

These requirements are required to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) and to render 326 IAC 2-2 (PSD) not applicable.

(b) Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAPs) Control

(1) In order to comply with 326 IAC 2-2 (PSD Minor Limit) and 326 IAC 8-1-6 (BACT), the mineral oil absorber system and the soybean stripper shall be in operation and control emissions from the oil extractor process at all times the oil extractor process is in operation.

(2) In order to comply with 326 IAC 2-2 (PSD Minor Limit), the mineral oil absorber and water absorber shall be in operation and control emissions from the biodiesel manufacturing process and the methanol tank unloading at all times the biodiesel manufacturing process and the methanol tank unloading process are in operation.

These requirements are required to ensure compliance with 326 IAC 8-1-6 (VOC BACT) and to render 326 IAC 2-2 (PSD) not applicable.

(c) Testing Requirements

(1) No later than five (5) years after the most recent valid compliance demonstration, the Permittee shall conduct PM, PM_{10}, and $PM_{2.5}$ testing on baghouse AF-2 (associated with the grain receiving/meal loadout system) to verify compliance with 326 IAC 2-2 (PSD Minor Limit) and 326 IAC 6-3-2.

(2) No later than five (5) years after the most recent valid compliance demonstration but no later than 180 days after startup of the extraction plant new units as permitted by Significant Source Modification No. 085-31960-00102, the Permittee shall conduct PM, PM_{10}, and $PM_{2.5}$ testing on baghouse AF-3 (associated with the prep system) to verify compliance with 326 IAC 2-2 (PSD Minor Limit) and 326 IAC 6-3-2.

(3) No later than 180 days after initial startup of Meal Loadout Bin Filter #1, the Permittee shall perform PM, PM_{10}, and $PM_{2.5}$ testing on bin filter MLBF-1 (associated with the meal loadout bins) to verify compliance with 326 IAC 2-2 (PSD Minor Limit) and 326 IAC 6-3-2.

(4) No later than five (5) years after the most recent valid compliance demonstration but no later than 180 days after startup of the extraction plant new units as permitted by Significant Source Modification No. 085-31960-00102, the Permittee shall conduct PM, PM_{10}, and $PM_{2.5}$ testing on baghouses AF-4, AF-5, AF-6, AF-8, and AF-9 and the VSC cyclone (associated with the flaking system, dehulling system, meal grinding/conveying, VSC, and jet drying) to verify compliance with 326 IAC 2-2 (PSD Minor Limit) and 326 IAC 6-3-2.

(5) No later than five (5) years after the most recent valid compliance demonstration but no later than 180 days after startup of the extraction plant new units as permitted by Significant Source Modification No. 085-31960-00102, the Permittee shall conduct PM, PM_{10}, and $PM_{2.5}$ testing on cyclones associated with the meal dryers and cooler to verify compliance with 326 IAC 2-2 (PSD Minor Limit) and 326 IAC 6-3-2.

(6) No later than five (5) years after the most recent valid compliance demonstration but no later than 180 days after startup of the extraction plant new units as permitted by Significant Source Modification No. 085-31960-00102, the Permittee shall perform VOC testing on the mineral oil absorber stack (stack S-4) and determine the mineral oil absorber's mineral oil flow rate and the temperature of mineral oil to the absorber to verify compliance with 326 IAC 2-2 (PSD Minor Limit) and 326 IAC 8-1-6 (VOC BACT).

(7) No later than five (5) years after the most recent valid compliance demonstration but no later than 180 days after startup of the extraction plant new units as permitted by Significant Source Modification No. 085-31960-00102, the Permittee shall perform VOC testing on the meal dryers and cooler cyclones stack (stack S-2) to verify compliance with 326 IAC 2-2 (PSD Minor Limit) and 326 IAC 8-1-6 (VOC BACT).

(8) No later than five (5) years after the most recent valid compliance demonstration but no later than 180 days after startup of the extraction plant new units as permitted by Significant Source Modification No. 085-31960-00102, the Permittee shall perform VOC testing on the outlet of the Mineral Oil Absorber and Water Absorber (stack S-5) with methanol unloading and without methanol unloading; and determine the Mineral Oil Absorber's mineral oil flow rate and water absorber's water flow rate In order to demonstrate compliance with 326 IAC 2-2 (PSD Minor Limits).

Testing shall be conducted utilizing methods as approved by the commissioner. These tests shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). PM_{10} and $PM_{2.5}$ include filterable and condensable PM.

These requirements are required to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) and 326 IAC 8-1-6 (VOC BACT) and to render 326 IAC 2-2 (PSD) not applicable.

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

(a) Visible Emissions Notations

(1) Visible emission notations of the stacks AF-2, MLBF-1, AF-3, and AF-7 exhausts shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(2) Visible emission notations of the stacks AF-4, AF-5, AF-6, AF-8, AF-9, and S-1 exhausts shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(3) Visible emission notations of stack S-2 exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(4) Visible emission notations of stack exhausts MBF-1, MBF-2, MBF-3, MBF-4, and MBF-5 shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

These monitoring conditions are necessary because the control devices must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) and to render 326 IAC 2-2 (PSD) not applicable. In addition, these conditions will satisfy the requirements of 40 CFR 64 (CAM).

(b) Baghouses Parametric Monitoring

(1) The Permittee shall record pressure drop across baghouses AF-2 and AF-3, used in conjunction with the grain receiving/meal loadout system and prep system, at least once per day when the grain receiving/meal loadout system and prep system are in operation.

(2) The Permittee shall record the pressure drop across baghouses AF-4, AF-5, AF-6, AF-8, and AF-9 used in conjunction with the flaking system, hot dehulling system, and meal grinding system, at least once per day when the flaking system, hot dehulling system, and meal grinding system are in operation.

These monitoring conditions are necessary because the control devices must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) and to render 326 IAC 2-2 (PSD) not applicable. In addition, these conditions will satisfy the requirements of 40 CFR 64 (CAM).

(c) Broken or Failed Bag Detection

The Permittee shall maintain the baghouse and replace broken or failed bags as needed.

These monitoring conditions are necessary because the control devices must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) and to render 326 IAC 2-2 (PSD) not applicable. In addition, these conditions will satisfy the requirements of 40 CFR 64 (CAM).

(d) Cyclone Failure Detection and Scrubber Failure Detection

In the event that cyclone failure or scrubber failure has been observed, the feed to the process shall be shut down immediately until the failed units have been repaired or replaced, and the emission units shall be shut down no later than the completion of the processing of the material in the emission unit.

These monitoring conditions are necessary because the control devices must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) and to render 326 IAC 2-2 (PSD) not applicable. In addition, these conditions will satisfy the requirements of 40 CFR 64 (CAM).

(e) Leak Detection and Repair (LDAR) Program

Pursuant to 326 IAC 8-1-6, the following is required to demonstrate compliance with the requirements of Condition D.3.4(c):

For pumps

(i) For the first year:

(A) Weekly visual check for leakage; and

(B) Semi-annual organic vapor analyzer inspection (leak definition = 500 ppm above background concentrations).

(ii) After the first year:

(A) Weekly visual check for leakage;

(B) Annual organic vapor analyzer inspection (leak definition = 500 ppm above background concentrations).

(iii) When a unit has a leak detected during an annual organic vapor analyzer inspection, the frequency of organic vapor analyzer inspections shall become semi-annual;

(iv) When that unit has no leak detected for two (2) consecutive semi-annual vapor analyzer inspections, the frequency of the inspections shall return to annual.

For valves

(i) For the first year:

(A) Semi-annual organic vapor analyzer inspection (leak definition = 500 ppm above background concentrations).

(ii) After the first year:

(A) Annual organic vapor analyzer inspection (leak definition = 500 ppm above background concentrations);

(B) When a unit has a leak detected during an annual organic vapor analyzer inspection, the frequency of organic vapor analyzer inspections shall become semi-annual; and

(C) When that unit has no leak detected for two (2) consecutive semi-annual vapor analyzer inspections, the frequency of the inspections shall return to annual.

For pressure relief devices:

(i) No later than five (5) calendar days after a pressure release, the pressure release device shall be monitored to confirm conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background concentrations or a calibrated LEL Monitor reading of less than 3%. Any pressure relief device that is equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device is exempt from the above requirement.

For connectors, flanges, and seals, the annual organic vapor analyzer inspections shall be made (leak definition = 10,000 ppm above background concentrations).

These monitoring conditions are necessary because the control devices must operate properly to ensure compliance with 326 IAC 8-1-6 (VOC BACT).

(f) Monitoring for Mineral Oil Absorber and Mineral Oil Stripping Column

(1) The Permittee shall monitor and record the mineral oil flow rate to the mineral oil absorber at least once per day.

(2) A continuous monitoring system shall be calibrated, maintained, and operated on the mineral oil absorber for measuring operating temperature. For purposes of this condition continuous shall mean temperature measurement no less than once per minute. The output of this system shall be recorded as a 3-hour average. The Permittee shall operate the mineral oil absorber at or below the 3-hour average temperature as determined from the most recent valid stack test.

(A) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with the limits in conditions D.3.2 and D.3.4(a).

(B) On and after the date the stack test results are available, the Permittee shall maintain the temperature of the mineral oil to the absorber at or below the 3-hour average temperature as observed during the compliant stack test.

(3) A continuous monitoring system shall be calibrated, maintained, and operated on the mineral oil stripper for measuring the temperature of mineral oil to the stripper. For purposes of this condition continuous shall mean temperature measurement no less than once per minute. The output of this system shall be recorded as a 3-hour average. The Permittee shall operate the mineral oil stripper at or above the 3-hour average temperature as determined from the most recent valid stack test.

(A) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in condition D.3.2.

(B) On and after the date the stack test results are available, the Permittee shall operate the mineral oil stripper at or above the 3-hour average temperature as observed during the compliant stack test.

(4) If any of the following operating conditions occur, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

(A) When the mineral oil flow rate reading is below the minimum mineral oil flow rate for any one reading. The minimum mineral oil flow rate to the mineral oil absorber will be as recommended by the manufacturer or the minimum flow rate established during the latest stack test.

(B) When the 3-hour average temperature reading of the mineral oil to the absorber is above the temperature for any 3-hour average. The 3-hour average temperature of the mineral oil to the absorber will be as recommended by the manufacturer or the maximum temperature established during the latest stack test.

(C) When the temperature reading of the mineral oil to the stripper is below the minimum temperature for any one reading. The minimum temperature of the mineral oil to the stripper will be as recommended by the manufacturer or the minimum temperature established during the latest stack test.

Operating conditions above or below the values specified in (A) through (C) above shall not be considered a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

(g) Monitoring for Mineral Oil Absorber and Water Absorber

(1) The Permittee shall monitor and record the mineral oil flow rate for the mineral oil absorber at least once per day.

(2) The Permittee shall monitor and record the water flow rate for the water absorber at least once per day.

(3) A continuous monitoring system shall be calibrated, maintained, and operated on the mineral oil absorber for measuring the temperature of the mineral oil to the mineral oil absorber. For purposes of this condition continuous shall mean

temperature measurement no less than once per minute. The output of this system shall be recorded as a 3-hour average. The Permittee shall operate the mineral oil absorber at or below the 3-hour average temperature as determined from the most recent valid stack test.

(A) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with the limits in condition D.4.1(a).

(B) On and after the date the stack test results are available, the Permittee shall operate the mineral oil absorber at or below the 3-hour average temperature as observed during the compliant stack test.

(4) A continuous monitoring system shall be calibrated, maintained, and operated for measuring the temperature of the water to the water absorber. For purposes of this condition continuous shall mean temperature measurement no less than once per minute. The output of this system shall be recorded as a 3-hour average. The Permittee shall operate the water absorber at or below the 3-hour average temperature as determined from the most recent valid stack test.

(A) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in condition D.4.1(a).

(B) On and after the date the stack test results are available, the Permittee shall operate the water absorber at or below the 3-hour average temperature as observed during the compliant stack test.

(5) If any of the following operating conditions occur, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

(A) When the mineral oil flow rate reading is below the minimum flow rate for any one reading. The minimum flow rate for the mineral oil absorber will be 1.5 gpm or the minimum mineral oil flow rate established during the latest stack test.

(B) When the water flow rate reading is below the minimum flow rate for any one reading. The minimum flow rate for the water absorber will be 2.2 gpm or the minimum water flow rate established during the latest stack test.

(C) When the mineral oil absorber 3-hour average temperature reading is above the temperature for any 3-hour average. The 3-hour average temperature for the mineral oil absorber will be as recommended by the manufacturer or the maximum temperature established during the latest stack test.

(D) When the water absorber 3-hour average temperature reading is above the 3-hour average temperature for any one reading. The 3-hour average temperature for the water absorber will be as recommended by the manufacturer or the maximum temperature established during the latest stack test.

Operating conditions above or below the values specified in (1) through (4) above shall not be considered a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

These monitoring conditions are necessary because the control devices must operate properly to ensure compliance with 326 IAC 8-1-6 (New facilities; general reduction requirements). In addition, these monitoring conditions are necessary because the control devices must operate properly in order to render the requirements of 326 IAC 2-2 (PSD) not applicable. In addition, these conditions will satisfy the requirements of 40 CFR 64 (CAM).

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T085-29197-00102. These corrections, changes, and removals may include Title I changes (i.e., changes that add or modify synthetic minor emission limits). Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

(a) The source status in Section A.1 has been revised.

(b) The descriptive language for the affected emission units in Sections A.2 and A.3 has been revised. The descriptive language for the boiler in Section A.2(f) has been revised to indicate it is an affected facility under NESHAP DDDDD. The descriptive language for the Meal Hammer Mill No. 5, Meal Hammer Mill Feeder No. 5, and Meal Hammer Mill Bin No. 5 have been added in Sections A.2 and A.3.

(c) The descriptive language for the affected emission units in Section D.1 has been revised.

(d) New PSD minor limits for the Meal Loadout Bins (G130000 and G070000) have been added to Condition D.1.1(b).

(e) The 326 IAC 6-3-2 limits in Condition D.1.2(a) have been updated to correspond to the revised process weight rates. The 326 IAC 6-3-2 limit for emission units G080000 and G180000 in Condition D.1.2(a) has been removed because the units have potential particulate emissions less than 0.551 lb/hr.

(f) The 326 IAC 6-3-2 limits in Condition D.1.2(b) have been updated to correspond to the revised process weight rates. The baghouse ID for emission units G130000 and G070000 in Condition D.1.2(b) has been revised to MLBF-1.

(g) Operating requirements have been added as Conditions D.1.5(c) and D.1.5(d) for the control devices controlling the Rail Meal Loadout Bin, Truck Meal Loadout Bin, Hull Hammer Mill, Hull Hammer Mill Feeder, and Hull Hammer Mill Plenum.

(h) The testing requirements in Condition D.1.6 have been revised to account for the new Meal Loadout Bin Filter MLBF-1 as well as the proposed emission units.

(i) A requirement to take visible emission notations for MLBF-1 has been added to Condition D.1.7. The corresponding record keeping requirement has been added to Condition D.1.10(c).

(j) The descriptive language for the affected emission units in Section D.2 has been revised. The descriptive language for the Meal Hammer Mill No. 5, Meal Hammer Mill Feeder No. 5, and Meal Hammer Mill Bin No. 5 have been added in Section D.2.

(k) The 326 IAC 6-3-2 limits in Condition D.2.2(a) have been updated to correspond to the revised process weight rates. Since the control device has been determined to be integral, the 326 IAC 6-3-2 limits for emission units C040000, C070000, C100000, C110000, and C120000 in Condition D.2.2(a) have been removed because each unit has potential particulate emissions less than 0.551 lb/hr.

(l) The 326 IAC 6-3-2 limits in Condition D.2.2(b) have been updated to correspond to the revised process weight rates. 326 IAC 6-3-2 limits have been added to Condition D.2.2(b) for the Meal Hammer Mill Feeder No. 5, Meal Hammer Mill No. 5, and Meal Hammer Mill No. 5. Several typographical corrections have also been updated.

(m) Operating requirements have been added to Condition D.2.4(d) for the control device controlling the Meal Hammer Mill Feeder No. 5 and Meal Hammer Mill No. 5.

(n) The testing requirements in Condition D.2.5 have been revised to account for the proposed emission units.

(o) The descriptive language for the affected emission units in Section D.3 has been revised.

(p) The 326 IAC 6-3-2 limits in Condition D.3.3 have been updated to correspond to the revised process weight rates.

(q) The limits in Condition D.3.4 have been revised to match the requirements pursuant to the BACT analysis in Appendix B of the Technical Support Document (TSD).

(r) The testing requirements in Condition D.3.8 have been revised to account for the proposed emission units.

(s) Condition D.3.9 has been revised the reference the renumbered requirement in Condition D.3.4.

(t) The descriptive language for the biodiesel water absorber in Section D.4 has been revised to correspond with the language in Condition D.4.5(e)(2).

(u) The descriptive language for the boiler in Section D.5 has been revised to indicate it is an affected facility under NESHAP DDDDD.

(v) The descriptive language for the affected emission units in Section D.6 has been revised.

(w) The 326 IAC 6-3-2 limits in Condition D.6.2 have been updated to correspond to the revised process weight rates.

(x) The descriptive language for the affected emission units in Section D.7 has been revised.

(y) The 326 IAC 6-3-2 limit for the Overflow Hull Tank in Condition D.7.3(a) has been removed because the unit has potential particulate emissions less than 0.551 lb/hr.

(z) The sentence at the end of Conditions D.7.3(a) and D.7.3(b) are only for descriptive purposes and have been removed.

(aa) The descriptive language for the boiler in Section E.1 has been revised to indicate it is an affected facility under NESHAP DDDDD.

(bb) The descriptive language for the affected emission units in Sections E.2 and E.8 has been revised. The descriptive language for the Meal Hammer Mill No. 5, Meal Hammer Mill Feeder No. 5, and Meal Hammer Mill Bin No. 5 has been added in Section E.8.

(cc) Section E.10 and Attachment J have been added to include the requirements of 40 CFR 63, Subpart DDDDD.

(dd) The reporting form for the Grain Receiving/Meal Loadout and Prep Area has been revised.

The permit has been revised as follows:

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(14)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary ~~a~~ refined bleached soybean oil (RB Oil), soybean salad oil, soybean meal, and biodiesel manufacturing plant.

Source Address:	7344 State Road 15 South, Claypool, Indiana 46510-9746
General Source Phone Number:	(574) 566-2100
SIC Code:	2075, 2079 & 2869
County Location:	Kosciusko
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD Rules Major Source, **under** Section 112 of the Clean Air Act Nested Source with ~~Biodiesel process Part as One of 28 Source Categories~~ **chemical process plant (biodiesel), as 1 of 28 Source Categories, within a non-listed source**

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(14)]

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

(a)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
* * * * *					
G070000	Truck Meal Loadout Bin *2006, **2010 **and 2012**	300	~~Grain Receiving/~~Meal Loadout ~~baghouse~~ **Bin Filter**	Stack ~~AF-2~~ **MLBF-1**	Yes under NESHAP GGGG
* * * * *					
G130000	Rail Meal Loadout Bin *2006, **2010 **and 2012**	300	~~Grain Receiving/~~Meal Loadout ~~baghouse~~ **Bin Filter**	Stack ~~AF-2~~ **MLBF-1**	Yes under NESHAP GGGG
G160000	Pellet Hulls Conveyor to Loadout *2006, **2010 **and 2012**	~~15~~ **17.0**	Grain Receiving/Meal Loadout **baghouse**	Stack AF-2	Yes under NESHAP GGGG
* * * * *					
A060000	Screener *2006, **2011 **and 2012**	~~230~~ **264**	Prep Exhaust Baghouse	Stack AF-3	Yes under NESHAP GGGG
A160300	VSC Leg Feed Conveyor *2006, **2010 **and 2012**	~~192.5~~ **264**	Prep Exhaust Baghouse	Stack AF-3	Yes under NESHAP GGGG
* * * * *					
B011300	Bean Weigh Scale *2006**, ****2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
* * * * *					
B011200	VSC Feed Leg *2006**, ****2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
A060400	Screener Feed Conveyor *2010**, **2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
B010100	Whole Bean Aspirator No 1 *2006**, **2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B020100	Whole Bean Aspirator No 2 *2006**, **2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B010900	Whole Bean Aspirator Cyclone *2006**, **2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B030800	Conditioned Bean Feed Conveyor *2006**, **2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
B030900	Hull Collection Conveyor *2006**, **2012**	~~15.0~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
* * * * *					
B440000	Secondary Hull Collection L-Path *2010**, **2012**	~~12~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
B430000	Secondary Hull Collection Conveyor *2010**, **2012**	~~9.6~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E070300	4 Hour Hull Tank *2006**, **2012**	~~9.6~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E080000	Pellet Cooler *2006**, **2012**	~~9.6~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E090000	Pellet Cooler Cyclone *2006**, **2012**	~~9.6~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E050200	Hull Hammer Mill Feeder *2006**, **2012**	~~9.6~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E050000	Hull Hammer Mill *2006**, **2012**	~~9.6~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E050100	Hull Hammer Mill Plenum *2006**, **2012**	~~9.6~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
G050100	Pelleted Hulls Leg *2006**, **2012**	~~9.6~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
G050300	Pelleted Hulls Storage Conveyor *2006, **2010 **and 2012**	~~15~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E050400	Hulls Addition Screw *2011**, **2012**	~~15~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
B010300	Conditioner Bean Loop Path *2006**, **2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
* * * * *					

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

* * * * *

(c)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
C200100	Flaker Feed Loop Conveyor *2010**, **2012**	~~183.3~~ **247**	~~*~~Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C010600	Flake Collection Conveyor (12 flakers) *2006, **2010 **and 2012**	~~183.3~~ **247**	~~*~~Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
* * * * *					
C040000	Flaking Roll No. 4 ~~*2006~~ ***2012**	~~20.3~~ **22.9**	~~**~~*Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
* * * * *					
C070000	Flaking Roll No. 7 ~~*2006~~ ***2012**	~~20.3~~ **22.9**	~~**~~*Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
* * * * *					
B040000	Hulloosenator No. 1 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
~~B0801000~~ **B080100**	Hulloosenator No. 2 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B130000	Hulloosenator No. 3 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B170000	Hulloosenator No. 4 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B050000	Cascade Dryer No. 1 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B090000	Cascade Dryer No. 2 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B140000	Cascade Dryer No. 3 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B180000	Cascade Dryer No. 4 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
* * * * *					

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
B060000	Cracking Roll No. 1 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B100000	Cracking Roll No. 2 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B150000	Cracking Roll No. 3 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B190000	Cracking Roll No. 4 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B070000	Cascade Conditioner No. 1 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B110000	Cascade Conditioner No. 2 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B160000	Cascade Conditioner No. 3 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B200000	Cascade Conditioner No. 4 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
* * * * *					
A160000	Day Tank *2006, **2010 **and 2012**	~~192.5~~ **264**	Hot dehulling baghouse	Stack AF-5	Yes under NSPS DD
* * * * *					
E020300	Grinding Discharge Conveyor *2011**, **2012**	~~148~~ **198**	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E020400	Hammer Mill Mixing Conveyor *2006**, **2011 and 2012**	~~148~~ **198**	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E010100	Meal L-Path Conveyor *2006**, **2012**	~~148~~ **198**	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E010300	Meal Hammer Mill Feed Conveyor *2006**, **2012**	~~148~~ **198**	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
* * * * *					
E230200	**Meal Hammer Mill Feeder No. 5 *2012**	**74.0**	**Meal Grinding Baghouse**	**Stack AF-6**	**Yes under NESHAP GGGG**
E230000	**Meal Hammer Mill No. 5 *2012**	**74.0**	**Meal Grinding Baghouse**	**Stack AF-6**	**Yes under NESHAP GGGG**
E230100	**Meal Hammer Mill Bin No. 5 *2012**	**74.0**	**Meal Grinding Baghouse**	**Stack AF-6**	**Yes under NESHAP GGGG**

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
G010300	Meal Leg *2006, **2010 **and 2012**	~~150~~ **198**	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
G150000	Meal Conveyor to Loadout *2006**, ****2012**	~~150~~ **198**	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
* * * * *					
B010000	VSC No. 1 *2006**, ****2012**	~~96.25~~ **132**	VSC Cyclone	Stack S-1	Yes under NESHAP GGGG
B020000	VSC No. 2 *2006**, ****2012**	~~96.25~~ **132**	VSC Cyclone	Stack S-1	Yes under NESHAP GGGG
B010500	VSC Air Heater *2006**, ****2012**	~~192.5~~ **264**	VSC Cyclone	Stack S-1	Yes under NESHAP GGGG
* * * * *					
B120000	Jet Dryer No. 1 *2006, **2010 **and 2012**	~~96.25~~ **132**	Jet Dryer Baghouse AF-8	Stack S-1	Yes under NESHAP GGGG
B030000	Jet Dryer No. 2 *2006**, ****2012**	~~96.25~~ **132**	Jet Dryer Baghouse AF-9	Stack S-1	Yes under NESHAP GGGG
* * * * *					

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.
Note ***The Flaker aspiration baghouse has been determined to be integral to the process **for this unit**~~, pursuant to Administrative Amendment No. 085-27694-00102, issued on April 16, 2009~~.

(d)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
D010000	Soybean oil extractor *2006, **2010 **and 2012**	~~196.5~~ **264**	Mineral oil absorber	Stack S-4	Yes under NESHAP GGGG
* * * * *					
D310000-1	DC Deck No. 1 *2006, **2010 **and 2012**	~~156~~ **208**	DC Deck Cyclone No. 1	Stack S-2	Yes under NESHAP GGGG
D310000-2	DC Deck No. 2 *2006, **2010**, 2011, and 2012** ~~and **2011~~	~~156~~ **208**	DC Deck Cyclone No. 2	Stack S-2	Yes under NESHAP GGGG
D310000-3	DC Deck No. 3 *2006, **2010 **and 2012**	~~156~~ **208**	DC Deck Cyclone No. 3	Stack S-2	Yes under NESHAP GGGG
D310000-4	DC Deck No. 4 *2006, **2010 **and 2012**	~~156~~ **208**	DC Deck Cyclone No. 4	Stack S-2	Yes under NESHAP GGGG
* * * * *					

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

* * * * *

(f)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
B-1	Main Boiler, natural gas fired and #2 fuel oil as back up fuel *2006	220 MMBtu/hr	Low NOx burner and Flue gas recirculation	Stack S-3	Yes under NSPS Db **and NESHAP DDDDD**

Note *Approved in the year indicated above for construction.

(g)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
G010000	Meal Bin No. 1******* *2006, **2010**, ~~and~~ 2011**, and 2012*****	~~148~~ **198**	Meal Bin Filter No. 1	Stack MBF-1	Yes under NESHAP GGGG
G020000	Meal Bin No. 2******* *2006, **2010**, ~~and~~ 2011**, and 2012*****	~~148~~ **198**	Meal Bin Filter No. 2	Stack MBF-2	Yes under NESHAP GGGG
G030000	Meal Bin No. 3******* *2006, **2010**, ~~and~~ 2011**, and 2012*****	~~148~~ **198**	Meal Bin Filter No. 3	Stack MBF-3	Yes under NESHAP GGGG
G040000	Meal Bin No. 4******* *2006, **2010**, ~~and~~ 2011**, and 2012*****	~~148~~ **198**	Meal Bin Filter No. 4	Stack MBF-4	Yes under NESHAP GGGG
G050000	Meal Bin No. 5******* *2010, **2011 **and 2012*****	~~148~~ **198**	Meal Bin Filter No. 5	Stack MBF-5	Yes under NESHAP GGGG

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.
Note ***There are five meal bins. However, the plant is only physically capable of loading one meal bin at a time. Thus, the PTE for these units is calculated at a rate of ~~148~~ **198** tons/hr for all five meal bins combined.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(14)]

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

Description	Capacity (gallons)	Control	Affected Facility?
* * * * *			
Hull Overflow Tank [326 IAC 2-2] [326 IAC 6-3-2] *2006, **2010 **and 2012**	13,900 cu. ft and ~~15~~ **17** tons per hour	None	
* * * * *			

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
* * * * *					
G070000	Truck Meal Loadout Bin *2006, **2010 **and 2012**	300	~~Grain Receiving/~~Meal Loadout ~~baghouse~~ **Bin Filter**	Stack ~~AF-2~~ **MLBF-1**	Yes under NESHAP GGGG
* * * * *					
G130000	Rail Meal Loadout Bin *2006, **2010 **and 2012**	300	~~Grain Receiving/~~Meal Loadout ~~baghouse~~ **Bin Filter**	Stack ~~AF-2~~ **MLBF-1**	Yes under NESHAP GGGG
G160000	Pellet Hulls Conveyor to Loadout *2006, **2010 **and 2012**	~~15~~ **17.0**	Grain Receiving/Meal Loadout **baghouse**	Stack AF-2	Yes under NESHAP GGGG
* * * * *					
A060000	Screener *2006, **2011 **and 2012**	~~230~~ **264**	Prep Exhaust Baghouse	Stack AF-3	Yes under NESHAP GGGG
A160300	VSC Leg Feed Conveyor *2006, **2010 **and 2012**	~~192.5~~ **264**	Prep Exhaust Baghouse	Stack AF-3	Yes under NESHAP GGGG
* * * * *					
B011300	Bean Weigh Scale *2006**, ****2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
* * * * *					
B011200	VSC Feed Leg *2006**, ****2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
A060400	Screener Feed Conveyor *2010**, ****2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
B010100	Whole Bean Aspirator No 1 *2006**, ****2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B020100	Whole Bean Aspirator No 2 *2006**, ****2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG

B010900	Whole Bean Aspirator Cyclone *2006**, **2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B030800	Conditioned Bean Feed Conveyor *2006**, **2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
B030900	Hull Collection Conveyor *2006**, **2012**	~~15.0~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
* * * * *					
B440000	Secondary Hull Collection L-Path *2010**, **2012**	~~12~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
B430000	Secondary Hull Collection Conveyor *2010**, **2012**	~~9.6~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E070300	4 Hour Hull Tank *2006**, **2012**	~~9.6~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E080000	Pellet Cooler *2006**, **2012**	~~9.6~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E090000	Pellet Cooler Cyclone *2006**, **2012**	~~9.6~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E050200	Hull Hammer Mill Feeder *2006**, **2012**	~~9.6~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E050000	Hull Hammer Mill *2006**, **2012**	~~9.6~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E050100	Hull Hammer Mill Plenum *2006**, **2012**	~~9.6~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
G050100	Pelleted Hulls Leg *2006**, **2012**	~~9.6~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
G050300	Pelleted Hulls Storage Conveyor *2006, **2010 **and 2012**	~~15~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E050400	Hulls Addition Screw *2011**, **2012**	~~15~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
B010300	Conditioner Bean Loop Path *2006**, **2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
* * * * *					

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

* * * * *

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

D.1.1 PSD Minor Limit for Particulate [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 not applicable, the Permittee shall comply with the following PM, PM_{10}, and $PM_{2.5}$ limits:

(a) The amount of soybeans processed shall be less than ~~1,686,300~~ **2,251,836** tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The PM, PM_{10}, and $PM_{2.5}$ emissions from the following Processes shall be less than the emission limits listed in the table below:

Process	Control	PM Limit (lbs/hour)	PM_{10} Limit (lbs/hour)	$PM_{2.5}$ Limit (lbs/hour)
Grain Receiving/Meal Loadout	Baghouse AF-2	1.64	1.64	1.64
Meal Loadout Bins	**Meal Loadout Bin Filter MLBF-1**	**0.054**	**0.054**	**0.054**
Prep Area	Baghouse AF-3	1.26	1.26	1.26

* * * * *

D.1.2 Particulate Emissions Limitations [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2, the particulate emissions from each of the following processes shall not exceed the pound per hour limitations specified in the following table:

Emission unit ID	Emissions Units	[1]Baghouse ID	Maximum Process Weight (tons/hour) for each unit	326 IAC 6-3 Limit (lbs/hr) for each unit
G160000	Pellet Hulls Conveyor to Loadout	AF-2	~~15~~ **17.0**	~~25.16~~ **27.36**
B030900	Hull Collection Conveyor	AF-3	~~15~~ **17.0**	~~25.16~~ **27.36**
* * * * *				
B430000	Secondary Hull Collection Conveyor	AF-3	~~9.6~~ **17.0**	~~18.64~~ **27.36**
B440000	Secondary Hull Collection L-Path	AF-3	~~12.0~~ **17.0**	~~21.67~~ **27.36**
E080000	Pellet Cooler	AF-3	~~9.6~~ **17.0**	~~18.64~~ **27.36**
E050000, E050200, and E050100	Hull Hammer Mill, Hull Hammer Mill Feeder, and Hull Hammer Mill Plenum	AF-3	~~9.6~~ **17.0**	~~18.64~~ **27.36**
G050100	Pelleted Hulls Leg	AF-3	~~9.6~~ **17.0**	~~18.64~~ **27.36**
G050300 and E050400	Pelleted Hulls Storage Conveyor and Hulls Addition Screw	AF-3	~~15.0~~ **17.0**	~~25.16~~ **27.36**
* * * * *				
~~G080000 and G180000~~	~~Truck and Rail Pelleted Hull Loadout Bins~~	~~AF-2~~	~~15~~	~~25.16~~

Note 1: For emission units that exhaust through the same stack, the source will need to demonstrate compliance with 326 IAC 6-3-2 during normal operations using the most stringent limit (e.g. calculated from the emission unit operating at the lowest process weight in ton/hr).

* * * * *

(b) Pursuant to 326 IAC 6-3-2, the particulate emissions from each of the following processes shall not exceed the pound per hour limitations specified in the following table:

Emission unit ID	Emissions Units	[1]Baghouse ID	Maximum Process Weight (tons/hour) for each unit	326 IAC 6-3 Limit (lbs/hr) for each unit
* * * * *				
G130000 and G070000	Rail Meal Loadout Bin and Truck Meal Loadout Bin	~~AF-2~~ **MLBF-1**	300	63.00
* * * * *				
A060000	Screener	AF-3	~~230~~ **264**	~~60.04~~ **61.56**
B011300	Bean Weigh Scale	AF-3	~~192.5~~ **264**	~~58.10~~ **61.56**
B011200, A160300, B060400, and B030800	VSC Feed Leg, VSC Leg Feed Conveyor, Screener Feed Conveyor and Conditioned Bean Feed Conveyor	AF-3	~~192.5~~ **264**	~~58.10~~ **61.56**
B010100 and B020100	Whole Bean Aspiration No. 1 and No. 2	AF-3	~~192.5~~ **264**	~~58.10~~ **61.56**
B010300	Conditioner Bean Loop Path	AF-3	~~192.5~~ **264**	~~58.10~~ **61.56**
* * * * *				

Note 1: For emission units that exhaust through the same stack, the source will need to demonstrate compliance with 326 IAC 6-3-2 during normal operations using the most stringent limit (e.g. calculated from the emission unit operating at the lowest process weight in ton/hr).

* * * * *

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D.1.5 Particulate Control

(a) In order to comply with Conditions D.1.1(b) and D.1.1(c), baghouses AF-2, AF-3, and AF-7 shall be in operation and control emissions from all emission units exhausting to stacks AF-2, AF-3, and AF-7 at all times when an emission unit that the baghouses control are in operation.

(b) In order to comply with Condition D.1.2, Baghouse AF-2 shall be in operation and control emissions from Truck Dumps No. 1 and No. 2~~,~~ **and** Truck Loader No. 1 and No. 2~~, Rail Meal Loadout Bin and Truck Meal Loadout Bin~~ at all times the Truck Dumps No. 1 and No. 2~~,~~ **and** Truck Loader No. 1 and No. 2~~, Rail Meal Loadout Bin and Truck Meal Loadout Bin~~ are in operation.

(c) In order to comply with Conditions D.1.1(b) and D.1.2, Meal Loadout Bin Filter MLBF-1 shall be in operation and control emissions from the Rail Meal Loadout Bin and Truck Meal Loadout Bin at all times the Rail Meal Loadout Bin and Truck Meal Loadout Bin are in operation.

(d) In order to comply with Condition D.1.2, baghouse AF-3 shall be in operation and control emissions from the Hull Hammer Mill, Hull Hammer Mill Feeder, and Hull

Hammer Mill Plenum at all times the Hull Hammer Mill, Hull Hammer Mill Feeder, and Hull Hammer Mill Plenum are in operation.

(~~c~~**e**) 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.1.6 Testing Requirements [326 IAC 2-1.1-11]

(a) No later than five (5) years after the most recent valid compliance demonstration, the Permittee shall conduct PM, PM_{10}, **and** $PM_{2.5}$ testing on baghouse~~s,~~ AF-2~~, and AF-3,~~ **(**associated with the grain receiving/meal loadout system**)**~~, prep system, meal and feed handling and pellet/hulls loadout system~~ to verify compliance with Conditions D.1.1(b), D.1.2, and E.2.2 (40 CFR 60.302(b)(1)**),** utilizing methods as approved by the Commissioner. PM_{10} and $PM_{2.5}$ include filterable and condensable PM. These tests shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration.

(b) No later than five (5) years after the most recent valid compliance demonstration but no later than 180 days after startup of the extraction plant new units as permitted by Significant Source Modification No. 085-31960-00102, the Permittee shall conduct PM, PM_{10}, and $PM_{2.5}$ testing on baghouse AF-3 (associated with the prep system) to verify compliance with Conditions D.1.1(b), D.1.2, and E.2.2 (40 CFR 60.302(b)(1)), utilizing methods as approved by the Commissioner. PM_{10} and $PM_{2.5}$ include filterable and condensable PM. These tests shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration.

(c) No later than 180 days after initial startup of Meal Loadout Bin Filter #1, the Permittee shall conduct PM, PM_{10}, and $PM_{2.5}$ testing on meal loadout bin filter MLBF-1 (associated with the meal loadout bins) to verify compliance with Conditions D.1.1(b) and D.1.2, utilizing methods as approved by the Commissioner. PM_{10} and $PM_{2.5}$ include filterable and condensable PM. These tests shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration.

* * * * *

D.1.7 Visible Emissions Notations ~~[40 CFR 64]~~

(a) **Pursuant to 40 CFR 64 (CAM), visible** ~~Visible~~ emission notations of the stacks AF-2, AF-3, and AF-7 exhausts shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) Visible emission notations of the stack MLBF-1 exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(~~b~~**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.

(~~c~~**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.

(~~d~~**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.

(~~e~~**f**) If abnormal emissions are observed, the Permittee shall take **a** reasonable response ~~steps~~. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response shall be considered a deviation from this permit.

D.1.8 Parametric Monitoring [40 CFR 64]

The Permittee shall record pressure drop across baghouses AF-2, and AF-3, used in conjunction with the grain receiving/meal loadout system and prep system, at least once per day when the grain receiving/meal loadout system and prep system are in operation. When for any one reading, the pressure drop across Baghouses AF-2 and AF-3 is outside the normal range established during the latest stack test, the Permittee shall take **a** reasonable response ~~steps~~. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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D.1.10 Record Keeping Requirements

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(c) To document the compliance status with Condition D.1.7 the Permittee shall maintain a daily record of visible emission notations of the stack exhaust from Stacks AF-2, **MLBF-1,** AF-3, and AF-7. 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).

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SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(c)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
C200100	Flaker Feed Loop Conveyor *2010**, **2012**	~~183.3~~ **247**	~~*~~Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C010600	Flake Collection Conveyor (12 flakers) *2006, **2010 **and 2012**	~~183.3~~ **247**	~~*~~Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
* * * * *					

C040000	Flaking Roll No. 4 ~~*2006~~ ***2012**	~~20.3~~ **22.9**	***Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
* * * * *					
C070000	Flaking Roll No. 7 ~~*2006~~ ***2012**	~~20.3~~ **22.9**	***Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
* * * * *					
B040000	Hulloosenator No. 1 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
~~B0801000~~ **B080100**	Hulloosenator No. 2 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B130000	Hulloosenator No. 3 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B170000	Hulloosenator No. 4 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B050000	Cascade Dryer No. 1 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B090000	Cascade Dryer No. 2 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B140000	Cascade Dryer No. 3 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B180000	Cascade Dryer No. 4 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
* * * * *					
B060000	Cracking Roll No. 1 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B100000	Cracking Roll No. 2 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B150000	Cracking Roll No. 3 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B190000	Cracking Roll No. 4 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B070000	Cascade Conditioner No. 1 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG

B110000	Cascade Conditioner No. 2 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B160000	Cascade Conditioner No. 3 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B200000	Cascade Conditioner No. 4 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
* * * * *					
A160000	Day Tank *2006, **2010 **and 2012**	~~192.5~~ **264**	Hot dehulling baghouse	Stack AF-5	Yes under NSPS DD
* * * * *					
E020300	Grinding Discharge Conveyor *2011**, **2012**	~~148~~ **198**	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E020400	Hammer Mill Mixing Conveyor *2006**, **2011 and 2012**	~~148~~ **198**	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E010100	Meal L-Path Conveyor *2006**, **2012**	~~148~~ **198**	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E010300	Meal Hammer Mill Feed Conveyor *2006**, **2012**	~~148~~ **198**	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
* * * * *					
E230200	**Meal Hammer Mill Feeder No. 5 *2012**	**74.0**	**Meal Grinding Baghouse**	**Stack AF-6**	**Yes under NESHAP GGGG**
E230000	**Meal Hammer Mill No. 5 *2012**	**74.0**	**Meal Grinding Baghouse**	**Stack AF-6**	**Yes under NESHAP GGGG**
E230100	**Meal Hammer Mill Bin No. 5 *2012**	**74.0**	**Meal Grinding Baghouse**	**Stack AF-6**	**Yes under NESHAP GGGG**
G010300	Meal Leg *2006, **2010 **and 2012**	~~150~~ **198**	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
G150000	Meal Conveyor to Loadout *2006**, **2012**	~~150~~ **198**	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
* * * * *					
B010000	VSC No. 1 *2006**, **2012**	~~96.25~~ **132**	VSC Cyclone	Stack S-1	Yes under NESHAP GGGG
B020000	VSC No. 2 *2006**, **2012**	~~96.25~~ **132**	VSC Cyclone	Stack S-1	Yes under NESHAP GGGG

B010500	VSC Air Heater *2006**, **2012**	~~192.5~~ **264**	VSC Cyclone	Stack S-1	Yes under NESHAP GGGG
* * * * *					
B120000	Jet Dryer No. 1 *2006, **2010 **and 2012**	~~96.25~~ **132**	Jet Dryer Baghouse AF-8	Stack S-1	Yes under NESHAP GGGG
B030000	Jet Dryer No. 2 *2006**, *2012**	~~96.25~~ **132**	Jet Dryer Baghouse AF-9	Stack S-1	Yes under NESHAP GGGG
* * * * *					

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.
Note ***The Flaker aspiration baghouse has been determined to be integral to the process **for this unit**~~, pursuant to Administrative Amendment No. 085-27694-00102, issued on April 16, 2009~~.

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

* * * * *

D.2.2 Particulate Emissions Limitations [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2, the particulate emissions from each of the following processes shall not exceed the pound per hour limitations specified in the following table:

Emission unit ID	Emissions Units	[1]Baghouse ID	Maximum Process Weight (tons/hour) for each unit	326 IAC 6-3 Limit (lbs/hr) for each unit
* * * * *				
C010000~~, C040000, C070000, and C100000~~	Flaking Roll~~s~~ No. 1~~, 4, 7 and 10~~	AF-4	20.3	30.82
C020000, C030000, C050000, C060000, C080000, **and** C090000~~, C0110000 and C0120000~~	Flaking Rolls No. 2, 3, 5, 6, 8, **and** 9~~, 11 and 12~~	AF-4	22.9	33.41

Note 1: For emission units that exhaust through the same stack, the source will need to demonstrate compliance with 326 IAC 6-3-2 during normal operations using the most stringent limit (e.g. calculated from the emission unit operating at the lowest process weight in ton/hr).

* * * * *

(b) Pursuant to 326 IAC 6-3-2, the particulate emissions from each of the following processes shall not exceed the pound per hour limitations specified in the following table:

Emission unit ID	Emissions Units	[1]Baghouse ID	Maximum Process Weight (tons/hour) for each unit	326 IAC 6-3 Limit (lbs/hr) for each unit
B120000 and B030000	Jet Dryer No. 1 and No. 2	Jet Dryer Baghouses AF-8 and AF-9	~~96.3~~ **132**	~~50.89~~ **54.11**
B010500	VSC Air Heater	VSC Cyclone	~~192.5~~ **264**	~~58.10~~ **61.56**
B010000 and B020000	Vertical Seed Conditioner (VSC) No. 1 and No. 2	VSC Cyclone	~~96.25~~ **132**	~~50.89~~ **54.11**
B040000, ~~B0801000~~ **B080100**, B130000, and B170000	Hulloosenator No. 1, No. 2, No. 3, and No. 4	AF-5	~~48.1~~ **66.0**	~~44.22~~ **47.20**
B050000, B090000, B140000, and B180000	Cascade Dryer No. 1, No. 2, No. 3 and No. 4	AF-5	~~48.1~~ **66.0**	~~44.22~~ **47.20**
B060000, B100000, B150000, and B190000	Cracking Roll No. 1, No. 2, No. 3, and No. 4	AF-5	~~48.1~~ **66.0**	~~44.22~~ **47.20**
B070000, B110000, B160000, and B200000	Cascade Conditioner No. 1, No. 2, No. 3 and No. 4	AF-5	~~48.1~~ **66.0**	~~44.22~~ **47.20**
C200100 and C010600	Flaker Feed Loop Conveyor and Flake Collection Conveyor	AF-4	~~183.3~~ **247**	~~57.57~~ **60.82**
E020300, E020400, E010100, and E010300	Grinding Discharge Conveyor, Hammer Mill Mixing Conveyor, Meal L-Path Conveyor, and Meal Hammer Mill Feed Conveyor	AF-6	~~148~~ **198**	~~55.30~~ **58.40**
* * * * *				
E230200 and E230000	**Meal Hammer Mill Feeder No. 5 and Meal Hammer Mill No. 5**	**AF-6**	**74.0**	**48.30**
G010300 and G150000	Meal Leg, and Meal Conveyor to Loadout	AF-6	~~150~~ **198**	~~55.44~~ **58.40**
* * * * *				
E230100	**Meal Hammer Mill Bin No. 5**	**AF-6**	**74.0**	**48.30**
* * * * *				
A160000	Day ~~Bin Vent~~ **Tank**	AF-5	~~192.5~~ **264**	~~58.10~~ **61.56**

Note 1: For emission units that exhaust through the same stack, the source will need to demonstrate compliance with 326 IAC 6-3-2 during normal operations using the most stringent limit (e.g. calculated from the emission unit operating at the lowest process weight in ton/hr).

* * * * *

* * * * *

D.2.4 Particulate Control

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(d) In order to comply with Conditions D.2.2, baghouse AF-6 shall be in operation and control emissions from the Meal Hammer Mill Feeders No. 1, No. 2**,** ~~and~~ No. 3**, and No. 5** and Meal Hammer Mills No. 1, No. 2**,** ~~and~~ No. 3**, and No. 5** at all times the Meal Hammer Mill Feeders No. 1, No. 2**,** ~~and~~ No. 3**, and No. 5** and Meal Hammer Mills No. 1, No. 2**,** ~~and~~ No. 3**, and No. 5** are in operation.

* * * * *

D.2.5 Testing Requirements [326 IAC 2-1.1-11]

(a) No later than five (5) years after the most recent valid compliance demonstration **but no later than 180 days after startup of the extraction plant new units as permitted by Significant Source Modification No. 085-31960-00102**, the Permittee shall conduct PM, PM_{10}, and $PM_{2.5}$ testing on baghouses~~,~~ AF-4, AF-5, ~~and~~ AF-6, **AF-8, and AF-9** and VSC cyclone~~,~~ **(**associated with the flaking system, dehulling system, meal grinding/conveying, and VSC system**)** to verify compliance with Condition D.2.1 and Condition D.2.2, utilizing methods as approved by the Commissioner.

(b) No later than 180 days after the issuance date of Significant Source Modification No. 085-29971-00102 and Part 70 Operating Permit Renewal No. T085-29197-00102, the Permittee shall conduct PM, PM_{10}, and $PM_{2.5}$ testing on baghouses AF-8 and AF-9~~,~~ **(**associated with the jet drying**)**~~,~~ to verify compliance with Condition D.2.1 and Condition D.2.2, utilizing methods as approved by the Commissioner. ~~PM_{10} and $PM_{2.5}$ include filterable and condensable PM. These tests shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures).~~

These tests shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by these conditions. **PM_{10} and $PM_{2.5}$ include filterable and condensable PM.**

D.2.6 Visible Emissions Notations [40 CFR 64]

* * * * *

(e) If abnormal emissions are observed, the Permittee shall take **a** reasonable response ~~steps~~. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response shall be considered a deviation from this permit.

D.2.7 Parametric Monitoring [40 CFR 64]

The Permittee shall record the pressure drop across baghouses AF-4, AF-5, AF-6, AF-8, and AF-9 used in conjunction with the flaking system, dehulling system, and meal grinding system, at least once per day when the flaking system, dehulling system, and meal grinding system are in operation. When for any one reading, the pressure drop across Baghouses AF-4 and AF-6 is outside the normal range established during the latest stack test, the Permittee shall take reasonable response steps. When for any one reading, the pressure drop across Baghouses AF-8 and AF-9 is outside the normal range of 0.5 to 8.0 inches of water or a range established during the latest stack test, the Permittee shall take **a** reasonable response ~~steps~~. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the

reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

* * * * *

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(d)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
D010000	Soybean oil extractor *2006, **2010 **and 2012**	~~196.5~~ **264**	Mineral oil absorber	Stack S-4	Yes under NESHAP GGGG
* * * * *					
D310000-1	DC Deck No. 1 *2006, **2010 **and 2012**	~~156~~ **208**	DC Deck Cyclone No. 1	Stack S-2	Yes under NESHAP GGGG
D310000-2	DC Deck No. 2 *2006, **2010**, 2011, and 2012** ~~and **2011~~	~~156~~ **208**	DC Deck Cyclone No. 2	Stack S-2	Yes under NESHAP GGGG
D310000-3	DC Deck No. 3 *2006, **2010 **and 2012**	~~156~~ **208**	DC Deck Cyclone No. 3	Stack S-2	Yes under NESHAP GGGG
D310000-4	DC Deck No. 4 *2006, **2010 **and 2012**	~~156~~ **208**	DC Deck Cyclone No. 4	Stack S-2	Yes under NESHAP GGGG
* * * * *					

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

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

* * * * *

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

Pursuant to 326 IAC 6-3-2, the particulate emissions from each of the following processes shall not exceed the pound per hour limitations specified in the following table:

Emission unit ID	Emissions Units	Cyclone ID	Maximum Process Weight (tons/hour) for each unit	326 IAC 6-3 Limit (lbs/hr) for each unit
D310000-1, D310000-2, D310000-3, and D310000-4	DC Decks No. 1, No. 2, No. 3, and No. 4	DC Deck Cyclones No. 1 through 4	~~156~~ **208**	~~55.85~~ **58.93**

* * * * *

D.3.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Significant Source Modification No. 085-~~29971~~**31960**-00102 ~~and Part 70 Operating Permit Renewal No. T085-29197-00102,~~ revised the BACT requirements pursuant to 326 IAC 8-1-6 as follows:

(a) The VOC emissions from the combined condenser and mineral oil scrubber system for the extractor vent system shall not exceed 0.048 pounds per ton of soybean processed and shall not exceed 9.3 pounds per hour.

(b) The VOC emissions from the meal dryers and meal cooler (DC Decks No. 1, No. 2, No. 3, and No. 4) shall not exceed 0.03 gallons of VOC per ton of soybean processed and shall not exceed 32.8 pounds per hour.

(~~b~~**c**) The overall solvent loss ratio shall not exceed 0.141 gallons per ton of soybean crushed from the whole plant per twelve (12) consecutive month period, with compliance determined at the end of each month. The Permittee shall also follow the leak detection and repair program as part of BACT.

(~~c~~**d**) The maximum annual throughput of soybeans processed shall not exceed ~~1,686,300~~ **2,252,836** tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(~~d~~**e**) BACT for the fugitive hexane loss shall include an enhanced inspection, maintenance, and repair program (LDAR Program). No later than 60 days of achieving full production, but in no case later than 180 days after initial startup, the Permittee shall institute the following enhanced inspection, maintenance, and repair program for equipment in VOC service located in the solvent extraction portion of the installation. Equipment in vacuum service is exempt from this monitoring requirement pursuant to 40 CFR Part 60.482-1(d).

* * * * *

* * * * *

D.3.8 Testing Requirements [326 IAC 2-1.1-11]

(a) No later than five (5) years after the most recent valid compliance demonstration **but no later than 180 days after startup of the extraction plant new units as permitted by Significant Source Modification No. 085-31960-00102**, the Permittee shall conduct PM, PM_{10}, and $PM_{2.5}$ testing on stack S-2~~,~~ **(**associated with the meal dryers and cooler**)** to verify compliance with Conditions D.3.1 and D.3.3, utilizing methods as approved by the Commissioner. PM_{10} and $PM_{2.5}$ include~~s~~ filterable and condensable PM. This test shall be repeated at least every five (5) years from the date of the most recent valid compliance demonstration.

(b) No later than five (5) years after the most recent valid compliance demonstration **but no later than 180 days after startup of the extraction plant new units as permitted by Significant Source Modification No. 085-31960-00102**, the Permittee shall perform VOC testing on the mineral oil absorber stack (stack S-4) and determine the mineral oil absorber's mineral oil flow rate and the temperature of mineral oil to the absorber to verify compliance with Conditions D.3.2 and D.3.4(a), utilizing methods as approved by the Commissioner. This test shall be repeated at least once five (5) years from the date of the most recent valid compliance demonstration.

(c) No later than five (5) years after the most recent valid compliance demonstration **but no later than 180 days after startup of the extraction plant new units as permitted by Significant Source Modification No. 085-31960-00102**, the Permittee shall perform VOC testing on the meal dryers and cooler cyclones stack

(stack S-2) to verify compliance with Conditions D.3.2 and D.3.4(~~a~~**b**), utilizing methods as approved by the Commissioner. This test shall be repeated at least once five (5) years from the date of the most recent valid compliance demonstration.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures).

Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by these conditions.

D.3.9 Leak Detection and Repair (LDAR) Program [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6, the following is required to demonstrate compliance with the requirements of Condition D.3.4(~~b~~**c**):

* * * * *

D.3.10 Visible Emissions Notations [40 CFR 64]

* * * * *

(e) If abnormal emissions are observed, the Permittee shall take **a** reasonable response ~~steps~~. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response shall be considered a deviation from this permit.

D.3.11 Monitoring for Mineral Oil Absorber and Mineral Oil Stripping Column [40 CFR 64]

* * * * *

(d) If any of the following operating conditions occur, the Permittee shall take **a** reasonable response ~~steps~~. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

* * * * *

* * * * *

* * * * *

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(e)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
* * * * *					
	Biodiesel Water Absorber *2006, **2007	~~0.448~~ **2.2** gpm		Stack S-5	Yes under NSPS VV, and NESHAP FFFF
* * * * *					

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

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

* * * * *

D.4.5 Monitoring for mineral oil absorber and water absorber [40 CFR 64]

* * * * *

(e) If any of the following operating conditions occur, the Permittee shall take **a** reasonable response ~~steps~~. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

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SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(f)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
B-1	Main Boiler, natural gas fired and #2 fuel oil as back up fuel *2006	220 MMBtu/hr	Low NOx burner and Flue gas recirculation	Stack S-3	Yes under NSPS Db **and NESHAP DDDDD**

Note *Approved in the year indicated above for construction.

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

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SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(g)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
G010000	Meal Bin No. 1******* *2006, **2010**, ~~and~~ 2011**, and 2012**~~***~~	~~148~~ **198**	Meal Bin Filter No. 1	Stack MBF-1	Yes under NESHAP GGGG
G020000	Meal Bin No. 2******* *2006, **2010**, ~~and~~ 2011**, and 2012**~~***~~	~~148~~ **198**	Meal Bin Filter No. 2	Stack MBF-2	Yes under NESHAP GGGG
G030000	Meal Bin No. 3******* *2006, **2010**, ~~and~~ 2011**, and 2012**~~***~~	~~148~~ **198**	Meal Bin Filter No. 3	Stack MBF-3	Yes under NESHAP GGGG
G040000	Meal Bin No. 4******* *2006, **2010**, ~~and~~ 2011**, and 2012**~~***~~	~~148~~ **198**	Meal Bin Filter No. 4	Stack MBF-4	Yes under NESHAP GGGG

G050000	Meal Bin No. 5******* *2010, **2011 **and 2012*****	~~148~~ **198**	Meal Bin Filter No. 5	Stack MBF-5	Yes under NESHAP GGGG

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.
Note ***There are five meal bins. However, the plant is only physically capable of loading one meal bin at a time. Thus, the PTE for these units is calculated at a rate of ~~148~~ **198** tons/hr for all five meal bins combined.

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

* * * * *

D.6.2 Particulate Emissions Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the particulate emissions from each of the following processes shall not exceed the pound per hour limitations specified in the following table:

Emission unit ID	Emissions Units	Control	Maximum Process Weight (tons/hour) for each unit	326 IAC 6-3 Limit (lbs/hr) for each unit
G010000, G020000, G030000, G040000 and G050000	Meal Bins No. 1 thru 5	Meal Bin Filters No. 1 thru No. 5	~~148~~ **198**	~~55.30~~ **58.40**

* * * * *

* * * * *

SECTION D.7 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities

Description	Capacity (gallons)	Control	Affected Facility?
* * * * *			
Hull Overflow Tank [326 IAC 2-2] [326 IAC 6-3-2] *2006, **2010 **and 2012**	13,900 cu. ft and ~~15~~ **17** tons per hour	None	
* * * * *			

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

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

* * * * *

D.7.3 Particulate Emissions Limitations [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2, the particulate emissions from each of the following processes shall not exceed the pound per hour limitations specified in the following table:

Emissions Units	Baghouse ID	Maximum Process Weight (tons/hour) for each unit	326 IAC 6-3 Limit (lbs/hr) for each unit
~~Hull Overflow Tank~~	~~None~~	~~15.0~~	~~25.16~~
Diatomaceous Earth (DE) Storage Bin	Filter	0.0875	0.80

* * * * *

~~All of the emission units in the above table are able to comply with the limits established in 326 IAC 6-3-2 without the use of controls.~~

(b) Pursuant to 326 IAC 6-3-2, the particulate emissions from each of the following processes shall not exceed the pound per hour limitations specified in the following table:

Emissions Units	Baghouse ID	Maximum Process Weight (tons/hour) for each unit	326 IAC 6-3 Limit (lbs/hr) for each unit
Kaolin Receiving Tank	Bin Filter	40	42.53

* * * * *

~~The emission unit in the above table is able to comply with the limits established in 326 IAC 6-3-2 without the use of a control.~~

* * * * *

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(f)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
B-1	Main Boiler, natural gas fired and #2 fuel oil as back up fuel *2006	220 MMBtu/hr	Low NOx burner and Flue gas recirculation	Stack S-3	Yes under NSPS Db **and NESHAP DDDDD**

Note *Approved in the year indicated above for construction.

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

* * * * *

SECTION E.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
* * * * *					
B011300	Bean Weigh Scale *2006**, **2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
* * * * *					
B010100	Whole Bean Aspirator No 1 *2006**, **2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B020100	Whole Bean Aspirator No 2 *2006**, **2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B010900	Whole Bean Aspirator Cyclone *2006**, **2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
*** * * * ***					

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

* * * * *

(c)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
* * * * *					
A160000	Day Tank *2006, **2010 **and 2012**	~~192.5~~ **264**	Hot dehulling baghouse	Stack AF-5	Yes under NSPS DD

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

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

* * * * *

SECTION E.8 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
* * * * *					
G070000	Truck Meal Loadout Bin *2006, **2010 **and 2012**	300	~~Grain Receiving/~~Meal Loadout ~~baghouse~~ **Bin Filter**	Stack ~~AF-2~~ **MLBF-1**	Yes under NESHAP GGGG
* * * * *					
G130000	Rail Meal Loadout Bin *2006, **2010 **and 2012**	300	~~Grain Receiving/~~Meal Loadout ~~baghouse~~ **Bin Filter**	Stack ~~AF-2~~ **MLBF-1**	Yes under NESHAP GGGG
G160000	Pellet Hulls Conveyor to Loadout *2006, **2010 **and 2012**	~~15~~ **17.0**	Grain Receiving/Meal Loadout **baghouse**	Stack AF-2	Yes under NESHAP GGGG
* * * * *					
A060000	Screener *2006, **2011 **and 2012**	~~230~~ **264**	Prep Exhaust Baghouse	Stack AF-3	Yes under NESHAP GGGG
A160300	VSC Leg Feed Conveyor *2006, **2010 **and 2012**	~~192.5~~ **264**	Prep Exhaust Baghouse	Stack AF-3	Yes under NESHAP GGGG
* * * * *					
B011300	Bean Weigh Scale *2006**, ****2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
* * * * *					
B011200	VSC Feed Leg *2006**, ****2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
A060400	Screener Feed Conveyor *2010**, ****2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
B010100	Whole Bean Aspirator No 1 *2006**, ****2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG

B020100	Whole Bean Aspirator No 2 *2006**, **2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B010900	Whole Bean Aspirator Cyclone *2006**, **2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NSPS DD and NESHAP GGGG
B030800	Conditioned Bean Feed Conveyor *2006**, **2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
B030900	Hull Collection Conveyor *2006**, **2012**	~~15.0~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
* * * * *					
B440000	Secondary Hull Collection L-Path *2010**, **2012**	~~12~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
B430000	Secondary Hull Collection Conveyor *2010**, **2012**	~~9.6~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E070300	4 Hour Hull Tank *2006**, **2012**	~~9.6~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E080000	Pellet Cooler *2006**, **2012**	~~9.6~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E090000	Pellet Cooler Cyclone *2006**, **2012**	~~9.6~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E050200	Hull Hammer Mill Feeder *2006**, **2012**	~~9.6~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E050000	Hull Hammer Mill *2006**, **2012**	~~9.6~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E050100	Hull Hammer Mill Plenum *2006**, **2012**	~~9.6~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
G050100	Pelleted Hulls Leg *2006**, **2012**	~~9.6~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
G050300	Pelleted Hulls Storage Conveyor *2006, **2010 **and 2012**	~~15~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
E050400	Hulls Addition Screw *2011**, **2012**	~~15~~ **17.0**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG

B010300	Conditioner Bean Loop Path *2006**, **2012**	~~192.5~~ **264**	Prep exhaust baghouse	Stack AF-3	Yes under NESHAP GGGG
* * * * *					

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

(c)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
C200100	Flaker Feed Loop Conveyor *2010**, **2012**	~~183.3~~ **247**	~~*~~Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
C010600	Flake Collection Conveyor (12 flakers) *2006, **2010 **and 2012**	~~183.3~~ **247**	~~*~~Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
* * * * *					
C040000	Flaking Roll No. 4 ~~*2006~~ ***2012**	~~20.3~~ **22.9**	~~**~~*Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
* * * * *					
C070000	Flaking Roll No. 7 ~~*2006~~ ***2012**	~~20.3~~ **22.9**	~~**~~*Flaker aspiration baghouse	Stack AF-4	Yes under NESHAP GGGG
* * * * *					
B040000	Hulloosenator No. 1 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
~~B0801000~~ **B080100**	Hulloosenator No. 2 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B130000	Hulloosenator No. 3 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B170000	Hulloosenator No. 4 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B050000	Cascade Dryer No. 1 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B090000	Cascade Dryer No. 2 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG

B140000	Cascade Dryer No. 3 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B180000	Cascade Dryer No. 4 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
* * * * *					
B060000	Cracking Roll No.1 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B100000	Cracking Roll No. 2 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B150000	Cracking Roll No. 3 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B190000	Cracking Roll No. 4 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B070000	Cascade Conditioner No. 1 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B110000	Cascade Conditioner No. 2 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B160000	Cascade Conditioner No. 3 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
B200000	Cascade Conditioner No. 4 *2006**, **2012**	~~48.1~~ **66.0**	Hot dehulling baghouse	Stack AF-5	Yes under NESHAP GGGG
* * * * *					
E020300	Grinding Discharge Conveyor *2011**, **2012**	~~148~~ **198**	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E020400	Hammer Mill Mixing Conveyor *2006**, **2011 and 2012**	~~148~~ **198**	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E010100	Meal L-Path Conveyor *2006**, **2012**	~~148~~ **198**	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
E010300	Meal Hammer Mill Feed Conveyor *2006**, **2012**	~~148~~ **198**	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
* * * * *					

E230200	**Meal Hammer Mill Feeder No. 5 *2012**	**74**	**Meal Grinding Baghouse**	**Stack AF-6**	**Yes under NESHAP GGGG**
E230000	**Meal Hammer Mill No. 5 *2012**	**74**	**Meal Grinding Baghouse**	**Stack AF-6**	**Yes under NESHAP GGGG**
E230100	**Meal Hammer Mill Bin No. 5 *2012**	**74**	**Meal Grinding Baghouse**	**Stack AF-6**	**Yes under NESHAP GGGG**
G010300	Meal Leg *2006, **2010 **and 2012**	~~150~~ **198**	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
G150000	Meal Conveyor to Loadout *2006**, **2012**	~~150~~ **198**	Meal Grinding Baghouse	Stack AF-6	Yes under NESHAP GGGG
* * * * *					
B010000	VSC No. 1 *2006**, **2012**	~~96.25~~ **132**	VSC Cyclone	Stack S-1	Yes under NESHAP GGGG
B020000	VSC No. 2 *2006**, **2012**	~~96.25~~ **132**	VSC Cyclone	Stack S-1	Yes under NESHAP GGGG
B010500	VSC Air Heater *2006**, **2012**	~~192.5~~ **264**	VSC Cyclone	Stack S-1	Yes under NESHAP GGGG
* * * * *					
B120000	Jet Dryer No. 1 *2006, **2010 **and 2012**	~~96.25~~ **132**	Jet Dryer Baghouse AF-8	Stack S-1	Yes under NESHAP GGGG
B030000	Jet Dryer No. 2 *2006**, **2012**	~~96.25~~ **132**	Jet Dryer Baghouse AF-9	Stack S-1	Yes under NESHAP GGGG
* * * * *					

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.
Note ***The Flaker aspiration baghouse has been determined to be integral to the process **for this unit**~~, pursuant to Administrative Amendment No. 085-27694-00102, issued on April 16, 2009~~.

(d)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
D010000	Soybean oil extractor *2006, **2010 **and 2012**	~~196.5~~ **264**	Mineral oil absorber	Stack S-4	Yes under NESHAP GGGG
* * * * *					
D310000-1	DC Deck No. 1 *2006, **2010 **and 2012**	~~156~~ **208**	DC Deck Cyclone No. 1	Stack S-2	Yes under NESHAP GGGG

D310000-2	DC Deck No. 2 *2006, **2010**, 2011, and 2012** ~~and **2011~~	~~156~~ **208**	DC Deck Cyclone No. 2	Stack S-2	Yes under NESHAP GGGG
D310000-3	DC Deck No. 3 *2006, **2010 **and 2012**	~~156~~ **208**	DC Deck Cyclone No. 3	Stack S-2	Yes under NESHAP GGGG
D310000-4	DC Deck No. 4 *2006, **2010 **and 2012**	~~156~~ **208**	DC Deck Cyclone No. 4	Stack S-2	Yes under NESHAP GGGG
* * * * *					

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

(g)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
G010000	Meal Bin No. 1*** *2006, **2010**, ~~and~~ 2011**, and 2012*****	~~148~~ **198**	Meal Bin Filter No. 1	Stack MBF-1	Yes under NESHAP GGGG
G020000	Meal Bin No. 2*** *2006, **2010**, ~~and~~ 2011**, and 2012*****	~~148~~ **198**	Meal Bin Filter No. 2	Stack MBF-2	Yes under NESHAP GGGG
G030000	Meal Bin No. 3*** *2006, **2010**, ~~and~~ 2011**, and 2012*****	~~148~~ **198**	Meal Bin Filter No. 3	Stack MBF-3	Yes under NESHAP GGGG
G040000	Meal Bin No. 4*** *2006, **2010**, ~~and~~ 2011**, and 2012*****	~~148~~ **198**	Meal Bin Filter No. 4	Stack MBF-4	Yes under NESHAP GGGG
G050000	Meal Bin No. 5*** *2010, **2011 **and 2012*****	~~148~~ **198**	Meal Bin Filter No. 5	Stack MBF-5	Yes under NESHAP GGGG

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.
Note ***There are five meal bins. However, the plant is only physically capable of loading one meal bin at a time. Thus, the PTE for these units is calculated at a rate of ~~148~~ **198** tons/hr for all five meal bins combined.

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

* * * * *

SECTION E.10 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(f)

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
B-1	Main Boiler, natural gas fired and #2 fuel oil as back up fuel *2006	220 MMBtu/hr	Low NOx burner and Flue gas recirculation	Stack S-3	Yes under NSPS Db and NESHAP DDDDD

Note *Approved in the year indicated above for construction.

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

E.10.1 General Provisions Relating to NESHAP [326 IAC 20-1] [40 CFR 63, Subpart A]

(a) Pursuant to 40 CFR 63.7565, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1, as specified in Table 10 of 40 CFR 63.7480, Subpart DDDDD in accordance with the schedule in 40 CFR 63, Subpart DDDDD.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

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

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

E.10.2 National Emission Standard for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR Part 63, Subpart DDDDD] [326 IAC 20-95]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart DDDDD (included as Attachment J of this permit), which are incorporated by reference as 326 IAC 20-95:

(1) 40 CFR 63.7480;
(2) 40 CFR 63.7485;
(3) 40 CFR 63.7490(a)(2), (b);
(4) 40 CFR 63.7495(a), (d);
(5) 40 CFR 63.7499;
(6) 40 CFR 63.7500(a)(1), (b);
(7) 40 CFR 63.7505;
(8) 40 CFR 63.7506(a);
(9) 40 CFR 63.7510(c), (g);
(10) 40 CFR 63.7525(a), (c);

(11) 40 CFR 63.7530(b);
(12) 40 CFR 63.7535;
(13) 40 CFR 63.7540(a)(10), (b), (d);
(14) 40 CFR 63.7545(a), (c);
(15) 40 CFR 63.7550(a), (b), (c), (d), (e);
(16) 40 CFR 63.7555(a), (b), (d)(1);
(17) 40 CFR 63.7560;
(18) 40 CFR 63.7565;
(19) 40 CFR 63.7570;
(20) 40 CFR 63.7575;
(21) Table 1 to 40 CFR 63 Subpart DDDDD; and
(22) Table 9 to 40 CFR 63 Subpart DDDDD.

* * * * *

Quarterly Reports

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

Part 70 Quarterly Report

Source Name:	Louis Dreyfus Agricultural Industries LLC
Source Address:	7344 State Road 15 South, Claypool, Indiana 46510-9746
Part 70 Permit No.:	T085-29197-00102
Facility:	Grain Receiving/Meal Loadout and Prep Area
Parameter:	Soybeans processed
Limit:	Shall be less than ~~1,686,300~~ **2,251,836** tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

* * * * *

Conclusion and Recommendation

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 085-31960-00102 and Significant Permit Modification No. 085-31979-00102. The staff recommends to the Commissioner that this Part 70 Significant Source Modification and Significant Permit Modification be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to John Haney at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5328 or toll free at 1-800-451-6027 extension 4-5328.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Indiana Department of Environmental Management
Office of Air Quality

Appendix B
Best Available Control Technology (BACT) Analysis Determination

Source Background and Description

Source Name:	Louis Dreyfus Agricultural Industries LLC
Source Location:	7344 State Road 15 South, Claypool, Indiana 46510-9746
County:	Kosciusko
SIC Code:	2075, 2079 & 2869
Permit Renewal No.:	T085-29197-00102
Permit Renewal Issuance Date:	November 22, 2011
Significant Source Modification No.:	085-31960-00102
Significant Permit Modification No.:	085-31979-00102
Permit Reviewer:	John Haney

Background Information

The Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) has performed the following Best Available Control Technology (BACT) review for the existing soybean oil extraction plant of Louis Dreyfus Agricultural Industries LLC (LDAI) located at 7344 State Road 15 South, Claypool, Indiana 46510-9746. The following emission units each have potential emissions of volatile organic compounds (VOCs) of twenty-five (25) tons or more per year. Pursuant to the provisions of 326 IAC 8-1-6, Best Available Control Technology analyses for VOC were performed for these units:

Unit ID	Description	Capacity (tons/hr)	Control	Discharging to Stack	Affected Facility?
D010000	Soybean oil extractor *2006, **2010 and 2012	264	Mineral oil absorber	Stack S-4	Yes under NESHAP GGGG
Meal Dryers and Coolers					
D310000-1	DC Deck No. 1 *2006, **2010 and 2012	208	DC Deck Cyclone No. 1	Stack S-2	Yes under NESHAP GGGG
D310000-2	DC Deck No. 2 *2006, **2010, 2011, and 2012	208	DC Deck Cyclone No. 2	Stack S-2	Yes under NESHAP GGGG
D310000-3	DC Deck No. 3 *2006, **2010 and 2012	208	DC Deck Cyclone No. 3	Stack S-2	Yes under NESHAP GGGG
D310000-4	DC Deck No. 4 *2006, **2010 and 2012	208	DC Deck Cyclone No. 4	Stack S-2	Yes under NESHAP GGGG

Note *Approved in the year indicated above for construction.
Note **Approved in the year indicated above for modification.

IDEM, OAQ is performing an evaluation pursuant to the 326 IAC 8-1-6 for the existing soybean oil extraction plant, based on the following:

(a) Part 70 Operating Permit T085-21297-00102, issued on January 24, 2006, established the BACT requirements as follows:

(1) Control device requirements and emission limits for the soy oil extractor;

(2) Control device requirements and emission limits for the meal dryers and coolers;

(3) Emission limits for the overall solvent loss ratio (SLR);

(4) A maximum annual processed soybean limit; and

(5) An enhanced inspection, maintenance, and repair program.

(b) Significant Source Modification 085-27941-00102, issued on January 25, 2010, clarified the sampling frequency for the components covered by the LDAR program. This change did not require a re-evaluation of the BACT requirements since it did not involve a change in the BACT, which was the LDAR Program.

(c) Part 70 Operating Permit Renewal T085-29197-00102, issued on November 22, 2011, re-evaluated the BACT requirements, allowing for an increase to the overall solvent loss ratio (SLR) limit.

(d) On July 13, 2012, the Office of Air Quality (OAQ) received a request from LDAI requesting a re-evaluation of the BACT determination for the soybean oil extraction plant in which LDAI proposed to increase the maximum annual processed soybean throughput of the facility. LDAI proposed no changes to other elements of the VOC BACT limit for soybean oil extraction.

IDEM, OAQ conducts BACT analyses in accordance with the *"Top-Down" Best Available Control Technology Guidance Document* outlined in the 1990 draft U.S. EPA *New Source Review Workshop Manual*, which outlines the steps for conducting a top-down BACT analysis. Those steps are listed below.

(1) Identify all potentially available control options;

(2) Eliminate technically infeasible control options;

(3) Rank remaining control technologies;

(4) Evaluate the most effective controls and document the results; and

(5) Select BACT.

Also in accordance with the *"Top-Down" Best Available Control Technology Guidance Document* outlined in the 1990 draft U.S. EPA *New Source Review Workshop Manual*, BACT analyses take into account the energy, environmental, and economic impacts of the control options. Emission reductions may be determined through the application of available control techniques, process design, and/or operational limitations. Such reductions are necessary to demonstrate that the emissions remaining after application of BACT will not cause adverse environmental effects to public health and the environment.

VOC BACT Analysis

Step One: Identify All Potentially Available Control Technologies

Based on the information reviewed for this BACT determination, the following potentially available control technologies were identified for controlling VOC emissions from the soybean oil extraction processes:

(a) Oxidation Controls

(1) Thermal Oxidation

The destruction of organic compounds usually requires temperatures ranging from 1200^0F to 2200^0F, depending on their chemical composition and the desired destruction efficiency. When complete combustion is achieved, carbon dioxide and water vapor result as products. Turbulent mixing and combustion chamber retention times of 0.5 to 1.0 second are necessary to obtain high destruction efficiency. Normally, natural gas is used to fuel the combustion chamber and maintain the required temperatures, but fuel oil is substituted in some cases. Concentrated VOC streams having high heat contents require less supplementary fuel than dilute VOC streams. In some cases, the VOC streams have high enough heat content to be self sustaining.

Thermal oxidizers can have design efficiencies up to 99.99% and above, depending on system requirements and characteristics of the contaminated stream. The typical design conditions needed to meet 98% or greater control or a 20 parts per million by volume (ppmv) VOC exit concentration are: 870°C (1600°F) combustion temperature, 0.75 second residence time, and proper mixing with air.

(2) Catalytic Oxidation:

Catalytic oxidizers operate very similar to thermal oxidizers, with the primary difference being that the gas, after passing through the flame area, passes through a catalyst bed. The catalyst has the effect of increasing the oxidation reaction rate, enabling conversion at lower reaction temperatures than in thermal incinerator units. Catalysts, therefore, also allow for smaller incinerator size.

Waste gas is heated by auxiliary burners to approximately 320°C to 430°C (600°F to 800°F) before entering the catalyst bed. The maximum design exhaust temperature of the catalyst is typically 540° - 675°C (1000° - 1250°F). Turbulent mixing and combustion chamber retention times of 0.5 to 1.0 second are necessary to obtain high destruction efficiency.

VOC destruction efficiency is dependent upon VOC composition and concentration, operating temperature, oxygen concentration, catalyst characteristics, and space velocity. Space velocity is commonly defined as the volumetric flow of gas entering the catalyst bed chamber divided by the volume of the catalyst bed.

Higher destruction efficiencies of 98-99 percent are achievable using catalytic oxidizers.

(3) Recuperative Thermal Incineration:

The individual and point source filtered air streams enter the incinerator and are preheated by a gas - to - gas heat exchange. The resulting preheated stream is then further heated to the incineration temperature, causing combustion of the VOCs. The resulting "hot exhaust gas" is passed back through the gas-to-gas heat exchanger to preheat the incoming pollutant gas stream and then is vented to the stack.

Thermal incineration is recommended for emission streams containing a minimum of 20 ppm of combustible VOCs but less than 25% of the lower explosive limit (LEL) of the pollutant. If higher concentrations due to upset conditions are present, additional air (dilution air) may be required to eliminate the explosive hazard.

Thermal incinerators do not efficiently adjust to highly variable process exhaust flow rates due to poor mixing and varying residence times. Varying concentrations may also cause wide fluctuation of the combustion chamber temperature, adversely affecting the destruction efficiency.

For vent streams with VOC concentration below approximately 2000 ppmv, reaction rates decrease, and maximum VOC destruction efficiency also decreases.

Studies based on actual field test data, show that commercial incinerators should generally be run at 870°C (1600°F) with a nominal residence time of 0.75 seconds to ensure 98% destruction of non-halogenated organics (EPA, 1992).

Recuperative incinerators usually are more economical than straight thermal incinerators because they recover about 70% of the waste heat from the exhaust gases. This heat can be used to preheat incoming air, and oftentimes, sufficient waste heat will be available for process heating, or to generate steam or hot water.

(4) Regenerative Thermal Oxidizer (RTO)

RTOs use a high-density media such as a ceramic-packed bed still hot from a previous cycle to preheat an incoming VOC-laden waste gas stream. The preheated, partially oxidized gases then enter a combustion chamber where they are heated by auxiliary fuel (natural gas) combustion to a final oxidation temperature typically between 760°C to 820°C (1400°F to 1500°F) and maintained at this temperature to achieve maximum VOC destruction, however, temperatures of up to 1100°C (2000°F) may be achieved, if required, for very high control efficiencies of certain toxic VOC. The purified, hot gases exit this chamber and are directed to one or more different ceramic-packed beds cooled by an earlier cycle. Heat from the purified gases is absorbed by these beds before the gases are exhausted to the atmosphere. The reheated packed bed then begins a new cycle by heating a new incoming waste gas stream.

Regenerative incineration is applicable over the same range of concentrations as recuperative thermal incineration and has the same LEL requirements.

VOC destruction efficiency depends upon design criteria (i.e., chamber temperature, residence time, inlet VOC concentration, compound type, and degree of mixing) (EPA, 1992). Typical regenerative incinerator design efficiencies range from 95 to 99% for RTO systems.

Regenerative incinerators can and have been used effectively at inlet loadings as low as 100 ppmv or less. As with thermal and recuperative incinerators, for safety considerations, the maximum concentration of the organics in the waste gas must be substantially below the lower flammable level (lower explosive limit, or LEL) of the specific compound being controlled. As a rule, a safety factor of four (i.e., 25% of the LEL) is used. The waste gas may be diluted with ambient air, if necessary, to lower the concentration.

(b) Reclamation Controls

(5) Condensation

Condensation is the separation of VOCs from an emission stream through a phase change, by either increasing the system pressure or, more commonly, lowering the system temperature below the dew point of the VOC vapor. When condensers are used for air pollution control, they usually operate at the pressure of the emission stream, and typically require a refrigeration unit to obtain the temperature necessary to condense the VOCs from the emission stream. The emission stream enters a heat exchanger, usually of shell-and-tube design, and encounters the cold surface of the tube carrying the refrigerant. The emission stream temperature drops to the dew point of its VOC constituents. The VOC liquefies and drops out of the emission stream. The "cleaned" emission stream is then vented to the stack while the condensed solvent is collected for reuse or disposal.

Condensation systems are recommended for emission streams containing between 5,000 and 10,000 ppm. Condensation is affected significantly by the number and nature of the constituents in the emission stream. The greater the variance of components, the greater the range of temperatures that must be maintained to achieve condensation. The emission streams of interest will nearly always be below the 5,000 ppm recommended for starting the condensation.

(6) Cryogenic Condensation

A cryogenic VOC control system uses liquid nitrogen as a cooling agent to reduce the temperature of the condenser to as low as -160^{0}F. According to BOC Gases, the manufacturer of the patented Kryoclean system, the system is designed for low flow rates (<1,000 acfm), high inlet VOC concentrations, and low moisture content.

(7) Absorption

Absorption is a surface phenomenon where components of a gas phase mixture (pollutants) are selectively transferred to a relatively nonvolatile liquid, usually water. Sometimes, organic liquids, such as mineral oil or non-volatile hydrocarbons, are suitable absorption solvents. The choice of solvent depends on cost and the solubility of the pollutant in the solvent.

Absorption is a unit operation where components of a gas phase mixture (pollutants) are selectively transferred to a relatively nonvolatile liquid, usually water. Sometimes, organic liquids, such as mineral oil or non volatile hydrocarbons, are suitable absorption solvents. The choice of solvent depends on cost and the solubility of the pollutant in the solvent.

The original state BACT analysis, pursuant to 326 IAC 8-1-6, was completed in 2005 for the soybean oil extraction process at LDAI. LDAI has been complying with the original BACT and is using a mineral oil absorber system to control VOC emissions from the main vent stream from the solvent extraction process to absorb the pollutant (hexane) following its absorption in mineral oil.

Absorption is only economical for emission streams with higher concentrations. Absorption is used successfully and economically at the main vent stream from the solvent extraction process.

(8) Carbon Adsorption

Carbon adsorption is the predominant method for adsorption of VOC streams. Carbon adsorption systems were applied rather widely to the main vent stream from solvent extraction plants built in the 1940s and early 1950s. As a general rule, the vent gases were cooled as far as practical before entering the carbon adsorption system to minimize the thermal loading on the carbon. The carbon adsorption systems were conservatively designed to have a very low pressure drop so that a vent blower was not required in the system. These systems, when operating as designed, efficiently removed hexane from the main vent stream. However, the carbon fouled rapidly with sulfur (which occurs naturally in soybeans), and the efficiency of the units was often suspect. In the early 1950s, mineral oil absorbers replaced carbon adsorbers on the main vent stream. This was primarily for greater safety, but also because this system offered additional hexane recovery due to increased hours of operation at the design conditions.

(9) Carbon Adsorption/Oxidation

In some cases, a combination of control technologies results in the most efficient and cost effective VOC control method. Presently, a combination of carbon adsorption and oxidation (incinerator) has had good results on low concentration emission streams.

Carbon Adsorption/Oxidation combines a carbon adsorption system and a recuperative thermal incineration system for capture and incineration of VOCs. This system concentrates the VOC stream by using carbon adsorption by removing low concentration VOCs from large gas flows to the carbon bed and then much lower gas flow is used to regenerate the carbon. The gas stream coming from the regeneration process contains much higher concentrations of VOCs, which are then sent to a thermal incinerator for a more efficient destruction.

The carbon adsorption system is usually configured as a rotating wheel. During rotation, most of the wheel is utilized for adsorbing VOCs while approximately 10% of the wheel is being regenerated using high temperature air. The low concentration emission stream passes through the carbon adsorption system where up to 95% of the VOCs which were present in the low concentration emission stream are captured for oxidation. High temperature air from the gas – to - gas heat exchanger flows counter current to the flow of the emission stream desorbing the carbon wheel. This desorbing air, now laden with a high concentration of VOCs is destroyed at up to 98% efficiency. That is 98% of the 95% of VOCs captured from the low concentration emission stream which are destroyed. The system concentrates and reduces the airflow of the emission stream, thereby decreasing the size and fuel requirement of the thermal incinerator. Substantial operational savings may be realized with this type of system. The capital cost is significantly higher than that of either a carbon adsorption system or a recuperative thermal incinerator alone. Considering the relatively low concentration present in the emission streams, a carbon adsorption/oxidation system was studied to determine its economic viability.

(c) Innovative Technologies

Review of the literature indicates that other technologies may destroy VOC pollutants. These technologies include:

(1) Superheated CO (i.e., solvent-less extraction). This technology is still in the “pilot” stage.

(2) Microwave Technology (i.e., solvent-less). This technology is still in the “pilot” stage.

(3) Vacuum Assisted Desolventization System “VADS”.

(4) Fluidized bed adsorption.

(5) Biofilters, either outdoor piles similar to compost piles or sophisticated installations involving fixed film on granular activated carbon substrates, appear to work, although such systems are large and require considerable space.

(6) Systems applying ultraviolet radiation, either with a titanium dioxide catalyst or in combination with hydrogen peroxide, also show promise.

None of these innovative applications are well documented, with little information on process costs. LDAI does not believe that any of these novel technologies can be considered commercially available.

Step Two: Eliminate Technically Infeasible and Economically Infeasible Control Options

(a) Soybean Oil Extraction

Based on the information reviewed for this BACT determination, IDEM, OAQ has determined that the use of oxidizers and certain reclamation systems are not technically feasible options for this source for the following reasons:

(1) Oxidation Controls

Based on the information reviewed for this BACT determination, oxidizers are not used to reduce emissions in the extraction plants in the oilseed industry. The vent gases that would be ducted to the control device cover a wide range of flow volumes and solvent concentrations. Variations in flows and solvent concentrations greatly hamper safe and efficient operation of an oxidizer. The possibility of a flash back in the duct system to the oxidizer presents a fire and explosion hazard. The National Fire Protection Association (NFPA) standards for extraction plants require that any flame operation be located at least 100 feet away from the processing area due to the fire risk. Therefore, this technology is not technically feasible, and no further evaluation will be made.

(2) Cryogenic Condensation

Cryogenic condensation is a relatively new technology for VOC control and has not been used in the soybean processing industry. However, a cryogenic condenser equipment cost quote was obtained by another soybean processing plant (Ultra Soy of America) for a BACT determination performed as part of Part 70 Operating Permit T087-24953-00069, issued on April 14, 2008. Therefore, it was assumed that this option is commercially available and is technically feasible.

A cost effectiveness analysis was performed by Ultra Soy for the use of a cryogenic condenser to control VOC emissions from the solvent extraction process. The cryogenic condenser would be used as a polishing step after the mineral oil absorber and would eliminate 99% of hexane emitted from the soybean oil extractor (D010000). The cost evaluation from Ultra Soy was utilized for this analysis in conjunction with the VOC and hexane emissions from the mineral oil absorber. The results are shown below in Table 1.

Table 1: Cost/Economic Analysis for Cryogenic Condensation

A. Direct Capital Cost		
Item	**Cost Estimate**	**Reference/Source of Cost Estimate**
Purchase Equipment Costs		
1. Equipment Cost Linde Cirrus Cryogenic Condenser	$ 545,000	Vendor Quote
2. Instrumentation/controls	$ 54,500	EPA Cost Manual
3. Sales Tax	$ 16,350	EPA Cost Manual
4. Freight	$ 27,250	EPA Cost Manual
5. Other	$	
6. Purchased Equipment Subtotal	**$ 643,100**	
Direct Installation Costs		
7. Foundations and Supports	$ 38,586	EPA Cost Manual
8. Erection/Handling	$ 257,240	EPA Cost Manual
9. Electrical	$ 6,431	EPA Cost Manual
10. Piping	$ 32,155	EPA Cost Manual
11. Insulation and Painting	$ 19,293	EPA Cost Manual
12. Site Preparation	$ 6,431	EPA Cost Manual
13. Other	$	
14. Direct Installation Costs Subtotal	**$ 360,136**	
15. Direct Capital Cost Subtotal	**$1,003,236**	
B. Indirect Installation Costs		
1. Engineering and Supervision	$ 64,310	EPA Cost Manual
2. Construction and Field Expenses	$ 64,310	EPA Cost Manual
3. Contractor Fees	$ 64,310	EPA Cost Manual
4. Start-up and Performance Tests	$ 12,862	EPA Cost Manual
5. Over-all Contingencies	$ 19,293	EPA Cost Manual
7. Other		
8. Indirect Installation Costs Subtotal	**$ 225,085**	
C. Total Capital Cost	**$1,228,321**	
D. Direct Annual Cost		
1. Operating Labor Operator (@ $25.00 per hour x 5,250 hrs/yr) Supervision (15% of labor)	 $ 131,250 $ 19,687	EPA Cost Manual. Based on 5 hrs per shift.
2. Maintenance Labor Maintenance Labor (@ $25.00 per hour x 525 hrs/yr) Maintenance Materials (100% of labor)	 $ 13,125 $ 13,125	EPA Cost Manual. Based on 1.5 hrs per shift.
3. Replacement parts (as required)	$	
4. Utilities 8500 scfh liquid nitrogen	$1,535,000	Vendor Quote
5. Other		
6. Direct Annual Cost Subtotal	**$1,712,187**	

E. Indirect Annual Costs		
1. Overhead	$ 106,312	EPA Cost Manual.
2. Property Taxes	$ 12,283	EPA Cost Manual.
3. Insurance	$ 12,283	EPA Cost Manual.
4. Administration	$ 24,566	EPA Cost Manual.
5. Capital Recovery a. Interest Rate b. Economic Lifetime	7% 10 years	0.14238 x Total Capital Cost
6. CAPITAL RECOVERY COST	$ 174,888	EPA Cost Manual.
7. Other		
8. Indirect Annual Cost Subtotal	**$ 330,332**	
F. Recovery Credits		
1. Materials Recovered Hexane @ $2.70/gallon	$ 83,430	99.9% recovery = 30,900 gallons hexane. Cost of hexane from Bunge, Council Bluffs, Iowa
2. Energy Recovered	$	
3. Other	$	
4. Recovery Credits Subtotal	$ 83,430	
G. Total Annualized Cost Summary		
1. Direct Annual Costs Subtotal	$1,712,187	
2. Indirect Annual Costs Subtotal	$ 330,332	
3. Recovery Credits Subtotal	$ 83,430	
4. Total Annualized Cost (TAC)	**$1,959,089**	
H. Cost Effectiveness		
1. Baseline Emissions Rate (tons/year)	40.73	
2. Post –BACT Emissions Rate (tons/year)	0.41	
3. Total Pollution Removed (tons/year)	40.32	
4. Average Cost Effectiveness of BACT Option ($/ton) (G4 ÷ H3)	**$ 48,588**	

"EPA Air Pollution Control Cost Manual, Sixth Edition", EPA-452-02-001, January 2002

The basis of cost effectiveness, used to evaluate the control options, is the ratio of the annualized cost to the amount of VOC (tons) removed per year. From table 1 above, it shows that the cryogenic condenser for the solvent extraction process would cost $48,588 per ton of VOC with 40.32 tons per year of VOC reduction from the baseline emission rate of 40.73 tons per year having an overall control efficiency of 99%. IDEM, OAQ has determined that based on the economic analysis above, the use of a cryogenic condenser to control VOC emissions from the solvent extraction process is not a cost effective control option and is not economically feasible.

(3) Carbon Adsorption

Based on the information reviewed for this BACT determination, carbon adsorbers are not used to reduce emissions in the extraction plants in the oilseed industry. The normal flow and concentration variation during upset and startup/shutdown would overheat the carbon beds and may result in the carbon beds catching fire. Therefore, mineral oil systems have replaced all the carbon adsorbers in soybean extraction plants. Mineral oil adsorption currently represents state of the art in the industry and is universally recommended for all plants. The problems associated with carbon adsorbers fall in three groups:

- Sulfur plugging of the carbon and the resultant reduction in capacity;
- Overheating and fires in carbon beds; and
- Limited capacity.

Sulfur has been present in the main vent stream of similar facilities. Even at low levels, the sulfur compounds are adsorbed more readily onto the activated carbon, thereby reducing the VOC adsorption capacity. The sulfur plugging requires more frequent replacement of the carbon. Applying such a system to the vent stream exiting the mineral oil absorption system results in a higher proportion of sulfur to hexane and a shorter carbon life.

Carbon adsorbers can overheat for several reasons, including poor conditioning of the carbon (which can create dead spots where cooling by the carrier media cannot occur rapidly enough), over-drying of the carbon bed during desorption, and overloading of the absorber during surges caused by process upsets. The adsorption of volatile organic compounds (such as hexane) on activated carbon generates heat equivalent to the latent heat of vaporization for the compound being adsorbed. Under the conditions listed above, the heat generated by adsorption can accumulate in the bed, causing the temperature to rise to the point where ignition will occur.

Good design and control can eliminate overheating of the carbon bed, but when the equipment or control fails (as they invariably will), overheating can occur. This makes the carbon adsorbers a potential source of ignition. While fires caused by overheating are usually contained by the vessel, the vessel is directly connected to the process by ductwork which allows a flame path back to the process, creating an unacceptable risk of explosion.

The most likely time for fire to occur in the adsorber is during process upsets when solvent vapor will fill the duct connecting the process to the adsorber. Under these conditions a flame front could flow back into the process from the adsorber. Design efforts for the last century have been directed toward removing ignition sources from the process in order to prevent catastrophic fires and explosions. Although process tanks, vessels, and equipment are normally maintained in the Upper Explosive Limit (UEL) of 70,000 ppm, conditions can exist where portions of the process are between the explosive range of 12,000 ppm to 70,000 ppm. Such conditions often exist during startups, shutdowns, and upsets. During shutdowns, equipment is purged as quickly as possible to minimize the time spent in the explosive range.

Therefore, this technology is not technically feasible, and no further evaluation will be made.

(4) <u>Carbon Adsorption/Oxidation</u>

Safety concerns raised for carbon adsorption and thermal incineration would exist for this technology as discussed previously.

(5) <u>Vacuum Assisted Desolventization Systems (“VADS”) and Fluidized Bed Adsorption</u>

These technologies have not been applied in this industry or similar source categories. Also, these technologies are not commercially available. Therefore, these technologies are not technically feasible, and no further evaluation will be made.

(b) Meal Dryers and Coolers

(1) Thermal oxidation is not used to control emissions in the extraction plants in the oilseed industry. The vent gases that would be ducted to the control device cover a wide range of flow volumes and solvent concentrations. Variations in flows and solvent concentrations greatly hamper safe and efficient operation of an oxidizer. The possibility of a flash back in the duct system to the oxidizer presents a fire and explosion hazard.

A catalytic oxidizer is not used on a DT dryer and cooler exhaust at any existing soybean processing facility. Although it is a potential crossover technology, significant concerns about catalytic oxidation include technical and safety issues. Catalytic oxidizers are susceptible to plugging and catalyst fouling. The amount of PM_{10} in the exhaust gas during normal operation is likely to cause plugging of the inlet screens or catalyst bed of the oxidizer. The exhaust from the dryer and cooler will also contain a small amount of soy oil in an aerosol form. This oil is likely to cause fouling of the catalyst bed. Also, soybeans naturally contain sulfur compounds. Sulfur compounds in the exhaust stream are likely to cause fouling of the catalyst bed. While the particulate matter in the exhaust stream may be reduced by a high efficiency filtration system, the aerosol oil and sulfur compounds cannot be similarly removed.

A recuperative oxidizer is not used on a DT dryer and cooler exhaust at any existing soybean processing facility. The particulate loading and sulfur compounds in the dryer exhaust are not likely to cause operational problems with a recuperative oxidizer. The aerosol oils may cause carbonization of the oxidizer chamber that could result in a loss of control efficiency.

A regenerative oxidizer is not used on a DT dryer and cooler exhaust at any existing soybean processing facility. The packing material in the regeneration system is susceptible to plugging by particulate matter. The amount of PM_{10} in the exhaust gas during normal operation is likely to cause plugging of the inlet screens or packing of the oxidizer. Carbonization of the packing due to the aerosol oil is likely to cause degradation of the packing, loss of heat transfer, and possibly a reduction in control efficiency.

The National Fire Prevention Association (NFPA) standard for solvent extraction plants, NFPA 36, requires that all ignition sources (e.g. incineration) be located in excess of 100 feet from the extraction process due to the flammability of hexane. Additionally, NFPA 36 requires that all potential ignition sources be equipped with approved devices to prevent flashbacks into the process area. The inherent presence of fugitive hexane vapors at processing plants could lead to catastrophic results.

In addition to the potential for explosions and fires due to fugitive hexane emissions, normal shutdown procedures, process upsets, and malfunctions may result in a near LEL condition in the dryer exhaust. Normal shutdown procedures require purging the hexane out of the process units. As each system is purged, the concentration is reduced from greater than 100% of the UEL through the explosive range to less than 10% of the LEL. This presents a significant safety issue for the use of an incinerator on the dryer exhaust.

The combination of technical and safety concerns make thermal and catalytic oxidation technically infeasible for the meal dryers and coolers, and no further evaluation will be made.

(2) Condensers are designed for high inlet hexane concentrations. No manufacturer makes a condenser for the low inlet concentration of the DT dryers and cooler. Therefore, a condenser is not technically feasible for the meal dryers and coolers.

(3) The patented Kryoclean system is designed for low flow rates (<1,000 acfm), high inlet VOC concentrations, and low moisture content. The Kryoclean system is not technically feasible for this source due to the low concentration, high flow rate, and high moisture content of the exhaust gas from the DT dryer and cooler. Therefore, a cryogenic condenser is not technically feasible for the meal dryers and coolers, and no further evaluation will be made.

(4) Absorption is feasible for emissions streams that have high pollutant concentrations. Mineral oil absorbers are commonly used in soybean extraction facilities for control of hexane emissions from the main Desolventizer Toaster (DT) vent. A mineral oil absorber is designed for low flow rates (<1,000 acfm) and high inlet hexane emissions from the main DT vent. No manufacturer makes a mineral oil absorber for the high flow rate and low inlet concentration of the DT dryer and cooler. Therefore, a mineral oil absorber is not technically feasible for the meal dryers and coolers, and no further evaluation will be made.

(5) Carbon adsorbers are susceptible to plugging and fouling. The amount of PM_{10} in the exhaust gas during normal operation is likely to cause plugging of the inlet screens or carbon bed. The exhaust from the dryer and cooler will also contain a small amount of oil in an aerosol form. This oil is likely to cause fouling of the carbon bed. Also, soybeans naturally contain sulfur compounds. These sulfur compounds will cause fouling of the carbon bed. Although the particulate matter concentration can be reduced by a high efficiency filtration system, the aerosol oils and sulfur compounds cannot be similarly removed.

The adsorption of hexane onto carbon is an exothermic reaction. Increases in the concentration of the inlet stream will cause additional heat to build up in the carbon bed. Under optimum conditions, the air movement through the bed will remove the heat via convection. However, if channeling occurs in the carbon bed, or if the increase in concentration is too large (as in upset condition), the bed can overheat to the point of auto-ignition. Carbon bed fires have historically occurred in the soybean processing industry. If an internal fire occurs, the carbon bed provides additional fuel to the fire.

The combination of technical and safety concerns make carbon adsorption technically infeasible for the meal dryers and coolers, and no further evaluation will be made.

(6) Vacuum assisted desolventization systems (“VADS”) and fluidized bed adsorption have not been applied in this industry or similar source categories. Also, these technologies are not commercially available. Therefore, these technologies are not technically feasible, and no further evaluation will be made.

The following table summarizes other BACT determinations at similar sources or for similar processes that were identified in the EPA's RACT/BACT/LAER Clearinghouse (RBLC) under Process Code 70.350 (Soybean Oil Extraction) as well as IDEM, OAQ permits issued to date. The BACT determinations are arranged in descending order in terms of issuance date. The RBLC search was limited from January 2002 to July 2012.

Company/ Location	Year Issued	Control Device	BACT Emission Limits/Requirements	Reference	New SLR Limit from Consent Decree (Y/N)
Louis Dreyfus Agricultural Industries LLC Claypool, IN	2011	Mineral Oil Absorber and LDAR Program	Mineral Oil Absorber: 0.048 lb/ton soybean processed, 9.3 lb/hr Overall solvent loss ratio of 0.141 gal VOC/ton soybean processed Maximum annual processed soybean throughput of 1,686,300 tons/yr LDAR Program	Indiana Part 70 Operating Permit Renewal T085-29197-00102	N
Cargill, Inc. Lafayette, IN	2010	Mineral Oil Absorber (Oil Extractor Process), None (Dryers and Coolers), and LDAR Program	Mineral Oil Absorber: 0.012 lb/ton soybean Meal Dryers: 0.0042 gal/ton soybean Meal Cooler: 0.0 gal/ton soybean FDS Cooler Collector: 0.391 gal/ton soybean Overall solvent loss ratio of 0.2 gals/ton conventional soybean process Maximum annual processed soybean throughput of 821,250 tons/yr LDAR Program	Indiana Part 70 Operating Permit Renewal T157-25200-00038	Y
Archer Daniels Midland Company Frankfort, IN	2008	Condenser and Mineral Oil Absorber/ Scrubber	Condenser and Mineral Oil Absorber/Scrubber Overall solvent loss ratio of 0.175 gal VOC/ton of soybean oil produced Maximum annual processed soybean throughput of 1,314,000 tons/yr	Indiana Significant Permit Modification 023-25870-00011	Y
Bunge North America Morristown, IN ("B" Plant)	2008	Mineral Oil Absorber (Oil Extractor Process), None (Dryers and Coolers), and LDAR Program	Mineral Oil Absorber: 0.069 lb/ton soybean Meal Dryers: 0.152 gal/ton soybean Meal Coolers: 0.152 gal/ton soybean Overall solvent loss ratio of 0.16 gal VOC/ton of oilseed processed Maximum annual processed soybean throughput of 1,901,996 tons/yr LDAR Program	Indiana Significant Permit Modification 145-25639-00035	Y

Company/ Location	Year Issued	Control Device	BACT Emission Limits/Requirements	Reference	New SLR Limit from Consent Decree (Y/N)
Archer Daniels Midland Company Fremont, NE	2008	Mineral Oil Scrubber and LDAR Program	Mineral Oil Scrubber: 0.165 lb/ton LDAR Program	RBLC ID: NE-0048 Permit No. CP07-0040	unknown
Ultra Soy of America South Milford, IN	2008	Condenser and Mineral Oil Absorber (Oil Extractor Process), None (Dryers and Coolers), and LDAR Program	Mineral Oil Absorber: 0.048 lb/ton soybean received, 13.02 lb/hr Meal Dryers and Cooler: 0.17 gal/ton soybean received, 0.03 gal/ton soybean, 45.92 lb/hr Overall solvent loss ratio 0.20 gal VOC/ton of soybean for the first year, then 0.134 gal VOC/ton of soybean Maximum annual processed soybean throughput of 2,366,000 tons/yr LDAR Program	Indiana New Source Construction, Prevention of Significant Deterioration (PSD), and Part 70 Operating Permit T087-24953-00069	N
Bunge North America Decatur, IN	2008	Mineral Oil Absorber	Mineral Oil Absorber Overall solvent loss ratio 0.15 gallons of solvent lost per ton of oilseed processed	Indiana Part 70 Operating Permit Renewal T001-23640-00005	Y
Archer Daniels Midland Company Des Moines, IA	2008	Mineral Oil Absorber	Mineral Oil Absorber Overall solvent loss ratio 0.1712 gal VOC/ton of soybean	RBLC ID: IA-0094 Permit No. 07-A-1078P	unknown
Zeeland Farm Services, Incorporated Zeeland, MI	2007	Mineral Oil Absorber	Mineral Oil Absorber Overall solvent loss 0.150 gal/ton of soybeans processed Maximum annual soybean throughput of 320,000 tons/yr	Permit No. MI-ROP-M4204-2007a	N
AG Processing Inc. St. Joseph, MO	2007	Condensers and Mineral Oil Absorption	Condensers and Mineral Oil Absorption System 523.96 tons/yr	RBLC ID: MO-0073 Permit No. 052007-007	N
Bunge North America Council Bluffs, IA	2007	Mineral Oil Absorber and Leak Prevention	Mineral Oil Absorber and Leak Prevention Overall solvent loss ratio 0.16 gal VOC/ton of soybean oil produced	RBLC ID: IA-0085 Permit No. 06-167	Y

Company/ Location	Year Issued	Control Device	BACT Emission Limits/Requirements	Reference	New SLR Limit from Consent Decree (Y/N)
Louis Dreyfus Agricultural Industries LLC Claypool, IN	2006	Mineral Oil Absorber (Oil Extractor Process), None (Dryers and Coolers), and LDAR Program	Mineral Oil Absorber: 0.048 lb/ton soybean processed, 9.3 lb/hr Meal Dryers and Cooler: 0.03 gal/ton soybean, 32.8 lb/hr Overall solvent loss ratio 0.136 gal VOC/ton of soybean for the first year, then 0.134 gal VOC/ton of soybean Maximum annual processed soybean throughput of 1,686,300 tons/yr LDAR Program	Indiana New Source Construction and Part 70 Operating Permit T085-21297-00102	N
Archer Daniels Midland Company Red Wing, MN	2005	Mineral Oil Absorber and Leak Detection and Repair	Mineral Oil Absorber and Leak Detection and Repair Overall solvent loss ratio 0.150 gal VOC/ton of soybean oil produced	RBLC ID: MN-0065 Permit No. 01300006-001	Y
Avoca Inc. Merry Hill, NC	2004	Condensers	Condensers: 14.1 lb/hr, 61.8 tons/yr	Permit No. 01819T28	N
[1]Cargill Inc. Sidney, OH	2003	Condenser and Mineral Oil Scrubber	Condenser and Mineral Oil Scrubber Overall solvent loss ratio 0.143 gallon per ton of soybean	RBLC ID: OH-0282 Permit No. 05-12183	Y

Note 1: The RBLC lists an overall solvent loss 0.146 gal VOC/ton of soybean. However, the RBLC is not current. EPA provided the current SLR of 0.143 gal VOC/ton of soybean pursuant to the Consent Decree with Cargill, Inc.

IDEM is aware that LDAI has performed stack testing and verified compliance with the above emission limits as stated in Part 70 Operating Permit Renewal T085-29197-00102. While we recognize that lower emissions may be achievable as an average during testing, IDEM allows for sources to include a safety factor, or margin of error, to allow for minor variations in the operation of the emission units and the control device.

In addition, Bunge entered into a Consent Decree with EPA on October 26, 2006, Archer Daniels Midland Company (ADM) entered into a Consent Decree with EPA on October 4, 2006, and Cargill entered into a Consent Decree with EPA on March 3, 2006. The final VOC solvent loss ratios (gallon of VOC lost per ton of oilseed processed) included from the above Consent Decrees for the soybean oil extraction plants were also included as indicated in the table below. Many of these have not yet been incorporated into state permits and have not been entered in the RBLC.

Company/ Location	BACT Emission Limits/Requirements	New SLR Limit from Consent Decree (Y/N)
Archer Daniels Midland Company Valdosta, GA	Overall solvent loss 0.15 gal VOC/ton of soybeans crushed	Y
Bunge North America Cairo, IL	Overall solvent loss 0.18 gal VOC/ton of soybean oil produced	Y

Company/ Location	BACT Emission Limits/Requirements	New SLR Limit from Consent Decree (Y/N)
Bunge North America Decatur, AL	Overall solvent loss 0.19 gal VOC/ton of soybean oil produced	Y
Bunge North America Delphos, OH	Overall solvent loss 0.2 gal VOC/ton of soybean oil produced	Y
Bunge North America Destrehan, LA	Overall solvent loss 0.2 gal VOC/ton of soybean oil produced	Y
Bunge North America Emporia, KS	Overall solvent loss 0.16 gal VOC/ton of soybean oil produced	Y
Bunge North America Marion, OH	Overall solvent loss 0.20 gal VOC/ton of soybeans crushed	Y
Cargill, Inc. Cedar Rapids, IA	Overall solvent loss 0.175 gal VOC/ton of soybean oil produced	Y
Cargill, Inc. Des Moines, IA	Overall solvent loss 0.175 gal VOC/ton of soybean oil produced	Y
Cargill, Inc. Fayetteville, NC	Overall solvent loss 0.19 gal VOC/ton of soybean oil produced	Y
Cargill, Inc. Gainesville, GA	Overall solvent loss 0.175 gal VOC/ton of soybean oil produced	Y
Cargill, Inc. Guntersville, AL	Overall solvent loss 0.2 gal VOC/ton of soybean oil produced	Y
Cargill, Inc. Iowa Falls, IA	Overall solvent loss 0.17 gal VOC/ton of soybean oil produced	Y
Cargill, Inc. Kansas City, KS	Overall solvent loss 0.165 gal VOC/ton of soybean oil produced	Y
Cargill, Inc. Raleigh, NC	Overall solvent loss 0.19 gal VOC/ton of soybean oil produced	Y
Cargill, Inc. Sioux City, IA	Overall solvent loss 0.175 gal VOC/ton of soybean oil produced	Y
Cargill, Inc. Wichita, KS	Overall solvent loss 0.175 gal VOC/ton of soybean oil produced	Y

Step Three: Rank Remaining Control Technologies by Control Effectiveness

(a) Soybean Oil Extraction

The remaining technically feasible options for controlling VOC emissions from the existing soybean oil extraction plant are as follows (listed in descending order of most technically feasible):

Technology	Control Efficiency
Mineral Oil System (MOS)	99.5%
Condensation	98%

(b) Meal Dryers and Cooler

There are no technically feasible add-on control systems for the existing meal dryers and cooler.

Step Four: Evaluate Top Control Alternatives

Further evaluation including economic, energy, and environmental impacts are required for controlling VOC emissions from each process. Annualized costs were determined in accordance with the EPA guidance (EPA's Office of Air Quality Planning and Standards Control Cost Manual), with other relevant information provided by the respective equipment vendors, inputs from plant personnel, and engineering judgment.

National Emission Standards for Hazardous Air Pollutant (NESHAP) rules contain limitations on hazardous air pollutant (HAP) emissions from soybean oil extraction operations (40 CFR Part 63, Subpart GGGG, National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production). This limits n-hexane emissions from such operations to no more than 0.2 gallons of n-hexane per ton of soybeans processed for conventional soybean processing plants. Therefore, BACT for the soybean oil extraction process at LDAI must, at a minimum, be no less stringent than the level of control required by NESHAP Subpart GGGG.

(a) Soybean Oil Extraction

The most efficient recovery or control device identified for soybean oil extraction process as provided by the RBLC, as well as other state permits, is a combined condenser and mineral oil system (MOS). LDAI is already controlling emissions from the soybean oil extraction process using the most effective add-on control system. Therefore, there is no need to review any other add-on control systems for further evaluation since LDAI is already utilizing the most stringent BACT for add-on control systems.

(b) Meal Dryers and Coolers

(1) The most stringent BACT for the meal dryers from the table above is for Cargill, Inc. in Lafayette, IN. Pursuant to Part 70 Operating Permit Renewal No. T157-25200-00038, issued on January 7, 2010, the emission limit for the meal dryers is 0.0042 gal VOC/ton of soybean. However, this limit has not yet been verified for compliance; also, the emission limit for the coolers is 0.391 gal VOC/ton of soybean, which produces an overall emission limit for the meal dryers and coolers that is not the most stringent BACT. Therefore, the VOC limits specified for Cargill, Inc. will not be considered as BACT for LDAI.

(2) The next stringent BACT for the meal dryers and coolers from the table above is for Ultra Soy of America in South Milford, IN. Pursuant to Part 70 Operating Permit No. T087-24953-00069, issued on April 14, 2008, the combined emission limit for the meal dryers and cooler is 0.03 gal VOC/ton of soybean. However, this limit has not yet been verified for compliance; therefore, the VOC limits specified for Ultra Soy of America will not be considered as BACT for LDAI.

(3) The next stringent BACT for the meal dryers and cooler from the table above is for LDAI. Pursuant to Part 70 Operating Permit No. T085-21297-00102, issued on January 24, 2006, the combined emission limit for the meal dryers and cooler is 0.03 gal VOC/ton of soybean. This emission limit has been verified for compliance; therefore, it will represent the most stringent BACT in the RBLC.

(c) Solvent Loss Ratio (SLR)

(1) The most stringent BACT for overall solvent loss ratio from the table above is for Ultra Soy of America in South Milford, IN. Pursuant to Operating Permit No. T087-24953-00069, issued on April 14, 2008, the final overall solvent loss for Ultra Soy of America is 0.134 gal VOC/ton of soybean after the first year of operation. However, Ultra Soy of

America has not yet been verified for compliance; therefore, the VOC limits specified for Ultra Soy of America will not be considered as BACT for LDAI.

(2) Cargill entered into a Consent Decree with EPA on March 3, 2006 to settle alleged violations at a number of its facilities, including eleven conventional soybean oil extraction plants. Cargill was required to develop final SLR limits for these plants to meet a system wide SLR limit of 0.175 gallons per ton or less. The current SLR for Cargill Inc. located in Sidney, OH is 0.143 gal VOC/ton of soybean pursuant to the Consent Decree. Therefore, BACT for the soybean oil extraction process at LDAI must, at a minimum, be equal to or less than 0.143 gal VOC/ton of soybean processed. IDEM, OAQ reviewed the overall solvent loss ratio per twelve (12) consecutive month period at LDAI from January, 2010 to February, 2011 and determined the mean (average) and standard deviation for the data. The mean plus three standard deviations is equal to 0.141 gal VOC/ton of soybean. The standard deviation is a statistic that tells you how tightly all the various examples are clustered around the mean in a set of data. Three standard deviations should account for about 99 percent of the operations. By utilizing actual process data provided by the source, this limitation is by definition both technically and economically feasible. It will also represent the most stringent BACT in the RBLC discounting the source's original BACT limitation.

(d) Maximum Annual Throughput of Soybeans

The above mentioned BACT emission limits are in units of gallons of VOC per ton of soybean. In order to properly limit the annual VOC emissions, the maximum annual throughput of soybeans must also be included in the permit. Since the emission limits are the primary BACT and the above mentioned BACT emission limits have been determined to be most stringent, LDAI is being allowed to increase its maximum annual throughput of soybeans to 2,251,836 tons per year.

(e) Fugitive Hexane Loss

The most efficient recovery or control device identified for fugitive hexane loss as provided by the RBLC, as well as other state permits, is a Leak Detection and Repair (LDAR) Program. LDAI is already controlling emissions from fugitive hexane loss using the most effective add-on control system. Therefore, there is no need to review any other control methods for further evaluation.

LDAI has proposed the following emission limitations as BACT for the soybean oil extraction plant:

(a) The VOC emissions from the combined condenser and mineral oil scrubber system for the extractor vent system shall not exceed 0.048 pounds per ton of soybean processed and shall not exceed 9.3 pounds per hour.

(b) The VOC emissions from the meal dryers and meal cooler shall not exceed 0.03 gallons of VOC per ton of soybean processed and shall not exceed 32.8 pounds per hour.

(c) The overall solvent loss ratio shall not exceed 0.141 gallons per ton of soybean crushed from the whole plant per twelve (12) consecutive month period, with compliance determined at the end of each month. The Permittee shall also follow the leak detection and repair program as part of BACT.

(d) The maximum annual throughput of soybeans processed shall not exceed 2,251,836 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(e) BACT for the fugitive hexane loss shall include an enhanced inspection, maintenance, and repair program (LDAR Program). No later than 60 days of achieving full production, but in no case later than 180 days after initial startup, the Permittee shall institute the following enhanced inspection,

maintenance, and repair program for equipment in VOC service located in the solvent extraction portion of the installation. Equipment in vacuum service is exempt from this monitoring requirement pursuant to 40 CFR Part 60.482-1(d).

Table 1

	Leak Standard
Pumps	500 ppm
Valves	500 ppm
Pressure relief Devices	500 ppm
Flanges, Connectors and Seals	10,000 ppm

(1) The Permittee shall determine compliance with the standards in Table 1 by using the procedures of 40 CFR Part 60, Appendix A, Method 21. The instrument shall be calibrated before each day of its use by the procedures as specified in Method 21. A leak is defined as an instrument reading of 500 ppm above background or greater, except for flanges, and connectors where a leak is defined as 10,000 ppm above background.

(2) The Permittee shall immediately tag all detected leaks with a weatherproof and readily visible identification tag with a distinct number. Once a leaking component is detected, first-attempt repairs must be done within five days and be completed within 15 days of detecting the leaking components. If the repair cannot be accomplished within 15 days, then the Permittee shall send a notice of inability to repair to the OAQ within 20 days of detecting the leak. The notice must be received by the Compliance Branch, Office of Air Quality, 100 North Senate Avenue, Indianapolis, Indiana 46204 within 20 days after the leak was detected. At a minimum the notice shall include the following:

(A) equipment, operator, and instrument identification number;

(B) date of leak detection;

(C) measured concentration (ppm) and background (ppm);

(D) leak identification number associated with the corresponding tag; and

(E) reason of inability to repair within 5 to 15 days of detection.

(3) The Permittee shall maintain records of the following to verify compliance with the enhanced inspection, maintenance, and repair program:

(A) equipment inspected;

(B) date of inspection; and

(C) determination of whether a leak was detected.

(4) If a leak is detected, the Permittee shall record the following information to verify compliance with the enhanced inspection, maintenance, and repair program:

(A) the equipment, operator, and instrument identification number;

(B) measured concentration;

(C) leak identification number associated with the corresponding tag;

(D) date of repair;

(E) reason for non-repair if unable to repair within 5 to 15 days of detection; and

(F) maintenance recheck if repaired-date, concentration, background.

(5) Definitions contained in 40 CFR Part 60, Subpart VV shall be utilized where necessary to implement this program.

Step Five: Select BACT

IDEM, OAQ has determined that the following requirements represent BACT for the existing soybean oil extraction plant and meal dryer and cooler:

(a) The VOC emissions from the combined condenser and mineral oil scrubber system for the extractor vent system shall not exceed 0.048 pounds per ton of soybean processed and shall not exceed 9.3 pounds per hour.

(b) The VOC emissions from the meal dryers and meal cooler (DC Decks No. 1, No. 2, No. 3, and No. 4) shall not exceed 0.03 gallons of VOC per ton of soybean processed and shall not exceed 32.8 pounds per hour.

(c) The overall solvent loss ratio shall not exceed 0.141 gallons per ton of soybean crushed from the whole plant per twelve (12) consecutive month period, with compliance determined at the end of each month. The Permittee shall also follow the leak detection and repair program as part of BACT.

(d) The maximum annual throughput of soybeans processed shall not exceed 2,251,836 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(e) BACT for the fugitive hexane loss shall include an enhanced inspection, maintenance, and repair program (LDAR Program). No later than 60 days of achieving full production, but in no case later than 180 days after initial startup, the Permittee shall institute the following enhanced inspection, maintenance, and repair program for equipment in VOC service located in the solvent extraction portion of the installation. Equipment in vacuum service is exempt from this monitoring requirement pursuant to 40 CFR Part 60.482-1(d).

Table 1

	Leak Standard
Pumps	500 ppm
Valves	500 ppm
Pressure relief Devices	500 ppm
Flanges, Connectors and Seals	10,000 ppm

(1) The Permittee shall determine compliance with the standards in Table 1 by using the procedures of 40 CFR Part 60, Appendix A, Method 21. The instrument shall be calibrated before each day of its use by the procedures as specified in Method 21. A leak

is defined as an instrument reading of 500 ppm above background or greater, except for flanges, and connectors where a leak is defined as 10,000 ppm above background.

(2) The Permittee shall immediately tag all detected leaks with a weatherproof and readily visible identification tag with a distinct number. Once a leaking component is detected, first-attempt repairs must be done within five days and be completed within 15 days of detecting the leaking components. If the repair cannot be accomplished within 15 days, then the Permittee shall send a notice of inability to repair to the OAQ within 20 days of detecting the leak. The notice must be received by the Compliance Branch, Office of Air Quality, 100 North Senate Avenue, Indianapolis, Indiana 46204 within 20 days after the leak was detected. At a minimum the notice shall include the following:

(A) equipment, operator, and instrument identification number;

(B) date of leak detection;

(C) measured concentration (ppm) and background (ppm);

(D) leak identification number associated with the corresponding tag; and

(E) reason of inability to repair within 5 to 15 days of detection.

(3) The Permittee shall maintain records of the following to verify compliance with the enhanced inspection, maintenance, and repair program:

(A) equipment inspected;

(B) date of inspection; and

(C) determination of whether a leak was detected.

(4) If a leak is detected, the Permittee shall record the following information to verify compliance with the enhanced inspection, maintenance, and repair program:

(A) the equipment, operator, and instrument identification number;

(B) measured concentration;

(C) leak identification number associated with the corresponding tag;

(D) date of repair;

(E) reason for non-repair if unable to repair within 5 to 15 days of detection; and

(F) maintenance recheck if repaired-date, concentration, background.

(5) Definitions contained in 40 CFR Part 60, Subpart VV shall be utilized where necessary to implement this program.

Compliance with the above limits and conditions will satisfy the requirements of 326 IAC 8-1-6 (BACT).

IDEM Contact

Questions regarding this BACT Analysis can be directed to John Haney at the Indiana Department Environmental Management, Office of Air Quality, 100 North Senate Avenue, MC 61-53, Room 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5328 or toll free at 1-800-451-6027 extension 4-5328.

Appendix A: Emissions Calculations
Source Summary
Potential to Emit Before Control

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

Potential To Emit before Control

Stack ID / Control / Emission Units	PM (tons/yr)	PM_{10} (tons/yr)	$PM_{2.5}$ (tons/yr)	SO_2 (tons/yr)	NO_x (tons/yr)	VOC (tons/yr)	CO (tons/yr)	GHGs as CO_2e (tons/yr)	Total HAPs (tons/yr)
Soybean Oil Extraction Plant									
Stack AF-2 (and uncaptured emissions)	3,969.47	1,763.30	465.28	-	-	-	-	-	-
Stack MLBF-1 (and uncaptured emissions)	709.56	177.39	177.39						
Stacks MBF-1, MBF-2, MBF-3, MBF-4 and MBF-5	21.68	5.46	0.95	-	-	-	-	-	-
Piles #1 and #2 (no control)	192.37	107.22	18.29	-	-	-	-	-	-
Stack AF-3	1,275.83	642.80	365.23	-	-	-	-	-	-
Stack AF-7	43.80	10.95	10.95						
Stack S-1	624.41	156.10	50.65	-	-	-	-	-	-
Stack AF-5	8,732.13	2,185.46	2,122.69	-	-	-	-	-	-
Stack AF-4	61.47	81.96	81.96	-	-	-	-	-	-
Stack AF-6	9,165.89	2,389.10	2,235.62	-	-	-	-	-	-
Stack S-2	6,559.49	1,639.87	1,639.87	-	-	-	-	-	-
Bin Filter	3.47	0.56	0.21	-	-	-	-	-	-
Hull Bin Filter	0.84	0.21	0.04	-	-	-	-	-	-
Bean Storage Bin No. 1 thru 4 and Bean Storage Silo No. 1 thru 2	30.02	7.57	1.32	-	-	-	-	-	-
Diatomaceous Earth (DE) Storage Bin	0.38	0.06	0.02	-	-	-	-	-	-
Main Gas Vent (Soybean Oil Extractor System)	-	-	-	-	-	5,980.80	-	-	3,827.71
Desolventized Meal Dryers & Cooler	-	-	-	-	-	202.20	-	-	129.41
Meal Storage	-	-	-	-	-	*fugitive*	-	-	1.21
Bound In Product & Byproduct Desolventized Meal (fugitive)	-	-	-	-	-	*fugitive*	-	-	113.00
Plant Startup/Shutdown	-	-	-	-	-	*fugitive*	-	-	10.75
General (equipment failure, leaks, etc.)	-	-	-	-	-	*fugitive*	-	-	207.21
Plant Upsets	-	-	-	-	-	*fugitive*	-	-	16.90
Combustion Sources	14.71	23.66	23.66	489.12	145.63	6.28	82.24	154,571.29	1.84
Total PTE from Soybean Oil Extraction Plant with Roads	**31,421.70**	**9,194.91**	**7,194.93**	**489.12**	**145.63**	**6,200.15**	**82.24**	**154,571.29**	**4,313.78**
Biodiesel Production Plant									
Biodiesel Methanol Absorbers (worse case)[1]	-	-	-	-	-	154.60	-	-	154.60
Loading Racks[1]	-	-	-	-	-	10.72	-	-	10.72
Biodiesel Storage Tanks[1]	-	-	-	-	-	4.31	-	-	4.31
Glycerine Storage Tanks	-	-	-	-	-	0.00	-	-	0.00
Biodiesel Wastewater (fugitive)	-	-	-	-	-	3.37	-	-	3.37
Equipment Leaks (fugitive)[1]	-	-	-	-	-	12.74	-	-	12.74
Diesel/#2 Fuel Oil Storage Tank	-	-	-	-	-	0.01	-	-	0.01
One (1) Soybean Oil Pre-Treat Tank	-	-	-	-	-	0.01	-	-	0.01
Six (6) Methanol Tanks	-	-	-	-	-	4.49	-	-	4.49
Three (3) Soybean Oil Tanks (Degummed Oil Tanks #1 and #2 and Crude Oil Tank #3)	-	-	-	-	-	<= 1.0	-	-	<= 1.0
Purchased Soybean Oil Unloading	-	-	-	-	-	4.00	-	-	4.00
Two (2) Sodium Methylate Tanks	-	-	-	-	-	0.60	-	-	0.60
Five (5) Hexane tanks	-	-	-	-	-	2.01	-	-	2.01
Road Traffic at Source[2]	16.18	3.24	0.79	-	-	-	-	-	-
Cooling Towers	4.34	4.34	4.34	-	-	-	-	-	-
Total PTE at Biodiesel Plant	**20.52**	**7.58**	**5.14**	**0.00**	**0.00**	**197.87**	**0.00**	**0.00**	**197.87**
Total PTE at Entire Source including Fugitives from Roads	**31,426.04**	**9,199.25**	**7,199.28**	**489.12**	**145.63**	**6,398.02**	**82.24**	**154,571.29**	**4,511.65**

Notes:
[1] The VOC emissions from these units are mainly methanol which is also a HAP. Assume all VOCs are HAPs in the worst case scenario.
[2] Fugitive road emissions are being counted for the soybean extraction plant because the operations are covered by the source category definition in NSPS DD (a pre-1980 NSPS).
In addition, fugitive road emissions are being counted because they include roads at the biodiesel production plant which is one of 28 source categories.

Appendix A: Emissions Calculations
Source Summary
Limited Potential to Emit

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

Limited Potential To Emit

Stack ID / Control / Emission Units	PM (tons/yr)	PM_{10} (tons/yr)	$PM_{2.5}$ (tons/yr)	SO_2 (tons/yr)	NO_x (tons/yr)	VOC (tons/yr)	CO (tons/yr)	GHGs as CO_2e (tons/yr)	Total HAPs (tons/yr)
Soybean Oil Extraction Plant									
Stack AF-2 (and uncaptured emissions)	29.39	13.84	12.40	-	-	-	-	-	-
Stack MLBF-1 (and uncaptured emissions)	16.44	4.28	4.28						
Stacks MBF-1, MBF-2, MBF-3, MBF-4 and MBF-5	20.37	20.37	20.37	-	-	-	-	-	-
Piles #1 and #2 (no control)	7.32	4.08	0.70	-	-	-	-	-	-
Stack AF-3	5.52	5.52	5.52	-	-	-	-	-	-
Stack AF-7	6.57	6.57	6.57	-	-	-	-	-	-
Stack S-1	21.59	14.67	14.67	-	-	-	-	-	-
Stack AF-5	11.21	11.21	11.21	-	-	-	-	-	-
Stack AF-4	4.51	4.51	4.51	-	-	-	-	-	-
Stack AF-6	4.14	4.14	4.14	-	-	-	-	-	-
Stack S-2	47.04	31.89	31.89	-	-	-	-	-	-
Bin Filter	8.32	8.32	8.32	-	-	-	-	-	-
Hull Bin Filter	0.84	0.21	0.04	-	-	-	-	-	-
Bean Storage Bin No. 1 thru 4 and Bean Storage Silo No. 1 thru 2	30.02	7.57	1.32	-	-	-	-	-	-
Diatomaceous Earth (DE) Storage Bin	0.38	0.06	0.02	-	-	-	-	-	-
Main Gas Vent (Soybean Oil Extractor System)	-	-	-	-	-	40.73	-	-	26.07
Desolventized Meal Dryers & Cooler	-	-	-	-	-	143.66	-	-	91.94
Meal Storage	-	-	-	-	-	*fugitive*	-	-	1.21
Bound In Product & Byproduct Desolventized Meal (fugitive)	-	-	-	-	-	*fugitive*	-	-	113.00
Plant Startup/Shutdown	-	-	-	-	-	*fugitive*	-	-	10.75
General (equipment failure, leaks, etc.)	-	-	-	-	-	*fugitive*	-	-	207.21
Plant Upsets	-	-	-	-	-	*fugitive*	-	-	16.90
Combustion Sources	14.70	23.68	23.68	248.94	129.15	7.71	72.35	99,941.60	1.84
Total Limited PTE from Soybean Oil Extraction Plant with Roads	**244.55**	**164.16**	**150.43**	**248.94**	**129.15**	**192.11**	**72.35**	**99,941.60**	**468.93**
Biodiesel Production Plant									
Biodiesel Methanol Absorbers (worse case) [1]	-	-	-	-	-	1.83	-	-	1.83
Loading Racks [1]	-	-	-	-	-	1.10	-	-	1.10
Biodiesel Storage Tanks [1]	-	-	-	-	-	4.31	-	-	4.31
Glycerine Storage Tanks	-	-	-	-	-	0.00	-	-	0.00
Biodiesel Wastewater (fugitive)	-	-	-	-	-	3.37	-	-	3.37
Equipment Leaks (fugitive) [1]	-	-	-	-	-	2.80	-	-	2.80
Diesel/#2 Fuel Oil Storage Tank	-	-	-	-	-	0.01	-	-	0.01
One (1) Soybean Oil Pre-Treat Tank	-	-	-	-	-	0.01	-	-	0.01
Six (6) Methanol Tanks	-	-	-	-	-	0.07	-	-	0.07
Three (3) Soybean Oil Tanks (Degummed Oil Tanks #1 and #2 and Crude Oil Tank #3)	-	-	-	-	-	<= 1.0	-	-	<= 1.0
Purchased Soybean Oil Unloading	-	-	-	-	-	4.00	-	-	4.00
Two (2) Sodium Methylate Tanks	-	-	-	-	-	0.01	-	-	0.01
Five (5) Hexane tanks	-	-	-	-	-	2.01	-	-	2.01
Road Traffic at Source [2]	16.18	3.24	0.79	-	-	-	-	-	-
Cooling Towers	4.34	4.34	4.34	-	-	-	-	-	-
Total Limited PTE from Biodiesel Production Plant	**20.52**	**7.58**	**5.14**	**0.00**	**0.00**	**20.54**	**0.00**	**0.00**	**20.54**
Total Limited PTE at Entire Source including Fugitives from Roads	**248.89**	**168.50**	**154.77**	**248.94**	**129.15**	**212.64**	**72.35**	**99,941.60**	**489.46**

Notes:
[1] The VOC emissions from these units are mainly methanol which is also a HAP. Assume all VOCs are HAPs in the worst case scenario.
[2] Fugitive road emissions are being counted for the soybean extraction plant because the operations are covered by the source category definition in NSPS DD (a pre-1980 NSPS).
In addition, fugitive road emissions are being counted because they include roads at the biodiesel production plant which is one of 28 source categories.

Appendix A: Emissions Calculations
Source Summary
Part 70 Determination

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

PTE of the New Units

Filter / Stack ID	Emission Unit ID	Process	Increase in PTE Before Controls of the Modification (tons/yr)			
			PM	PM_{10}	$PM_{2.5}$	VOC
AF-4	C040000 and C070000	[1] Flaking Rolls No. 4 and 7	0.56	0.75	0.75	0.00
AF-6	E230200 and E230000	Meal Hammer Mill Feeder No. 5, Meal Hammer Mill No. 5	2,204.02	551.00	551.00	0.00
	E230100	Meal Hammer Mill Bin No. 5	24.31	6.13	1.07	0.00
		TOTAL	**2,228.89**	**557.88**	**552.82**	**0.00**

PTE Change of the Modified Process

Filter / Stack ID	Emission Unit ID	Process	PTE Before Modification[2] (tons/yr)				PTE After Modification (tons/yr)				Increase from Modification (tons/yr)			
			PM	PM_{10}	$PM_{2.5}$	VOC	PM	PM_{10}	$PM_{2.5}$	VOC	PM	PM_{10}	$PM_{2.5}$	VOC
Soybean Oil Extraction Plant														
AF-2	G160000	Pellet Hulls Conveyor to Loadout	4.01	2.23	0.38	0.00	4.54	2.53	0.43	0.00	0.53	0.30	0.05	0.00
MBF-1, MBF-2, MBF-3, MBF-4, and MBF-5	G010000, G020000, G030000, G040000, and G050000	Meal Bin No. 1 thru 5 Vent Filters	16.21	4.08	0.71	0.00	21.68	5.46	0.95	0.00	5.47	1.38	0.24	0.00
AF-3	A060000	Screener	61.45	34.25	5.84	0.00	70.54	39.31	6.71	0.00	9.09	5.06	0.87	0.00
	B011300	Bean Weigh Scale	51.43	28.67	4.89	0.00	70.54	39.31	6.71	0.00	19.11	10.64	1.82	0.00
	B011200, A160300, A060400, and B030800	VSC Feed Leg, VSC Leg Feed Conveyor, Screener Feed Conveyor, and Conditioned Bean Feed Conveyor	205.73	114.67	19.56	0.00	282.14	157.26	26.83	0.00	76.41	42.59	7.27	0.00
	B010100 and B020100	Whole Bean Aspiration No. 1 and No. 2	102.86	57.33	9.78	0.00	141.07	78.63	13.41	0.00	38.21	21.30	3.63	0.00
	B030900	Hull Collection Conveyor	4.01	2.23	0.38	0.00	4.54	2.53	0.43	0.00	0.53	0.30	0.05	0.00
	B430000	Secondary Hull Collection Conveyor	2.56	1.43	0.24	0.00	4.54	2.53	0.43	0.00	1.98	1.10	0.19	0.00
	E070300	4 Hour Hull Tank	1.05	0.26	0.05	0.00	1.86	0.47	0.08	0.00	0.81	0.21	0.03	0.00
	B440000	Secondary Hull Collection L-Path	3.21	1.79	0.30	0.00	4.54	2.53	0.43	0.00	1.33	0.74	0.13	0.00
	E080000	Pellet Cooler	62.96	31.48	31.48	0.00	111.69	55.85	55.85	0.00	48.73	24.37	24.37	0.00
	E050000, E050200, and E050100	Hull Hammer Mill, Hull Hammer Mill Feeder, and Hull Hammer Mill Plenum	251.85	125.93	125.93	0.00	446.76	223.38	223.38	0.00	194.91	97.45	97.45	0.00
	G050100	Pelleted Hulls Leg	2.56	1.43	0.24	0.00	4.54	2.53	0.43	0.00	1.98	1.10	0.19	0.00
	G050300 and E050400	Pelleted Hulls Storage Conveyor and Hulls Addition Screw	8.02	4.47	0.76	0.00	9.08	5.06	0.86	0.00	1.06	0.59	0.10	0.00
	B010300	Conditioner Bean Loop Path	84.32	21.08	21.08	0.00	115.63	28.91	28.91	0.00	31.31	7.83	7.83	0.00
S-1	B120000 and B030000	Jet Dryer No. 1 and No. 2	185.49	46.37	7.93	0.00	254.39	63.60	10.87	0.00	68.90	17.23	2.94	0.00
	B010500	VSC Air Heater	185.49	46.37	7.59	0.00	254.39	63.60	10.87	0.00	68.90	17.23	3.28	0.00
	B010000 and B020000	Vertical Seed Conditioner (VSC) No. 1 and No. 2	84.32	21.08	21.08	0.00	115.63	28.91	28.91	0.00	31.31	7.83	7.83	0.00
AF-5	B040000, B0801000, B130000, and B170000	Hulloosenator No. 1, No. 2, No. 3, and No. 4	3,033.76	758.44	758.44	0.00	4,162.75	1,040.69	1,040.69	0.00	1,128.99	282.25	282.25	0.00
	B050000, B090000, B140000, and B180000	Cascade Dryer No. 1, No. 2, No. 3, and No. 4	185.40	46.35	7.58	0.00	254.39	63.60	10.41	0.00	68.99	17.25	2.83	0.00
	B060000, B100000, B150000, and B190000	Cracking Roll No.1, No. 2, No. 3, and No. 4	3,033.76	758.44	758.44	0.00	4,162.75	1,040.69	1,040.69	0.00	1,128.99	282.25	282.25	0.00
	B070000, B110000, B160000, and B200000	Cascade Conditioner No. 1, No. 2, No. 3, and No. 4	84.27	21.07	21.07	0.00	115.63	28.91	28.91	0.00	31.36	7.84	7.84	0.00
	A160000 and A160500	Day Tank (with Aspirator)	21.08	5.31	0.93	0.00	28.91	7.28	1.27	0.00	7.83	1.97	0.34	0.00
AF-4	C200100 and C010600	Flaker Feed Loop Conveyor and Flake Collection Conveyor	60.28	80.38	80.38	0.00	61.47	81.96	81.96	0.00	1.19	1.58	1.58	0.00
AF-6	E020300, E020400, E010100, and E010300	Grinding Discharge Conveyor, Hammer Mill Mixing Conveyor, Meal L-Path Conveyor, and Meal Hammer Mill Feed Conveyor	158.17	88.16	15.04	0.00	211.61	117.94	20.12	0.00	53.44	29.78	5.08	0.00
	G010300 and G150000	Meal Leg, and Meal Conveyor to Loadout	80.15	44.68	7.62	0.00	105.80	58.97	10.06	0.00	25.65	14.29	2.44	0.00
S-2	D310000-1, D310000-2, D310000-3, and D310000-4	DC Decks No. 1, No. 2, No. 3, and No. 4	4,919.62	1,229.90	1,229.90	152.10	6,559.49	1,639.87	1,639.87	202.20	1,639.87	409.97	409.97	50.10
none	Hull Bin Filter	Hull Overflow Tank	0.63	0.16	0.03	0.00	0.84	0.21	0.04	0.00	0.21	0.05	0.01	0.00
none	n/a	Bean Storage Bin No. 1 thru 4 and Bean Storage Silo No. 1 thru 2	22.95	5.78	1.01	0.00	30.02	7.57	1.32	0.00	7.07	1.79	0.31	0.00
S-4	D010000, D020000, and D060000	Main Gas Vent (Soybean Oil Extraction System)	0.00	0.00	0.00	4,361.00	0.00	0.00	0.00	5,980.80	0.00	0.00	0.00	1,619.80
Biodiesel Production Plant														
S-5	I250000, I260000, I270000, I280000, I290000, and I300000	6 Methanol Tanks	0.00	0.00	0.00	4.15	0.00	0.00	0.00	4.49	0.00	0.00	0.00	0.34
S-5	I230000 and I240000	2 Sodium Methylate Tanks	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.05
none	n/a	Truck Traffic (Fugitive)	12.05	2.41	0.59	0.00	16.09	3.22	0.79	0.00	4.04	0.81	0.20	0.00
		TOTAL	**12,929.65**	**3,586.23**	**3,139.25**	**4,517.79**	**17,627.87**	**4,893.32**	**4,292.61**	**6,188.08**	**4,698.22**	**1,307.09**	**1,153.36**	**1,670.29**

Notes:
The following emission units did not have a change in their uncontrolled PTE as the units can accommodate the increase in production:
Baghouse AF-2: A030000 and A020000; A030100, A020100, A040000, A050000, A130100, and A100100; A010000; A150100 and A120100; A153000, A010100, A151000, A121000, A152000, and A122000; G280000 and G270000; G220000; G020500; G070300, G170000 and G290000; G010100 and G010200
Filter MLBF-1: G130000 and G070000

[1] Pursuant to Significant Source Modification No. 085-31960-00102, the flaker aspiration baghouse AF-4 should be considered an integral part of Flaking Roll No. 4 and Flaking Roll No. 7. Therefore, the permitting level will be determined using the potential to emit after the control device.
[2] These are the before control emissions as listed in the Addendum to the TSD for Part 70 Operating Permit Renewal No. T085-29197-00102.

Appendix A: Emissions Calculations
326 IAC 6-3-2 Compliance
Units Less than 30 Tons per Hour Maximum Process Weight

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

Number of Units	Emission unit ID	Emissions Units	Baghouse ID	[1]Uncontrolled PM PTE (lb/hr) for each unit	[1]Controlled PM PTE (lb/hr) for each unit	[1]Maximum Process Weight (tons/hr) for each unit	326 IAC 6-3 Limit (lb/hr) for each unit
1	G160000	Pellet Hulls Conveyor to Loadout	AF-2	1.04	0.01	17.0	27.36
1	B030900	Hull Collection Conveyor	AF-3	1.04	0.01	17.0	27.36
1	B430000	Secondary Hull Collection Conveyor	AF-3	1.04	0.01	17.0	27.36
1	E070300	4 Hour Hull Tank	AF-3	0.43	0.003	17.0	N/A[2]
1	B440000	Secondary Hull Collection L-Path	AF-3	1.04	0.01	17.0	27.36
1	E080000	Pellet Cooler	AF-3	25.50	0.15	17.0	27.36
3	E050000, E050200, and E050100	[3]Hull Hammer Mill, Hull Hammer Mill Feeder, and Hull Hammer Mill Plenum	AF-3	34.00	0.20	17.0	27.36
1	G050100	Pelleted Hulls Leg	AF-3	1.04	0.01	17.0	27.36
2	G050300 and E050400	Pelleted Hulls Storage Conveyor and Hulls Addition Screw	AF-3	1.04	0.01	17.0	27.36
2	C040000 and C070000	[4]Flaking Rolls No. 4 and 7	AF-4	0.13	0.13	22.9	N/A[2]
1		Hull Overflow Tank	Hull Bin Filter	0.19	0.19	17.0	N/A[2]

Notes:
[1] Process Weight Rates and PTEs are found on the PM summary page.
[2] The PM PTE from these units is less than 0.551 lbs/hr; therefore, they are not subject to 326 IAC 6-3-2.
[3] The control devices shall be in operation and control emissions from these emission units, at all times they are in operation in order to comply with 326 IAC 6-3-2.
[4] The control devices are intgshall be in operation and control emissions from these emission units, at all times they are in operation in order to comply with 326 IAC 6-3-2.

Pursuant to 326 IAC 6-3-2, the particulate emissions limitations from the above table shall be calculated using the following equations:

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

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

Where:

E = Rate of emission in pounds per hour.
P = Process weight rate in tons per hour.

Appendix A: Emissions Calculations
326 IAC 6-3-2 Compliance
Units Greater than 30 Tons per Hour Maximum Process Weight

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

Number of Units	Emission unit ID	Emissions Units	Baghouse ID	[1]Uncontrolled PM PTE (lb/hr) for each unit	[1]Controlled PM PTE (lb/hr) for each unit	[1]Maximum Process Weight (tons/hr) for each unit	326 IAC 6-3 Limit (lb/hr) for each unit
2	G080000 and G180000	Truck and Rail Pelleted Hull Loadout Bins	AF-2	0.51	0.03	148	N/A[3]
2	G130000 and G070000	[2]Rail Meal Loadout Bin and Truck Meal Loadout Bin	MLBF-1	81.00	4.07	300	63.00
5	G010000, G020000, G030000, G040000, and G050000	Meal Bin No. 1 thru 5 Vent Filters	MBF-1, MBF-2, MBF-3, MBF-4, and MBF-5	4.95	0.01	198	58.40
1	A060000	Screener	AF-3	16.10	0.10	264	61.56
1	B011300	Bean Weigh Scale	AF-3	16.10	0.10	264	61.56
4	B011200, A160300, A060400 and B030800	VSC Feed Leg, VSC Leg Feed Conveyor, Screener Feed Conveyor and Conditioned Bean Feed Conveyor	AF-3	16.10	0.10	264	61.56
2	B010100 and B020100	Whole Bean Aspiration No. 1 and No. 2	AF-3	16.10	0.10	264	61.56
1	B010300	Conditioner Bean Loop Path	AF-3	26.40	0.16	264	61.56
2	B120000 and B030000	Jet Dryer No. 1 and No. 2	Jet Dryer Cyclones No. 1A, 1B, 2A, and 2B	29.04	0.29	132	54.11
1	B010500	VSC Air Heater	VSC Cyclone	58.08	2.82	264	61.56
2	B010000 and B020000	Vertical Seed Conditioner (VSC) No. 1 and No. 2	VSC Cyclone	13.20	0.64	132	54.11
4	B040000, B080100, B130000, and B170000	[2]Hulloosenator No. 1, No. 2, No. 3, and No. 4	AF-5	237.60	1.95	66	47.20
4	B050000, B090000, B140000, and B180000	Cascade Dryer No. 1, No. 2, No. 3 and No. 4	AF-5	14.52	0.12	66	47.20
4	B060000, B100000, B150000, and B190000	[2]Cracking Roll No.1, No. 2, No. 3 and No. 4	AF-5	237.60	1.95	66	47.20
4	B070000, B110000, B160000, and B200000	Cascade Conditioner No. 1, No. 2, No. 3 and No. 4	AF-5	6.60	0.05	66	47.20
1	A160000 and A160500	Day Tank (with Aspirator)	AF-5	6.60	0.05	264	61.56
2	C200100 and C010600	[2]Flaker Feed Loop Conveyor and Flake Collection Conveyor	AF-4	14.03	0.13	#REF!	#REF!
4	E020300, E020400, E010100, and E010300	Grinding Discharge Conveyor, Hammer Mill Mixing Conveyor, Meal L-Path Conveyor, and Meal Hammer Mill Feed Conveyor	AF-6	12.08	0.06	198	58.40
2	E230200 and E230000	[2]Meal Hammer Mill Feeder No. 5, Meal Hammer Mill No. 5	AF-6	503.20	2.52	74	48.30
2	G010300 and G150000	Meal Leg, and Meal Conveyor to Loadout	AF-6	12.08	0.06	198	58.40
1	E230100	Meal Hammer Mill Bin No. 5	AF-6	1.85	0.01	74	48.30
4	D310000-1, D310000-2, D310000-3, and D310000-4	[2]DC Decks No. 1, No. 2, No. 3, and No. 4	DC Deck Cyclones No. 1 through 4	374.40	7.11	208	58.93

Notes:
[1] Process Weight Rates and PTEs are found on the PM summary page.
[2] The control devices shall be in operation and control emissions from these emission units, at all times they are in operation in order to comply with 326 IAC 6-3-2.
[3] The PM PTE from these units is less than 0.551 lbs/hr; therefore, they are not subject to 326 IAC 6-3-2.

Pursuant to 326 IAC 6-3-2, the particulate emissions limitations from the above table shall be calculated using the following equation:

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

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

Where:

E = Rate of emission in pounds per hour.
P = Process weight rate in tons per hour.

Pursuant to 326 IAC 6-3-2(e) (Particulate Emission Limitations for Manufacturing Processes), when the process weight rate exceeds two hundred (200) tons per hour, the allowable emissions may exceed that shown in the table in 326 IAC 6-3-2(e) provided the concentration of particulate in the discharge gases to the atmosphere is less than one tenth (0.10) pound per one thousand (1,000) pounds of gases.

Appendix A: Emission Calculations
PM Summary
Stack AF-2

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

Filter / Stack ID	Control / Stack Description	Emission unit ID	Number of Units	[1]Process	Notes	Unlimited Rate		[9]Limited Rate	Emission Factors (lb/ton)			Aspiration Rate (cfm)	Control Efficiency		Before Control					After Control					Emissions Based on Limited Soybeans Processed			Emissions Based on All Limits			Emission Factor Source
															PM		PM_{10}		[8]$PM_{2.5}$	PM		PM_{10}		[8]$PM_{2.5}$	PM	PM_{10}	[8]$PM_{2.5}$	PM	PM_{10}	$PM_{2.5}$	
						tons/hr	tons/yr	tons/yr	PM	PM_{10}	$PM_{2.5}$		PM	PM_{10} /$PM_{2.5}$	lb/hr	tons/yr	lb/hr	tons/yr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	PM	PM_{10}	$PM_{2.5}$	
[11]AF-2	Grain Receiving / Meal Loadout Baghouse AF-2, 38,000 acfm @ 0.005 grain/acf outlet gr loading, and control efficiency 99.44% for PM/PM_{10}/$PM_{2.5}$	A030000 and A020000	2	Truck Dumps No. 1 and No. 2 (captured)	2, 12	600	5,256,000	2,401,836	0.1800	0.0590	0.0100	6,000	99.44%	99.44%	205.20	898.78	67.26	294.60	49.93	1.15	5.03	0.38	1.65	0.28	205.4	67.31	11.41	1.64 lb/hr (7.18 tons/yr)	1.64 lb/hr (7.18 tons/yr)	1.64 lb/hr (7.18 tons/yr)	SCC 3-02-005-51
		A030100, A020100, A040000, A050000, A130100, and A100100	6	Discharge Conveyors No. 1 and No. 2, Bean Receiving Legs No. 1 and No. 2, and East and West Bin Feed Conveyors		600	5,256,000	2,401,836	0.061	0.034	0.0058	5,000	99.44%	99.44%	219.60	961.85	122.40	536.11	91.45	1.23	5.39	0.69	3.00	0.51	73.3	40.83	6.97				SCC 3-02-005-30
		A010000	1	Rail Dump and Rail Collection Conveyor (captured)	2, 12	600	5,256,000	2,401,836	0.032	0.0078	0.0013	3,000	99.44%	99.44%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00				SCC 3-02-005-53
		A150100 and A120100	2	Cross Bins No 1 thru 6	3	600	5,256,000	2,401,836	0.061	0.034	0.0058	1,000	99.44%	99.44%	73.20	320.62	40.80	178.70	30.48	0.41	1.80	0.23	1.00	0.17	73.3	40.83	6.97				SCC 3-02-005-30
		A153000, A010100, A151000, A121000, A152000, and A122000	6	Day Bin Leg, Rail Scale Discharge Conveyor, Discharge Bin No 1 thru 6, West Bin Cross Conveyor 1-3, and East Bin Cross Conveyor 4-6	3	360	3,153,600	2,401,836	0.061	0.034	0.0058	2,500	99.44%	99.44%	131.76	577.11	73.44	321.67	54.87	0.74	3.23	0.41	1.80	0.31	73.3	40.83	6.97				SCC 3-02-005-30
		G280000 and G270000	2	Truck Loader No.1 and No. 2 (captured)	2, 6	330	2,890,800	2,401,836	0.270	0.068	0.068	500	99.44%	99.44%	169.29	741.49	42.32	185.37	185.37	0.95	4.15	0.24	1.04	1.04	308.0	77.01	77.01				SCC 3-02-007-91
		G220000	1	Rail Car Loadout (Pellets/Hulls) (captured)	2, 10	330	2,890,800	2,401,836	0.0033	0.0008	0.0008	NA	99.44%	99.44%	1.03	4.53	0.25	1.10	1.10	0.01	0.03	0.00	0.01	0.01	3.8	0.91	0.91				SCC-3-02-008-03
		G080000 and G180000	2	Truck and Rail Pelleted Hull Loadout Bins (captured)	2, 6	148	1,296,480	N/A	0.0033	0.0008	0.0008	500	99.44%	99.44%	0.98	4.28	0.24	1.04	1.04	0.01	0.02	0.00	0.01	0.01	2.14	0.52	0.52				SCC-3-02-008-03
		G020500	1	Meal Storage Feed Conveyor		200	1,752,000	N/A	0.061	0.034	0.0058	1,500	99.44%	99.44%	12.20	53.44	6.80	29.78	5.08	0.07	0.30	0.04	0.17	0.03	53.4	29.78	5.08				SCC 3-02-005-30
		G070300, G170000 and G290000	3	Truck Meal Loadout Feed Conveyor, Rail Car Collection Conveyor and Truck Collection Conveyor		300	2,628,000	2,401,836	0.061	0.034	0.0058	1,500	99.44%	99.44%	54.90	240.46	30.60	134.03	22.86	0.31	1.35	0.17	0.75	0.13	73.3	40.83	6.97				SCC 3-02-005-30
		G160000	1	Pellet Hulls Conveyor to Loadout		17	148,920	N/A	0.061	0.034	0.0058	3,000	99.44%	99.44%	1.04	4.54	0.58	2.53	0.43	0.01	0.03	0.00	0.01	0.00	4.54	2.53	0.43				SCC 3-02-005-30
		G010100 and G010200	2	Meal Reclaim Conveyor and Meal Reclaim Leg		200	1,752,000	N/A	0.061	0.034	0.0058	3,000	99.44%	99.44%	24.40	106.87	13.60	59.57	10.16	0.14	0.60	0.08	0.33	0.06	53.44	29.78	5.08				SCC 3-02-005-30
			2	Truck Dumps No. 1 and No. 2 (uncaptured)	4, 12	600	5,256,000	2,401,836	0.0610	0.0340	0.0100	NA	0.00%	0.00%	3.66	16.03	2.04	8.94	2.63	3.66	16.03	2.04	8.94	2.63	3.663	2.042	0.60	3.66	2.04	0.60	SCC 3-02-005-51 and -52
			1	Rail Dump and Rail Collection Conveyor (uncaptured)	4, 12	600	5,256,000	2,401,836	0.0320	0.0078	0.0013	NA	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.00	0.00	SCC 3-02-005-53
			2	Truck Loader No. 1 and No. 2 (uncaptured)	4	330	2,890,800	2,401,836	0.2700	0.0675	0.0675	NA	0.00%	0.00%	8.91	39.03	2.23	9.76	9.76	8.91	39.03	2.23	9.76	9.76	16.212	4.053	4.05	16.21	4.05	4.05	SCC 3-02-007-91
			1	Rail Car Loadout (Pellets/Hulls) (uncaptured)	4	330	2,890,800	2,401,836	0.0033	0.0008	0.0008	NA	0.00%	0.00%	0.05	0.24	0.01	0.06	0.06	0.05	0.24	0.01	0.06	0.06	0.198	0.048	0.05	0.20	0.05	0.05	SCC-3-02-008-03
			2	Truck and Rail Pelleted Hull Loadout Bins (uncaptured)	4	148	1,296,480	N/A	0.0033	0.0008	0.0008	NA	0.00%	0.00%	0.05	0.21	0.01	0.05	0.05	0.05	0.21	0.01	0.05	0.05	2.14	0.52	0.52	2.14	0.52	0.52	SCC-3-02-008-03
				AF-2 Total (tons/yr)											**906.27**	**3,969.47**	**402.58**	**1,763.30**	**465.28**	**17.68**	**77.43**	**6.52**	**28.57**	**15.03**	**945.95**	**377.84**	**133.52**	**29.39**	**13.84**	**12.40**	
MLBF-1	Meal Loadout Bin Filter No. 1, 1,250 acfm @ 0.005 grain/acf outlet gr loading, and control efficiency 99.97% for PM/PM_{10}/$PM_{2.5}$	G130000 and G070000	2	Rail Meal Loadout Bin (captured) and Truck Meal Loadout Bin (captured)	2, 6, 10	300	2,628,000	2,401,836	0.270	0.0675	0.0675	1,250	99.97%	99.97%	153.90	674.08	38.48	168.52	168.52	0.046	0.20	0.012	0.05	0.05	308.0	77.01	77.01	0.054 lb/hr (0.23 tons/yr)	0.054 lb/hr (0.23 tons/yr)	0.054 lb/hr (0.23 tons/yr)	SCC 3-02-007-91
			2	Rail Meal Loadout Bin (uncaptured) and Truck Meal Loadout Bin (uncaptured)	4	300	2,628,000	2,401,836	0.270	0.0675	0.0675	NA	0.00%	0.00%	8.10	35.48	2.03	8.87	8.87	8.10	35.48	2.03	8.87	8.87	16.21	4.05	4.05	16.21	4.05	4.05	SCC 3-02-007-91
MBF-1, MBF-2, MBF-3, MBF-4 and MBF-5	Meal bin filters, 1,000 acfm, and control efficiency 99.82% for PM/PM_{10}/$PM_{2.5}$	G010000, G020000, G030000, G040000 and G050000	1	Meal Bin No. 1 thru 5 Vent Filters	13	198	1,734,480	no limit	0.025	0.0063	0.0011	1,000	99.82%	99.82%	4.95	21.68	1.25	5.46	0.95	0.01	0.04	0.00	0.01	0.00	N/A	N/A	N/A	0.93 lb/hr (4.07 tons/yr) each	0.93 lb/hr (4.07 tons/yr) each	0.93 lb/hr (4.07 tons/yr) each	SCC 3-02-005-40
		Piles #1 and #2	2	Covered Seasonal Grain Storage Piles	14	360	3,153,600	240,000	0.061	0.034	0.0058	N/A	N/A	N/A	43.92	192.37	24.48	107.22	18.29	N/A	N/A	N/A	N/A	N/A	7.32	4.08	0.70	0.061 lb/ton (7.32 tons/yr)	0.034 lb/ton (4.08 tons/yr)	0.0058 lb/ton (0.70 tons/yr)	SCC 3-02-005-30
				Page 1 Subtotal (tons/yr)											**1,117.14**	**4,893.08**	**468.81**	**2,053.38**	**661.92**	**25.83**	**113.15**	**8.56**	**37.50**	**23.95**	**1,277.51**	**462.98**	**215.28**	**73.50**	**42.55**	**37.73**	

Notes:
Emission factors based SCC Codes that start with 3-02-005 were taken from Table 9.9.1-1 in AP-42 section 9.9.1 (03/2003).
Emission factors based SCC Codes that start with 3-02-007 were taken from Table 9.11.1-1 in AP-42 section 9.11.1 (11/1995).
Emission factors based SCC Codes that start with 3-02-008 were taken from Table 9.9.1-2 in AP-42 section 9.9.1 (03/2003).
Emission factors based SCC Codes that start with 3-05-038 were taken from Table 11.19.2-4 in AP-42 section 11.19.2 (08/2004).

1) To obtain the sourcewide uncontrolled PTE for a process, the number of units of that process is multiplied by uncontrolled PTE for a single unit. The Uncontrolled PTE for a single unit of that process is shown in more detail on subsequent pages.
2) Capture efficiency at receiving/loadout is 95%; therefore, it is estimated that 5% of uncontrolled emission are uncaptured.
3) This source utilizes oil suppression.
4) Uncontrolled captured emissions from Receiving and Loadout were reduced to 95% due to assumption that 5% are uncaptured.
5) Emission factor adjusted to uncontrolled back calculating from a control efficiency of 90% for cyclones and 99% for fabric filters.
6) PM_{10} emission factor not available. Pursuant to AP-42, Table 9.9.1-1 Note h, PM_{β} emission factor scaled to total particulate using the ratio of 25 percent.
7) PM_{10} emission factor not available. Pursuant to AP-42, Table 9.9.1-2 Note g, PM_{β} emission factors can be estimated by taking 50 percent of the filterable PM emission factor.
8) $PM_{2.5}$ emission factor provided when available in AP-42. For all others, the assumption is that PM_{β} = $PM_{2.5}$. Control Efficiency for PM_{10} was assumed to be equal to control efficiency for $PM_{2.5}$ since a control efficiency for $PM_{2.5}$ was not provided.
9) The maximum annual limited rate of these units would be the permitted crush rate of 2,251,836 tons per year plus 150,000 tons per year for the standing storage capacity of the plant (all storage silos and temporary storage). This equates to a maximum throughput of 2,401,836 tons per year which is used in calcualting the PTE. If the maximum throughput is less than the limited rate, then "N/A" was listed.
10) This emission unit is aspirated and controlled via an aspirated device down stream.
11) All captured emissions exhaust through stack AF-2 and are limited to 1.64 lbs/hr of PM and PM_{β}. All uncaptured limits are shown above.
12) The entire plant capacity for receiving is 2,401,836 tons. Therefore, assuming everything is received by truck and none by rail gives the worse case PTE.
13) There are five meal bins. However, the plant is only physically capable of loading one meal bin at a time. Thus, the PTE for these units is calculated at a rate of 198 tons/hr for all five meal bins combined. These emission units do not have a limited throughput.
14) Pursuant to Minor Source Modification (MSM) No. 085-24676-00102, in order to render the requirements of 326 IAC 2-7-10.5(f) not applicable, the Permittee shall comply with a soybean throughput to the two (2) Storage Bean Piles #1 and #2 shall be less than 8,000,000 bushels per twelve (12) consecutive month period with compliance determined at the end of each month. The weight of the soybeans has been assumed to equal 60 pounds per bushel.

Appendix A: Emission Calculations
PM Summary
Stacks AF-3, AF-7, and S-1

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

Filter / Stack ID	Control / Stack Description	Emission unit ID	Number of Units	[1]Process	Notes	Unlimited Rate		[8]Limited Rate	Emission Factors (lb/ton)			Aspiration Rate (cfm)	Control Efficiency		Before Control					After Control					Emissions Based on Limited Soybeans Processed			Emissions Based on All Limits			Emission Factor Source
															PM		PM_{10}		[5]$PM_{2.5}$	PM		PM_{10}		[5]$PM_{2.5}$	PM	PM_{10}	[5]$PM_{2.5}$	PM	PM10	PM2.5	
						tons/hr	tons/yr	tons/yr	PM	PM_{10}	$PM_{2.5}$		PM	PM_{10}	lb/hr	tons/yr	lb/hr	tons/yr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr				
AF-3	Prep Exhaust Filter, Baghouse AF-3, 28,900 acfm 99.41% PM/PM_{10} control	A060000	1	Screener		264	2,312,640	2,251,836	0.061	0.034	0.0058	5,000	99.41%	99.41%	16.10	70.54	8.98	39.31	6.71	0.10	0.42	0.05	0.23	0.04	68.68	38.28	6.53	1.26 lb/hr (5.52 tons/yr)	1.26 lb/hr (5.52 tons/yr)	1.26 lb/hr (5.52 tons/yr)	SCC 3-02-005-30
		A170000	1	Screenings Tank		5.0	43,800	N/A	0.025	0.0063	0.0011	500	99.41%	99.41%	0.13	0.55	0.03	0.14	0.02	0.00	0.00	0.00	0.00	0.00	0.55	0.14	0.02				SCC 3-02-005-40
		A170300	1	Screenings Recycle Leg		5.0	43,800	N/A	0.061	0.034	0.0058	500	99.41%	99.41%	0.31	1.34	0.17	0.74	0.13	0.00	0.01	0.00	0.00	0.00	1.34	0.74	0.13				SCC 3-02-005-30
		B011300	1	Bean Weigh Scale	3	264	2,312,640	2,251,836	0.061	0.034	0.0058	500	99.41%	99.41%	16.10	70.54	8.98	39.31	6.71	0.10	0.42	0.05	0.23	0.04	68.68	38.28	6.53				SCC 3-02-005-30
		B011200, A160300, A060400 and B030800	4	VSC Feed Leg, VSC Leg Feed Conveyor, Screener Feed Conveyor and Conditioned Bean Feed Conveyor	3	264	2,312,640	2,251,836	0.061	0.034	0.0058	500	99.41%	99.41%	64.42	282.14	35.90	157.26	26.83	0.38	1.66	0.21	0.93	0.16	68.68	38.28	6.53				SCC 3-02-005-30
		B010100 and B020100	2	Whole Bean Aspiration No. 1 and No. 2	3	264	2,312,640	2,251,836	0.061	0.034	0.0058	2,000	99.41%	99.41%	32.21	141.07	17.95	78.63	13.41	0.19	0.83	0.11	0.46	0.08	68.68	38.28	6.53				SCC 3-02-005-30
		B030900	1	Hull Collection Conveyor	3	17.0	148,920	N/A	0.061	0.034	0.0058	500	99.41%	99.41%	1.04	4.54	0.58	2.53	0.43	0.01	0.03	0.00	0.01	0.00	4.54	2.53	0.43				SCC 3-02-005-30
		E130000 and E150000	2	Hull Screener No. 1 and No. 2	10	9.6	84,096	N/A	0.061	0.034	0.0058	NA	99.41%	99.41%	1.17	5.13	0.65	2.86	0.49	0.01	0.03	0.00	0.02	0.00	5.13	2.86	0.49				SCC 3-02-005-30
		B430000	1	Secondary Hull Collection Conveyor		17.0	148,920	N/A	0.061	0.034	0.0058	3,000	99.41%	99.41%	1.04	4.54	0.58	2.53	0.43	0.01	0.03	0.00	0.01	0.00	4.54	2.53	0.43				SCC 3-02-005-30
		E070300	1	4 Hour Hull Tank		17.0	148,920	N/A	0.025	0.0063	0.0011	1,500	99.41%	99.41%	0.43	1.86	0.11	0.47	0.08	0.00	0.01	0.00	0.00	0.00	1.86	0.47	0.08				SCC 3-02-005-40
		B440000	1	Secondary Hull Collection L-Path		17.0	148,920	N/A	0.061	0.034	0.0058	Not Provided	99.41%	99.41%	1.04	4.54	0.58	2.53	0.43	0.01	0.03	0.00	0.01	0.00	4.54	2.53	0.43				SCC 3-02-005-30
		E080000	1	Pellet Cooler	5, 7	17.0	148,920	N/A	1.5	0.75	0.75	6,500	99.41%	99.41%	25.50	111.69	12.75	55.85	55.85	0.15	0.66	0.08	0.33	0.33	111.69	55.85	55.85				SCC 3-02-008-16
		E050000, E050200, and E050100	3	Hull Hammer Mill, Hull Hammer Mill Feeder, and Hull Hammer Mill Plenum	5, 7	17.0	148,920	N/A	2	1.0	1.0	8,000	99.41%	99.41%	102.00	446.76	51.00	223.38	223.38	0.60	2.64	0.30	1.32	1.32	446.76	223.38	223.38				SCC 3-02-007-86
		G050100	1	Pelleted Hulls Leg		17.0	148,920	N/A	0.061	0.034	0.0058	1,000	99.41%	99.41%	1.04	4.54	0.58	2.53	0.43	0.01	0.03	0.00	0.01	0.00	4.54	2.53	0.43				SCC 3-02-005-30
		G050300 and E050400	2	Pelleted Hulls Storage Conveyor and Hulls Addition Screw		17.0	148,920	N/A	0.061	0.034	0.0058	Not Provided	99.41%	99.41%	2.07	9.08	1.16	5.06	0.86	0.01	0.05	0.01	0.03	0.01	9.08	5.06	0.86				SCC 3-02-005-30
		B310000	1	Screenings Weight Belt		5.0	43,800	N/A	0.061	0.034	0.0058	500	99.41%	99.41%	0.31	1.34	0.17	0.74	0.13	0.00	0.01	0.00	0.00	0.00	1.34	0.74	0.13				SCC 3-02-005-30
		B010300	1	Conditioner Bean Loop Path	6, 11	264	2,312,640	no limit	0.10	0.025	0.025	42,000	99.41%	99.41%	26.40	115.63	6.60	28.91	28.91	0.16	0.68	0.04	0.17	0.17	N/A	N/A	N/A				SCC 3-02-007-87
				AF-3 Total											**291.29**	**1,275.83**	**146.76**	**642.80**	**365.23**	**1.72**	**7.53**	**0.87**	**3.79**	**2.15**	**870.64**	**452.50**	**308.79**	**5.52**	**5.52**	**5.52**	
AF-7	Pod Grinder/Screener Baghouse, AF-7, 5000 acfm, 99.00% PM/PM_{10} control	B310200	1	Pod Grinder/Destoner	6	5.0	43,800	N/A	2.000	0.500	0.500	5,000	99.00%	99.00%	10.00	43.80	2.50	10.95	10.95	0.10	0.44	0.03	0.11	0.11	43.80	10.95	10.95	1.5 lb/hr (6.57 tons/yr)	1.5 lb/hr (6.57 tons/yr)	1.5 lb/hr (6.57 tons/yr)	SCC 3-02-007-86
				AF-7 Total											**10.00**	**43.80**	**2.50**	**10.95**	**10.95**	**0.10**	**0.44**	**0.03**	**0.11**	**0.11**	**43.80**	**10.95**	**10.95**	**6.57**	**6.57**	**6.57**	
S-1	Jet Dryer Baghouses 99.00% PM/PM_{10} control. VSC Cyclone 95.14% PM control, 80.57% PM_{10} control. Control efficiency of the [12]VSC Cyclone was estimated by the source.	B120000 and B030000	2	Jet Dryer No. 1 and No. 2	3, 11	132	1,156,320	no limit	0.22	0.055	0.0094	36,000	99.00%	99.00%	58.08	254.39	14.52	63.60	10.87	0.58	2.54	0.15	0.64	0.11	N/A	N/A	N/A	4.93 lb/hr (21.59 tons/yr)	3.35 lb/hr (14.67 tons/yr)	3.35 lb/hr (14.67 tons/yr)	SCC 3-02-005-27
		B010500	1	VSC Air Heater	11	264	2,312,640	no limit	0.22	0.055	0.0094	42,000	95.14%	80.57%	58.08	254.39	14.52	63.60	10.87	2.82	12.36	2.82	12.36	2.11	N/A	N/A	N/A				SCC 3-02-005-27
		B010000 and B020000	2	Vertical Seed Conditioner (VSC) No. 1 and No. 2	3, 6, 11	132	1,156,320	no limit	0.10	0.025	0.025	42,000	95.14%	80.57%	26.40	115.63	6.60	28.91	28.91	1.28	5.62	1.28	5.62	5.62	N/A	N/A	N/A				SCC 3-02-007-87
				S-1 Total											**142.56**	**624.41**	**35.64**	**156.10**	**50.65**	**4.69**	**20.53**	**4.25**	**18.61**	**7.84**	**0.00**	**0.00**	**0.00**	**21.59**	**14.67**	**14.67**	
				Page 2 Subtotal (tons/yr)											**433.85**	**1,900.24**	**182.40**	**798.90**	**415.87**	**6.41**	**28.05**	**5.11**	**22.40**	**9.99**	**870.64**	**452.50**	**308.79**	**33.68**	**26.76**	**26.76**	

Notes:
Emission factors based SCC Codes that start with 3-02-005 were taken from Table 9.9.1-1 in AP-42 section 9.9.1 (03/2003).
Emission factors based SCC Codes that start with 3-02-007 were taken from Table 9.11.1-1 in AP-42 section 9.11.1 (11/1995).
Emission factors based SCC Codes that start with 3-02-008 were taken from Table 9.9.1-2 in AP-42 section 9.9.1 (03/2003).
Emission factors based SCC Codes that start with 3-05-038 were taken from Table 11.19.2-4 in AP-42 section 11.19.2 (08/2004).

1) To obtain the sourcewide uncontrolled PTE for a process, the number of units of that process is multiplied by uncontrolled PTE for a single unit. The Uncontrolled PTE for a single unit of that process is shown in more detail on subsequent pages.
2) Capture efficiency at receiving/loadout is 95%; therefore, it is estimated that 5% of uncontrolled emission are uncaptured.
3) This source utilizes oil suppression.
4) Uncontrolled captured emissions from Receiving and Loadout were reduced to 95% due to assumption that 5% are uncaptured.
5) Emission factor adjusted to uncontrolled back calculating from a control efficiency of 90% for cyclones and 99% for fabric filters.
6) PM_{10} emission factor not available. Pursuant to AP-42, Table 9.9.1-1 Note h, PM_6 emission factor scaled to total particulate using the ratio of 25 percent.
7) PM_{10} emission factor not available. Pursuant to AP-42, Table 9.9.1-2 Note g, PM_6 emission factors can be estimated by taking 50 percent of the filterable PM emission factor.
8) $PM_{2.5}$ emission factor provided when available in AP-42. For all others, the assumption is that $PM_6 = PM_{2.5}$. Control Efficiency for PM_{10} was assumed to be equal to control efficiency for $PM_{2.5}$ since a control efficiency for $PM_{2.5}$ was not provided.
9) The amount of soybeans processed shall be limited to less than 2,251,836 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. If the maximum throughput is less than the limited rate, then "N/A" was listed.
10) This emission unit is aspirated and controlled via an aspirated device down stream.
11) These emission units do not have a limited throughput.
12) The outlet PM emission rate was 0.88 lb/hr and the outlet PM_6 emission rate was 1.05 lb/hr from stack testing of the VSC Cyslone.

Appendix A: Emission Calculations
PM Summary
Stacks AF-5, AF-4, and AF-6

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

Filter / Stack ID	Control / Stack Description	Emission unit ID	Number of Units	[1]Process	Notes	Unlimited Rate		[6]Limited Rate	Emission Factors (lb/ton)			Aspiration Rate (cfm)	Control Efficiency		Before Control					After Control					Emissions Based on Limited Soybeans Processed			Limits			Emission Factor Source
															PM		PM_{10}		[5]$PM_{2.5}$	PM		PM_{10}		[5]$PM_{2.5}$	PM	PM_{10}	[5]$PM_{2.5}$	PM	PM_{10}	[5]$PM_{2.5}$	
						tons/hr	tons/yr	tons/yr	PM	PM_{10}	$PM_{2.5}$		PM	PM_{10}	lb/hr	tons/yr	lb/hr	tons/yr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	PM	PM_{10}	$PM_{2.5}$	
AF-5	Hot Dehulling Filter, Baghouse AF-5, 43,000 acfm, 99.18% PM/PM_{10} Control.	B040000, B080100, B130000, and B170000	4	Hulloosenator No. 1, No. 2, No. 3, and No. 4	6, 13, 14	66	578,160	no limit	3.6	0.90	0.90	NA	99.18%	99.18%	950.40	4162.75	237.60	1040.69	1040.69	7.79	34.13	1.95	8.53	8.53	N/A	N/A	N/A				SCC 3-02-007-85
		B050000, B090000, B140000, and B180000	4	Cascade Dryer No. 1, No. 2, No. 3, and No. 4	14	66	578,160	no limit	0.22	0.055	0.009	30,000	99.18%	99.18%	58.08	254.39	14.52	63.60	10.41	0.48	2.09	0.12	0.52	0.09	N/A	N/A	N/A				SCC 3-02-005-27
		B060000, B100000, B150000, and B190000	4	Cracking Roll No. 1, No. 2, No. 3, and No. 4	6, 13, 14	66	578,160	no limit	3.6	0.90	0.90	NA	99.18%	99.18%	950.40	4162.75	237.60	1040.69	1040.69	7.79	34.13	1.95	8.53	8.53	N/A	N/A	N/A	2.56 lb/hr (11.21 tons/yr)	2.56 lb/hr (11.21 tons/yr)	2.56 lb/hr (11.21 tons/yr)	SCC 3-02-007-85
		B070000, B110000, B160000, and B200000	4	Cascade Conditioner No. 1, No. 2, No. 3, and No. 4	6, 14	66	578,160	no limit	0.10	0.025	0.025	42,000	99.18%	99.18%	26.40	115.63	6.60	28.91	28.91	0.22	0.95	0.05	0.24	0.24	N/A	N/A	N/A				SCC 3-02-007-87
		E130100, E150100, and A160100	3	Secondary Aspirator No. 1 and No. 2, and Feed Day Tank Conveyor	14	9.6	84,096	no limit	0.061	0.034	0.0058	Not Provided	99.18%	99.18%	1.76	7.69	0.98	4.29	0.73	0.01	0.06	0.01	0.04	0.01	N/A	N/A	N/A				SCC 3-02-005-30
		A160000 and A160500	1	Day Tank (with Aspirator)	3	264	2,312,640	2,251,836	0.025	0.0063	0.0011	6,000	99.18%	99.18%	6.60	28.91	1.66	7.28	1.27	0.05	0.24	0.01	0.06	0.01	28.1	7.09	1.24				SCC 3-02-005-40
				AF-5 Total											**1993.64**	**8732.13**	**498.96**	**2185.46**	**2122.69**	**16.35**	**71.60**	**4.09**	**17.92**	**17.41**	**28.15**	**7.09**	**1.24**	**11.21**	**11.21**	**11.21**	
[10]AF-4	Flaker Asp. Filter, 24,000 acfm , 99.07% control PM/PM_{10}	C010000	1	Flaking Roll No. 1	13, 14	20.3	177,828	no limit	See AF-4 spreadsheet for calculation details			NA	99.07%	99.07%	14.03	61.47	18.71	81.96	81.96	0.13	0.56	0.17	0.75	0.75	N/A	N/A	N/A	1.03 lb/hr (4.51 tons/yr)	1.03 lb/hr (4.51 tons/yr)	1.03 lb/hr (4.51 tons/yr)	Stack Test
		C020000, C030000, C050000, C060000, C080000, and C090000	6	Flaking Rolls No. 2, 3, 5, 6, 8, and 9	14	22.9	200,604	no limit				Not Provided	99.07%	99.07%																	
		C200100 and C010600	2	Flaker Feed Loop Conveyor and Flake Collection Conveyor	14	247	2,163,720	no limit				24,000	99.07%	99.07%																	
		C100000	1	Flaking Roll No. 10	11, 13, 14	20.3	177,828	no limit				NA	99.07%	99.07%																	
		C0110000 and C0120000	2	Flaking Rolls No. 11 and 12	10, 14	22.9	200,604	no limit				Not Provided	99.07%	99.07%																	
		C040000 and C070000	2	Flaking Rolls No. 4 and 7	12, 13, 14	22.9	200,604	no limit				NA	99.07%	99.07%																	
				AF-4 Total											**14.03**	**61.47**	**18.71**	**81.96**	**81.96**	**0.13**	**0.56**	**0.17**	**0.75**	**0.75**	**0.00**	**0.00**	**0.00**	**4.51**	**4.51**	**4.51**	
AF-6	Meal Grinding Filter, Baghouse AF-6, 18,000 acfm, 99.50% PM/PM10 control	E020300, E020400, E010100, and E010300	4	Grinding Discharge Conveyor, Hammer Mill Mixing Conveyor, Meal L-Path Conveyor, and Meal Hammer Mill Feed Conveyor	14	198	1,734,480	no limit	0.061	0.034	0.0058	1,000	99.50%	99.50%	48.31	211.61	26.93	117.94	20.12	0.24	1.06	0.13	0.59	0.10	N/A	N/A	N/A				SCC 3-02-005-30
		E020200, E030200, E040200, E020000, E030000, and E040000	6	Meal Hammer Mill Feeders No. 1, No. 2 and No. 3, Meal Hammer Mills No. 1, No. 2 and No. 3	5, 6, 14	74	648,240	no limit	3.400	0.850	0.850	3,000	99.50%	99.50%	1509.60	6612.05	377.40	1653.01	1653.01	7.55	33.06	1.89	8.27	8.27	N/A	N/A	N/A	0.945 lb/hr (4.14 tons/yr)	0.945 lb/hr (4.14 tons/yr)	0.945 lb/hr (4.14 tons/yr)	SCC 3-02-007-93
		E230200 and E230000	2	Meal Hammer Mill Feeder No. 5, Meal Hammer Mill No. 5	5, 6, 14	74	648,240	no limit	3.400	0.850	0.850	3,000	99.50%	99.50%	503.20	2204.02	125.80	551.00	551.00	2.52	11.02	0.63	2.76	2.76	N/A	N/A	N/A				SCC 3-02-007-93
		G010300 and G150000	2	Meal Leg, and Meal Conveyor to Loadout	14	198	1,734,480	no limit	0.061	0.034	0.0058	1,000	99.50%	99.50%	24.16	105.80	13.46	58.97	10.06	0.12	0.53	0.07	0.29	0.05	N/A	N/A	N/A				SCC 3-02-005-30
		E020100, E030100, and E040100	3	Meal Hammer Mill Bins No. 1, No. 2 and No. 3	14	74	648,240	no limit	0.025	0.0063	0.0011	6,000	99.50%	99.50%	5.55	24.31	1.40	6.13	1.07	0.03	0.12	0.01	0.03	0.01	N/A	N/A	N/A				SCC 3-02-005-40
		E230100	1	Meal Hammer Mill Bin No. 5	14	74	648,240	no limit	0.025	0.0063	0.0011	6,000	99.50%	99.50%	1.85	8.10	0.47	2.04	0.36	0.01	0.04	0.00	0.01	0.00	N/A	N/A	N/A				SCC 3-02-005-40
				AF-6 Total											**2092.67**	**9165.89**	**545.46**	**2389.10**	**2235.62**	**10.46**	**45.83**	**2.73**	**11.95**	**11.18**	**0.00**	**0.00**	**0.00**	**4.14**	**4.14**	**4.14**	
				Page 3 Subtotal (tons/yr)											**4100.34**	**17959.48**	**1063.13**	**4656.51**	**4440.27**	**26.94**	**117.99**	**6.99**	**30.61**	**29.33**	**28.15**	**7.09**	**1.24**	**19.86**	**19.86**	**19.86**	

Notes:
Emission factors based SCC Codes that start with 3-02-005 were taken from Table 9.9.1-1 in AP-42 section 9.9.1 (03/2003).
Emission factors based SCC Codes that start with 3-02-007 were taken from Table 9.11.1-1 in AP-42 section 9.11.1 (11/1995).
Emission factors based SCC Codes that start with 3-02-008 were taken from Table 9.9.1-2 in AP-42 section 9.9.1 (03/2003).
Emission factors based SCC Codes that start with 3-05-038 were taken from Table 11.19.2-4 in AP-42 section 11.19.2 (08/2004).

1) To obtain the sourcewide uncontrolled PTE for a process, the number of units of that process is multiplied by uncontrolled PTE for a single unit. The Uncontrolled PTE for a single unit of that process is shown in more detail on subsequent pages.
2) Capture efficiency at receiving/loadout is 95%; therefore, it is estimated that 5% of uncontrolled emission are uncaptured.
3) This source utilizes oil suppression.
4) Uncontrolled captured emissions from Receiving and Loadout were reduced to 95% due to assumption that 5% are uncaptured.
5) Emission factor adjusted to uncontrolled back calculating from a control efficiency of 90% for cyclones and 99% for fabric filters.
6) PM_{10} emission factor not available. Pursuant to AP-42, Table 9.9.1-1 Note h, PM_{10} emission factor scaled to total particulate using the ratio of 25 percent.
7) PM_{10} emission factor not available. Pursuant to AP-42, Table 9.9.1-2 Note g, PM_{10} emission factors can be estimated by taking 50 percent of the filterable PM emission factor.
8) $PM_{2.5}$ emission factor provided when available in AP-42. For all others, the assumption is that $PM_{10} = PM_{2.5}$. Control Efficiency for PM_{10} was assumed to be equal to control efficiency for $PM_{2.5}$ since a control efficiency for $PM_{2.5}$ was not provided.
9) The amount of soybeans processed shall be limited to less than 2,251,836 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. If the maximum throughput is less than the limited rate, then N/A was listed.
10) Pursuant to Administrative Amendment 085-27694-00102, baghouse AF-4 was determined to be an integral part of the flaking process.
11) Pursuant to Significant Permit Modification 085-27442-00102, baghouse AF-4 was determined to be an integral part of the flaking process.
12) Pursuant to Significant Source Modification 085-31960-00102, baghouse AF-4 was determined to be an integral part of the flaking process.
13) This emission unit is aspirated and controlled via an aspirated device down stream.
14) These emission units do not have a limited throughput.

Appendix A: Emission Calculations
PM Summary
Stack S-2, Insignificant Activities, and Fugitives

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

Filter / Stack ID	Control / Stack Description	Emission unit ID	Number of Units	[1]Process	Notes	Unlimited Rate		Limited Rate	Emission Factors (lb/ton)			Aspiration Rate (cfm)	Control Efficiency		Before Control					After Control					Emissions Based on Limited Soybeans Processed			Limits			Emission Factor Source
															PM		PM_{10}		[5]$PM_{2.5}$	PM		PM_{10}		[5]$PM_{2.5}$	PM	PM_{10}	[5]$PM_{2.5}$	PM	PM_{10}	$PM_{2.5}$	
						tons/hr	tons/yr	tons/yr	PM	PM_{10}	$PM_{2.5}$		PM	PM_{10}	lb/hr	tons/yr	lb/hr	tons/yr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	PM	PM_{10}	$PM_{2.5}$	
S-2	DTDC Stack, DC Deck Cyclones, 18,000 acfm, 99.18% PM control, and 98.66% PM10 control	D310000-1, D310000-2, D310000-3, and D310000-4	4	DC Decks No. 1, No. 2, No. 3, and No. 4	5, 6, 10	208	1,822,080	no limit	1.8	0.5	0.5	63,900	98.10%	97.89%	1497.60	6559.49	374.40	1639.87	1639.87	28.45	124.63	7.90	34.60	34.60	N/A	N/A	N/A	10.74 lb/hr (47.04 tons/yr)	7.28 lb/hr (31.89 tons/yr)	7.28 lb/hr (31.89 tons/yr)	SCC 3-02-007-89
				S-2 Total											**1,497.60**	**6,559.49**	**374.40**	**1,639.87**	**1,639.87**	**28.45**	**124.63**	**7.90**	**34.60**	**34.60**	**0.00**	**0.00**	**0.00**	**47.04**	**31.89**	**31.89**	
	Bin Filter		1	Kaolin Receiving Tank	5, 10, 11	40	7,000	no limit	0.99	0.16	0.06	750	99.50%	99.50%	39.60	3.47	6.40	0.56	0.21	0.20	0.02	0.03	0.00	0.00	N/A	N/A	N/A	1.9 lbs/hr (8.32 tons/yr)	1.9 lbs/hr (8.32 tons/yr)	1.9 lbs/hr (8.32 tons/yr)	SCC 3-05-038-13
	Hull Bin Filter		1	Hull Overflow Tank	10, 12	17	67,263	no limit	0.025	0.0063	0.0011	1,000	0.00%	0.00%	0.19	0.84	0.05	0.21	0.04	0.19	0.84	0.05	0.21	0.04	0.84	0.21	0.04	0.84	0.21	0.04	SCC 3-02-005-40
			1	Bean Storage Bin No. 1 thru 4 and Bean Storage Silo No. 1 thru 2	3, 13	600	2,401,836	no limit	0.025	0.0063	0.0011	232,000	N/A	N/A	15.00	30.02	3.78	7.57	1.32	N/A	N/A	N/A	N/A	N/A	30.02	7.57	1.32	30.02	7.57	1.32	SCC 3-02-005-40
	Filter		1	Diatomaceous Earth (DE) Storage Bin	3, 10, 14	0.0875	767	no limit	0.99	0.16	0.06	Not Provided	99.50%	99.50%	0.09	0.38	0.01	0.06	0.02	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	0.38	0.06	0.02	SCC 3-05-038-13
				Insignificant Activities Total											**54.88**	**34.71**	**10.24**	**8.40**	**1.59**	**0.39**	**0.86**	**0.08**	**0.21**	**0.04**	**30.86**	**7.78**	**1.36**	**39.56**	**16.16**	**9.70**	
	Roads			Road Traffic	9, 10										3.69	16.18	0.74	3.24	0.79	3.69	16.18	0.74	3.24	0.79	N/A	N/A	N/A	16.18	3.24	0.79	AP 42 Table 13.2.1
	Tower			Cooling Towers	10										0.99	4.34	0.99	4.34	4.34	0.99	4.34	0.99	4.34	4.34	N/A	N/A	N/A	4.34	4.34	4.34	
				Fugitives Total											**4.69**	**20.52**	**1.73**	**7.58**	**5.14**	**4.69**	**20.52**	**1.73**	**7.58**	**5.14**	**N/A**	**N/A**	**N/A**	**20.52**	**7.58**	**5.14**	
				Page 4 Subtotal (tons/yr) including Fugitives											**1,557.16**	**6,614.72**	**386.37**	**1,655.85**	**1,646.60**	**33.53**	**146.01**	**9.71**	**42.39**	**39.78**	**30.86**	**7.78**	**1.36**	**107.13**	**55.63**	**46.73**	
				Pages 1 through 4 Total (tons/yr) including Fugitives											**7,208.49**	**31,367.53**	**2,100.71**	**9,164.64**	**7,164.66**	**92.71**	**405.21**	**30.38**	**132.91**	**103.05**	**2,207.16**	**930.35**	**526.66**	**234.17**	**144.80**	**131.08**	

Notes:
Emission factors based SCC Codes that start with 3-02-005 were taken from Table 9.9.1-1 in AP-42 section 9.9.1 (03/2003).
Emission factors based SCC Codes that start with 3-02-007 were taken from Table 9.11.1-1 in AP-42 section 9.11.1 (11/1995).
Emission factors based SCC Codes that start with 3-02-008 were taken from Table 9.9.1-2 in AP-42 section 9.9.1 (03/2003).
Emission factors based SCC Codes that start with 3-05-038 were taken from Table 11.19.2.4 in AP-42 section 11.19.2 (08/2004).

1) To obtain the sourcewide uncontrolled PTE for a process, the number of units of that process is multiplied by uncontrolled PTE for a single unit. The Uncontrolled PTE for a single unit of that process is shown in more detail on subsequent pages.
2) Capture efficiency at receiving/loadout is 95%; therefore, it is estimated that 5% of uncontrolled emission are uncaptured.
3) This source utilizes oil suppression.
4) Uncontrolled captured emissions from Receiving and Loadout were reduced to 95% due to assumption that 5% are uncaptured.
5) Emission factor adjusted to uncontrolled back calculating from a control efficiency of 90% for cyclones and 99% for fabric filters.
6) PM_{10} emission factor not available. Pursuant to AP-42, Table 9.9.1-1 Note h, PM_f emission factor scaled to total particulate using the ratio of 25 percent.
7) PM_{10} emission factor not available. Pursuant to AP-42, Table 9.9.1-2 Note g, PM_f emission factors can be estimated by taking 50 percent of the filterable PM emission factor.
8) $PM_{2.5}$ emission factor provided when available in AP-42. For all others, the assumption is that $PM_f = PM_{2.5}$. Control Efficiency for PM_{10} was assumed to be equal to control efficiency for $PM_{2.5}$ since a control efficiency for $PM_{2.5}$ was not provided.
9) Road Traffic provided by the source in T085-21297-00102, issued on Janurary 24, 2006.
10) These emission units do not have a limited throughput.
11) The hourly capacity of 40 tons/hr was not used to calculate the maximum PTE for the Kaolin Receiving Tank. The quantity of kaolin used to calculate the PTE (that would correspond to the permitted crush rate of 2,251,836 tons per year) would be 7,000 tons.
12) The hourly capacity of 17 tons/hr was not used to calculate the maximum PTE for the Hull Overflow tank. The quantity of hulls used to calculate the PTE (that would correspond to the permitted crush rate of 2,251,836 tons per year) would be 67,263 tons.
13) The hourly capacity of 600 tons/hr of the Bean Storage Bins was not used to calculate the maximum PTE. The maximum annual throughput of the bean storage bins would be the permitted crush rate of 2,251,836 tons per year plus 150,000 tons per year for the standing storage capacity of the plant (all storage silos and temporary storage). This equates to a maximum throughput of 2,401,836 tons per year which is used in calculating the PTE.
14) Diatomaceous Earth (DE) Storage Bin has an hourly usage rate of 175 lbs/hr and a storage capacity of 40 tons.

Appendix A: Emission Calculations
Truck Dumps No. 1 and No. 2 and Rail Dump

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

PTE for emission units A030000 and A020000
Truck Dumps No. 1 and No. 2

PM Emission Factor	0.180	lb/ton	Source: SCC 3-02-005-51
PM10/PM2.5 Emission Factor	0.059	lb/ton	SCC 3-02-005-51
Hourly Loading Rate	600	tons/hr	
Limited Loading Rate	2,401,836	tons/yr	
Aspiration Rate	6000	cfm	
% Control PM	99.44%		
% Control PM10/PM2.5	99.44%		

Hourly throughput is based on maximum capacity of transfer system, limited throughput is based on the limited amount of soybeans processed pursuant to T085-21297-00102 issued on January 24, 2006.

Potential PM emissions

Truck Dumps No. 1 and No. 2 (captured)	Uncontrolled for each unit		Controlled for each unit	
Max Hourly	102.60	lbs/hr	0.57	lbs/hr
Max Yearly	449.39	tons/yr	2.52	tons/yr
Limited Yearly	205.36	tons/yr	1.15	tons/yr

Potential PM10/PM2.5 emissions

Truck Dumps No. 1 and No. 2 (captured)	Uncontrolled for each unit		Controlled for each unit	
Max Hourly	33.63	lbs/hr	0.19	lbs/hr
Max Yearly	147.30	tons/yr	0.82	tons/yr
Limited Yearly	67.31	tons/yr	0.38	tons/yr

Potential PM emissions

Truck Dumps No. 1 and No. 2 (uncaptured)	Uncontrolled for each unit	
Max Hourly	5.40	lbs/hr
Max Yearly	23.65	tons/yr
Limited Yearly	10.81	tons/yr

Potential PM10/PM2.5 emissions

Truck Dumps No. 1 and No. 2 (uncaptured)	Uncontrolled for each unit	
Max Hourly	1.77	lbs/hr
Max Yearly	7.75	tons/yr
Limited Yearly	3.54	tons/yr

Notes:
The emission factors are from AP 42, Table 9.9.1-1 Particulate Emission Factors for Grain Elevators (3/03).
The emission factors are from worst case which is straight truck although the source receives about 90% delivery by hopper trucks and about 10% delivery by straight trucks.
Uncontrolled captured emissions were reduced to 95% due to assumption that 5% are uncaptured.
Control efficiency for PM is 99.44% and for PM10 is 99.44% according to the renewal application.

Methodology:
Uncontrolled Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/tor÷ 2000 lbs/ton
Limited Emissions (tons/yr) = Limited Throughput (tons/yr)* Emission factor (lb/tor÷ 2000 lbs/ton
Controlled Potential Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/ton) / 2000 lbs/ton * (1- Control Efficiency)

Appendix A: Emission Calculations
Discharge Conveyors, Bean Receiving Legs, and Bin Feed Conveyors

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

PTE for emission units A030100, A020100, A040000, A050000, A130100 and A100100
Discharge Conveyors No. 1 and No. 2, Bean Receiving Legs No. 1 and No. 2, and East and West Bin Feed Conveyors

PM Emission Factor	0.061	lb/ton	Source: SCC 3-02-005-30
PM10/PM2.5 Emission Factor	0.034	lb/ton	SCC 3-02-005-30
Hourly Loading Rate	600.0	tons/hr	
Limited Loading Rate	1,686,300	tons/yr	
Aspiration Rate	5000	cfm	
% Control PM	99.44%		
% Control PM10/PM2.5	99.44%		

Hourly throughput is based on maximum capacity of transfer system, limited throughput is based on the limited amount of soybeans processed pursuant to T085-21297-00102 issued on January 24, 2006.

Potential PM emissions
Discharge Conveyors No. 1 and No. 2, Bean Receiving Legs No. 1 and No. 2, and East and West Bin Feed Conveyors

	Uncontrolled for each unit		Controlled for each unit	
Max Hourly	36.60	lbs/hr	0.20	lbs/hr
Max Yearly	160.31	tons/yr	0.90	tons/yr
Limited Yearly	51.43	tons/yr	0.29	tons/yr

Potential PM10/PM2.5 emissions
Discharge Conveyors No. 1 and No. 2, Bean Receiving Legs No. 1 and No. 2, and East and West Bin Feed Conveyors

	Uncontrolled for each unit		Controlled for each unit	
Max Hourly	20.40	lbs/hr	0.11	lbs/hr
Max Yearly	89.35	tons/yr	0.50	tons/yr
Limited Yearly	28.67	tons/yr	0.16	tons/yr

Notes:
Emission factors are from AP 42 Table 9.9.1-1 Particulate Emission Factors for Grain Elevators (3/03)
Control efficiency for PM is 99.44% and for PM10 is 99.44% according to the renewal application.

Methodology:
Uncontrolled Emissions (ton/yr) = Throughput (ton/yr)* Emission factor (lb/ton) / 2000 (lbs/ton)
Limited Emissions (ton/yr) = Limited throughput (ton/yr)* Emission factor (lb/ton) / 2000 (lbs/ton)
Controlled Potential Emissions (ton/yr) = Throughput (ton/yr) * Emission factor (lb/ton) / 2000 (lbs/ton)* (1-Control Efficiency).

Appendix A: Emission Calculations
Cross Bins, Day Bin Leg, Rail Collection and Discharge Conveyors, Discharge Bins, and Bin Cross Conveyor

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

PTE for emission unit A150100 and A120100
Cross Bins No 1 thru 6

PM Emission Factor	0.061	lb/ton	Source:	SCC 3-02-005-30
PM10 /PM2.5Emission Factor	0.034	lb/ton		SCC 3-02-005-30
Hourly Loading Rate	600	tons/hr		Notes:
Limited Loading Rate	1,686,300	tons/yr	*	This source utilizes oil suppression
Aspiration Rate	1000	cfm		
% Control PM	99.44%			
% Control PM10/PM2.5	99.44%			

Hourly throughput is based on maximum capacity of transfer system, limited throughput is based on the limited amount of soybeans processed pursuant to T085-21297-00102 issued on January 24, 2006.

Potential PM emissions

Cross Bins No 1 thru 6	Uncontrolled for each unit		Controlled for each unit	
Max Hourly	36.60	lbs/hr	0.20	lbs/hr
Max Yearly	160.31	tons/yr	0.90	tons/yr
Limited Yearly	51.43	tons/yr	0.29	tons/yr

Potential PM10/PM2.5 emissions

Cross Bins No 1 thru 6	Uncontrolled for each unit		Controlled for each unit	
Max Hourly	20.40	lbs/hr	0.11	lbs/hr
Max Yearly	89.35	tons/yr	0.50	tons/yr
Limited Yearly	28.67	tons/yr	0.16	tons/yr

PTE for emission units A153000, A010100, A151000, A121000, A152000 and A122000
Day Bin Leg, Rail Scale Discharge Conveyor, Discharge Bin No 1 thru 6, West Bin Cross Conveyor 1-3, and East Bin Cross Conveyor 4-6

PM Emission Factor	0.061	lb/ton	Source:	SCC 3-02-005-30
PM10/PM2.5 Emission Factor	0.034	lb/ton		SCC 3-02-005-30
Hourly Loading Rate	360	tons/hr	*	This source utilizes oil suppression
Limited Loading Rate	1,686,300	tons/yr		
Aspiration Rate	2,500	cfm		
% Control PM	99.44%			
% Control PM10/PM2.5	99.44%			

Hourly throughput is based on maximum capacity of transfer system, limited throughput is based on the limited amount of soybeans processed pursuant to T085-21297-00102 issued on January 24, 2006.

Potential PM emissions

Day Bin Leg, Rail Scale Discharge Conveyor, Discharge Bin No 1 thru 6, West Bin Cross Conveyor 1-3, and East Bin Cross Conveyor 4-6	Uncontrolled for each unit		Controlled for each unit	
Max Hourly	21.96	lbs/hr	0.12	lbs/hr
Max Yearly	96.18	tons/yr	0.54	tons/yr
Limited Yearly	51.43	tons/yr	0.29	tons/yr

Potential PM10/PM2.5 emissions

Day Bin Leg, Rail Scale Discharge Conveyor, Discharge Bin No 1 thru 6, West Bin Cross Conveyor 1-3, and East Bin Cross Conveyor 4-6	Uncontrolled for each unit		Controlled for each unit	
Max Hourly	12.24	lbs/hr	0.07	lbs/hr
Max Yearly	53.61	tons/yr	0.30	tons/yr
Limited Yearly	28.67	tons/yr	0.16	tons/yr

Notes:
Emission factors are from AP 42 Table 9.9.1-1 Particulate Emission Factors for Grain Elevators (3/03)
Control efficiency for PM is 99.44% and for PM10 is 99.44% according to the renewal application.

Methodology:
Uncontrolled Emissions (ton/yr) = Throughput (ton/yr)* Emission factor (lb/ton) / 2000 (lbs/ton)
Limited Emissions (ton/yr) = Limited throughput (ton/yr)* Emission factor (lb/ton) / 2000 (lbs/ton)
Controlled Potential Emissions (ton/yr) = Throughput (ton/yr) * Emission factor (lb/ton) / 2000 (lbs/ton)* (1-Control Efficiency).

Appendix A: Emission Calculations
Truck Loader No.1 and No. 2 (captured)

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

PTE for emission units G280000 and G270000
Truck Loader No. 1 and No. 2 (captured)

PM Emission Factor	0.2700	lb/ton	Source:	SCC 3-02-007-91
PM10/PM2.5 Emission Factor	0.0675	lb/ton		SCC 3-02-007-91
Hourly Loading Rate	330	tons/hr		
Aspiration Rate	500	cfm		
Limited Loading Rate	1,686,300	tons/yr		
% Control PM	99.44%			
% Control PM10/PM2.5	99.44%			

Hourly throughput is based on maximum capacity of transfer system, limited throughput is based on the limited amount of soybeans processed pursuant to T085-21297-00102 issued on January 24, 2006.

Potential PM emissions
Truck Loadout No. 1 and No. 2 (captured)

	Uncontrolled for each unit		Controlled for each unit	
Max Hourly	84.65	lbs/hr	0.47	lbs/hr
Max Yearly	370.75	tons/yr	2.08	tons/yr
Limited Yearly	216.27	tons/yr	1.21	tons/yr

Potential PM10/PM2.5 emissions
Truck Loadout No. 1 and No. 2 (captured)

	Uncontrolled for each unit		Controlled for each unit	
Max Hourly	21.16	lbs/hr	0.12	lbs/hr
Max Yearly	92.69	tons/yr	0.52	tons/yr
Limited Yearly	54.07	tons/yr	0.30	tons/yr

Potential PM emissions from
Truck Loadout No. 1 and No. 2 (uncaptured)

	Uncontrolled for each unit	
Max Hourly	4.46	lbs/hr
Max Yearly	19.51	tons/yr
Limited Yearly	11.38	tons/yr

Potential PM10/PM2.5 emissions
Truck Loadout No. 1 and No. 2 (uncaptured)

	Uncontrolled for each unit	
Max Hourly	1.11	lbs/hr
Max Yearly	4.88	tons/yr
Limited Yearly	2.85	tons/yr

Notes
60% of the Pellets/Hulls are shipped via rail.
Emission factors are from AP 42 Table 9.11.1-1. Total Particulate Emission Factors for Soybean Milling (11-95)
Capture efficiency at receiving/loadout is 95%. Therefore 5% of the emissions from receiving/loadout are fugitive emissions.
Control efficiency for PM is 99.44% and for PM10 is 99.44% according to the renewal application.

Methodology
Uncontrolled Emissions (ton/yr) = Throughput (ton/yr)* Emission factor (lb/ton) / 2000 (lbs/ton)
Controlled Potential Emissions (ton/yr) = Throughput (ton/yr) * Emission factor (lb/ton) / 2000 (lbs/ton)* (1-Control Efficiency).
Limited Emissions (ton/yr) = Limited throughput (ton/yr)* Emission factor (lb/ton) / 2000 (lbs/ton)

Appendix A: Emission Calculations
Rail Meal Loadout Bin, Truck Meal Loadout Bin, and Rail Car Loadout (Pellets/Hulls)

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

PTE for emission units G220000
Rail Car Loadout (Pellets/Hulls)

PM Emission Factor	0.0033	lb/ton	Source:	SCC-3-02-008-03
PM10/PM2.5 Emission Factor	0.0008	lb/ton		SCC-3-02-008-03
Hourly Loading Rate	330	tons/hr		
Aspiration Rate	NA	cfm		
Limited Loading Rate	1,686,300	tons/yr		
% Control PM	99.44%			
% Control PM10/PM2.5	99.44%			

Hourly throughput is based on maximum capacity of transfer system, limited throughput is based on the limited amount of soybeans processed pursuant to T085-21297-00102 issued on January 24, 2006.

Potential PM emissions

Rail Car Loadout (Pellets/Hulls) (captured)	Uncontrolled for each unit		Controlled for each unit	
Max Hourly	1.03	lbs/hr	0.01	lbs/hr
Max Yearly	4.53	tons/yr	0.03	tons/yr
Limited Yearly	2.64	tons/yr	0.01	tons/yr

Potential PM10/PM2.5 emissions

Rail Car Loadout (Pellets/Hulls) (captured)	Uncontrolled for each unit		Controlled for each unit	
Max Hourly	0.25	lbs/hr	0.00	lbs/hr
Max Yearly	1.10	tons/yr	0.01	tons/yr
Limited Yearly	0.64	tons/yr	0.00	tons/yr

Potential PM emissions

Rail Car Loadout (Pellets/Hulls) (uncaptured)	Uncontrolled for each unit	
Max Hourly	0.05	lbs/hr
Max Yearly	0.24	tons/yr
Limited Yearly	0.14	tons/yr

Potential PM10/PM2.5 emissions

Rail Car Loadout (Pellets/Hulls) (uncaptured)	Uncontrolled for each unit	
Max Hourly	0.01	lbs/hr
Max Yearly	0.06	tons/yr
Limited Yearly	0.03	tons/yr

PTE for emission unit G130000 and G070000
Rail Meal Loadout Bin and Truck Meal Loadout Bin

PM Emission Factor	0.2700	lb/ton	Source:	SCC 3-02-007-91	
PM10/PM2.5 Emission Factor	0.0675	lb/ton		SCC 3-02-007-91	
Maximum Loading Rate	300	tons/hr			
Limited Loading Rate	2,401,836	tons/yr			
Outlet Grain Loading	0.005	gr/acf		% Control PM	99.97%
Aspiration Rate	1250	cfm		% Control PM10	99.97%

Hourly throughput is based on maximum capacity of transfer system, limited throughput is based on the limited amount of soybeans processed pursuant to T085-21297-00102 issued on January 24, 2006.

Potential PM emissions

Rail Meal Loadout Bin (captured) and Truck Meal Loadout Bin (captured)	Uncontrolled for each unit		Controlled for each unit	
Maximum Potential	76.95	lbs/hr	0.02	lbs/hr
Maximum Potential	337.04	tons/yr	0.10	tons/yr
Limited Potential	308.04	tons/yr	0.09	tons/yr

Potential PM10/PM2.5 emissions

Rail Meal Loadout Bin (captured) and Truck Meal Loadout Bin (captured)	Uncontrolled for each unit		Controlled for each unit	
Maximum Potential	19.24	lbs/hr	0.01	lbs/hr
Maximum Potential	84.26	tons/yr	0.03	tons/yr
Limited Potential	77.01	tons/yr	0.02	tons/yr

Potential PM emissions

Rail Meal Loadout Bin (uncaptured) and Truck Meal Loadout Bin (uncaptured)		
Maximum Potential	4.05	lbs/hr
Maximum Potential	17.74	tons/yr
Limited Potential	16.21	tons/yr

Potential PM10/PM2.5 emissions

Rail Meal Loadout Bin (uncaptured) and Truck Meal Loadout Bin (uncaptured)		
Maximum Potential	1.01	lbs/hr
Maximum Potential	4.43	tons/yr
Limited Potential	4.05	tons/yr

Limited Emissions

Rail Meal Loadout Bin (captured) and Truck Meal Loadout Bin (captured)		
Limited Controlled	0.054	lb/hr
Limited Controlled	0.23	tons/yr

Notes
40% of the Pellets/Hulls are shipped via rail.
Emission factors are from AP 42 Table 9.9.1-1 Particulate Emission Factors for Grain Elevators (3/03)
Capture efficiency at receiving/loadout is 95%. Therefore 5% of the emissions from receiving/loadout are fugitive emissions.
Control efficiency for PM is 99.44% and for PM10 is 99.44% according to the renewal application.

Methodology
Uncontrolled Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/ton) ÷ 2000 lbs/ton
Controlled Potential Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/ton) ÷ 2000 lbs/ton * (1- Control Efficiency)
Limited Potential (tons/yr) = Limited Throughput (tons/yr) * Emission Factor (lb/ton) ÷ 2000 lbs/ton

Appendix A: Emission Calculations
Truck and Rail Pelleted Hull Loadout Bins, Meal Storage Feed Conveyor,
Truck Meal Loadout Feed Conveyor, and Truck Collection Conveyor

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

PTE for emission units G080000 and G180000
Truck and Rail Pelleted Hull Loadout Bins

PM Emission Factor	0.003	lb/ton	Source:	SCC-3-02-008-03
PM10/PM2.5 Emission Factor	0.001	lb/ton		SCC-3-02-008-03
Hourly Loading Rate	148.0	tons/hr		
Aspiration Rate	500	cfm		
Limited Loading Rate	1,686,300	tons/yr		
% Control PM	99.44%			
% Control PM10/PM2.5	99.44%			

Hourly throughput is based on maximum capacity of transfer system, limited throughput is based on the limited amount of soybeans processed pursuant to T085-21297-00102 issued on January 24, 2006.

Potential PM emissions

Truck and Rail Pelleted Hull Loadout Bins		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	0.49	lbs/hr	0.00	lbs/hr
Max Yearly	=	2.14	tons/yr	0.01	tons/yr
Limited Yearly	=	2.78	tons/yr	0.02	tons/yr

Potential PM10/PM2.5 emissions

Truck and Rail Pelleted Hull Loadout Bins		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	0.12	lbs/hr	0.00	lbs/hr
Max Yearly	=	0.52	tons/yr	0.00	tons/yr
Limited Yearly	=	0.67	tons/yr	0.00	tons/yr

PTE for emission unit G020500
Meal Storage Feed Conveyor

PM Emission Factor	0.061	lb/ton	Source:	SCC 3-02-005-30
PM10/PM2.5 Emission Factor	0.034	lb/ton		SCC 3-02-005-30
Hourly Loading Rate	200	tons/hr		
Aspiration Rate	1500	cfm		
Limited Loading Rate	1,686,300	tons/yr		
% Control PM	99.44%			
% Control PM10/PM2.5	99.44%			

Hourly throughput is based on maximum capacity of transfer system, limited throughput is based on the limited amount of soybeans processed pursuant to T085-21297-00102 issued on January 24, 2006.

Potential PM emissions

Meal Storage Feed Conveyor		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	12.20	lbs/hr	0.07	lbs/hr
Max Yearly	=	53.44	tons/yr	0.30	tons/yr
Limited Yearly	=	51.43	tons/yr	0.29	tons/yr

Potential PM10/PM2.5 emissions

Meal Storage Feed Conveyor		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	6.80	lbs/hr	0.04	lbs/hr
Max Yearly	=	29.78	tons/yr	0.17	tons/yr
Limited Yearly	=	28.67	tons/yr	0.16	tons/yr

PTE for emission units G070300, G170000 and G290000
Truck Meal Loadout Feed Conveyor, and Truck Collection Conveyor

PM Emission Factor	0.061	lb/ton	Source:	SCC 3-02-005-30
PM10/PM2.5 Emission Factor	0.034	lb/ton		SCC 3-02-005-30
Hourly Loading Rate	300	tons/hr		
Aspiration Rate	1500	cfm		
Limited Loading Rate	1,686,300	tons/yr		
% Control PM	99.44%			
% Control PM10/PM2.5	99.44%			

Hourly throughput is based on maximum capacity of transfer system, limited throughput is based on the limited amount of soybeans processed pursuant to T085-21297-00102 issued on January 24, 2006.

Potential PM emissions

Truck Meal Loadout Feed Conveyor, and Truck Collection Conveyor		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	18.30	lbs/hr	0.10	lbs/hr
Max Yearly	=	80.15	tons/yr	0.45	tons/yr
Limited Yearly	=	51.43	tons/yr	0.29	tons/yr

Potential PM10/PM2.5 emissions

Truck Meal Loadout Feed Conveyor, and Truck Collection Conveyor		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	10.20	lbs/hr	0.06	lbs/hr
Max Yearly	=	44.68	tons/yr	0.25	tons/yr
Limited Yearly	=	28.67	tons/yr	0.16	tons/yr

Methodology
Emission factors are from AP 42 Table 9.9.1-1 Particulate Emission Factors for Grain Elevators (3/03)
Potential Emissions (ton/yr) = Throughput (ton/yr)* Emission factor (lb/ton) / 2000 (lbs/ton)
Controlled Potential Emissions (ton/yr) = Throughput (ton/yr) * Emission factor (lb/ton) / 2000 (lbs/ton)* (1-Control Efficiency).
Limited Emissions (ton/yr) = Limited throughput (ton/yr)* Emission factor (lb/ton) / 2000 (lbs/ton)
Control efficiency for PM is 99.44% and for PM10 is 99.44% according to the renewal application.

Appendix A: Emission Calculations
Pellet Hulls Conveyor to Loadout, Meal Reclaim Conveyor and Meal Reclaim Leg

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: ############

PTE for emission unit G160000
Pellet Hulls Conveyor to Loadout

PM Emission Factor	0.061	lb/ton	Source:	SCC 3-02-005-30
PM10/PM2.5 Emission Factor	0.034	lb/ton		SCC 3-02-005-30
Hourly Loading Rate	17.0	tons/hr		
Aspiration Rate	3000	cfm		
Limited Loading Rate	1,686,300	tons/yr		
% Control PM	99.44%			
% Control PM10/PM2.5	99.44%			

Hourly throughput is based on maximum capacity of transfer system.

Potential PM emissions

Pellet Hulls Conveyor to Loadout		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	1.04	lbs/hr	0.01	lbs/hr
Max Yearly	=	4.54	tons/yr	0.03	tons/yr

Potential PM10/PM2.5 emissions

Pellet Hulls Conveyor to Loadout		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	0.58	lbs/hr	0.00	lbs/hr
Max Yearly	=	2.53	tons/yr	0.01	tons/yr

PTE for emission units G010100 and G010200
Meal Reclaim Conveyor and Meal Reclaim Leg

PM Emission Factor	0.061	lb/ton	Source:	SCC 3-02-005-30
PM10/PM2.5 Emission Factor	0.034	lb/ton		SCC 3-02-005-30
Hourly Loading Rate	200	tons/hr		
Aspiration Rate	3000	cfm		
Limited Loading Rate	1,686,300	tons/yr		
% Control PM	99.44%			
% Control PM10/PM2.5	99.44%			

Hourly throughput is based on maximum capacity of transfer system, limited throughput is based on the limited amount of soybeans processed pursuant to T085-21297-00102 issued on January 24, 2006.

Potential PM emissions

Meal Reclaim Conveyor and Meal Reclaim Leg		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	12.20	lbs/hr	0.07	lbs/hr
Max Yearly	=	53.44	tons/yr	0.30	tons/yr
Limited Yearly	=	51.43	tons/yr	0.29	tons/yr

Potential PM10/PM2.5 emissions
Meal Reclaim Conveyor and Meal Reclaim Leg

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly					
Max Yearly	=	6.80	lbs/hr	0.04	lbs/hr
Limited Yearly	=	29.78	tons/yr	0.17	tons/yr
Limited Yearly	=	28.67	tons/yr	0.16	tons/yr

Notes:
Emission factors are from AP-42, Table 9.9.1-1 (Particulate Emission Factors for Grain Elevators (3/03)).
Control efficiency for PM is 99.44% and for PM10 is 99.44% according to Operating Permit Renewal No. T085-29197-00102.

Methodology:
Uncontrolled Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/ton) ÷ 2000 lbs/ton
Controlled Potential Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/ton) ÷ 2000 lbs/ton * (1 - Control Efficiency)
Limited Emissions (tons/yr) = Limited Throughput (tons/yr)* Emission factor (lb/ton) ÷ 2000 lbs/ton

Appendix A: Emission Calculations
Meal Bin No. 1 thru 5 Vent Filters

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: ############

PTE for emission units G010000, G020000, G030000, G040000, G050000
[1]Meal Bin No. 1 thru 5 Vent Filters

PM Emission Factor	0.025	lb/ton	Source:	SCC 3-02-005-40
PM10/PM2.5 Emission Factor	0.006	lb/ton		SCC 3-02-005-40
Hourly Loading Rate	198	tons/hr		
Aspiration Rate	1000	cfm		
% Control PM	99.82%			
% Control PM10/PM2.5	99.82%			

Hourly throughput is based on maximum capacity of transfer system.

Potential PM emissions

Meal Bin No. 1 thru 5 Vent Filters		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	4.95	lbs/hr	0.01	lbs/hr
Max Yearly	=	21.68	tons/yr	0.04	tons/yr

Potential PM10/PM2.5 emissions

Meal Bin No. 1 thru 5 Vent Filters		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	1.25	lbs/hr	0.00	lbs/hr
Max Yearly	=	5.46	tons/yr	0.01	tons/yr

Notes:
[1] There are five meal bins. However, the plant is only physically capable of loading one meal bin at a time.
Therefore, the PTE for these units is calculated at a rate of 198 tons/hr for all five meal bins combined.
Emission factors are from AP-42, Table 9.9.1-1 (Particulate Emission Factors for Grain Elevators (3/03)).
Control efficiency for PM is 99.82% and for PM10 is 99.82% according to Operating Permit Renewal No. T085-29197-00102.

Methodology:
Uncontrolled Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/ton) ÷ 2000 lbs/ton
Controlled Potential Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/ton) ÷ 2000 lbs/ton * (1 - Control Efficiency)

Appendix A: Emission Calculations
Storage Piles #1 and #2

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

PTE for Piles #1 and #2
Covered Seasonal Grain Storage Piles

PM Emission Factor	0.061	lb/ton	Source:	SCC 3-02-005-30
PM10/PM2.5 Emission Factor	0.034	lb/ton		SCC 3-02-005-30
Hourly Loading Rate	360	tons/hr		
Limited Rate	8,000,000	bushels per year		

Hourly throughput is based on maximum capacity of transfer system, limited throughput is based on the limited amount of soybeans processed pursuant to 085-24676-00102, issued on April 28, 2008.

Potential PM emissions

Piles #1 and #2		Uncontrolled for each unit	
Max Hourly	=	21.96	lbs/hr
Max Yearly	=	96.18	tons/yr
Limited Yearly	=	7.32	tons/yr

Potential PM10/PM2.5 emissions

Piles #1 and #2		Uncontrolled for each unit	
Max Hourly	=	12.24	lbs/hr
Max Yearly	=	53.61	tons/yr
Limited Yearly	=	4.08	tons/yr

Notes:
Emission factors are from AP 42, Table 9.9.1-1, Particulate Emission Factors for Grain Elevators (3/03).
Conveyors used with storage piles #1 and #2 have already been accounted for.
See PM Summary tab for complete list of emission units and particulate emissions.

Methodology:
Uncontrolled Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/ton) ÷ 2000 lb/ton
Limited Emissions (tons/yr) = Limited Throughput (bushels/yr) * 60 lbs/bushel ÷ 2,000 lb/ton * Emission factor (lb/ton) ÷ 2000 lb/ton
Controlled Potential Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/ton) ÷ 2000 lb/ton * (1 - Control Efficiency)

Appendix A: Emission Calculations
Screener and Screenings Tank

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: ############

PTE for emission unit A060000
Screener

PM Emission Factor	0.061	lb/ton	Source:	SCC 3-02-005-30
PM10/PM2.5 Emission Factor	0.034	lb/ton		SCC 3-02-005-30
Hourly Loading Rate	264	tons/hr		
Limited Loading Rate	1,686,300	tons/yr		
Aspiration Rate	4400	cfm		
% Control PM	99.41%			
% Control PM10/PM2.5	99.41%			

Hourly throughput is based on maximum capacity of transfer system, limited throughput is based on the limited amount of soybeans processed pursuant to T085-21297-00102 issued on January 24, 2006.

Potential PM emissions

Screener			Uncontrolled for each unit		Controlled for each unit	
	Max Hourly	=	16.10	lbs/hr	0.10	lbs/hr
	Max Yearly	=	70.54	tons/yr	0.42	tons/yr
	Limited Yearly	=	51.43	tons/yr	0.30	tons/yr

Potential PM10/PM2.5 emissions

Screener			Uncontrolled for each unit		Controlled for each unit	
	Max Hourly	=	8.98	lbs/hr	0.05	lbs/hr
	Max Yearly	=	39.31	tons/yr	0.23	tons/yr
	Limited Yearly	=	28.67	tons/yr	0.17	tons/yr

PTE for emission unit A170000
Screenings Tank

PM Emission Factor	0.025	lb/ton	Source:	SCC 3-02-005-40
PM10/PM2.5 Emission Factor	0.0063	lb/ton		SCC 3-02-005-40
Hourly Loading Rate	5.0	tons/hr		Loadings are based on assumption of 2.5% of raw
Aspiration Rate	500	cfm		beans will be lost
% Control PM	99.41%			
% Control PM10/PM2.5	99.41%			

Potential PM emissions

Screenings Tank			Uncontrolled for each unit		Controlled for each unit	
	Max Hourly	=	0.13	lbs/hr	0.00	lbs/hr
	Max Yearly	=	0.55	tons/yr	0.00	tons/yr

Potential PM10/PM2.5 emissions

Screenings Tank			Uncontrolled for each unit		Controlled for each unit	
	Max Hourly	=	0.03	lbs/hr	0.00	lbs/hr
	Max Yearly	=	0.14	tons/yr	0.00	tons/yr

Notes:
Emission factors are from AP-42, Table 9.9.1-1 (Particulate Emission Factors for Grain Elevators (3/03)).
Control efficiency for PM is 99.41% and for PM10 is 99.41% according to Operating Permit Renewal No. T085-29197-00102.

Methodology:
Uncontrolled Emissions (tons/yr) = Throughput (tons/yr)* Emission factor (lb/ton)/ 2000 lbs/ton
Controlled Potential Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/ton)/ 2000 (lbs/ton) * (1 - Control Efficiency)

Appendix A: Emission Calculations
Screenings Recycle Leg and Bean Weigh Scale

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: ############

PTE for emission unit A170300
Screenings Recycle Leg

PM Emission Factor	0.061	lb/ton	Source:	SCC 3-02-005-30
PM10/PM2.5 Emission Factor	0.0340	lb/ton		SCC 3-02-005-30
Hourly Loading Rate	5.0	tons/hr		Loadings are based on assumption of 2.5% of raw
Aspiration Rate	500	cfm		beans will be lost
% Control PM	99.41%			
% Control PM10/PM2.5	99.41%			

Potential PM emissions

Screenings Recycle Leg			Uncontrolled for each unit		Controlled for each unit	
	Max Hourly	=	0.31	lbs/hr	0.00	lbs/hr
	Max Yearly	=	1.34	tons/yr	0.01	tons/yr

Potential PM10/PM2.5 emissions

Screenings Recycle Leg			Uncontrolled for each unit		Controlled for each unit	
	Max Hourly	=	0.17	lbs/hr	0.00	lbs/hr
	Max Yearly	=	0.74	tons/yr	0.00	tons/yr

PTE for emission unit B011300
Bean Weigh Scale

PM Emission Factor	0.061	lb/ton	Source:	SCC 3-02-005-30
PM10/PM2.5 Emission Factor	0.0340	lb/ton		SCC 3-02-005-30
Hourly Loading Rate	264	tons/hr	*	This source utilizes oil suppression
Aspiration Rate	500	cfm		
% Control PM	99.41%			
% Control PM10/PM2.5	99.41%			

Hourly throughput is based on maximum design capacity of milling operations, limited throughput is based on the limited amount of soybeans processed pursuant to T085-21297-00102 issued on January 24, 2006.

Potential PM emissions

Bean Weigh Scale			Uncontrolled for each unit		Controlled for each unit	
	Max Hourly	=	16.10	lbs/hr	0.10	lbs/hr
	Max Yearly	=	70.54	tons/yr	0.42	tons/yr

Potential PM10/PM2.5 emissions

Bean Weigh Scale			Uncontrolled for each unit		Controlled for each unit	
	Max Hourly	=	8.98	lbs/hr	0.05	lbs/hr
	Max Yearly	=	39.31	tons/yr	0.23	tons/yr

Notes:
Emission factors are from AP-42, Table 9.9.1-1 (Particulate Emission Factors for Grain Elevators (3/03)).
Control efficiency for PM is 99.41% and for PM10 is 99.41% according to Operating Permit Renewal No. T085-29197-00102.

Methodology:
Uncontrolled Emissions (tons/yr) = Throughput (tons/yr)* Emission factor (lb/ton)÷ 2000 lbs/ton
Controlled Potential Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/ton)÷ 2000 (lbs/ton) * (1 - Control Efficiency)

Appendix A: Emission Calculations
VSC Feed Leg, VSC Leg Feed Conveyor, Screener Feed Conveyor, Conditioned Bean Feed Conveyor, and Whole Bean Aspiration No. 1 & No. 2

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: ############

PTE for emission units B011200, A160300, A060400, and B030800
VSC Feed Leg, VSC Leg Feed Conveyor, Screener Feed Conveyor and Conditioned Bean Feed Conveyor

PM Emission Factor	0.061	lb/ton	Source:	SCC 3-02-005-30
PM10/PM2.5 Emission Factor	0.034	lb/ton		SCC 3-02-005-30
Hourly Loading Rate	264	tons/hr	*	This source utilizes oil suppression
Aspiration Rate	500	cfm		
% Control PM	99.41%			
% Control PM10/PM2.5	99.41%			

Hourly throughput is based on maximum design capacity of milling operations, limited throughput is based on the limited amount of soybeans processed pursuant to T085-21297-00102 issued on January 24, 2006.

Potential PM emissions
VSC Feed Leg, VSC Leg Feed Conveyor, Screener Feed Conveyor and Conditioned Bean Feed Conveyor

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	16.10	lbs/hr	0.10	lbs/hr
Max Yearly	=	70.54	tons/yr	0.42	tons/yr

Potential PM10/PM2.5 emissions
VSC Feed Leg, VSC Leg Feed Conveyor, Screener Feed Conveyor and Conditioned Bean Feed Conveyor

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	8.98	lbs/hr	0.05	lbs/hr
Max Yearly	=	39.31	tons/yr	0.23	tons/yr

PTE for emission units B010100 and B020100
Whole Bean Aspiration No. 1 and No. 2

PM Emission Factor	0.061	lb/ton	Source:	SCC 3-02-005-30
PM10/PM2.5 Emission Factor	0.034	lb/ton		SCC 3-02-005-30
Hourly Loading Rate	264	tons/hr	*	This source utilizes oil suppression
Aspiration Rate	2000	cfm		
% Control PM	99.41%			
% Control PM10/PM2.5	99.41%			

Hourly throughput is based on maximum design capacity of milling operations, limited throughput is based on the limited amount of soybeans processed pursuant to T085-21297-00102 issued on January 24, 2006.

Potential PM emissions
Whole Bean Aspiration No. 1 and No. 2

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	16.10	lbs/hr	0.10	lbs/hr
Max Yearly	=	70.54	tons/yr	0.42	tons/yr

Potential PM10/PM2.5 emissions
Whole Bean Aspiration No. 1 and No. 2

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	8.98	lbs/hr	0.05	lbs/hr
Max Yearly	=	39.31	tons/yr	0.23	tons/yr

Notes:
Emission factors are from AP-42, Table 9.9.1-1 (Particulate Emission Factors for Grain Elevators (3/03)).
Control efficiency for PM is 99.41% and for PM10 is 99.41% according to Operating Permit Renewal No. T085-29197-00102.

Methodology:
Uncontrolled Emissions (tons/yr) = Throughput (tons/yr)* Emission factor (lb/ton)/ 2000 lbs/ton
Controlled Potential Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/ton)/ 2000 (lbs/ton) * (1 - Control Efficiency)

Appendix A: Emission Calculations
Hull Collection Conveyor and Hull Screener No. 1 and No. 2

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: ############

PTE for emission unit B030900
Hull Collection Conveyor

PM Emission Factor	0.061	lb/ton	Source:	SCC 3-02-005-30
PM10/PM2.5 Emission Factor	0.034	lb/ton		SCC 3-02-005-30
Hourly Loading Rate	17.0	tons/hr	*	This source utilizes oil suppression.
Aspiration Rate	500	cfm		
% Control PM	99.41%			
% Control PM10/PM2.5	99.41%			

Potential PM emissions

Hull Collection Conveyor			Uncontrolled for each unit		Controlled for each unit	
	Max Hourly	=	1.037	lbs/hr	0.006	lbs/hr
	Max Yearly	=	4.542	tons/yr	0.027	tons/yr

Potential PM10/PM2.5 emissions

Hull Collection Conveyor			Uncontrolled for each unit		Controlled for each unit	
	Max Hourly	=	0.578	lbs/hr	0.003	lbs/hr
	Max Yearly	=	2.532	tons/yr	0.015	tons/yr

PTE for emission units E130000 and E150000
Hull Screener No. 1 and No. 2

PM Emission Factor	0.061	lb/ton	Source:	SCC 3-02-005-30
PM10/PM2.5 Emission Factor	0.034	lb/ton		SCC 3-02-005-30
Hourly Loading Rate	9.6	tons/hr	*	The hull screeners are aspirated through the
Aspiration Rate	NA	cfm		Secondary Aspiration.
% Control PM	99.41%			
% Control PM10/PM2.5	99.41%			

Hourly throughput is based on assumption that 5% of the raw beans are hulls.

Potential PM emissions

Hull Screener No. 1 and No. 2			Uncontrolled for each unit		Controlled for each unit	
	Max Hourly	=	0.59	lbs/hr	0.00	lbs/hr
	Max Yearly	=	2.56	tons/yr	0.02	tons/yr

Potential PM10/PM2.5 emissions

Hull Screener No. 1 and No. 2			Uncontrolled for each unit		Controlled for each unit	
	Max Hourly	=	0.33	lbs/hr	0.00	lbs/hr
	Max Yearly	=	1.43	tons/yr	0.01	tons/yr

Notes:
Emission factors are from AP-42, Table 9.9.1-1 (Particulate Emission Factors for Grain Elevators (3/03)).
Control efficiency for PM is 99.41% and for PM10 is 99.41% according to Operating Permit Renewal No. T085-29197-00102.

Methodology:
Uncontrolled Emissions (tons/yr) = Throughput (tons/yr)* Emission factor (lb/ton)÷ 2000 lbs/ton
Controlled Potential Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/ton)÷ 2000 (lbs/ton) * (1 - Control Efficiency)

Appendix A: Emission Calculations
Secondary Hull Collection Conveyor and 4 Hour Hull Tank

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: ############

PTE for emission unit B430000
Secondary Hull Collection Conveyor

PM Emission Factor	0.061	lb/ton	Source:	SCC 3-02-005-30
PM10/PM2.5 Emission Factor	0.034	lb/ton		SCC 3-02-005-30
Hourly Loading Rate	17.0	tons/hr		
Aspiration Rate	3000	cfm		
% Control PM	99.41%			
% Control PM10/PM2.5	99.41%			

Potential PM emissions
Secondary Hull Collection Conveyor

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	1.037	lbs/hr	0.006	lbs/hr
Max Yearly	=	4.542	tons/yr	0.027	tons/yr

Potential PM10/PM2.5 emissions
Secondary Hull Collection Conveyor

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	0.578	lbs/hr	0.003	lbs/hr
Max Yearly	=	2.532	tons/yr	0.015	tons/yr

PTE for emission unit E070300
4 Hour Hull Tank

PM Emission Factor	0.025	lb/ton	Source:	SCC 3-02-005-40
PM10/PM2.5 Emission Factor	0.0063	lb/ton		SCC 3-02-005-40
Hourly Loading Rate	17.0	tons/hr		
Aspiration Rate	1500	cfm		
% Control PM	99.41%			
% Control PM10/PM2.5	99.41%			

Potential PM emissions
4 Hour Hull Tank

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	0.425	lbs/hr	0.003	lbs/hr
Max Yearly	=	1.862	tons/yr	0.011	tons/yr

Potential PM10/PM2.5 emissions
4 Hour Hull Tank

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	0.107	lbs/hr	0.001	lbs/hr
Max Yearly	=	0.469	tons/yr	0.003	tons/yr

Notes:
Emission factors are from AP-42, Table 9.9.1-1 (Particulate Emission Factors for Grain Elevators (3/03)).
Control efficiency for PM is 99.41% and for PM10 is 99.41% according to Operating Permit Renewal No. T085-29197-00102.

Methodology:
Uncontrolled Emissions (tons/yr) = Throughput (tons/yr)* Emission factor (lb/ton)/ 2000 lbs/ton
Controlled Potential Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/ton)/ 2000 (lbs/ton) * (1 - Control Efficiency)

Appendix A: Emission Calculations
Secondary Hull Collection L-Path and Pellet Cooler

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: ############

PTE for emission unit B440000
Secondary Hull Collection L-Path

PM Emission Factor	0.061	lb/ton	Source:	SCC 3-02-005-30
PM10/PM2.5 Emission Factor	0.034	lb/ton		SCC 3-02-005-30
Hourly Loading Rate	17.0	tons/hr		
Aspiration Rate	Not Provided	cfm		
% Control PM	99.41%			
% Control PM10/PM2.5	99.41%			

Potential PM emissions
Secondary Hull Collection L-Path

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	1.037	lbs/hr	0.006	lbs/hr
Max Yearly	=	4.542	tons/yr	0.027	tons/yr

Potential PM10/PM2.5 emissions
Secondary Hull Collection L-Path

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	0.578	lbs/hr	0.003	lbs/hr
Max Yearly	=	2.532	tons/yr	0.015	tons/yr

PTE for emission unit E080000
Pellet Cooler

PM Emission Factor	1.5	lb/ton	Source:	SCC 3-02-008-16
PM10/PM2.5 Emission Factor	0.75	lb/ton		SCC 3-02-008-16
Hourly Loading Rate	17.0	tons/hr	*	Emission Factor was adjusted to uncontrolled
Aspiration Rate	6500	cfm		based on assumption that cyclones provide 90%
% Control PM	99.41%			control.
% Control PM10/PM2.5	99.41%			

Potential PM emissions
Pellet Cooler

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	25.500	lbs/hr	0.150	lbs/hr
Max Yearly	=	111.690	tons/yr	0.659	tons/yr

Potential PM10/PM2.5 emissions
Pellet Cooler

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	12.750	lbs/hr	0.075	lbs/hr
Max Yearly	=	55.845	tons/yr	0.329	tons/yr

Notes:
Emission factors are from AP-42, Table 9.9.1-1 (Particulate Emission Factors for Grain Elevators (3/03)).
Control efficiency for PM is 99.41% and for PM10 is 99.41% according to Operating Permit Renewal No. T085-29197-00102.

Methodology:
Uncontrolled Emissions (tons/yr) = Throughput (tons/yr)* Emission factor (lb/ton)/ 2000 lbs/ton
Controlled Potential Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/ton)/ 2000 (lbs/ton) * (1 - Control Efficiency)

Appendix A: Emission Calculations
Hull Hammer Mill, Hull Hammer Mill Feeder, Hull Hammer Mill Plenum, and Pelleted Hulls Leg

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: ############

PTE for emission units E050000, E050200, and E050100
Hull Hammer Mill, Hull Hammer Mill Feeder, and Hull Hammer Mill Plenum

PM Emission Factor	2.0	lb/ton	Source:	SCC 3-02-007-86
PM10/PM2.5 Emission Factor	1.0	lb/ton		SCC 3-02-007-86
Hourly Loading Rate	17.0	tons/hr	*	Emission Factor was adjusted to uncontrolled based on assumption that cyclones provide 90% control.
Aspiration Rate	8000	cfm		
% Control PM	99.41%			
% Control PM10/PM2.5	99.41%			

Potential PM emissions
Hull Hammer Mill, Hull Hammer Mill Feeder, and Hull Hammer Mill Plenum

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	34.000	lbs/hr	0.201	lbs/hr
Max Yearly	=	148.920	tons/yr	0.879	tons/yr

Potential PM10/PM2.5 emissions
Hull Hammer Mill, Hull Hammer Mill Feeder, and Hull Hammer Mill Plenum

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	17.000	lbs/hr	0.100	lbs/hr
Max Yearly	=	74.460	tons/yr	0.439	tons/yr

PTE for emission unit G050100
Pelleted Hulls Leg

PM Emission Factor	0.061	lb/ton	Source:	SCC 3-02-005-30
PM10/PM2.5 Emission Factor	0.034	lb/ton		SCC 3-02-005-30
Hourly Loading Rate	17.0	tons/hr		
Aspiration Rate	1000	cfm		
% Control PM	99.41%			
% Control PM10/PM2.5	99.41%			

Potential PM emissions
Pelleted Hulls Leg

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	1.037	lbs/hr	0.006	lbs/hr
Max Yearly	=	4.542	tons/yr	0.027	tons/yr

Potential PM10/PM2.5 emissions
Pelleted Hulls Leg

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	0.578	lbs/hr	0.003	lbs/hr
Max Yearly	=	2.532	tons/yr	0.015	tons/yr

Notes:
Emission factors are from AP-42, Table 9.9.1-1 (Particulate Emission Factors for Grain Elevators (3/03)).
Control efficiency for PM is 99.41% and for PM10 is 99.41% according to Operating Permit Renewal No. T085-29197-00102.

Methodology:
Uncontrolled Emissions (tons/yr) = Throughput (tons/yr)* Emission factor (lb/ton)÷ 2000 lbs/ton
Controlled Potential Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/ton)÷ 2000 (lbs/ton) * (1 - Control Efficiency)

Appendix A: Emission Calculations
Pelleted Hulls Storage Conveyor, Screenings Weight Belt and Conditioner Bean Loop Path

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: ############

PTE for emission unit G050300 and E050400
Pelleted Hulls Storage Conveyor and Hulls Addition Screw

PM Emission Factor	0.061	lb/ton	Source:	SCC 3-02-005-30
PM10/PM2.5 Emission Factor	0.034	lb/ton		SCC 3-02-005-30
Hourly Loading Rate	17.0	tons/hr		
Aspiration Rate	Not Provided	cfm		
% Control PM	99.41%			
% Control PM10/PM2.5	99.41%			

Potential PM emissions
Pelleted Hulls Storage Conveyor and Hulls Addition Screw

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	1.037	lbs/hr	0.006	lbs/hr
Max Yearly	=	4.542	tons/yr	0.027	tons/yr

Potential PM10/PM2.5 emissions
Pelleted Hulls Storage Conveyor and Hulls Addition Screw

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	0.578	lbs/hr	0.003	lbs/hr
Max Yearly	=	2.532	tons/yr	0.015	tons/yr

PTE for emission unit B310000
Screenings Weight Belt

PM Emission Factor	0.061	lb/ton	Source:	SCC 3-02-007-86
PM10/PM2.5 Emission Factor	0.034	lb/ton		SCC 3-02-007-86
Hourly Loading Rate	5.0	tons/hr		
Aspiration Rate	500	cfm		
% Control PM	99.41%			
% Control PM10/PM2.5	99.41%			

Potential PM emissions
Screenings Weight Belt

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	0.305	lbs/hr	0.002	lbs/hr
Max Yearly	=	1.336	tons/yr	0.008	tons/yr

Potential PM10/PM2.5 emissions
Screenings Weight Belt

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	0.170	lbs/hr	0.001	lbs/hr
Max Yearly	=	0.745	tons/yr	0.004	tons/yr

PTE for emission unit B010300
Conditioner Bean Loop Path

PM Emission Factor	0.10	lb/ton	Source:	SCC 3-02-007-87
PM10/PM2.5 Emission Factor	0.025	lb/ton		SCC 3-02-007-87
Hourly Loading Rate	264	tons/hr		
Aspiration Rate	42,000	cfm		
% Control PM	99.41%			
% Control PM10/PM2.5	99.41%			

Potential PM emissions
Conditioner Bean Loop Path

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	26.400	lbs/hr	0.156	lbs/hr
Max Yearly	=	115.632	tons/yr	0.682	tons/yr

Potential PM10/PM2.5 emissions
Conditioner Bean Loop Path

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	6.600	lbs/hr	0.039	lbs/hr
Max Yearly	=	28.908	tons/yr	0.171	tons/yr

Notes:
Emission factors are from AP-42, Table 9.9.1-1 (Particulate Emission Factors for Grain Elevators (3/03)).
Control efficiency for PM is 99.41% and for PM10 is 99.41% according to Operating Permit Renewal No. T085-29197-00102.

Methodology:
Uncontrolled Emissions (tons/yr) = Throughput (tons/yr)* Emission factor (lb/ton)÷ 2000 lbs/ton
Controlled Potential Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/ton)÷ 2000 (lbs/ton) * (1 - Control Efficiency)

Appendix A: Emission Calculations
Pod Grinder/Destoner

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

PTE for emission unit B310200
Pod Grinder/Destoner

PM Emission Factor	2.00	lb/ton	Source:	SCC 3-02-007-86
PM10/PM2.5 Emission Factor	0.50	lb/ton		SCC 3-02-007-86
Hourly Loading Rate	5.0	tons/hr		
Aspiration Rate	5000	cfm		
% Control PM	99.00%			
% Control PM10/PM2.5	99.00%			

Potential PM emissions
Pod Grinder/Destoner

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	10.000	lbs/hr	0.100	lbs/hr
Max Yearly	=	43.800	tons/yr	0.438	tons/yr

Potential PM10/PM2.5 emissions
Pod Grinder/Destoner

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	2.500	lbs/hr	0.025	lbs/hr
Max Yearly	=	10.950	tons/yr	0.110	tons/yr

Methodology
Emission factors are from AP 42 Table 9.9.1-1 Particulate Emission Factors for Grain Elevators (3/03)
Uncontrolled Emissions (ton/yr) = Throughput (ton/yr)* Emission factor (lb/ton) / 2000 (lbs/ton)
Controlled Potential Emissions (ton/yr) = Throughput (ton/yr) * Emission factor (lb/ton) / 2000 (lbs/ton)* (1-Control Efficiency).
Control efficiency for PM is 99.00% and for PM10 is 99.00% according to the renewal application.

Appendix A: Emission Calculations
Jet Dryer No. 1 and No. 2 and VSC Air Heater

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

PTE for emission units B120000 and B030000
Jet Dryer No. 1 and No. 2

PM Emission Factor	0.22	lb/ton	Source:	SCC 3-02-005-27
PM10/PM2.5 Emission Factor	0.055	lb/ton		SCC 3-02-005-27
Hourly Loading Rate	132	tons/hr		
Aspiration Rate	36,000	cfm		
% Control PM	99.00%			
% Control PM10/PM2.5	99.00%			

Hourly throughput is based on maximum design capacity of milling operations.

Potential PM emissions
Jet Dryer No. 1 and No. 2

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	29.04	lbs/hr	0.29	lbs/hr
Max Yearly	=	127.20	tons/yr	1.27	tons/yr

Potential PM10/PM2.5 emissions
Jet Dryer No. 1 and No. 2

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	7.26	lbs/hr	0.07	lbs/hr
Max Yearly	=	31.80	tons/yr	0.32	tons/yr

PTE for emission unit B010500
VSC Air Heater

PM Emission Factor	0.22	lb/ton	Source:	SCC 3-02-005-27
PM10/PM2.5 Emission Factor	0.055	lb/ton		SCC 3-02-005-27
Hourly Loading Rate	264	tons/hr		
Aspiration Rate	42,000	cfm		
% Control PM	99.00%			
% Control PM10/PM2.5	99.00%			

Hourly throughput is based on maximum design capacity of milling operations.

Potential PM emissions
VSC Air Heater

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	58.08	lbs/hr	0.58	lbs/hr
Max Yearly	=	254.39	tons/yr	2.54	tons/yr

Potential PM10/PM2.5 emissions
VSC Air Heater

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	14.52	lbs/hr	0.15	lbs/hr
Max Yearly	=	63.60	tons/yr	0.64	tons/yr

Notes:
Emission factors are from AP-42, Table 9.9.1-1 (Particulate Emission Factors for Grain Elevators (3/03)).
Control efficiency for PM is 99.00% and for PM10 is 99.00% according to Operating Permit Renewal No. T085-29197-00102.

Methodology:
Uncontrolled Emissions (tons/yr) = Throughput (tons/yr)* Emission factor (lb/ton) ÷ 2000 lbs/ton
Controlled Potential Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/ton) ÷ 2000 (lbs/ton) * (1 - Control Efficiency)

Appendix A: Emission Calculations
Vertical Seed Conditioner (VSC) No. 1 and No. 2

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

PTE for emission units B010000 and B020000
Vertical Seed Conditioner (VSC) No. 1 and No. 2

PM Emission Factor	0.10	lb/ton	Source:	SCC 3-02-007-87
PM10/PM2.5 Emission Factor	0.025	lb/ton		SCC 3-02-007-87
Hourly Loading Rate	132	tons/hr		
Aspiration Rate	42,000	cfm		
% Control PM	95.14%			
% Control PM10/PM2.5	80.57%			

Potential PM emissions
Vertical Seed Conditioner (VSC) No. 1 and No. 2

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	13.200	lbs/hr	0.642	lbs/hr
Max Yearly	=	57.816	tons/yr	2.810	tons/yr

Potential PM10/PM2.5 emissions
Vertical Seed Conditioner (VSC) No. 1 and No. 2

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	3.300	lbs/hr	0.641	lbs/hr
Max Yearly	=	14.454	tons/yr	2.808	tons/yr

Notes:
Emission factors are from AP-42, Table 9.9.1-1 (Particulate Emission Factors for Grain Elevators (3/03)).
Control efficiency for PM is 95.14% and for PM10 is 80.57% according to Operating Permit Renewal No. T085-29197-00102.

Methodology:
Uncontrolled Emissions (tons/yr) = Throughput (tons/yr)* Emission factor (lb/ton) ÷ 2000 lbs/ton
Controlled Potential Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/ton) ÷ 2000 (lbs/ton) * (1 - Control Efficiency)

Appendix A: Emission Calculations
Hulloosenators No. 1, No. 2, No. 3, and No. 4 and Cascade Dryers
No. 1, No. 2, No. 3 and No. 4

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

PTE for emission units B040000, B080100, B130000, and B170000
Hulloosenator No. 1, No. 2, No. 3, and No. 4

PM Emission Factor	3.60	lb/ton	Source:	SCC 3-02-007-85
PM10/PM2.5 Emission Factor	0.90	lb/ton		SCC 3-02-007-85
Hourly Loading Rate	66	tons/hr	Note:	Source is aspirated via the Cascade Dryers
Aspiration Rate	NA	cfm		
% Control PM	99.18%			
% Control PM10/PM2.5	99.18%			

Hourly throughput is based on maximum design capacity of milling operations.

Potential PM emissions
Hulloosenator No. 1, No. 2, No. 3, and No. 4

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	237.60	lbs/hr	1.95	lbs/hr
Max Yearly	=	1040.69	tons/yr	8.53	tons/yr

Potential PM10/PM2.5 emissions
Hulloosenator No. 1, No. 2, No. 3, and No. 4

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	59.40	lbs/hr	0.49	lbs/hr
Max Yearly	=	260.17	tons/yr	2.13	tons/yr

PTE for emission units B050000, B090000, B140000, and B180000
Cascade Dryer No. 1, No. 2, No. 3, and No. 4

PM Emission Factor	0.22	lb/ton	Source:	SCC 3-02-005-27
PM10/PM2.5 Emission Factor	0.055	lb/ton		SCC 3-02-005-27
Hourly Loading Rate	66	tons/hr		
Aspiration Rate	30,000	cfm		
% Control PM	99.18%			
% Control PM10/PM2.5	99.18%			

Potential PM emissions
Cascade Dryer No. 1, No. 2, No. 3, and No. 4

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	14.520	lbs/hr	0.119	lbs/hr
Max Yearly	=	63.598	tons/yr	0.522	tons/yr

Potential PM10/PM2.5 emissions
Cascade Dryer No. 1, No. 2, No. 3, and No. 4

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	3.630	lbs/hr	0.030	lbs/hr
Max Yearly	=	15.899	tons/yr	0.130	tons/yr

Notes:
Emission factors are from AP-42, Table 9.9.1-1 (Particulate Emission Factors for Grain Elevators (3/03)).
Control efficiency for PM is 99.18% and for PM10 is 99.18% according to Operating Permit Renewal No. T085-29197-00102.

Methodology:
Uncontrolled Emissions (tons/yr) = Throughput (tons/yr)* Emission factor (lb/ton) ÷ 2000 lbs/ton
Controlled Potential Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/ton) ÷ 2000 (lbs/ton) * (1 - Control Efficiency)

Appendix A: Emission Calculations
Cracking Rolls No.1, No. 2, No. 3 and No. 4 and Cascade Conditioners No. 1, No. 2, No. 3 and No. 4

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

PTE for emission units B060000, B100000, B150000, and B190000
Cracking Roll No. 1, No. 2, No. 3, and No. 4

PM Emission Factor	3.60	lb/ton	Source:	SCC 3-02-007-85
PM10/PM2.5 Emission Factor	0.90	lb/ton		SCC 3-02-007-85
Hourly Loading Rate	66	tons/hr	Note:	This source is aspirated via the
Aspiration Rate	NA	cfm		Cascade Conditioners
% Control PM	99.18%			
% Control PM10/PM2.5	99.18%			

Potential PM emissions
Cracking Roll No. 1, No. 2, No. 3, and No. 4

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	237.600	lbs/hr	1.948	lbs/hr
Max Yearly	=	1040.688	tons/yr	8.534	tons/yr

Potential PM10/PM2.5 emissions
Cracking Roll No. 1, No. 2, No. 3, and No. 4

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	59.400	lbs/hr	0.487	lbs/hr
Max Yearly	=	260.172	tons/yr	2.133	tons/yr

PTE for emission units B070000, B110000, B160000, and B200000
Cascade Conditioner No. 1, No. 2, No. 3, and No. 4

PM Emission Factor	0.100	lb/ton	Source:	SCC 3-02-007-87
PM10/PM2.5 Emission Factor	0.025	lb/ton		SCC 3-02-007-87
Hourly Loading Rate	66	tons/hr		
Aspiration Rate	42,000	cfm		
% Control PM	99.18%			
% Control PM10/PM2.5	99.18%			

Potential PM emissions
Cascade Conditioner No. 1, No. 2, No. 3, and No. 4

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	6.600	lbs/hr	0.054	lbs/hr
Max Yearly	=	28.908	tons/yr	0.237	tons/yr

Potential PM10/PM2.5 emissions
Cascade Conditioner No. 1, No. 2, No. 3, and No. 4

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	1.650	lbs/hr	0.014	lbs/hr
Max Yearly	=	7.227	tons/yr	0.059	tons/yr

Notes:
Emission factors are from AP-42, Table 9.9.1-1 (Particulate Emission Factors for Grain Elevators (3/03)).
Control efficiency for PM is 99.18% and for PM10 is 99.18% according to Operating Permit Renewal No. T085-29197-00102.

Methodology:
Uncontrolled Emissions (tons/yr) = Throughput (tons/yr)* Emission factor (lb/ton) ÷ 2000 lbs/ton
Controlled Potential Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/ton) ÷ 2000 (lbs/ton) * (1 - Control Efficiency)

Appendix A: Emission Calculations
Secondary Aspirator No 1 and No. 2, Feed Day Tank Conveyor, and Day Bin Vent

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

PTE for emission units E130100, E150100, and A160100
Secondary Aspirator No. 1 and No. 2, and Feed Day Tank Conveyor

PM Emission Factor	0.061	lb/ton	Source:	SCC 3-02-005-30
PM10/PM2.5 Emission Factor	0.034	lb/ton		SCC 3-02-005-30
Hourly Loading Rate	9.6	tons/hr		
Aspiration Rate	Not Provided	cfm		
% Control PM	99.18%			
% Control PM10/PM2.5	99.18%			

Potential PM emissions
Secondary Aspirator No. 1 and No. 2, and Feed Day Tank Conveyor

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	0.586	lbs/hr	0.005	lbs/hr
Max Yearly	=	2.565	tons/yr	0.021	tons/yr

Potential PM10/PM2.5 emissions
Secondary Aspirator No. 1 and No. 2, and Feed Day Tank Conveyor

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	0.326	lbs/hr	0.003	lbs/hr
Max Yearly	=	1.430	tons/yr	0.012	tons/yr

PTE for emission units A160000 and A160500
Day Tank (with Aspirator)

PM Emission Factor	0.025	lb/ton	Source:	SCC 3-02-005-40
PM10/PM2.5 Emission Factor	0.0063	lb/ton		SCC 3-02-005-40
Hourly Loading Rate	264	tons/hr	*	This source utilizes oil suppression.
Aspiration Rate	6,000	cfm		
% Control PM	99.18%			
% Control PM10/PM2.5	99.18%			

Hourly throughput is based on maximum design capacity of milling operations, limited throughput is based on the limited amount of soybeans processed pursuant to T085-21297-00102 issued on January 24, 2006.

Potential PM emissions
Day Bin Vent

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	6.60	lbs/hr	0.05	lbs/hr
Max Yearly	=	28.91	tons/yr	0.24	tons/yr

Potential PM10/PM2.5 emissions
Day Bin Vent

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	1.66	lbs/hr	0.01	lbs/hr
Max Yearly	=	7.28	tons/yr	0.06	tons/yr

Notes:
Emission factors are from AP-42, Table 9.9.1-1 (Particulate Emission Factors for Grain Elevators (3/03)).
Control efficiency for PM is 99.18% and for PM10 is 99.18% according to Operating Permit Renewal No. T085-29197-00102.

Methodology:
Uncontrolled Emissions (tons/yr) = Throughput (tons/yr)* Emission factor (lb/ton) ÷ 2000 lbs/ton
Controlled Potential Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/ton) ÷ 2000 (lbs/ton) * (1 - Control Efficiency)

Appendix A: Emission Calculations
Flaking Rolls No. 1 through No. 12 and Conveyors

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

PTE for emission units C010000, C020000, C030000, C040000, C050000, C060000, C070000, C080000, C090000, C100000, C0110000, C0110000, C0120000, C200100, and C010600
Flaking Rolls No. 1 through No. 12 and Conveyors

Stack Test done on April 15-17, 2008:

Air Flow Rate =	16,592	dry standard cubic feet/minute
PM Outlet Grain Loading =	0.0009	grain/dry standard cubic feet
PM_{10} Outlet Grain Loading =	0.0012	grain/dry standard cubic feet
PM/PM_{10} Control Efficiency =	99.07%	

Controlled PTE

Hourly PM Emissions	0.13	lb/hr	Hourly $PM_{10}/PM_{2.5}$ Emissions	0.17	lb/hr
Yearly PM Emissions	0.56	tons/yr	Yearly $PM_{10}/PM_{2.5}$ Emissions	0.75	tons/yr

Uncontrolled PTE (Before Increase in Capacity)

Hourly PM Emissions	13.76	lb/hr	Hourly $PM_{10}/PM_{2.5}$ Emissions	18.35	lb/hr
Yearly PM Emissions	60.28	tons/yr	Yearly $PM_{10}/PM_{2.5}$ Emissions	80.38	tons/yr

Original Capacity

8	units *	22.90	tons/hr *	8760	hr/yr =	1,604,832	tons/yr
4	units *	20.30	tons/hr *	8760	hr/yr =	711,312	tons/yr
					TOTAL	2,316,144	tons/yr

Increase in Capacity

10	units *	22.90	tons/hr *	8760	hr/yr =	2,006,040	tons/yr
2	units *	20.30	tons/hr *	8760	hr/yr =	355,656	tons/yr
					TOTAL	2,361,696	tons/yr

Uncontrolled PTE (After Increase in Capacity)

Hourly PM Emissions	14.03	lb/hr	Hourly $PM_{10}/PM_{2.5}$ Emissions	18.71	lb/hr
Yearly PM Emissions	61.47	tons/yr	Yearly $PM_{10}/PM_{2.5}$ Emissions	81.96	tons/yr

Notes:
The stack test result was based on the following capacities: 186 tons/hr (4/15/2008), 185.8 tons/hr (4/16/2008), and 193.8 tons/hr (4/17/2008).

Methodology:
Controlled PTE (lb/hr) = Grain Loading (gr/acf) * Air Flow Rate (acf/min) * 60 min/hr ÷ 7000 grains/lb
Controlled PTE (tons/yr) = PTE (lb/hr) * 8760 hrs/yr ÷ 2000 lb/ton
Uncontrolled PTE Before Increase (lb/hr) = Controlled PTE (lb/hr) ÷ (1 - Control Efficiency)
Uncontrolled PTE Before increase (tons/yr) = Controlled PTE (tons/yr) ÷ (1 - Control Efficiency)
Uncontrolled PTE After Increase (lb/hr) = Uncontrolled PTE Before Increase (lb/hr) * Increase in Capacity ÷ Original Capacity
Uncontrolled PTE After Increase (tons/yr) = Uncontrolled PTE Before Increase (tons/yr) * Increase in Capacity ÷ Original Capacity

Appendix A: Emission Calculations
Hammer Mill Mixing Conveyor, Meal L-Path Conveyor, Meal Hammer Mill Feed Conveyor, Meal Hammer Mill Feeders No. 1, No. 2, No. 3, and No. 5, and Meal Hammer Mills No. 1, No. 2, No. 3, and No. 5

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

PTE for emission units E020300, E020400, E010100, and E010300
Grinding Discharge Conveyor, Hammer Mill Mixing Conveyor, Meal L-Path Conveyor, and Meal Hammer Mill Feed Conveyor

PM Emission Factor	0.061	lb/ton	Source:	SCC 3-02-005-30
PM10/PM2.5 Emission Factor	0.034	lb/ton		SCC 3-02-005-30
Hourly Loading Rate	198	tons/hr		
Aspiration Rate	1000	cfm		
% Control PM	99.50%			
% Control PM10/PM2.5	99.50%			

Hourly throughput is based on maximum design capacity of extraction process.

Potential PM emissions
Grinding Discharge Conveyor, Hammer Mill Mixing Conveyor, Meal L-Path Conveyor, and Meal Hammer Mill Feed Conveyor

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	12.08	lbs/hr	0.06	lbs/hr
Max Yearly	=	52.90	tons/yr	0.26	tons/yr

Potential PM10/PM2.5 emissions
Grinding Discharge Conveyor, Hammer Mill Mixing Conveyor, Meal L-Path Conveyor, and Meal Hammer Mill Feed Conveyor

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	6.73	lbs/hr	0.03	lbs/hr
Max Yearly	=	29.49	tons/yr	0.15	tons/yr

PTE for emission units E020200, E030200, E040200, E230200, E020000, E030000, E040000, and E230000
Meal Hammer Mill Feeders No. 1, No. 2 and No. 3, Meal Hammer Mills No. 1, No. 2 and No. 3
Meal Hammer Mill Feeder No. 5, Meal Hammer Mill No. 5

PM Emission Factor	3.4	lb/ton	Source:	SCC 3-02-007-93
PM10/PM2.5 Emission Factor	0.9	lb/ton		SCC 3-02-007-93
Hourly Loading Rate	74	tons/hr	*	Emission Factor was adjusted to uncontrolled
Aspiration Rate	3000	cfm		based on assumption that cyclones provide 90%
% Control PM	99.50%			control
% Control PM10/PM2.5	99.50%			

Potential PM emissions
Meal Hammer Mill Feeders No. 1, No. 2 and No. 3, Meal Hammer Mills No. 1, No. 2 and No. 3
Meal Hammer Mill Feeder No. 5, Meal Hammer Mill No. 5

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	251.600	lbs/hr	1.258	lbs/hr
Max Yearly	=	1102.008	tons/yr	5.510	tons/yr

Potential PM10/PM2.5 emissions
Meal Hammer Mill Feeders No. 1, No. 2 and No. 3, Meal Hammer Mills No. 1, No. 2 and No. 3
Meal Hammer Mill Feeder No. 5, Meal Hammer Mill No. 5

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	62.900	lbs/hr	0.315	lbs/hr
Max Yearly	=	275.502	tons/yr	1.378	tons/yr

Notes:
Emission factors are from AP-42, Table 9.9.1-1 (Particulate Emission Factors for Grain Elevators (3/03)).
Control efficiency for PM is 99.50% and for PM10 is 99.50% according to Operating Permit Renewal No. T085-29197-00102.

Methodology:
Uncontrolled Emissions (tons/yr) = Throughput (tons/yr)* Emission factor (lb/ton) ÷ 2000 lbs/ton
Controlled Potential Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/ton) ÷ 2000 (lbs/ton) * (1 - Control Efficiency)

Appendix A: Emission Calculations
Meal Leg, Meal Conveyor to Loadout, and Meal Hammer Mill Bins No. 1, No. 2, No. 3, and No. 5

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

PTE for emission units G010300 and G150000
Meal Leg, and Meal Conveyor to Loadout

PM Emission Factor	0.061	lb/ton	Source:	SCC 3-02-005-30
PM10/PM2.5 Emission Factor	0.034	lb/ton		SCC 3-02-005-30
Hourly Loading Rate	198	tons/hr		
Aspiration Rate	1,000	cfm		
% Control PM	99.50%			
% Control PM10/PM2.5	99.50%			

Potential PM emissions
Meal Leg, and Meal Conveyor to Loadout

	Uncontrolled for each unit			Controlled for each unit	
Max Hourly	=	12.078	lbs/hr	0.060	lbs/hr
Max Yearly	=	52.902	tons/yr	0.265	tons/yr

Potential PM10/PM2.5 emissions
Meal Leg, and Meal Conveyor to Loadout

	Uncontrolled for each unit			Controlled for each unit	
Max Hourly	=	6.732	lbs/hr	0.034	lbs/hr
Max Yearly	=	29.486	tons/yr	0.147	tons/yr

PTE for emission units E020100, E030100, E040100, and E230100
Meal Hammer Mill Bins No. 1, No. 2 and No. 3
Meal Hammer Mill Bin No. 5

PM Emission Factor	0.025	lb/ton	Source:	SCC 3-02-005-40
PM10/PM2.5 Emission Factor	0.0063	lb/ton		SCC 3-02-005-40
Hourly Loading Rate	74	tons/hr		
Aspiration Rate	6,000	cfm		
% Control PM	99.50%			
% Control PM10/PM2.5	99.50%			

Potential PM emissions
Meal Hammer Mill Bins No. 1, No. 2 and No. 3
Meal Hammer Mill Bin No. 5

	Uncontrolled for each unit			Controlled for each unit	
Max Hourly	=	1.850	lbs/hr	0.009	lbs/hr
Max Yearly	=	8.103	tons/yr	0.041	tons/yr

Potential PM10/PM2.5 emissions
Meal Hammer Mill Bins No. 1, No. 2 and No. 3
Meal Hammer Mill Bin No. 5

	Uncontrolled for each unit			Controlled for each unit	
Max Hourly	=	0.466	lbs/hr	0.002	lbs/hr
Max Yearly	=	2.042	tons/yr	0.010	tons/yr

Notes:
Emission factors are from AP-42, Table 9.9.1-1 (Particulate Emission Factors for Grain Elevators (3/03)).
Control efficiency for PM is 99.50% and for PM10 is 99.50% according to Operating Permit Renewal No. T085-29197-00102.

Methodology:
Uncontrolled Emissions (tons/yr) = Throughput (tons/yr)* Emission factor (lb/ton) ÷ 2000 lbs/ton
Controlled Potential Emissions (tons/yr) = Throughput (tons/yr) * Emission factor (lb/ton) ÷ 2000 (lbs/ton) * (1 - Control Efficiency)

Appendix A: Emission Calculations
DC Decks No. 1, No. 2, No. 3, and No. 4

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

PTE for emission units D310000-1, D310000-2, D310000-3, and D310000-4
DC Decks No. 1, No. 2, No. 3, and No. 4

PM Emission Factor	1.80	lb/ton	Source:	SCC 3-02-007-89
PM10/PM2.5 Emission Factor	0.450	lb/ton		SCC 3-02-007-89
Hourly Loading Rate	208	tons/hr	*	Emission Factor was adjusted to
Aspiration Rate	63,900	cfm		uncontrolled based on assumption that
% Control PM	98.10%			cyclones provide 90% control
% Control PM10/PM2.5	97.89%			

Hourly throughput is based on maximum extraction process design - weight of oil extracted.

Potential PM emissions
DC Decks No. 1, No. 2, No. 3, and No. 4

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	374.40	lbs/hr	7.11	lbs/hr
Max Yearly	=	1639.87	tons/yr	31.16	tons/yr

Potential PM10/PM2.5 emissions
DC Decks No. 1, No. 2, No. 3, and No. 4

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	93.60	lbs/hr	1.97	lbs/hr
Max Yearly	=	409.97	tons/yr	8.65	tons/yr

Methodology
Emission factors are from AP 42 Table 9.9.1-1 Particulate Emission Factors for Grain Elevators (3/03).
Potential Emissions (ton/yr) = Throughput (ton/yr)* Emission factor (lb/ton) / 2000 (lbs/ton)
Controlled Potential Emissions (ton/yr) = Throughput (ton/yr) * Emission factor (lb/ton) / 2000 (lbs/ton)* (1-Control Efficiency)
Control efficiency for PM is 99.41% and for PM10 is 99.41% according to the renewal application.

Appendix A: Emission Calculations
Diatomaceous Earth (DE) Storage Bin, Bean Storage Bins No. 1 thru 4 and Bean Storage Silos No. 1 thru 2

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

PTE for
Diatomaceous Earth (DE) Storage Bin

PM Emission Factor	0.990	lb/ton	Source:	SCC 3-05-038-13
PM10/PM2.5 Emission Factor	0.160	lb/ton		SCC 3-05-038-13
Hourly Loading Rate	0.088	tons/hr		
Aspiration Rate	Not Provided	cfm		
% Control PM	99.50%			
% Control PM10/PM2.5	99.50%			

Hourly throughput is based on maximum transport system capacity.

Potential PM emissions
Diatomaceous Earth (DE) Storage Bin

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	0.09	lbs/hr	0.00	lbs/hr
Max Yearly	=	0.38	tons/yr	0.00	tons/yr

Potential PM10/PM2.5 emissions
Diatomaceous Earth (DE) Storage Bin

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	0.01	lbs/hr	0.00	lbs/hr
Max Yearly	=	0.06	tons/yr	0.00	tons/yr

PTE for
Bean Storage Bin No. 1 thru 4 and Bean Storage Silo No. 1 thru 2

PM Emission Factor	0.025	lb/ton	Source:	SCC 3-02-005-40
PM10/PM2.5 Emission Factor	0.006	lb/ton		SCC 3-02-005-40
Hourly Loading Rate	274.2	tons/hr		
Aspiration Rate	232,000	cfm		
% Control PM	N/A			
% Control PM10/PM2.5	N/A			

Hourly throughput is based on maximum transport system capacity.
This source utilizes oil suppression. Mineral oil has a control efficiency of 60 to 80%. A control efficiency of 60% is assumed for mineral oil for a conservative estimate.

Potential PM emissions
Bean Storage Bin No. 1 thru 4 and Bean Storage Silo No. 1 thru 2

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	6.85	lbs/hr	6.85	lbs/hr
Max Yearly	=	30.02	tons/yr	30.02	tons/yr

Potential PM10/PM2.5 emissions
Bean Storage Bin No. 1 thru 4 and Bean Storage Silo No. 1 thru 2

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	1.73	lbs/hr	1.73	lbs/hr
Max Yearly	=	7.57	tons/yr	7.57	tons/yr

Methodology
Emission factors are from AP 42 Table 9.9.1-1 Particulate Emission Factors for Grain Elevators (3/03)
Uncontrolled Emissions (ton/yr) = Throughput (ton/yr)* Emission factor (lb/ton) / 2000 (lbs/ton)
Controlled Potential Emissions (ton/yr) = Throughput (ton/yr) * Emission factor (lb/ton) / 2000 (lbs/ton)* (1-Control Efficiency).
Control efficiency for PM is 99.41% and for PM10 is 99.41% according to the renewal application.

Appendix A; Emission Calculations
Kaolin Receiving Tank and Hull Overflow Tank

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

PTE for
Kaolin Receiving Tank

PM Emission Factor	0.99	lb/ton	Source:	SCC 3-05-038-13
PM10/PM2.5 Emission Factor	0.16	lb/ton		SCC 3-05-038-13
Hourly Loading Rate	40	tons/hr	*	Controlled based on assumption that filters provide
Aspiration Rate	750	cfm		90.5% control
% Control PM	99.50%			
% Control PM10/PM2.5	99.50%			

Hourly throughput based estimation of truck transfer rate.

Potential PM emissions
Kaolin Receiving Tank

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	39.60	lbs/hr	0.20	lbs/hr
Max Yearly	=	173.45	tons/yr	0.87	tons/yr

Potential PM10/PM2.5 emissions
Kaolin Receiving Tank

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	6.40	lbs/hr	0.03	lbs/hr
Max Yearly	=	28.03	tons/yr	0.14	tons/yr

PTE for
Hull Overflow Tank

PM Emission Factor	0.025	lb/ton	Source:	SCC 3-02-005-40
PM10/PM2.5 Emission Factor	0.0063	lb/ton		SCC 3-02-005-40
Hourly Loading Rate	7.7	tons/hr		
Aspiration Rate	1,000	cfm		
% Control PM	0.00%			
% Control PM10/PM2.5	0.00%			

Hourly throughput based estimation of truck transfer rate.

Potential PM emissions
PTE for Hull Overflow Tank

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	0.19	lbs/hr	0.19	lbs/hr
Max Yearly	=	0.84	tons/yr	0.84	tons/yr

Potential PM10/PM2.5 emissions
PTE for Hull Overflow Tank

		Uncontrolled for each unit		Controlled for each unit	
Max Hourly	=	0.05	lbs/hr	0.05	lbs/hr
Max Yearly	=	0.21	tons/yr	0.21	tons/yr

Methodology
Emission factors are from AP 42 Table 9.9.1-1 Particulate Emission Factors for Grain Elevators (3/03)
Uncontrolled Emissions (ton/yr) = Throughput (ton/yr)* Emission factor (lb/ton) / 2000 (lbs/ton)
Controlled Potential Emissions (ton/yr) = Throughput (ton/yr) * Emission factor (lb/ton) / 2000 (lbs/ton)* (1-Control Efficiency).
Control efficiency for PM is 99.41% and for PM10 is 99.41% according to the renewal application.

Appendix A: Emissions Calculations
Hexane (VOC) emissions from Mineral Oil Absorber, Dryers, and Cooler

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

Hexane is lost from the extraction and desolventizing operations in soybean extraction and in refining plants. These include:

Point sources
- a) Vent Gas During Normal Operations (includes vent gas from extractor, soya oil distillation, and hexane tanks)
- b) Desolventized Meal Dryer & Cooler Exhaust

Fugitive emissions
- c) Meal Storage
- f) Plant Startup/Shutdown
- g) General - equipment failure, leaks, etc.
- h) Plant Upsets

Bound in product/by-product
- d) Desolventized Meal

a) Main Gas Vent (Soybean Oil Extraction System) ***(controls soybean oil extractor, evaporators, water evaporators, one desolventizer/toaster, and main vent condense***
PTE for units D010000, D020000, and D060000

Given:	3000	ppm outlet from vent
	225	cubic feet per minute flowrate
	8760	hours per year operating rate
	98.60%	control efficiency

3000	ppm *	86.17	lb/lbmol ÷	3.82E+08	cf ppm/lbmol =	6.76E-04	lb/cf	
6.76E-04	lb/cf *	225	cfm *	60	min/hr =	9.13	lb/hr	

from Normal Operations:

Controlled Emissions (tons/yr) =	9.13	lb/hr *	8736	hr/yr ÷	2000	lb/ton =	39.87	tons/yr
Uncontrolled Emissions (tons/yr) =	39.87	tons/yr ÷	(1 -	98.60%	) =		2,848.14	tons/yr

from Upset Operations:

Controlled Emissions (tons/yr) =	1,765	lb/hr[1] *	24	hr/yr ÷	2000	lb/ton =	21.18	tons/yr
Uncontrolled Emissions (tons/yr) =	21.18	tons/yr ÷	(1 -	98.60%	) =		1,512.86	tons/yr

Original Total Uncontrolled Emissions =	4,361.00	tons/yr
Original Capacity =	192.5	tons/hr
Increased Capacity =	264	tons/hr
Increased Total Uncontrolled Emissions =	**5,980.80**	**tons/yr**

Mineral Oil Absorber System Normal Operation Limits = 0.048 lb/ton of soybean processed (2,251,836 tons), 9.3 lbs/hr VOC

326 IAC 8-1-6	VOC Limits	54.04	tons/yr	**40.73**	**tons/yr**
326 IAC 2-2	VOC Limits			40.73	tons/yr
Mineral Oil Absorber System (Stack S-4) Stack Test (4/18/08) =				11.21	tons/yr

b) Desolventized Meal Dryers & Cooler
PTE for units DC Deck No. 1, DC Deck No. 2, DC Deck No. 3, and DC Deck No. 4

Basis: DC Deck Cyclone No. 1 through No. 4 (18,000 scfm each) 72,000 SCFM

	MW lb/lbmol	Spec Grav Rel to Air	at 70°F lb/cu.ft.	at 80°F lb/cu.ft.	at 90.8°F lb/cu.ft.
Hexane	86.17	2.975	0.226	0.222	0.218
Air	28.96	1.000	0.076		

average temperature of soy oil temperature from stack test

Normal Operating Conditions

	Original Emissions			Increased Emissions		
Capacity of Soybean Oil Extractor	192.5	tons/hr		264	tons/hr	
Desolventized flakes to dryer	156	ton/hr	81.0 wt % of beans	208	ton/hr	78.8 wt % of beans
	18	wt.. % H20	200 [1]ppm Hexane in meal	18	wt.. % H20	200 [1]ppm Hexane in meal
			62.4 lbs/hr Hexane			83.2 lbs/hr Hexane
Desolventized flakes from dryers	149	ton/hr	77.4 wt % of beans	200	ton/hr	75.8 wt % of beans
	14	wt.. % H20	119 [1]ppm Hexane in meal	14	wt.. % H20	113 [1]ppm Hexane in meal
			37.1 lbs/hr Hexane			47.1 lbs/hr Hexane
Estimated VOC Emissions from dryers:			25.3 lbs/hr Hexane			36.1 lbs/hr Hexane
Desolventized flakes from cooler	148	ton/hr	76.9 wt % of beans	198	ton/hr	75.0 wt % of beans
	13	wt.. % H20	100 [1]ppm Hexane in meal	13	wt.. % H20	100 [1]ppm Hexane in meal
			29.6 lbs/hr Hexane			39.6 lbs/hr Hexane
Estimated VOC Emissions from cooler:			7.5 lbs/hr Hexane			7.5 lbs/hr Hexane
Emissions for dryers/cooler for normal operation:			32.8 lbs/hr Hexane			43.6 lbs/hr Hexane
(same stack)			34.9 [1]ppm Hexane in air			46.4 [1]ppm Hexane in air
			8730 hr/yr			8730 hr/yr
			143.17 tons/yr			190.31 tons/yr

Upset Operating Conditions
Basis: 10 events per year with an average duration of 3 hours

	Original Emissions			Increased Emissions		
Capacity of Soybean Oil Extractor	192.5	tons/hr		264	tons/hr	
Desolventized flakes to dryer	156	ton/hr	81.0 wt % of beans	208	ton/hr	78.8 wt % of beans
	18	wt.. % H20	2500 ppm Hexane in meal	18	wt.. % H20	2500 ppm Hexane in meal
			780 lbs/hr Hexane			1040 lbs/hr Hexane
Desolventized flakes from cooler	148	ton/hr	76.9 wt % of beans	198	ton/hr	75.0 wt % of beans
	13	wt.. % H20	625 ppm Hexane in meal	13	wt.. % H20	625 ppm Hexane in meal
			185 lbs/hr Hexane			248 lbs/hr Hexane
Emissions for upset operation:			595 lbs/hr Hexane			793 lbs/hr Hexane
			633 ppm Hexane in air			843 ppm Hexane in air
			30 hr/yr			30 hr/yr
			8.93 tons/yr			11.89 tons/yr
Total Uncontrolled Emissions (tons/yr) =			**152.10 tons/yr**			**202.20 tons/yr**

Meal Dryers & Cooler from Normal Operations Limits = 0.03 galb/ton of soybean processed (2,251,836 tons), 32.8 lbs/hr VOC

326 IAC 8-1-6	VOC Limits	189.15	tons/yr	**143.66**	**tons/yr**
326 IAC 2-2	VOC Limits			143.66	tons/yr
Meal Dryers & Cooler (Stack S-2) Stack Test (4/15/08) =				107.75	tons/yr

Notes:
The density of hexane is 5.6 lb/gal.
[1] Provided by the source in T085-21297-00102, issued on Janurary 24, 2006.

Methodology:
Weight % Beans = Beans Processed (tons/hr) ÷ Extractor Capacity (tons/hr) * 100
lbs/hr Hexane = ppm Hexane ÷ 1,000,000 ppm * Beans Processed (tons/hr) * 2000 lb/ton
Emissions (tons/yr) = Emissions (lbs/hr) * 8760 hrs/yr ÷ 2000 lbs/ton
Increased Emissions (tons/yr) = Original Emissions (tons/yr) * Increased Capacity ÷ Original Capacity

Appendix A: Emissions Calculations
Hexane (VOC) Emissions from Meal Storage and Desolventized Meal

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

c) Meal Storage

	Original			Increased		
Basis:	148	tons/hr	[1]of meal capacity	198	tons/hr	[1]of meal capacity
	40	lbs/cu.ft.	[1]density of meal	40	lbs/cu.ft.	[1]density of meal
	7400	cu.ft./hr.	of meal production	9900	cu.ft./hr.	of meal production
	200	ppm	hexane conc. in displaced storage air			
	0.218	lb/cu.ft.	density of oil @ 90.8°F			
			average temperature of soy oil temperature from stack test			
Annual Emissions =	**0.32**	**lbs/hr**	=	**0.43**	**lbs/hr**	
	1.41	**tons/yr**		**1.89**	**tons/yr**	

d) Desolventized meal

	Original			Increased	
	148	tons/hr		198	tons/hr
Normal Operating Conditions	100	ppm for	8730 hrs/yr		
Solvent Content	29.6	lbs/hr		39.6	lbs/hr
Solvent Content	**129.20**	tons/yr		**172.85**	tons/yr
Upset Conditions	625	ppm for	30 hrs/yr		
Solvent Content	185	lbs/hr		248	lbs/hr
Solvent Content	**2.78**	tons/yr		**3.71**	tons/yr
Annual Emissions =	**131.98**			**176.57**	

Notes:
[1] Provided by the source in T085-21297-00102, issued on Janurary 24, 2006.

Methodology:
Production (cu.ft./hr) = Capacity (tons/hr) * Meal Density (lb/cu. ft.) * 2000 lb/ton
Annual Emissions (lb/hr) = Production (cu. ft./hr) * Oil Density (lb/cu. ft.) * Concentration (ppm) ÷ 1,000,000
Annual Emisisons (tons/yr) = Annual Emissions (lbs/hr) * 8760 hr/yr ÷ 2000 lbs/ton

Appendix A: Emissions Calculations
Fugitive (VOC) Emissions from Soybean Extraction Process

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

f) Plant Startup/Shutdown

Startup Solvent Loss =	8,400	lbs or	1,500	gallons	
Shutdown Solvent Loss =	8,400	lbs or	1,500	gallons	
Startup Duration =	2	hrs			
Shutdown Duration =	2	hrs			
Total Duration =	4	hrs			
Frequency =	2	times/yr			
Annual Emissions =	4,200	lbs/hr	for	8	hrs/yr
Annual Emissions =	16.80	tons/yr			

g) General due to Equipment Failure, Routine Maintenance, and Leaks

These losses occur throughout the year, and there are no clearly predetermined conditions.
Based on experience at this type of facility, the general emission factor equals 0.28 lbs/ton of beans.

Original Emissions =	0.28	lbs/ton of beans *	192.5	tons/hr *	8760	hr/yr ÷	2000	hr/yr
Original Emissions =	236.08	tons/yr						
Increased Emissions =	0.28	lbs/ton of beans *	264	tons/hr *	8760	hr/yr ÷	2000	hr/yr
Increased Emissions =	323.77	tons/yr						

h) Plant Upsets

Duration =	3	hrs
Frequency =	10	times/yr

When the system loses normal vacuum (negative pressure) condition, VOCs are lost.

Original Air Flow in Flakes =	192.5	tons/hr *	2000	lb/ton ÷	60	min/hr ÷	(75-15) lb/cfm
Original Air Flow in Flakes =	106.9	cfm					
Increased Air Flow in Flakes =	264	tons/hr *	2000	lb/ton ÷	60	min/hr ÷	(75-15) lb/cfm
Increased Air Flow in Flakes =	146.7	cfm					

Assume the amount of VOCs lost to the atmosphere is roughly equal to the air normally pulled in.

Original Emissions =	106.9	cfm *	60	min/hr *	0.2	lbs/cu.ft. ÷	2000	lb/ton *	30	hr/yr
Original Emissions =	19.25	tons/yr								
Increased Emissions =	146.7	cfm *	60	min/hr *	0.2	lbs/cu.ft. ÷	2000	lb/ton *	30	hr/yr
Increased Emissions =	26.40	tons/yr								

Methodology:
These fugitive calculations were provided by the source and are shown in Part 70 Permit No. T085-21297-00102 issued on January 24, 2006.

Appendix A: Emission Calculations
VOC Emissions
Biodiesel Manufacturing Process

Company Name: **Louis Dreyfus Agricultural Industries LLC**
Address City IN Zip: **7344 State Road 15 South, Claypool, Indiana 46510**
Significant Source Modification No.: **085-31960-00102**
Significant Permit Modification No.: **085-31979-00102**
Permit Reviewer: **John Haney**
Date: **August 13, 2012**

This process is controlled by a soy oil absorber followed by a water absorber and vents through stack S-5.
Emissions from day tanks, methanol storage tanks, and methoxide (catalyst) storage tank are also controlled by the water absorber and vent through Stack S-5.
Biodiesel storage tanks vent to day tanks.

Process Description	VOC Emission Limit (lb/hr)	Operating Hours (hrs/yr)	Limited PTE of VOC (tons/yr)	Control Efficiency	Unlimited PTE of VOC (tons/yr)
Normal Operation[1,2]	0.30	7,736	1.16	99%	116.04
Normal Operation with Methanol Unloading[1,2,3]	0.63	1,000	0.32	99%	31.50
Upset Conditions[1,4]	29.40	24	0.35	95%	7.06
	TOTAL	**8,760**	**1.83**		**154.60**

Notes:
[1] This emission limit was proposed by the permittee and will be verified by stack testing.
[2] This emission limit and control efficiency are the BACT requirements for the biodiesel manufacturing process pursuant to T085-21297-00102, issued on January 24, 2006
[3] Biodiesel manufacturing process with methanol tank loading is limited to 1,000 hours/yr.
[4] Biodiesel manufacturing process upset operation is limited to 24 hours/yr.

Methodology:
Limited PTE of VOC (tons/yr) = VOC Emission Limit (lbs/hr) x Operating Hours (hrs/yr) x 1 ton/2000 lbs
Unlimited PTE of VOC (tons/yr) = Limited PTE of VOC ÷ (1 - Control Efficiency)

Appendix A: Emission Calculations
VOC Emissions
Biodiesel Loading Racks (Rail and Truck)

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

Process Description	Capacity (gal/min)	[1]VOC Emission Factor (lbs/kgal)	[2]VOC Emission Limit (lbs/kgal)	Max. Throughput (kgal/yr)	Unlimited PTE of VOC (tons/yr)	[3]Limited Throughput (kgal/yr)	Limited PTE of VOC (tons/yr)
Loading Rack (Rail)	500	0.03	0.02	262,800	3.94	110,000	1.10
Loading Rack (Truck Rack #1)	430	0.03	0.02	226,008	3.39		
Loading Rack (Truck Rack #2)	430	0.03	0.02	226,008	3.39		

Notes:

[1] The unlimited PTE was calculated using the VOC emission factor for Splash loading - Dedicated normal service of Distillate Oil No. 2 (0.03 lbs/kgal) from Table 5.2-5 AP-42 Chapter 5.2 Transportation And Marketing Of Petroleum Liquids because biodiesel is assumed to be similar to distillate oil no. 2 for the purpose of determining the Maximum PTE.

[2] These VOC emission limits are pursuant to SPM 085-25147-00102, issued on January 28, 2008.

[3] The limited throughput was pursuant to SPM 085-25147-00102, issued on January 28, 2008. Limited emissions shown are based on the limited VOC emission limit (0.02 lbs/kgal) and the limited throughput.

Methdology:

Max. Throughput (kgal/yr) = Capacity (gal/min) * 60 min/hr * 8760 hrs/yr ÷ 1,000 gal/kgal
Uncontrolled PTE of VOC (tons/yr) = VOC Emission Limit (lbs/kgal) * Max. Throughput (kgal/yr) ÷ 2000 lb/ton
Limited PTE of VOC (tons/yr) = VOC Emission Limit (lbs/kgal) * Limited Throughput (kgal/yr) ÷ 2000 lb/ton

Appendix A: Emission Calculations
VOC Emissions
Glycerine Storage Tanks, Biodiesel Wastewater, and Equipment Leaks

Company Name: **Louis Dreyfus Agricultural Industries LLC**
Address City IN Zip: **7344 State Road 15 South, Claypool, Indiana 46510**
Significant Source Modification No.: **085-31960-00102**
Significant Permit Modification No.: **085-31979-00102**
Permit Reviewer: **John Haney**
Date: **August 13, 2012**

Process Description	VOC Emission Limit (lbs/hr)	Max. Operating Hours (hrs/yr)	PTE of VOC after Control (tons/yr)	Control Efficiency	PTE of VOC before Control (tons/yr)
Glycerine Tanks #12 and #13	0.0011	8,760	0.0048	0%	0.0048
Biodiesel Wastewater (Fugitive)	0.77	8,760	3.37	0%	3.37
Equipment Leaks (Fugitive)	0.64	8,760	2.80	78%	12.74
Total			**6.18**		**16.12**

Notes:
The VOC emission rates for these processes were calculated based on the maximum soy oil process rate of 110 million gallons per year.
The VOC limits were established pursuant to SPM 085-25147-00102.
The control efficiency for equipment leaks is from Protocol for Equipment Leak Emission Estimates, EPA-453/R-95-017, Table 5-2.

Methodology:
PTE of VOC after Control (tons/yr) = VOC Emission Rate (lbs/hr) * Max. Operating Hours (hrs/yr) ÷ 2000 lb/ton
PTE of VOC before Control (tons/yr) = PTE of VOC after Control (tons/yr) ÷ (1 - Control Efficiency)

Appendix A: Emission Calculations
VOC Emissions
Biodiesel Storage Tanks

Company Name: **Louis Dreyfus Agricultural Industries LLC**
Address City IN Zip: **7344 State Road 15 South, Claypool, Indiana 46510**
Significant Source Modification No.: **085-31960-00102**
Significant Permit Modification No.: **085-31979-00102**
Permit Reviewer: **John Haney**
Date: **August 13, 2012**

Unit ID	Emission Unit Description	Storage Capacity	PTE of VOC (lbs/yr/unit)	Number of Units	PTE of VOC (tons/yr)
I140000	Biodiesel Storage Tank #14	735,000 gallons	1,426.55	1	0.71
I040000 and I050000	Biodiesel Storage Tank #4 and Biodiesel Storage Tank #5	725,000 gallons	1,762.00	2	1.76
I060000	Biodiesel Storage Tank #6	360,000 gallons	657.69	1	0.33
I070000, I080000, I090000, I100000, and I110000	Biodiesel Storage Tanks #7, Tank #8, Tank #9, Tank #10, and Tank #11	325,000 gallons	601.76	5	1.50
				TOTAL	**4.31**

Notes:
The PTE of VOC from the tanks were calculated by the Permittee using EPA TANKS software (version 4.09d) and have been verified.

Methodology:
PTE of VOC (tons/yr) = PTE of VOC (lbs/yr/unit) * Number of Units ÷ 2000 lb/ton

Appendix A: Emissions Calculations
PM/PM_{10} Emissions
Noncontact Cooling Towers

Company Name: **Louis Dreyfus Agricultural Industries LLC**
Address City IN Zip: **7344 State Road 15 South, Claypool, Indiana 46510**
Significant Source Modification No.: **085-31960-00102**
Significant Permit Modification No.: **085-31979-00102**
Permit Reviewer: **John Haney**
Date: **August 13, 2012**

Process Description:

Type of [2]Cooling Tower:	Induced Draft		
[1]Circulation Flow Rate:	660,000	gal/hr	
[1]Total Drift:	0.005%	of the circulating flow	
[1]Maximum Total Dissolved Solids:	3,600	ppm*	*Average Total Dissolved Solids: 2,400 ppm
Density:	8.345	lbs/gal	

Potential to Emit PM/PM10/PM2.5:

Assume all the dissolved solids become PM10 emissions and assume PM emissions are equal to PM10 emissions.

PTE of $PM/PM_{10}/PM_{2.5}$ (lb/hr) =	660,000 gal/hr x 0.005% x 8.345 lbs/gal x 3,600 ppm ÷ 1,000,000 ppm =	0.99	lb/hr
PTE of $PM/PM_{10}/PM_{2.5}$ (tons/yr) =	0.99 lbs/hr x 8760 hr/yr ÷ 2000 lb/ton =	4.34	tons/yr

Notes:
The information above was provided by the source, pursuant to T085-21297-00102 issued on January 24, 2006.
Calculation based on AP-42 Chapter 13.4. Assume that non VOC biocide utilized; therefore no VOCs included.
The cooling tower is a noncontact cooling tower, and it serves both the extraction plant and the biodiesel plant.
The approximate relative distribution of water to the cooling tower would be around 90% from extraction and 10% from biodiesel.
Fugitive emissions from the cooling tower are counted towards the biodiesel plant for PSD purposes, but not towards the extraction plant.

Appendix A: Emission Calculations
Soybean Oil Unloading

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

Determine Emission Factors for Soybean Oil Unloading at Louis Dreyfus Agricultural Industries LLC

Use Equation 1 from AP-42 Section 5.2 Transportation and Marketing of Petroleum Liquids

Pursuant to AP-42, Section 5.2-4, emissions from loading petroleum liquid can be estimated (with a probable error of ± 30 percent) using the following expression:

$$L_L = 12.46 \frac{SPM}{T}$$

L_L = loading loss, pounds per 1000 gallons (lb/10^3 gal) of liquid loaded
S = a saturation factor (see Table 5.2-1)
P = true vapor pressure of liquid loaded, pounds per square inch absolute (psia) (see Section 7.1, "Organic Liquid Storage Tanks")
M = molecular weight of vapors, pounds per pound-mole (lb/lb-mole) (see Section 7.1, "Organic Liquid Storage Tanks")
T = temperature of bulk liquid loaded, °R (°F+460)
Soy = volume of soybean oil transferred
Hexane = volume of hexane transferred

Calculations for Soybean Oil portion of emissions

S = 0.60 Submerged Loading: dedicated normal service
M = 292 lb/lb-mol (per TANKS calculation)
Soy = 452,016,000 gal/year (The maximum rate that crude oil may be unloaded is the same as for truck loadout at 430 gallons per minute) x 2 truck racks

T, deg F	**T**, deg R	[1] **P**, psia	L_L, lb/10^3 gal	Emissions from Soy, lb/year	L_L, lb/10^3 gal with 30% error	Emissions from Soy, lb/year with 30% error
60	519	1.081E-14	4.543E-14	2.053E-08	5.906E-14	2.669E-08
100	559	1.641E-12	6.402E-12	2.894E-06	8.322E-12	3.762E-06

Note 1: P, psia is calculated on the next page

Calculations for Hexane portion of emissions

S = 1.45 Submerged Loading: dedicated normal service
M = 86.17 lb/lb-mol (AP-42, Section 7.1, Table 7.1-3)
Hexane = 452,016 gal/year (@1000 ppm (worse case))

T, deg F	**T**, deg R	[2]**P**, psia	L_L, lb/10^3 gal	Emissions from Hexane, lb/year	L_L, lb/10^3 gal with 30% error	Emissions from Hexane, lb/year with 30% error
60	519	1.876	5.6233	2,541.82	7.3103	3,304.37
100	559	4.892	13.6145	6,153.96	17.6988	8,000.15

Note 2: P, psia was provided by source

Total Potential to Emit

T, deg F	Total Emissions, lb/year	Total Emissions, ton/year
60	3,304.37	1.65
100	8,000.15	4.00

Annual Average Temp = 58.82F

Appendix A: Emission Calculations
Calculations for Vapor Pressure for Soybean Oil Unloading

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

Instructions: Enter the vapor pressure from the MSDS in B17, and the Celsius temperature for that vapor pressure in C17. Then enter the atmospheric boiling point (deg C) in C19. Values for the condensation spreadsheet calculate automatically.

	mmHg	deg C	K
MSDS vapor pressure data	0.000000001	50	323
MSDS boiling point		300	573

	B	A
Clausius-Clapeyron coefficients	20253	42
ln P = A- B/T		

For condensation worksheet	p, mmHg	T, deg C	T, deg R	T, deg F	P, psia
	3.4E-14	4	499	40.04	6.562E-16
	1.42E-13	10	509	50.02	2.7406E-15
	5.6E-13	16	519	59.98	1.0808E-14
	2.1E-12	21	529	69.95	4.053E-14
	7.6E-12	27	539	80.02	1.4668E-13
	2.6E-11	32	549	90.02	5.018E-13
	8.5E-11	38	559	100.01	1.6405E-12
	100	269	975	516.03	1.93

Saturation vapor pressure: 8.56282E-20 atm

Appendix A: Emission Calculations
VOC Emissions
Other Tanks

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

Unit ID	Equipment Description	Capacity	Control Efficiency	Pot'l VOC Working Loss (lbs/yr)	Pot'l VOC Standing Loss (lbs/yr)	Pot'l VOC Max Emissions (lbs/yr)	Pot'l VOC Max Emissions (tons/year)	Pot'l VOC After Control (tons/year)
I220000	[1]One (1) Soybean Oil Pre-Treat Tank	35,170 gallons	0%	0.00	0.00	0.00	0.01	0.01
	[3]3 Soybean Oil Tanks (Degummed Oil Tanks #1 and #2 and Crude Oil Tank #3)	725,000 gallons each	0%	See Note 3			<= 1.0	<= 1.0
	[4]5 Hexane Tanks	20,690 gallons	98%	142.47	661.93	4,022	2.01	0.04
	Diesel/#2 Fuel Oil Storage Tank	44,839 gallons	0%	26.78	0.88	27.66	0.014	0.014

Original Throughput = 110 million gallons per year
Proposed Throughput = 119 million gallons per year

Unit ID	Equipment Description	Capacity	Control Efficiency	Original Pot'l VOC Max Emissions (lbs/yr)	Proposed Pot'l VOC Max Emissions (lbs/yr)	Proposed Pot'l VOC Max Emissions (tons/year)	Proposed Pot'l VOC After Control (tons/year)
I250000, I260000, I270000, I280000, I290000, and I300000	[2,5]6 Methanol Tanks	38,850 gallons each	98.35%	8,299.44	8,978.49	4.49	0.07
I230000 and I240000	[2,5]2 Sodium Methylate Tanks	38,850 gallons each	98.35%	1,103.59	1,193.88	0.60	0.01

Notes:

[1] Pursuant to 085-27442-00102, issued on January 25, 2010, the tank has potential VOC emissions of less than 0.01 ton/year.

[2] Stack test result from the existing soy oil absorber and water absorber controlling the biodiesel production plant has a control efficiency of 98.35% for VOC (methanol only). Methanol storage tanks and sodium methylate tanks are controlled by the soy oil absorber.

[3] Emissions from the biodiesel storage tanks were calculated by the Permittee using EPA TANKS software (version 4.09d) storing oil with an average of 200 ppmwt hexane content are equal to 0.06 tons/yr per tanks. The source has three tanks and the ppmwt hexane varies in the purchased soy oil. Therefore, to be conservative the PTE from VOC from the purchased soy oil from all three tanks is assumed to be less than or equal to 1 ton of VOC per year.

[4] Hexane tanks are used at the soy oil extraction plant and are controlled by a mineral oil absorber with assumed control efficiency of 98%.

[5] The methanol/sodium methylate unloading pump is being replaced with a larger pump, allowing these tanks to increase their unloading rate to 119 million gallons per year.

Methodology:

VOC Max Emissions (tons/yr) = VOC Max Emissions (lb/yr) ÷ 2000 lb/ton
VOC After Control (tons/yr) = VOC Max Emissions (tons/yr) * (1 - Control Efficiency)
Proposed Pot'l VOC Max Emissions (tons/yr) = Original Pot'l VOC Max Emissions (tons/yr) * Proposed Throughput ÷ Original Throughput

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

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

Annual fugitive particulate emissions from Trucks on paved roads = VMT * E

Calculate VMT:

		Annual Tonnage	Trips per Year	Trips per Day	Vehicle Weight (tons)	VMT per trip (miles/trip)	VMT per year (miles/yr)	Avg Vehicle Weight (tons)
Bean	Full	1,686,300	64858	178	40	0.314	20,391	
	Empty	---	64858	178	14	0.636	41,273	
Meal	Empty	---	49865	137	14	0.379	18,888	
	Full	1,296,480	49865	137	40	0.572	28,521	26.1
Hull/Pellet	Empty	---	1937	5.3	14	0.379	734	
	Full	50,370	1937	5.3	40	0.572	1,108	
Oil	Empty	---	15000	41.1	15	0.417	6,250	
(110 MM gal)	Full	375,000	15,000	41.1	40	0.534	8,011	
Totals		**3,408,150**		**360.7**			**125,176**	

Calculate E:

Unmitigated Emission Factor, Ef = **[k * (sL)^0.91 * (W)^1.02]** (Equation 1 from AP-42 13.2.1.3 (01/2011)

Where
E = particulate emission factor (lb/VMT)
k = particle size multiplier (lb/VMT)
sL = road surface silt loading (g/m^2)
W = weight average (tons) of vehicles traveling the road

k =	0.011	lb/VMT	for PM30 = TSP = PM
k =	0.0022	lb/VMT	for PM10
k =	0.00054	lb/VMT	for PM2.5
sL =	0.6	grams/m^2	
W =	26.1	tons	
E_{PM} =	0.193	lbs PM/VMT	
E_{PM10} =	0.039	lbs PM_{10}/VMT	
$E_{PM2.5}$ =	0.009	lbs $PM_{2.5}$/VMT	

Calculate Emissions:

Grain Elevator Original Capacity	=	1,686,300	tons/yr	Grain Elevator Proposed Capacity	=	2,251,836	tons/yr
Total fugitive PM	=	VMT x E_{PM}		Total fugitive PM	=	VMT x E_{PM}	
	=	24,102	lbs/yr		=	32,185	lbs/yr
	=	2.75	lbs/hr		=	3.67	lbs/hr
	=	12.05	tons/yr		=	16.09	tons/yr
Total fugitive PM10	=	VMT x E_{PM10}		Total fugitive PM10	=	VMT x E_{PM10}	
	=	4,820	lbs/yr		=	6,437	lbs/yr
	=	0.55	lbs/hr		=	0.73	lbs/hr
	=	2.41	tons/yr		=	3.22	tons/yr
Total fugitive PM2.5	=	VMT x $E_{PM2.5}$		Total fugitive PM2.5	=	VMT x $E_{PM2.5}$	
	=	1,183	lbs/yr		=	1,580	lbs/yr
	=	0.14	lbs/hr		=	0.18	lbs/hr
	=	0.59	tons/yr		=	0.79	tons/yr

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

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

Annual fugitive particulate emissions from Cars on paved roads = VMT * E

Calculate VMT:

VMT = (Total number cars) * (Maximum car mileage onsite)*(365 days/yr)

Assume Total Number Cars = Number of Employess
Total Number Cars = 70

Maximum car mileage onsite = 0.5 miles

VMT = Total number of cars x Maximum car mileage onsite/day x 365 days/year
= 12775

Calculate E:

Unmitigated Emission Factor, Ef = [k * (sL)^0.91 * (W)^1.02] (Equation 1 from AP-42 13.2.1.3 (01/2011)

Where E = particulate emission factor (lb/VMT)
k = particle size multiplier (lb/VMT)
sL = road surface silt loading (g/m^2)
W = weight average (tons) of vehicles traveling the road

k =	0.011	lb/VMT	for PM30 = TSP = PM
k =	0.0022	lb/VMT	for PM10
k =	0.00054	lb/VMT	for PM2.5
sL =	0.6	$grams/m^2$	
W =	2.0	tons	
E_{PM} =	0.0140	lbs PM/VMT	
E_{PM10} =	0.0028	lbs PM_{10}/VMT	
$E_{PM2.5}$ =	0.0007	lbs $PM_{2.5}$/VMT	

Calculate Emissions:

Total fugitive PM	=	VMT x E_{PM}	
	=	179	lbs/yr
	=	0.02	lbs/hr
	=	0.09	tons/yr
Total fugitive PM10	=	VMT x E_{PM10}	
	=	36	lbs/yr
	=	0.004	lbs/hr
	=	0.02	tons/yr
Total fugitive PM2.5	=	VMT x $E_{PM2.5}$	
	=	8.79	lbs/yr
	=	0.001	lbs/hr
	=	0.004	tons/yr

Appendix A: Emissions Calculations
Combustion Summary

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.:085-31960-00102
Significant Permit Modification No.:085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

	Uncontrolled PTE (tons/year)							
Emission Units	**PM**	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**NO_x**	**VOC**	**CO**	**GHGs as CO_2e (tons/yr)**
Boiler (natural gas only)	1.79	7.18	7.18	0.57	132.26	5.20	79.36	113,598
Boiler (#2 fuel oil only)	13.77	22.71	22.71	488.68	68.83	1.38	34.41	154,074
Entire Source (worse case)	13.77	22.71	22.71	488.68	132.26	5.20	79.36	154,074
Fire Pumps (diesel fuel)	0.95	0.95	0.95	0.44	13.37	1.08	2.88	498
Total	**14.71**	**23.66**	**23.66**	**489.12**	**145.63**	**6.28**	**82.24**	**154,571**

	Limited PTE (tons/year)							
Emission Units	**PM**	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**NO_x**	**VOC**	**CO**	**GHGs as CO_2e (tons/yr)**
Boiler (natural gas only)	13.75	22.73	22.73	0.50	115.78	5.21	69.47	99,444
Boiler (#2 fuel oil only)	13.75	22.73	22.73	248.50	35.00	5.21	17.50	78,348
[1]Entire Source (worse case)	13.75	22.73	22.73	248.50	115.78	5.21	69.47	99,444.0
Fire Pumps (diesel fuel)	0.95	0.95	0.95	0.44	13.37	2.50	2.88	497.6
Total	**14.70**	**23.68**	**23.68**	**248.94**	**129.15**	**7.71**	**72.35**	**99,941.6**

HAPs Emission Summary

	[2]Uncontrolled PTE (tons/year)								
	HAPs - Organics								
Total worst case individual HAPs from Boiler, generator and fire pumps	Acetaldehyde	Arsenic	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Xylenes	Benzene	Lead
	2.32E-03	3.85E-03	1.1E-03	0.07	1.70	4.45E-03	8.60E-04	4.80E-03	9.14E-03
	HAPs - Metals								
	Beryllium	Cadmium	Chromium	Manganese	Nickel	Mercury	Selenium	Total PAH	**Total**
	2.89E-03	3.93E-03	4.21E-03	0.01	4.87E-03	2.89E-03	0.01	5.07E-04	**1.84**

Notes:

[1] The entire source is limited to less than 99,444.0 tons/yr of CO2e while combusting both natural gas and #2 fuel combined in order to keep the sourcewide PTE of C(less than 100,000 tons/yr and keep the source minor under 326 IAC 2-2 (PSD). The source does not need to keep records of diesel fuel usage in the emergency fire pumps because their uncontrolled CO2e emissions are included in the source total.

[2] Limited PTE (tons/yr) is not shown for HAPs because it will change upon the usage of natural gas and #2 fuel in the boile

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR >100
Boiler B-1

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

Name	Chemical Formula	Global warming potential
Carbon dioxide	CO_2	1
Methane	CH_4	21
Nitrous oxide	N_2O	310

Boiler B-1 Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/year)	***Limited Fuel (MMCF/year)	
220	1,889.4	1,654.0	usage for entire source

	Pollutant							Greenhouse Gas		
	PM*	PM10*	PM2.5	SO_2	NOx	VOC	CO	CO2	CH4	N2O
Emission Factor (lb/MMCF)	1.9	7.6	7.6	0.6	140.0 **see below	5.5	84.0	120,000	2.3	0.64
								113,364.71	2.17	0.60
Unlimited Potential Emissions (tons/yr)	1.79	7.18	7.18	0.57	132.26	5.20	79.36	Summed Potential Emissions		113,367
								Total CO_2e		113,598
***Limited (by fuel oil usage) Potential Emissions (tons/yr)	1.57	6.29	6.29	0.50	115.78	4.55	69.47	99,240.00	1.90	0.53
***Limited (by lb/hr limits) Potential Emissions (tons/yr)	13.75	22.73	22.73	N/A	N/A	5.21	N/A	N/A	N/A	N/A
Maximum Limited Potential Emissions (tons/yr)	13.75	22.73	22.73	0.50	115.78	5.21	69.47	99,240.00	1.90	0.53
								Summed Limited Emissions		99,242
								Total Limited CO_2e		99,444

*PM emission factor is filterable PM only. PM10 and PM2.5 emission factors are filterable and condensable PM combined.
**Emission Factors for NOx from Large Wall-Fired Boilers: Uncontrolled (Pre-NSPS) = 280, Uncontrolled (Post-NSPS) = 190, Controlled Low NOx Burners = 140, Controlled Flue gas recirculation = 100
***Limited emissions are in order to render the requirements of 326 IAC 2-2 (PSD) not applicable. See TSD for specific limits for each pollutant.

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
NOx and CO Emission Factors are from AP 42, Chapter 1.4, Table 1.4-1
PM and SO_2 Emission Factors are from AP 42, Chapter 1.4, Table 1.4-2
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Potential Emission (tons/yr) = Potential Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Potential Emission (tons/yr) = Potential Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Total CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

See next page for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR >100
HAPs Emissions
Boiler B-1

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

Boiler B-1 Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/year)	***Limited Fuel (MMCF/year)	
220.00	1889.4	1654	usage for entire source

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.98E-03	1.13E-03	0.0709	1.700	3.21E-03
***Limited Potential Emission Fuel in tons/yr	1.74E-03	9.92E-04	6.20E-02	1.49E+00	2.81E-03

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	Total
Potential Emission in tons/yr	4.72E-04	1.04E-03	1.32E-03	3.59E-04	1.98E-03	1.783
***Limited Potential Emission Fuel in tons/yr	4.14E-04	9.10E-04	1.16E-03	3.14E-04	1.74E-03	1.561

Methodology:
Methodology is the same as previous page.
Organic HAPs Emission Factors are from AP 42, Chapter 1.4, Table 1.4-3
Metal HAPs Emission Factors are from AP 42, Chapter 1.4, Table 1.4-4
The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4, Tables 1.4-3 and 1.4-4
Limited Emission (tons/yr) = Limited Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors
No. 2 Fuel Oil Fired - Boiler

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

Name	Chemical Formula	Global warming potential
Carbon dioxide	CO_2	1
Methane	CH_4	21
Nitrous oxide	N_2O	310

Bolier B-1 Heat Input Capacity (MMBtu/hr)	Potential Throughput (kgals/year)	***Limited Fuel (kgals/year)		S = Weight % Sulfur
220	13,765.71	7,000	usage for entire source	0.5

	Pollutant							Greenhouse Gas		
	PM*	PM10**	PM2.5**	SO_2	NOx	VOC	CO	CO2	CH4	N2O
Emission Factor (lb/kgal)	2.0	3.3	3.3	71 *(142.0S)*	10.0	0.20	5.0	22,300	0.216	0.26
								153,487.71	1.49	1.79
Unlimited Potential Emissions (tons/yr)	13.77	22.71	22.71	488.68	68.83	1.38	34.41	Summed Potential Emissions		153,491
								Total CO_2e		154,074
***Limited (by fuel oil usage) Potential Emissions (tons/yr)	7.00	11.55	11.55	248.50	35.00	0.70	17.50	78,050.00	0.76	0.91
***Limited (by lb/hr limits) Potential Emissions (tons/yr)	13.75	22.73	22.73	N/A	N/A	5.21	N/A	N/A	N/A	N/A
Maximum Limited Potential Emissions (tons/yr)	13.75	22.73	22.73	248.50	35.00	5.21	17.50	78,050.00	0.76	0.91
								Summed Limited Emissions		78,052
								Total Limited CO_2e		78,348

* PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.
** PM10 and PM2.5 emission factors are filterable and condensable PM combined.
*** The limited emissions are in order to render the requirements of 326 IAC 2-2 (PSD) not applicable. The PM, PM_{10}, and VOC emission limits are pursuant to Operating Permit No. T085-21297-00102.
The $PM_{2.5}$ and fuel usage limits are pursuant to Operating Permit Renewal No. T085-29197-00102. The source requested that the fuel limit be source-wide and not specific to the boiler.

Methodology
1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu
Emission Factors are from AP 42 May 2010, Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, and 1.3-12. NOx emission factor for No. 2 oil fired, LNB/FGR. VOC emission factor for Industrial boiler - distillate oil fired (1-02-005-01/02/03)
Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu
Potential Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton
Limited Emission (tons/yr) = Limited Fuel (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton
The CO2 Emission Factor for #1 Fuel Oil is 21500. The CO2 Emission Factor for #2 Fuel Oil is 22300.
Emission Factors are from AP 42, Tables 1.3-3, 1.3-8, and 1.3-12 (SCC 1-03-005-01/02/03) Supplement E 9/99 (see erata file)
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Potential Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton
Total CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

See next page for HAPs emission calculations.

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors
No. 2 Fuel Oil Fired - Boiler
HAPs Emissions

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

Heat Input Capacity MMBtu/hr calculated from limited fuel (kgals/year)	***Limited Fuel (kgals/year)
111.87	7000.00

	HAPs - Metals				
	Arsenic	Beryllium	Cadmium	Chromium	Lead
Emission Factor in lb/mmBtu	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06
Potential Emission in tons/yr	3.85E-03	2.89E-03	2.89E-03	2.89E-03	0.009
***Limited Potential Emission Fuel in tons/yr	1.96E-03	1.47E-03	1.47E-03	1.47E-03	0.004

	HAPs - Metals (continued)				
	Mercury	Manganese	Nickel	Selenium	
Emission Factor in lb/mmBtu	3.0E-06	6.0E-06	3.0E-06	1.5E-05	Total (tons/yr)
Potential Emission in tons/yr	2.89E-03	0.006	2.89E-03	0.014	0.047
***Limited Potential Emission Fuel in tons/yr	1.47E-03	2.94E-03	1.47E-03	7.35E-03	0.024

***Limited emissions are in order to render the requirements of 326 IAC 2-2 (PSD) not applicable.

Methodology
Methodology is the same as previous page.
No data was available in AP-42 for organic HAPs.
Metal HAPs Emission Factors are from AP 42, Chapter 1.3, Table 1.3-10
Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8,760 hrs/yr / 2,000 lb/ton
Limited Emissions (tons/year) = Limited throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8,760 hrs/yr / 2,000 lb/ton

Appendix A: Emissions Calculations
No. 2 Distillate Fuel Oil Fired Emergency Fire Pumps

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

Name	Chemical Formula	Global warming potential
Carbon dioxide	CO_2	1
Methane	CH_4	21
Nitrous oxide	N_2O	310

SO2 Emission factor = 0.00205 x S
S = % Sulfur Content = 0.50

Three (3) Fire Pumps
Capacity in hp
1725.00

	Pollutant							Greenhouse Gas		
Emission Factor (lb/hp-hr)	PM* 2.200E-03	PM10* 2.200E-03	PM2.5* 2.200E-03	SO2 1.025E-03	**NOx 3.100E-02	VOC 2.514E-03 **TOC value	CO 6.680E-03	CO2 1.150	CH4 4.64E-05	N2O 9.28E-06
Unlimited Potential Emissions (tons/yr)	0.95	0.95	0.95	0.44	13.37	1.08	2.88	495.94	0.020	0.004
								Summed Potential Emissions		496
								Total CO_2e		498
*** Limited Potential Emissions (tons/yr)	N/A	N/A	N/A	N/A	N/A	2.50	N/A	N/A	N/A	N/A
Limited (worse case) Potential Emissions (tons/yr)	0.95	0.95	0.95	0.44	13.37	2.50	2.88	495.94	0.02	0.004
								Summed Limited Emissions		496
								Total Limited CO_2e		498

**The VOC value given is total organic compounds (TOC).
***Limited emissions are in order to render the requirements of 326 IAC 2-2 (PSD) not applicable. The PM, PM10 and VOC emission limits are pursuant to T085-21297-00102, issued on January 24, 2006

Methodology
MMBtu = 1,000,000 Btu
The generators are only emergency generators. Therefore, they will not operate more than 500 hours per year.
Emission Factors are from AP 42, Chapter 3.3, Table 3.3-1
*PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.
**The VOC value given is total organic compounds (TOC).
Potential Emission (tons/yr) = Hp x Emission Factor (lb/hp-hr)/2,000 lb/ton x 500 hrs/year.
Calculations are based using fuel oil with 0.50% sulfur content, changes in the % sulfur content of fuel oil will affect the actual amount of SO_2 that is emitted.
Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2
CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] * [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]
Total CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

See the following page for HAPs emissions calculations.

Appendix A: Emissions Calculations
No. 2 Distillate Fuel Oil Fired Emergency Fire Pumps

Company Name: Louis Dreyfus Agricultural Industries LLC
Address City IN Zip: 7344 State Road 15 South, Claypool, Indiana 46510
Significant Source Modification No.: 085-31960-00102
Significant Permit Modification No.: 085-31979-00102
Permit Reviewer: John Haney
Date: August 13, 2012

	HAPs						
	Benzene	Formaldehyde	Toluene	Xylenes	Acetaldehyde	Total PAH	TOTAL HAPs (tons/yr)
Emission Factor in lb/hp-hr	6.5E-06	8.3E-06	2.9E-06	2.0E-06	5.4E-06	1.2E-06	
Potential Emission in tons/yr	2.816E-03	3.562E-03	1.235E-03	8.603E-04	2.315E-03	5.072E-04	1.130E-02

Methodology:
Methodology is the same as previous page.
The six highest organic HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 3 Table 3.3-2
HAP emission factors converted from lb/MMBtu in Table 3.3-2 to lb/hp-hr using the follwing method:
Emission Factor in lb/MMBtu x 1 MMBtu/1,000,000 Btu x 7000 Btu/hp-hr = Emission Factor in lb/hp-hr
Conversion factor of 7,000Btu/hp-hr taken from AP-42, Table 3.3-1
Emission (tons/yr) = Hp x Emission Factor (lb/hp-hr)/2,000 lb/ton x 500 hrs/year.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Doug Lopshire
Louis Dreyfus Agricultural Industries LLC
7344 SR 15 S
Claypool, IN 46510-9746

DATE: October 11, 2012

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

SUBJECT: Final Decision
Title V
085-31979-00102

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:
David Jordan (ERM)
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 11/30/07

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
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Toll Free (800) 451-6027
www.idem.IN.gov

October 11, 2012

TO: Warsaw Community Public Library

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

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: Louis Dreyfus Agricultural Industries LLC
Permit Number: 085-31979-00102

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 11/30/07

Mail Code 61-53

IDEM Staff	CDENNY 10/11/2012 Louis Dreyfus Agricultural Industries LLC 085-31979-00102 (final)			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**	

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1		Doug Lopshire Louis Dreyfus Agricultural Industries LLC 7344 SR 15 S Claypool IN 46510-9746 (Source CAATS)									
2		Bruce Chapin VP Louis Dreyfus Agricultural Industries LLC 4800 Main St, Ste 600 Kansas City MO 64112 *(RO CAATS)*									
3		Warsaw Community Public Library 315 E Main St Warsaw IN 46580-2882 *(Library)*									
4		Kosciusko County Board of Commissioners 100 W. Center St, Room 220 Warsaw IN 46580 *(Local Official)*									
5		Claypool Town Council P.O. Box 6 Claypool IN 46510 *(Local Official)*									
6		Mr. Tim Thomas c/o Boilermakers Local 374 6333 Kennedy Ave. Hammond IN 46333 *(Affected Party)*									
7		Kosciusko County Health Department 100 W. Center Street, 3rd Floor Warsaw IN 46580-2877 *(Health Department)*									
8		David Jordan (ERM) 11350 N Meridian Street Suite #320 Carmel Indiana 46032 (Consultant)									
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