



*Mitchell E. Daniels, Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
(800) 451-6027  
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TO: Interested Parties / Applicant

DATE: January 7, 2010

RE: Cargill, Inc. - Soybean Processing Division / 157-25200-00038

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

### **Notice of Decision: Approval – Effective Immediately**

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted, 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 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).

For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

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.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of an initial Title V operating permit, permit renewal, 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 impracticable 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.



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
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Commissioner

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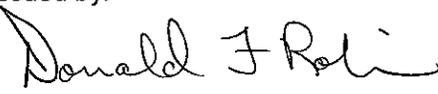
## Part 70 Operating Permit Renewal OFFICE OF AIR QUALITY

**Cargill, Inc. - Soybean Processing Division**  
**1502 Wabash Avenue**  
**Lafayette, Indiana 47905**

(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.: T157-25200-00038	
Issued by:  Donald F. Robin, P.E., Section Chief Permits Branch Office of Air Quality	Issuance Date: January 7, 2010  Expiration Date: January 7, 2015

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## SECTION A SOURCE SUMMARY

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

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

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The Permittee owns and operates a stationary soybean oil extraction plant consisting of conventional desolventizer system and flake desolventizer system.

Source Address:	1502 Wabash Avenue, Lafayette, Indiana 47905
Mailing Address:	1502 Wabash Avenue, Lafayette, IN 47905
General Source Phone Number:	(765)420-6612
SIC Code:	2075
County Location:	Tippecanoe
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD Rules Major Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(15)]

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

- (a) One (1) truck soybean receiving pit, constructed in 1989, with a maximum capacity of 25,000 bushels per hour, controlled by a receiving area baghouse #4 and exhausting at stack point # S-13.
- (b) One (1) totally enclosed truck soybean receiving pit drag conveyor (DC-431), constructed in 1989, with a maximum capacity of 25,000 bushels per hour, aspirated to baghouse #10, and exhausting at stack point # S-2.
- (c) One (1) totally enclosed soybean receiving pit drag conveyor (DC-432), constructed in 1989, with a maximum capacity of 25,000 bushels per hour, aspirated to baghouse #10, and exhausting at stack point # S-2.
- (d) One (1) rail soybean unloading system, constructed in 1956, with a maximum unloading capacity of 12,000 bushels per hour, controlled by baghouse #10 and exhausted at stack point S-2.
- (e) One (1) soybean receiving bucket elevator #301, constructed in 1989, with a maximum capacity of 25,000 bushels per hour, controlled by a baghouse #10 and exhausting at stack point # S-2.
- (f) Three (3) totally enclosed soybean drag conveyors (DC-441, 442, & 443) operated in series, constructed in 1988, each with a maximum capacity of 25,000 bushels per hour, each aspirated to baghouse #9 and exhausting at stack point # S-1.

- (g) One (1) totally enclosed soybean drag conveyor (DC-434), constructed in 1988, with a maximum capacity of 25,000 bushels per hour, aspirated to baghouse #10 and exhausting at stack point # S-2.
- (h) Four (4) soybean storage tanks, constructed in the 1950's, with a total capacity of 1,213,000 bushels.
- (i) Two (2) totally enclosed soybean drag conveyors (DC-436, & 437) operated in series, constructed in 1988, each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #10 and exhausting at stack point # S-2.
- (j) Two (2) totally enclosed soybean drag conveyors (DC-444, & 446) operated in series, constructed in 1988, each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #10 and exhausting at stack point # S-2.
- (k) One (1) soybean transfer bucket elevator #303, constructed in 1956, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #10 and exhausting at stack point # S-2.
- (l) One (1) Texas shaker #2 screener, constructed in 1988, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #1 and exhausting at stack point # S-3.
- (m) One (1) weed seed Kice, constructed in 1988, with a maximum capacity of 150 bushels per hour, controlled by a baghouse #1 and exhausting at stack point # S-3.
- (n) One (1) Kice #1, constructed in 1988, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #1 and exhausting at stack point # S-3.
- (o) Two (2) totally enclosed soybean drag conveyors (DC-448, & 448A) operated in series, constructed in 1986 (DC-448) and 1996 (DC-448A), each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #1 and exhausting at stack point # S-3.
- (p) One (1) totally enclosed soybean screw conveyor (SC212), constructed in 1989 with a maximum capacity of 150 bushels per hour.
- (q) One (1) 29 MMBtu natural gas fired soybean column dryer, constructed in 1986, with a maximum capacity of 5,000 bushels per hour and exhausting at stack point # S-20.
- (r) Two (2) totally enclosed soybean drag conveyors (DC-449, & 450) operated in series, constructed in 1986, each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #10 and exhausting at stack point # S-2.
- (s) One (1) dry soybean transfer bucket elevator #307, constructed in 1986, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #9 and exhausting at stack point # S-1.
- (t) One (1) totally enclosed dry soybean drag conveyor (DC-453), constructed in 1988, with a maximum capacity of 5,000 bushels per hour, aspirated to baghouse #9 and exhausting at stack point # S-1.
- (u) Eighteen (18) soybean bins (501, 502, 503, 506, 507, 508, 511, 512, 513, 516, 517, 518, 521, 522, 523, 526, 527, and 528), constructed in the 1930's, with a maximum total capacity of 261,000 bushels.

- (v) Two (2) totally enclosed soybean drag conveyors (DC-454, & 447) operated in series, constructed in 1986, each with a maximum capacity of 5,000 bushels per hour each, each aspirated to baghouse #10 and exhausting at stack point # S-2.
- (w) One (1) dry soybean transfer bucket elevator #304, constructed in 1956, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #10 and exhausting at stack point # S-2.
- (x) One (1) totally enclosed dry soybean drag conveyor (DC-400A), constructed in 1986, with a maximum capacity of 5,000 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.
- (y) One (1) soybean Thayer scale, constructed in 1986, with a maximum capacity of 5000 bushels per hour, controlled by a baghouse #3 and exhausting at stack point # S-7.
- (z) Two (2) weed seed bins (#207 & 208) constructed in 1930, with a maximum storage capacity of 14,000 bushels each, a total nominal throughput of 5,000 bushels per day.
- (aa) Two (2) totally enclosed soybean screw conveyors (SC 213 & 214), operated in series, constructed in 1986, each with a maximum capacity of 150 bushels per hour.
- (bb) Three (3) totally enclosed soybean meal drag conveyors (DC-427, 428, & 429) operated in series, constructed in 1988, each with a maximum capacity of 5,000 bushels per hour each.
- (cc) One (1) totally enclosed dry soybean drag conveyor (DC-400), constructed in 1986, with a maximum capacity of 5,000 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.
- (dd) Five (5) soybean surge bins, constructed in 1930, with a total maximum capacity of 22,000 bushels, and a total maximum throughput of 3,350 bushels per hour.
- (ee) Five (5) sets of cracking rolls (EU-6), constructed between 1986 and 2004, with a total maximum capacity of 3,350 bushels per hour (100.5 tons per hour), controlled by bag house #3 and exhausted at stack point S-7.
- (ff) Two (2) totally enclosed cracked soybean drag conveyor (DC-401 & 403) operated in series, constructed in 1986, each with a maximum capacity of 3350 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.
- (gg) One (1) primary Kice #1, constructed in 1986, with a maximum capacity of 3350 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.
- (hh) Two (2) totally enclosed cracked soybean screw conveyors (SC-201 & 202) operated in series, constructed in 1986, each with a maximum capacity of 3350 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.
- (ii) One (1) triple S shaker, constructed in 1994, with a maximum capacity of 3350 bushels per hour, controlled by a baghouse #3 and exhausting at stack point # S-7.
- (jj) One (1) hull grinder, constructed in 1986, with a maximum capacity of 6 tons per hour, controlled by a cyclone #3 and a baghouse #3 and exhausting at stack point # S-7.
- (kk) One (1) coarse cut aspiration, constructed in 1994, with a maximum capacity of 150 bushels per hour, controlled by a cyclone #1 and a baghouse #3 and exhausting at stack point # S-7.

- (ll) One (1) fine cut aspiration, constructed in 1994, with a maximum capacity of 150 bushels per hour, controlled by a cyclone #2 and a baghouse #3 and exhausting at stack point # S-7.
- (mm) One (1) rotary conditioner, constructed in 1982, with a maximum capacity of 3350 bushels per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.
- (nn) Four (4) totally enclosed conditioned soybean drag conveyor (DC-404, 405, 406 & 407), constructed in 1986, each with a maximum capacity of 3350 bushels per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.
- (oo) Two (2) flaker banks #1 & 2, constructed in 1986, with a maximum total capacity of 100.5 tons per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.
- (pp) Two (2) totally enclosed soybean flake screw conveyors (SC-206 & 207), constructed in 1986, with a total maximum capacity of 100.5 tons per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.
- (qq) Two (2) expanders (EU-12), constructed in 1986, with a total maximum capacity of 833 bushels per hour (25 ton per hour), controlled by cyclone #4 and exhausted at stack point S-5.
- (rr) One (1) totally enclosed soybean flake drag conveyor (DC-409), constructed in 2005, with a maximum capacity 3350 bushels per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.
- (ss) One (1) totally enclosed soybean flake drag conveyor (DC-410), constructed in 1986, with a maximum capacity of 100.5 tons per hour and exhausting at steam vents.
- (tt) One (1) totally enclosed soybean flake drag conveyor (DC-411), constructed in 1986, with a maximum capacity of 100.5 tons per hour and exhausting at safety vent.
- (uu) Two (2) fully enclosed, sealed conveyors, DC-412, and DC-413, and DT seal screw, constructed in 2006, with a maximum total capacity of 3,350 bushels per hour.
- (vv) One (1) totally enclosed soybean flake screw conveyor (SC-209), constructed in 1986, with a maximum capacity of 100.5 tons per hour.
- (ww) One (1) desolventizer/toaster (EU-16), constructed in 2006 with a maximum capacity of 3,350 bushels per hour controlled by the mineral oil system and exhausted at stack points S-15. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (xx) One (1) dryer/cooler with three (3) dryer decks and one (1) cooler deck; constructed in 1988 (cooler deck), 1990 (1st dryer deck), 2006 (2<sup>nd</sup> & 3<sup>rd</sup> dryer decks), with a maximum total capacity of 3350 bushels per hour, controlled by four (4) integral cyclones identified as # 6, 7, 8, and 9, and exhausted at stack points # S-11, S-12, S-21, and S-25. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (yy) One (1) totally enclosed soybean meal drag conveyor (DC-414), constructed in 1986, with a maximum capacity of 100.5 tons per hour.
- (zz) Two (2) totally enclosed soybean meal drag conveyors (DC 414A & 415), in series, constructed in 1986, each with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.

- (aaa) Three (3) meal sifters, constructed in 1986, with a maximum total capacity of 100.5 tons per hour.
- (bbb) One (1) totally enclosed oversized soybean meal drag conveyor (DC 416), constructed by 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.
- (ccc) One (1) totally enclosed soybean meal screw conveyor (SC 223), constructed in 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.
- (ddd) Three soybean meal grinders, constructed in 1986, with a maximum total capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.
- (eee) One (1) totally enclosed soybean meal screw conveyor (SC 221), constructed in 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.
- (fff) One (1) totally enclosed soybean meal drag conveyor (DC 417), constructed in 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.
- (ggg) One (1) dry soybean meal transfer bucket elevator (BE 300), constructed in 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.
- (hhh) Two (2) totally enclosed dry soybean meal drag conveyors (DC 418 & 419), in series, constructed in 1986, each with a maximum capacity of 100.5 tons per hour aspirated to a baghouse #2 and exhausting at stack point # S-6.
- (iii) One (1) 48% meal tank constructed in 1986 with a maximum capacity of 1,000 tons.
- (jjj) One (1) 44% meal tank constructed in 1986 with a maximum capacity of 500 tons.
- (kkk) One (1) truck soybean meal and hull loadout system, constructed in 1986, with a maximum capacity of 200 tons per hour and controlled by a baghouse #5 and exhausting at stack point # S-14.
- (lll) One (1) rail soybean meal and hull loadout system, constructed in 1986, with a maximum capacity of 200 tons per hour controlled by a baghouse #5 and exhausting at stack point # S-14.
- (mmm) One (1) pneumatic flake conveying system consisting of two material handling baghouses #6 and 7, constructed in 1989, with a maximum capacity of 31.5 tons per hour and exhausting at stack points # S-22 and 23.
- (nnn) One (1) pneumatic reject flake conveying system consisting of one material baghouse #8, constructed in 1986, with a maximum capacity of 9 tons per hour and exhausting at stack point # S-24.
- (ooo) One (1) totally enclosed soybean flake screw conveyor, constructed in 1989, with a maximum capacity of 9 tons per hour (SC 218).
- (ppp) Two (2) totally enclosed soybean flake drag conveyors (DC 461 & 462), in series, constructed in 1989, each with a maximum capacity of 200 tons per hour.

- (qqq) One (1) soybean flake loadout system, constructed in 1989, with a maximum capacity of 200 tons per hour controlled by a baghouse #7 and exhausting at stack point # S-23.
- (rrr) One (1) pod grinder, constructed in 1990, with a maximum capacity of 3 tons per hour controlled by baghouse # 10 and exhausted at stack point # S-2
- (sss) One (1) pneumatic hull conveying system consisting of one material handling filter separator, constructed in 1986, with a maximum capacity of 6 tons per hour and exhausting at stack point # S-4.
- (ttt) One (1) flake desolventizer system, constructed in 1989, with a maximum capacity of 100.5 tons per hour and controlled by a mineral oil absorber system. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (uuu) One (1) flake desolventizer system cooler collector, constructed in 1989, with a maximum capacity of 100.5 tons per hour equipped with a fabric filter media separator (baghouse #6) and exhausted at stack point S-22. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (vvv) One (1) first stage rising film evaporator associated with the solvent extraction equipment (EU-13), constructed in 2006, with a maximum capacity of 20 tons of soybean oil per hour and controlled by the mineral oil system and exhausted at stack point S-15. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (www) One (1) Iso-hexane conversion system (involving a rotocell condenser, a refrigerant type cooler with condenser and an additional cooling tower cell and pump), constructed in 2002, and controlled by the mineral oil system and exhausted at stack point S-15. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (xxx) One (1) mineral oil absorber system, constructed in 1982, with a maximum capacity of 150 pounds of hexane per hour and exhausted at stack point S-15. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (yyy) One (1) solvent/water separator, constructed in 2002, with a maximum capacity of 600 gallons per minute and controlled by the mineral oil system and exhausted at stack point S-15. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (zzz) One (1) boiler, identified as Boiler #1, constructed in 1955, with a heat input capacity of 60.0 MMBtu per hour, firing natural gas, distillate fuel oil, residual fuel oil, vegetable oil, animal fats ("tallow"), animal oils ("grease") or blends of these fuels. Emissions are exhausted to stack S-16.
- (aaaa) One (1) boiler, identified as Boiler #2, constructed in 1996, with a heat input capacity of 75.0 MMBtu per hour, firing natural gas, distillate fuel oil, residual fuel oil, vegetable oil, animal fats ("tallow"), animal oils ("grease") or blends of these fuels. Emissions are exhausted to stack S-17. Under NSPS, Subpart Dc, this unit is considered to be an affected facility.
- (bbbb) Two (2) hexane tanks #809 A & B, constructed in 2002 and 2009, with a capacity of 18,800 and 18,800 gallons respectively, vented to the process for control except under emergency conditions when they are vented through the relief valve. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

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

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

- (a) An emission unit or activity whose potential uncontrolled emissions meet the exemption levels specified in 326 IAC 2-1.1-3(e)(1) or the exemption levels specified in the following, whichever is lower:

- (1) For volatile organic compounds (VOC), the exemption limit is three (3) pounds per hour or fifteen (15) pounds per day.

And

For units with potential uncontrolled emissions of HAPs, that are not listed as insignificant in clauses (D) through (G) or defined as trivial in subdivision (40), an insignificant activity is any of the following:

- (1) Any unit, not regulated by a NESHAP, emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP.

Storage tanks emitting less than one (1) ton per year of a single HAP and less than fifteen (15) pounds per day of VOC.

- (1) Three (3) fuel oil storage tanks #860 A, B, and C, constructed in 1960, and with a maximum capacity of 25,000 gallons each.
- (2) One (1) fuel oil storage tank #815, constructed in 1960, and with a maximum capacity of 125,000 gallons.

- (b) Emissions from a laboratory as defined in this clause. As used in this clause, "laboratory" means a place or activity devoted to experimental study or teaching, or to the testing and analysis of drugs, chemicals, chemical compounds or other substances, or similar activities, provided that the activities described in this clause are conducted on a laboratory scale. Activities are conducted on a laboratory scale if the containers used for reactions, transfers, and other handling of substances are designed to be easily and safely manipulated by one (1) person. If a facility manufactures or produces products for profit in any quantity, it shall not be considered to be a laboratory under this clause. Support activities necessary to the operation of the laboratory are considered to be part of the laboratory. Support activities do not include the provision of power to the laboratory from sources that provide power to multiple projects or from sources that would otherwise require permitting, such as boilers that provide power to an entire facility.

- (c) Combustion related activities, including the following:

- (1) Space heaters, process heaters, heat treat furnaces, or boilers using the following fuels:
- (A) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.
- (B) Propane or liquified petroleum gas or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British thermal units per hour.
- (2) Combustion source flame safety purging on startup.

- (d) The following VOC and HAP storage containers:

- (1) Storage tanks with capacity less than or equal to one thousand (1,000) gallons and annual throughputs equal to or less than twelve thousand (12,000) gallons.
- (2) Vessels storing the following:
  - (A) Lubricating oils.
  - (B) Hydraulic oils.
  - (C) Machining fluids.
- (e) Cleaners and solvents characterized as:
  - (1) having a vapor pressure equal to or less than two (2.0) kilo Pascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pound per square inch) measured at thirty-eight (38) degrees Centigrade (one hundred (100) degrees Fahrenheit); or
  - (2) having a vapor pressure equal to or less than seven-tenths (0.7) kilo Pascal (five (5) millimeters of mercury or one-tenth (0.1) pound per square inch) measured at twenty (20) degrees Centigrade (sixty-eight (68) degrees Fahrenheit);

the use of which, for all cleaners and solvents combined, does not exceed one hundred forty-five (145) gallons per twelve (12) months.
- (f) Closed loop heating and cooling systems.
- (g) Water based activities, including the following:
  - (1) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to one percent (1%) by volume.
    - (A) Noncontact cooling tower systems with either of the following:
      - (i) Forced and induced draft cooling tower systems not regulated under a NESHAP.
- (h) Repair activities, including the following:
  - (1) Replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment.
  - (2) Heat exchanger cleaning and repair.
  - (3) Process vessel degassing and cleaning to prepare for internal repairs.
- (i) Asbestos abatement projects regulated by 326 IAC 14-10.
- (j) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including the following:
  - (1) Catch tanks.
  - (2) Temporary liquid separators.
  - (3) Tanks.
  - (4) Fluid handling equipment.
- (k) Blowdown for the following:

- (1) Sight glass.
- (2) Boiler.
- (3) Cooling tower.
- (4) Compressors.
- (5) Pumps.
- (l) Activities associated with emergencies, including the following:
  - (1) Stationary fire pump engines manufactured in the 1960s. Therefore, these units are not subject to the requirements of 40 CFR 60, Subpart IIII.
- (m) Purge double block and bleed valves.
- (n) Paved and unpaved roads and parking lots with public access. [6-5-4]

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

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

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

## SECTION B GENERAL CONDITIONS

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

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

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

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- (a) This permit, T157-25200-00038, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

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

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

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

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

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

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

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

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

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- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

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

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

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

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

and

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
  - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

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

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

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Emergency Provisions [326 IAC 2-7-16]

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- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

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

Telephone Number: 317-233-0178 (ask for Compliance and Enforcement Branch)  
Facsimile Number: 317-233-6865

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

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

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

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

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

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

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
  - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
  - (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
  - (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
  - (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report. Any emergencies that have been previously reported pursuant to

paragraph (b)(5) of this condition and certified by the "responsible official" need only referenced by the date of the original report.

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

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

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

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

- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

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

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- (a) All terms and conditions of permits established prior to T157-25200-00038 and issued pursuant to permitting programs approved into the state implementation plan have been either:
  - (1) incorporated as originally stated,
  - (2) revised under 326 IAC 2-7-10.5, or
  - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

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

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

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

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

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

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

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

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

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

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- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

- (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

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

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

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
  - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

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

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- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
  
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
  
Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
  
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

**B.19 Permit Revision Under Economic Incentives and Other Programs**

[326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

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

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

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- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b),(c), or (e) without a prior permit revision, if each of the following conditions is met:
  - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
  - (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
  - (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
  - (4) The Permittee notifies the:

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

and

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

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

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b),(c), or (e). The Permittee shall make such records available, upon reasonable request, for public review.

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

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

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

- (c) Emission Trades [326 IAC 2-7-20(c)]  
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

**B.21 Source Modification Requirement [326 IAC 2-7-10.5]**

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

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

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Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

**B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]**

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

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

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

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

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

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

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

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

**C.2 Opacity [326 IAC 5-1]**

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

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

**C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]**

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

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

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

**C.5 Fugitive Dust Emissions [326 IAC 6-4]**

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 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 by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

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

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

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

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

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

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

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

#### **C.9 Compliance Requirements [326 IAC 2-1.1-11]**

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

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

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

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

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

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

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

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

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

- (a) Prior to combusting residual fuel oil (fuel oils #4, #5, and #6) in Boiler no. 2 (S-17), the Permittee shall install, calibrate, maintain, and operate a COMS for measuring the opacity of the emissions from Boiler no. 2 discharged to the atmosphere and record the output of the system when combusting residual fuel oil. In addition, prompt corrective action shall be initiated whenever indicated.
- (b) All COMS shall meet the performance specifications of 40 CFR 60, Appendix B, Performance Specification No. 1, and are subject to monitor system certification requirements pursuant to 326 IAC 3-5.
- (c) In the event that a breakdown of a COMS occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (d) Whenever a COMS is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more and a backup COMS is not online within twenty-four (24) hours of shutdown or malfunction of the primary COMS, the Permittee shall provide a certified opacity reader, who may be an employee of the Permittee or an independent contractor, to self-monitor the emissions from the emission unit stack.
  - (1) Visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of five (5) consecutive six (6) minute averaging periods beginning not more than twenty-four (24) hours after the start of the malfunction or down time.
  - (2) Method 9 opacity readings shall be repeated for a minimum of five (5) consecutive six (6) minute averaging periods at least twice per day during daylight operations, with at least four (4) hours between each set of readings, until a COMS is online.
  - (3) Method 9 readings may be discontinued once a COMS is online.
  - (4) Any opacity exceedances determined by Method 9 readings shall be reported with the Quarterly Opacity Exceedances Reports.
- (e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous opacity monitoring system pursuant to 326 IAC 3-5, (and 40 CFR 60 and/or 40 CFR 63).

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

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

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

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

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

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

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

- (a) The Permittee 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.15 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]**

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

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

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- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
  - (1) initial inspection and evaluation;
  - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
  - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
  - (1) monitoring results;
  - (2) review of operation and maintenance procedures and records; and/or
  - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
  - (1) monitoring data;
  - (2) monitor performance data, if applicable; and
  - (3) corrective actions taken.

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

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

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

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

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

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

The statement must be submitted to:

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

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

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

C.19 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]  
[326 IAC 2-2][326 IAC 2-3]

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

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

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

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.
- (f) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
  - (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and
  - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).
- (g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:
  - (1) The name, address, and telephone number of the major stationary source.
  - (2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.
  - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
  - (4) Any other information that the Permittee deems fit to include in this report.

Reports required in this part shall be submitted to:

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

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

## **Stratospheric Ozone Protection**

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

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

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

**SECTION D.0 FACILITY OPERATION CONDITIONS - Source Wide Limitations**

Source-Wide Operations

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

**D.0.1 Consent Decree Limitations**

Pursuant to the Consent Decree entered by the United States District Court for the District of Minnesota on March 3, 2006 in United States v. Cargill, Inc. No. 05-2037 (D.Minn.), the Permittee shall comply with the following emission limitations:

The Compliance Ratio shall be less than or equal to one (1).

**D.0.2 State Implementation Plan**

Pursuant to the Consent Decree entered by the United States District Court for the District of Minnesota on March 3, 2006 in United States v. Cargill, Inc. No. 05-2037 (D.Minn.), the Permittee shall apply to have the limitations in Condition D.0.1 incorporated into the State Implementation Plan.

**Compliance Determination Requirements**

**D.0.3 Volatile Organic Compounds (VOC)**

The Permittee shall use the following equation to determine compliance with Condition D.0.1:

Specialty Solvent Loss Factor	Conventional Solvent Loss Factor
1.0 gal/ton	0.175 gal/ton

$$ComplianceRatio = \frac{ActualSolventLoss}{\sum_{i=1}^n ((Oilseed)_i * (SLF)_i)}$$

Where:

- Actual Solvent Loss = Gallons of actual solvent loss during previous 12 operating months
- Oilseed = Tons of each oilseed type "i" (Specialty and Conventional) processed during the previous 12 operating months
- SLF = The corresponding solvent loss ratio limit (gal/ton) for oilseed "i" listed in above Table

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

**D.0.4 Record Keeping Requirements**

- (a) To document compliance with Condition D.0.1, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken as stated below and shall be complete and sufficient to establish compliance with the Compliance Ratio established in Condition D.0.1.
- (1) Gallons of actual solvent loss during previous 12 operating months.
  - (2) Types of oilseed processed during the previous 12 operating months.

- (3) Tons of each oilseed type "i" (Specialty and Conventional) processed during the previous 12 operating months.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## SECTION D.1 FACILITY OPERATION CONDITIONS - Soybean Processing Facilities

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

- (a) One (1) truck soybean receiving pit, constructed in 1989, with a maximum capacity of 25,000 bushels per hour, controlled by a receiving area baghouse #4 and exhausting at stack point # S-13.
- (b) One (1) totally enclosed truck soybean receiving pit drag conveyor (DC-431), constructed in 1989, with a maximum capacity of 25,000 bushels per hour, aspirated to baghouse #10, and exhausting at stack point # S-2.
- (c) One (1) totally enclosed soybean receiving pit drag conveyor (DC-432), constructed in 1989, with a maximum capacity of 25,000 bushels per hour, aspirated to baghouse #10, and exhausting at stack point # S-2.
- (d) One (1) rail soybean unloading system, constructed in 1956, with a maximum unloading capacity of 12,000 bushels per hour, controlled by baghouse #10 and exhausted at stack point S-2.
- (e) One (1) soybean receiving bucket elevator #301, constructed in 1989, with a maximum capacity of 25,000 bushels per hour, controlled by a baghouse #10 and exhausting at stack point # S-2.
- (f) Three (3) totally enclosed soybean drag conveyors (DC-441, 442, & 443) operated in series, constructed in 1988, each with a maximum capacity of 25,000 bushels per hour, each aspirated to baghouse #9 and exhausting at stack point # S-1.
- (g) One (1) totally enclosed soybean drag conveyor (DC-434), constructed in 1988, with a maximum capacity of 25,000 bushels per hour, aspirated to baghouse #10 and exhausting at stack point # S-2.
- (h) Four (4) soybean storage tanks, constructed in the 1950's, with a total capacity of 1,213,000 bushels.
- (i) Two (2) totally enclosed soybean drag conveyors (DC-436, & 437) operated in series, constructed in 1988, each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #10 and exhausting at stack point # S-2.
- (j) Two (2) totally enclosed soybean drag conveyors (DC-444, & 446) operated in series, constructed in 1988, each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #10 and exhausting at stack point # S-2.
- (k) One (1) soybean transfer bucket elevator #303, constructed in 1956, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #10 and exhausting at stack point # S-2.
- (l) One (1) Texas shaker #2 screener, constructed in 1988, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #1 and exhausting at stack point # S-3.
- (m) One (1) weed seed Kice, constructed in 1988, with a maximum capacity of 150 bushels per hour, controlled by a baghouse #1 and exhausting at stack point # S-3.
- (n) One (1) Kice #1, constructed in 1988, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #1 and exhausting at stack point # S-3.
- (o) Two (2) totally enclosed soybean drag conveyors (DC-448, & 448A) operated in series, constructed in 1986 (DC-448) and 1996 (DC-448A), each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #1 and exhausting at stack point # S-3.

- (p) One (1) totally enclosed soybean screw conveyor (SC212), constructed in 1989 with a maximum capacity of 150 bushels per hour.
- (q) One (1) 29 MMBtu natural gas fired soybean column dryer, constructed in 1986, with a maximum capacity of 5,000 bushels per hour and exhausting at stack point # S-20.
- (r) Two (2) totally enclosed soybean drag conveyors (DC-449, & 450) operated in series, constructed in 1986, each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #10 and exhausting at stack point # S-2.
- (s) One (1) dry soybean transfer bucket elevator #307, constructed in 1986, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #9 and exhausting at stack point # S-1.
- (t) One (1) totally enclosed dry soybean drag conveyor (DC-453), constructed in 1988, with a maximum capacity of 5,000 bushels per hour, aspirated to baghouse #9 and exhausting at stack point # S-1.
- (u) Eighteen (18) soybean bins (501, 502, 503, 506, 507, 508, 511, 512, 513, 516, 517, 518, 521, 522, 523, 526, 527, and 528), constructed in the 1930's, with a maximum total capacity of 261,000 bushels.
- (v) Two (2) totally enclosed soybean drag conveyors (DC-454, & 447) operated in series, constructed in 1986, each with a maximum capacity of 5,000 bushels per hour each, each aspirated to baghouse #10 and exhausting at stack point # S-2.
- (w) One (1) dry soybean transfer bucket elevator #304, constructed in 1956, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #10 and exhausting at stack point # S-2.
- (x) One (1) totally enclosed dry soybean drag conveyor (DC-400A), constructed in 1986, with a maximum capacity of 5,000 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.
- (y) One (1) soybean Thayer scale, constructed in 1986, with a maximum capacity of 5000 bushels per hour, controlled by a baghouse #3 and exhausting at stack point # S-7.
- (z) Two (2) weed seed bins (#207 & 208) constructed in 1930, with a maximum storage capacity of 14,000 bushels each, a total nominal throughput of 5,000 bushels per day.
- (aa) Two (2) totally enclosed soybean screw conveyors (SC 213 & 214), operated in series, constructed in 1986, each with a maximum capacity of 150 bushels per hour.
- (bb) Three (3) totally enclosed soybean meal drag conveyors (DC-427, 428, & 429) operated in series, constructed in 1988, each with a maximum capacity of 5,000 bushels per hour each.
- (cc) One (1) totally enclosed dry soybean drag conveyor (DC-400), constructed in 1986, with a maximum capacity of 5,000 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.
- (dd) Five (5) soybean surge bins, constructed in 1930, with a total maximum capacity of 22,000 bushels, and a total maximum throughput of 3,350 bushels per hour.
- (ee) Five (5) sets of cracking rolls (EU-6), constructed between 1986 and 2004, with a total maximum capacity of 3,350 bushels per hour (100.5 tons per hour), controlled by bag house #3 and exhausted at stack point S-7.

- (ff) Two (2) totally enclosed cracked soybean drag conveyor (DC-401 & 403) operated in series, constructed in 1986, each with a maximum capacity of 3350 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.
- (gg) One (1) primary Kice #1, constructed in 1986, with a maximum capacity of 3350 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.
- (hh) Two (2) totally enclosed cracked soybean screw conveyors (SC-201 & 202) operated in series, constructed in 1986, each with a maximum capacity of 3350 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.
- (ii) One (1) triple S shaker, constructed in 1994, with a maximum capacity of 3350 bushels per hour, controlled by a baghouse #3 and exhausting at stack point # S-7.
- (jj) One (1) hull grinder, constructed in 1986, with a maximum capacity of 6 tons per hour, controlled by a cyclone #3 and a baghouse #3 and exhausting at stack point # S-7.
- (kk) One (1) coarse cut aspiration, constructed in 1994, with a maximum capacity of 150 bushels per hour, controlled by a cyclone #1 and a baghouse #3 and exhausting at stack point # S-7.
- (ll) One (1) fine cut aspiration, constructed in 1994, with a maximum capacity of 150 bushels per hour, controlled by a cyclone #2 and a baghouse #3 and exhausting at stack point # S-7.
- (mm) One (1) rotary conditioner, constructed in 1982, with a maximum capacity of 3350 bushels per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.
- (nn) Four (4) totally enclosed conditioned soybean drag conveyor (DC-404, 405, 406 & 407), constructed in 1986, each with a maximum capacity of 3350 bushels per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.
- (oo) Two (2) flaker banks #1 & 2, constructed in 1986, with a maximum total capacity of 100.5 tons per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.
- (pp) Two (2) totally enclosed soybean flake screw conveyors (SC-206 & 207), constructed in 1986, with a total maximum capacity of 100.5 tons per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.
- (qq) Two (2) expanders (EU-12), constructed in 1986, with a total maximum capacity of 833 bushels per hour (25 ton per hour), controlled by cyclone #4 and exhausted at stack point S-5.
- (rr) One (1) totally enclosed soybean flake drag conveyor (DC-409), constructed in 2005, with a maximum capacity 3350 bushels per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.
- (ss) One (1) totally enclosed soybean flake drag conveyor (DC-410), constructed in 1986, with a maximum capacity of 100.5 tons per hour and exhausting at steam vents.
- (tt) One (1) totally enclosed soybean flake drag conveyor (DC-411), constructed in 1986, with a maximum capacity of 100.5 tons per hour and exhausting at safety vent.
- (uu) Two (2) fully enclosed, sealed conveyors, DC-412, and DC-413, and DT seal screw, constructed in 2006, with a maximum total capacity of 3,350 bushels per hour.
- (vv) One (1) totally enclosed soybean flake screw conveyor (SC-209), constructed in 1986, with a maximum capacity of 100.5 tons per hour.

- (ww) One (1) desolventizer/toaster (EU-16), constructed in 2006 with a maximum capacity of 3,350 bushels per hour controlled by the mineral oil system and exhausted at stack points S-15. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (xx) One (1) dryer/cooler with three (3) dryer decks and one (1) cooler deck; constructed in 1988 (cooler deck), 1990 (1st dryer deck), 2006 (2<sup>nd</sup> & 3<sup>rd</sup> dryer decks), with a maximum total capacity of 3350 bushels per hour, controlled by four (4) integral cyclones identified as # 6, 7, 8, and 9, and exhausted at stack points # S-11, S-12, S-21, and S-25. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (yy) One (1) totally enclosed soybean meal drag conveyor (DC-414), constructed in 1986, with a maximum capacity of 100.5 tons per hour.
- (zz) Two (2) totally enclosed soybean meal drag conveyors (DC 414A & 415), in series, constructed in 1986, each with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.
- (aaa) Three (3) meal sifters, constructed in 1986, with a maximum total capacity of 100.5 tons per hour.
- (bbb) One (1) totally enclosed oversized soybean meal drag conveyor (DC 416), constructed by 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.
- (ccc) One (1) totally enclosed soybean meal screw conveyor (SC 223), constructed in 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.
- (ddd) Three soybean meal grinders, constructed in 1986, with a maximum total capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.
- (eee) One (1) totally enclosed soybean meal screw conveyor (SC 221), constructed in 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.
- (fff) One (1) totally enclosed soybean meal drag conveyor (DC 417), constructed in 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.
- (ggg) One (1) dry soybean meal transfer bucket elevator (BE 300), constructed in 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.
- (hhh) Two (2) totally enclosed dry soybean meal drag conveyors (DC 418 & 419), in series, constructed in 1986, each with a maximum capacity of 100.5 tons per hour aspirated to a baghouse #2 and exhausting at stack point # S-6.
- (iii) One (1) 48% meal tank constructed in 1986 with a maximum capacity of 1,000 tons.
- (jii) One (1) 44% meal tank constructed in 1986 with a maximum capacity of 500 tons.
- (kkk) One (1) truck soybean meal and hull loadout system, constructed in 1986, with a maximum capacity of 200 tons per hour and controlled by a baghouse #5 and exhausting at stack point # S-14.
- (lll) One (1) rail soybean meal and hull loadout system, constructed in 1986, with a maximum capacity of 200 tons per hour controlled by a baghouse #5 and exhausting at stack point # S-14.

- (mmm) One (1) pneumatic flake conveying system consisting of two material handling baghouses #6 and 7, constructed in 1989, with a maximum capacity of 31.5 tons per hour and exhausting at stack points # S-22 and 23.
- (nnn) One (1) pneumatic reject flake conveying system consisting of one material baghouse #8, constructed in 1986, with a maximum capacity of 9 tons per hour and exhausting at stack point # S-24.
- (ooo) One (1) totally enclosed soybean flake screw conveyor, constructed in 1989, with a maximum capacity of 9 tons per hour (SC 218).
- (ppp) Two (2) totally enclosed soybean flake drag conveyors (DC 461 & 462), in series, constructed in 1989, each with a maximum capacity of 200 tons per hour.
- (qqq) One (1) soybean flake loadout system, constructed in 1989, with a maximum capacity of 200 tons per hour controlled by a baghouse #7 and exhausting at stack point # S-23.
- (rrr) One (1) pod grinder, constructed in 1990, with a maximum capacity of 3 tons per hour controlled by baghouse # 10 and exhausted at stack point # S-2
- (sss) One (1) pneumatic hull conveying system consisting of one material handling filter separator, constructed in 1986, with a maximum capacity of 6 tons per hour and exhausting at stack point # S-4.
- (ttt) One (1) flake desolventizer system, constructed in 1989, with a maximum capacity of 100.5 tons per hour and controlled by a mineral oil absorber system. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (uuu) One (1) flake desolventizer system cooler collector, constructed in 1989, with a maximum capacity of 100.5 tons per hour equipped with a fabric filter media separator (baghouse #6) and exhausted at stack point S-22. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (vvv) One (1) first stage rising film evaporator associated with the solvent extraction equipment (EU-13), constructed in 2006, with a maximum capacity of 20 tons of soybean oil per hour and controlled by the mineral oil system and exhausted at stack point S-15. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (www) One (1) Iso-hexane conversion system (involving a rotocell condenser, a refrigerant type cooler with condenser and an additional cooling tower cell and pump), constructed in 2002, and controlled by the mineral oil system and exhausted at stack point S-15. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (xxx) One (1) mineral oil absorber system, constructed in 1982, with a maximum capacity of 150 pounds of hexane per hour and exhausted at stack point S-15. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (yyy) One (1) solvent/water separator, constructed in 2002, with a maximum capacity of 600 gallons per minute and controlled by the mineral oil system and exhausted at stack point S-15. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (zzz) One (1) boiler, identified as Boiler #1, constructed in 1955, with a heat input capacity of 60.0 MMBtu per hour, firing natural gas, distillate fuel oil, residual fuel oil, vegetable oil, animal fats ("tallow"), animal oils ("grease") or blends of these fuels. Emissions are exhausted to stack S-16.

(aaaa) One (1) boiler, identified as Boiler #2, constructed in 1996, with a heat input capacity of 75.0 MMBtu per hour, firing natural gas, distillate fuel oil, residual fuel oil, vegetable oil, animal fats ("tallow"), animal oils ("grease") or blends of these fuels. Emissions are exhausted to stack S-17. Under NSPS, Subpart Dc, this unit is considered to be an affected facility.

(bbbb) Two (2) hexane tanks #809 A & B, constructed in 2002 and 2009, with a capacity of 18,800 and 18,800 gallons respectively, vented to the process for control except under emergency conditions when they are vented through the relief valve. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

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

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

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

Pursuant to SSM157-11361-00038, issued on December 3, 2001,

- (a) The soybean processed by the plant shall be limited to 821,250 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month. This soybean limitation is required to limit the potential to emit of PM, and PM<sub>10</sub> emissions of 140.2 and 72.6 tons per twelve (12) consecutive months, respectively.
- (b) The soybean received by the dump bed trucks shall be limited to 82,125 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month.
- (c) The reject flakes loadout shall be limited to 2,400 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month.
- (d) The total natural gas or natural gas equivalent to Boiler no. 1 and Boiler no. 2 shall not exceed 794.13 million cubic feet per year.
- (e) The following facilities' PM and PM<sub>10</sub> emissions rates shall be limited as follows:

Facility	Control	Air Flow Rate Limit (dscfm)	Grain Loading Limit (gr/dscf)	PM Limit (lbs/hour)	PM <sub>10</sub> Limit (lbs/hour)
Grain receiving system (Truck Soybean Receiving Pit)	Baghouse #4	14,000	0.003	0.360	0.360
Grain storage loading (bin vent emissions resulting from filling the four soybean storage tanks and 18 soybean storage bins from the grain receiving system)	No PM/PM <sub>10</sub> control device	infinite	0.01	15.0	8.36

Facility	Control	Air Flow Rate Limit (dscfm)	Grain Loading Limit (gr/dscf)	PM Limit (lbs/hour)	PM <sub>10</sub> Limit (lbs/hour)
Grain storage unloading (DC-431, DC-432, rail soybean unloading system, bucket elevator #301, DC-434, DC-436, DC-437, DC-444, DC-446, bucket elevator #303, DC-454, DC-447, bucket elevator #304, DC-449, DC-450, and a pod grinder)	Baghouse #10	24,000	0.003	0.617	0.617
Bean screener (Texas shaker #2 screen, weed seed Kice, Kice #1, DC-448, and DC-448A)	Baghouse #1	14,000	0.0033	0.136	0.4
Grain tanks and silos loading (bin vent emissions resulting from filling the four soybean storage tanks and 18 soybean storage bins from the column dryer)	No PM/PM10 control device	-	-	3.05	1.72
Grain tanks and silos unloading (DC-441, DC-442, DC-443, bucket elevator #307, and DC-453)	Baghouse #9	16,200	0.003	0.417	0.417
Soybean cracking & hulling system (Soybean Thayer scale, DC-400A, DC-400, EU-6, DC-401, DC-403, primary Kice #1, SC-201, SC-202, triple S shaker, hull grinder, coarse cut aspiration, and fine cut aspiration)	Baghouse #3	21,000	0.03	0.540	0.540
Soybean flaking (rotary conditioner, DC-404, DC-405, DC-406, DC-407, flaker banks 1 & 2, SC-206, SC-207, EU-12, and DC-409)	Cyclone #4	17,000	0.006	0.874	0.874
Hull transfer (pneumatic hull conveying system)	No PM/PM10 control device	320	0.003	0.008	0.008
DTDC meal dryers	Integral Cyclone #6	10,000	0.007	0.600	0.600
DTDC meal dryers	Integral Cyclone #7	10,000	0.007	0.600	0.600
Meal coolers	Integral Cyclone #8	8,000	0.015 (PM) 0.019 (PM <sub>10</sub> )	1.029	1.30
Meal coolers	Integral Cyclone #9	8,000			

Facility	Control	Air Flow Rate Limit (dscfm)	Grain Loading Limit (gr/dscf)	PM Limit (lbs/hour)	PM <sub>10</sub> Limit (lbs/hour)
Meal sizing and grinding (DC-414A, DC-415, DC-416, SC-223, 3 soybean meal grinders, SC-221, DC-417, BE-300, DC-418, and DC-419)	Baghouse #2	5,500	0.005	0.236	0.236
FDS cooler collector	Baghouse #6	22,000	0.008	1.51	1.51
Truck and Rail soybean meal and hull loadout systems	Baghouse #5	16,000	0.004	0.549	0.549
Flake loadout (flake loadout system and pneumatic flake conveying system)	Integral Baghouse #7	10,000	0.004	0.343	0.343
Reject flake storage Based on 2400 tons of reject flake loadout	Baghouse #8	3,000	0.013	0.334	0.334
Hull blend back (pneumatic hull conveying system)	No PM/PM10 control device	320	0.01	0.027	0.027
Boiler no. 1 and 2	No PM/PM10 control device	794.13 Million cubic feet of natural gas or equivalent	-	7.60 lb per MMCF	7.60 lb per MMCF

Compliance with the above limits shall limit the PM and PM<sub>10</sub> emissions from the project permitted under SSM 157-11361-00038 to less than twenty-five (25) and fifteen (15) tons per twelve (12) consecutive month period, respectively, and render the requirements of 326 IAC 2-2 not applicable to SSM 157-11361-00038 for PM and PM<sub>10</sub>.

D.1.2 Best Available Control Technology (BACT) [326 IAC 2-2-3] [326 IAC 8-1-6]

Pursuant to 326 IAC 2-2-3 (BACT Requirements) as determined in SSM 157-11361-00038, the Permittee shall control volatile organic compound (VOC) emissions from the conventional and the specialty soybean oil extraction processes as follows:

(a)	<u>Facility</u>	<u>Control</u>	<u>VOC (Hexane) Emission Limit</u>
	Oil extractor	Mineral oil absorber system	0.012 gal/ton soybean
	Meal dryers	No VOC control device	0.0042 gal/ton soybean
	Meal cooler	No VOC control device	0.0 gal/ton soybean
	FDS Cooler collector	No VOC control device	0.391 gal/ton soybean
	Whole soybean extraction plant		0.503 gals/ton soybean processed

Maximum annual soybean process throughput 821,250 tons

- (b) BACT for fugitive hexane loss shall include an annual leak check in accordance with Cargill's standard operating procedures accompanied by continuous monitoring of the process area by flammable gas monitors. The leak check shall be conducted in conjunction with the annual maintenance shutdown of the facility.

For emergency repairs and/or maintenance completed between annual maintenance shutdowns, a leak check shall be completed on the affected system before hexane is reintroduced into the system. Any leaks detected shall be repaired prior to introducing hexane into the system.

- (1) 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 can not 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, MC 61-53 IGCN 1003, Indianapolis, IN 46204-2251 within 20 days after the leak was detected. At a minimum the notice shall include the following:
- (A) Equipment, operator, and instrument identification number, and date of leak detection
  - (B) Measured concentration (ppm) and background (ppm)
  - (C) Leak identification number associated with the corresponding tag
  - (D) Reason of inability to repair within 5 to 15 days of detection

**D.1.3 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from each of following operations shall not exceed the pound per hour limit listed in the table below:

Unit	Process Weight Rate (ton/hr)	PM Limit (lb/hr)
Truck Soybean receiving pit	750	73.93
DC-431	750	73.93
DC-432	750	73.93
rail soybean unloading system	360	65.09
soybean receiving bucket elevator #301	750	73.93
DC-441	750	73.93
DC-442	750	73.93
DC-443	750	73.93
DC-434	750	73.93
DC-436	150	55.44
DC-437	150	55.44

Unit	Process Weight Rate (ton/hr)	PM Limit (lb/hr)
DC-444	150	55.44
DC-446	150	55.44
soybean transfer bucket elevator #303	150	55.44
Texas shaker #2 screener	150	55.44
weed seed Kice	150	55.44
Kice #1	150	55.44
DC-448	150	55.44
DC-448A	150	55.44
DC-449	150	55.44
DC-450	150	55.44
soybean transfer bucket elevator #307	150	55.44
DC-453	150	55.44
DC-454	150	55.44
DC-447	150	55.44
dry soybean transfer bucket elevator #304	150	55.44
DC-400A	150	55.44
soybean Thayer scale	150	55.44
DC-400	150	55.44
Cracker Roll 1 (EU-6)	20.1	30.61
Cracker Roll 2 (EU 6)	20.1	30.61
Cracker Roll 3 (EU 6)	20.1	30.61
Cracker Roll 4 (EU 6)	20.1	30.61
Cracker Roll 5 (EU 6)	20.1	30.61
DC-401	100.5	51.33
DC-403	100.5	51.33
primary Kice #1	100.5	51.33
SC-201	100.5	51.33
SC-202	100.5	51.33
triple S shaker	100.5	51.33
hull grinder	6	12.23
coarse cut aspiration	4.5	11.23
fine cut aspiration	4.5	11.23
DC-414A	100.5	51.33
DC-415	100.5	51.33
DC-416	100.5	51.33
SC-223	100.5	51.33
Meal grinder #1	33.5	40.93
Meal grinder #2	33.5	40.93
Meal grinder #3	33.5	40.93
SC-221	100.5	51.33
DC-417	100.5	51.33
BE-300	100.5	51.33
DC-418	100.5	51.33
DC-419	100.5	51.33
truck soybean meal & hull loadout system	200	58.51
rail soybean meal & hull loadout system	200	58.51

Unit	Process Weight Rate (ton/hr)	PM Limit (lb/hr)
pneumatic flake conveying system	31.5	40.39
pneumatic reject flake conveying system	9	17.87
soybean flake loadout system	200	58.51
pod grinder	3	8.56
FDS cooler collector	100.5	51.33
rotary conditioner	100.5	51.33
DC-404	100.5	51.33
DC-405	100.5	51.33
DC-406	100.5	51.33
DC-407	100.5	51.33
flaker bank #1 & #2	100.5	51.33
SC-206	100.5	51.33
SC-207	100.5	51.33
EU-12	25	35.43
DC-409	100.5	51.33
Column dryer	150	55.44
4 soybean storage tanks	93.75	50.63
SC-212	4.5	11.23
18 storage bins	93.75	50.63
2 weed seed bins (207 & 208)	150	55.44
SC-213	150	55.44
SC-214	150	55.44
DC-427	150	55.44
DC-428	150	55.44
DC-429	150	55.44
5 surge bins	100.5	51.33
DC-410	100.5	51.33
DC-411	100.5	51.33
DC-412, DC-413, DC seal screw	100.5	51.33
SC-209	100.5	51.33
DC-414	100.5	51.33
3 meal sifters	100.5	51.33
SC-218	9	17.87
DC-461	200	58.51
DC-462	200	58.51
pneumatic hull conveying system	6	12.23

The pounds per hour limitations were 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 and  
 P = process weight rate in tons per hour

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

The baghouses and cyclones used for control shall be in operation at all times their associated units are in operation, in order to comply with these limits. The column dryer, DC-412, DC-413, DC seal screw, SC-209, DC-414, and the 3 meal sifters shall have a control device installed in order to comply these limits.

#### D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

### Compliance Determination Requirements

#### D.1.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [40 CFR 60, Subpart DD]

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- (a) In order to demonstrate compliance with Conditions D.1.1 and D.1.3 and 40 CFR 60, Subpart DD (New Source Performance Standards for Grain Elevators), the Permittee shall perform PM and PM-10 testing of the following:

- Receiving area baghouse (#4)
- Receiving area baghouse (#10)
- Storage tank area baghouse (#9)
- Screening area baghouse (#1)
- Cracking system bag house (#3)
- Flaking Cyclone #4
- Meal sizing and screening (Baghouse #2)
- DTDC meal dryer #1 (Cyclone #6)
- DTDC meal cooler #1 (Cyclone #8)
- Hull storage (Cyclone #3)

within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM<sub>2.5</sub>), signed on May 8th, 2008. This 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 this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM-10 includes filterable and condensable PM.

- (b) In order to demonstrate compliance with Condition D.1.2, the Permittee shall perform VOC testing for the Mineral oil absorber utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

#### D.1.6 VOC (BACT) Compliance [326 IAC 2-2]

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Compliance with Condition D.1.2 shall be demonstrated within 30 days of the end of each month by determining the average of twelve (12) consecutive month period of the followings:

- (a) The amount of VOC (hexane) used per calendar month.
- (b) The amounts of soybean processed by the conventional and specialty processes.

- (c) The gallons of hexane used per ton of soybean processed by the conventional and specialty processes.

#### D.1.7 Solvent Loss Ratio [326 IAC 2-2][40 CFR 64]

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Compliance with Condition D.1.2 shall be demonstrated within 30 days of the end of each month by determining the average of twelve (12) consecutive month period in the following manner:

Calculate a compliance ratio, which compares the actual VOC loss to the allowable VOC loss for the previous twelve (12) months. The equation to calculate a compliance ratio follows:

(a) Compliance Ratio = (Actual VOC loss)/( Allowable VOC loss) (Eq. 1)

- (b) Equation 1 can also be expressed as a function of total solvent loss as shown in Equation 2.

(c) Compliance Ratio = [f\* Actual Solvent Loss]/

$$0.64 \left[ \frac{\{(Soybean\ processed)_C * (SLF_C)\} + \{(Soybean\ processed)_S * (SLF_S)\}}{\{(Soybean\ processed)_S * (SLF_S)\}} \right] \quad (Eq. 2)$$

f = The weighted average volume fraction of VOC in solvent received during the previous twelve (12) operating months, dimensionless

0.64 = The average volume fraction of VOC in solvent in the baseline performance data, dimensionless

Actual Solvent Loss = Gallons of actual solvent loss during previous twelve (12) operating month

SLF<sub>S</sub> = 1.5 gals/ton (for new source, specialty soybean process)

SLF<sub>C</sub> = 0.2 gals/ton (for existing source, conventional soybean process)

#### D.1.8 Particulate Matter (PM) and Particulate Matter 10 (PM<sub>10</sub>)

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In order to comply with Conditions D.1.1 and D.1.3, the baghouses and cyclones shall be in operation and control emissions from the associated facilities at all times when the associated facilities are in operation.

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

#### D.1.9 Visible Emissions Notations

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- (a) Visible emission notations of the stack exhaust S-13, S-2, S-1, S-3, S-20, S-7, S-5, S-11, S-12, S-21, S-25, S-6, S-14, S-4, S-22, S-23, and S-24 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 in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

#### D.1.10 Broken or Failed Bag Detection

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

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

#### D.1.11 Cyclone Failure

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In the event that cyclone failure has been observed:

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

#### D.1.12 Mineral Oil Absorber [40 CFR 64]

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- (a) The absorber shall operate at all times the oil extractor process is in operation within the mineral oil flow rate range of five (5) to thirty (30) gallons per minute or the average flow rate determined during the latest VOC (hexane) compliance test.
- (b) The Permittee shall monitor and record the mineral oil flow rate at least once per day. The Preventive Maintenance Plan for the absorber shall contain troubleshooting contingency and corrective actions for when the flow rate readings are outside of the normal range for any one reading.
- (c) The instruments used for determining the flow rate shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.
- (d) The gauge employed to take the mineral oil flow across the scrubber shall have a scale such that the expected normal reading shall be no less than 20 percent of full scale and be accurate within  $\pm 10\%$  of full scale reading. The instrument shall be quality assured and maintained as specified by the vendor.

- (e) In the event that the absorber's failure has been observed, an inspection will be conducted. Based upon the findings of the inspection, any corrective actions will be devised within twenty-four (24) hours of discovery and will include a timetable for completion.
- (f) The mineral oil to the mineral oil stripping column shall be kept at a minimum of 180°F for adequate stripping of the absorbed hexane from the oil. When the process is in operation, an electronic data management system (EDMS) shall record the instantaneous temperature on a frequency of not less than every two hours. As an alternate to installing an EDMS, manual readings shall be taken every two hours.

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

#### **D.1.13 Record Keeping Requirements**

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- (a) To document compliance with Conditions D.1.1 and D.1.3 the Permittee shall maintain records of the following:
  - (1) visible emission notations of the stack exhaust during normal operation required under Condition D.1.9. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a notation (e.g. the process did not operate that day).
- (b) To document compliance with Condition D.1.2(a), the Permittee shall maintain records of the following as required under Conditions D.1.6 and D.1.12:
  - (1) The amount of VOC (hexane) used per calendar month.
  - (2) The amounts of soybean processed by the conventional and specialty processes.
  - (3) The gallons of hexane used per ton of soybean processed by the conventional and specialty processes.
  - (4) The daily record of the mineral oil flow rate.
  - (5) The events of the absorber's failure, findings of the inspections subsequent to absorber's failure, the corrective actions taken, and the time table for completion.
  - (6) The operating temperatures of the mineral oil absorber.
  - (7) The temperature of the mineral oil stripping column.
- (c) To document compliance with Condition D.2.4(b) D.1.2(b):
  - (1) 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.
  - (2) 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;
  - (F) Maintenance recheck if repaired-date, concentration, background; and
  - (G) Any appropriate comments.
- (d) To document compliance with Condition D.1.2(a), the Permittee shall maintain records of the solvent loss ratio and all information used to calculate the ratio as required under Condition D.1.7.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit.

#### D.1.13 Reporting Requirements

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

## SECTION D.2 FACILITY OPERATION CONDITIONS - Boilers

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

- (1) One (1) boiler, Model no. VLP, Erie City Iron Works, identified as Boiler #1, constructed in 1955, with a heat input capacity of 60.0 MMBtu per hour, firing natural gas, distillate fuel oil, residual fuel oil, vegetable oil, animal fats ("tallow"), animal oils ("grease") or blends of these fuels. Emissions are exhausted to stack S-16.
- (2) One (1) boiler, Model no. NS-C-57, Nebraska Boiler Company, identified as Boiler #2, constructed in 1996, with a heat input capacity of 75.0 MMBtu per hour, firing natural gas, distillate fuel oil, residual fuel oil, vegetable oil, animal fats ("tallow"), animal oils ("grease") or blends of these fuels. Emissions are exhausted to stack S-17. Under NSPS, Subpart Dc, this unit is considered to be an affected facility.

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

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

#### D.2.1 Particulate Matter Emissions [326 IAC 6-2-3][326 IAC 6-2-4]

- (a) Pursuant to 326 IAC 6-2-3(d) (Particulate Matter Emission Limitations for Sources of Indirect Heating), the PM emissions from Boiler #1 shall be limited to 0.447 pounds per MMBtu heat input.
- (b) Pursuant to CP 157-5397, and 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating), the PM emissions from Boiler #2 shall be limited to 0.304 pounds per MMBtu heat input.

#### D.2.2 PSD Minor Limit [326 IAC 2-2]

- (a) The input of fuel oil no.2 and no. 2 equivalents to Boiler #1 and Boiler #2 shall be limited to 102 and 1042 Kgal measured as no. 2 fuel oil per twelve (12) consecutive month period, with compliance demonstrated at the end of each month, respectively. For compliance purposes, the following equivalencies shall be used.

1Kgal of no. 4 fuel oil = 1.00 Kgal of no. 2 fuel oil  
1Kgal of no. 5 fuel oil = 1.16 Kgal of no. 2 fuel oil  
1Kgal of no. 6 fuel oil = 1.16 Kgal of no. 2 fuel oil

This usage limit is equivalent to a potential to emit of 39.0 tons of sulfur dioxide per year.

- (b) The input of natural gas and natural gas equivalents to Boiler #1 and Boiler #2 shall be limited to 314 MMCF and 657 MMCF of natural gas per twelve (12) consecutive month period, with compliance demonstrated at the end of each month, respectively. Compliance with these limits are necessary to restrict nitrogen oxide emissions from Boiler #1 and Boiler #2 to less than 22 tons per year and 46 tons per year, respectively.
- (c) When burning vegetable oil, or blends of vegetable oil and distillate fuel oil, nitrogen oxide emissions shall not exceed 0.162 pounds per million Btu heat input.
- (d) When burning grease, tallow, or blends of grease or tallow and fuels other than residual fuel oil, nitrogen oxide emissions shall not exceed 0.195 pounds per million Btu heat input.

- (e) Pursuant to Condition D.1.1, the combined input of natural gas and natural gas equivalents to Boiler #1 and Boiler #2 shall be limited to 794.13 MMCF of natural gas per twelve (12) consecutive month period, with compliance demonstrated at the end of each month. Compliance with this limit is necessary to restrict nitrogen oxide emissions from Boiler #1 and Boiler #2 to less than 39.7 tons per year.

For compliance purposes, the following equivalencies shall be used.

1 Kgal of no. 2 fuel oil	= 0.143 MMCF of natural gas
1 Kgal of no. 4 fuel oil	= 0.143 MMCF of natural gas
1 Kgal of no. 5 fuel oil	= 0.393 MMCF of natural gas
1 Kgal of no. 6 fuel oil	= 0.393 MMCF of natural gas
1 Kgal of vegetable oil	= 0.209 MMCF of natural gas
1 Kgal of tallow	= 0.247 MMCF of natural gas
1 Kgal of grease	= 0.093 MMCF of natural gas

Compliance with this condition makes the Prevention of Significant Deterioration (PSD) rules (326 IAC 2-2) not applicable.

D.2.3 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1] [326 IAC 7-1.1-2]

Pursuant to 326 IAC 7-1.2 (SO<sub>2</sub> Emissions Limitations):

- (a) The SO<sub>2</sub> emissions from the sixty (60) MMBtu per hour Boiler #1 shall not exceed five tenths (0.5) pounds per million Btu heat input when combusting distillate fuel oil; and
- (b) The SO<sub>2</sub> emissions from the sixty (60) MMBtu per hour Boiler #1 shall not exceed one and sixth tenths (1.6) pounds per million Btu heat input when combusting residual fuel oil.

D.2.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

**Compliance Determination Requirements**

D.2.5 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Condition D.2.3 shall be determined utilizing one of the following options:

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions from Boiler #1 do not exceed five-tenths (0.5) pound per million Btu heat input by:
- (1) Providing vendor analysis of fuel oil delivered, if accompanied by a vendor certification, or;
- (2) Analyzing the fuel oil sample to determine the sulfur content of the fuel oil via the procedures in 40 CFR 60, Appendix A, Method 19.
- (A) Fuel oil samples may be collected from the fuel oil tank immediately after the fuel oil tank is filled and before any fuel oil is combusted; and
- (B) If a partially empty fuel oil tank is refilled, a new sample and analysis would be required upon filling.

- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from Boiler #1 and Boiler #2 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) and (b) above shall not be refuted by evidence of compliance pursuant to another method.

#### D.2.6 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

In order to demonstrate compliance with Condition D.2.2:

- (a) No later than 180 days from the commencement of vegetable oil combustion, the Permittee shall conduct performance tests for nitrogen oxide emissions on either Boiler #1 or Boiler #2 during vegetable oil combustion, and furnish the Commissioner a written report of the results of such performance tests.
- (b) No later than 180 days from the commencement of tallow combustion, the Permittee shall conduct performance tests for nitrogen oxide emissions on either Boiler #1 or Boiler #2 during tallow combustion, and furnish the Commissioner a written report of the results of such performance tests.
- (c) No later than 180 days from the commencement of grease combustion, the Permittee shall conduct performance tests for nitrogen oxide emissions on either Boiler #1 or Boiler #2 during grease combustion, and furnish the Commissioner a written report of the results of such performance tests.

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

#### D.2.7 Visible Emissions Notations

- (a) The Permittee shall perform visible emission notations of the Boiler #1 stack exhaust once per day during normal daylight operations, when combusting fuels other than natural gas. A trained employee shall record whether emissions are normal or abnormal.
- (b) The Permittee shall perform visible emission notations of the Boiler #2 stack exhaust once per day during normal daylight operations, when combusting fuels other than natural gas, if there is no COMS installed or if the COMS is down for maintenance or under breakdown. A trained employee shall record whether emissions are normal or abnormal.
- (c) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (d) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (e) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (f) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

### **D.2.8 Record Keeping Requirements**

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- (a) To document compliance with Condition D.2.5(a) (if selected), the Permittee shall keep a record of all fuel oil analysis.
- (b) To document compliance with Condition D.2.7(a) and (b), the Permittee shall maintain a record of visible emission notations of the Boiler #1 stack exhaust, and also the Boiler #2 stack exhaust if there is no COMS installed or if the COMS is malfunctioning or down for maintenance or repair. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a notation (e.g. the process did not operate that day).
- (c) To document compliance with Condition D.2.2, the Permittee shall maintain the record of all the fuels burned in Boiler #1 and Boiler #2.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit. The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

### **D.2.9 Reporting Requirements**

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- (a) A certification signed by the responsible official that certifies all of the fuels combusted during the period. The natural gas-fired boiler certification does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The natural gas boiler certification shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the six (6) month period being reported.
- (c) A quarterly summary of Condition D.2.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

### SECTION D.3

### FACILITY OPERATION CONDITIONS - Insignificant Activities

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

- (a) Paved and unpaved roads and parking lots with public access.[6-5-4]

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

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

##### D.3.1 Fugitive Dust Emissions [326 IAC 6-4-2]

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Pursuant to 326 IAC 6-4-2 (Fugitive Dust Emission Limitation), the fugitive dust shall not be visible crossing the boundary or property line of a source.

#### Compliance Determination Requirements

##### D.3.2 Control Measures

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Fugitive particulate matter emissions resulting from paved roads, unpaved roads and parking lots shall be controlled by using one or more of the following measures:

- (a) Paved roads and parking lots:
- (1) Cleaning by sweeping.
  - (2) Flushing.
  - (3) An equivalent alternate measure.
- (b) Unpaved roads and parking lots:
- (1) Paving with a material such as asphalt or concrete.
  - (2) Treating with a suitable and effective oil or chemical dust suppressant approved by the commissioner. The frequency shall be as on a needed basis.
  - (3) Spraying with water, the frequency of application shall be on a needed basis.
  - (4) Double chip and seal the road surface and maintain on an as needed basis.
  - (5) An equivalent alternate measures.

**SECTION E.1 NEW SOURCE PERFORMANCE STANDARDS (NSPS) FOR GRAIN ELEVATORS [40 CFR 60, Subpart DD]**

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

- (a) One (1) truck soybean receiving pit, constructed in 1989, with a maximum capacity of 25,000 bushels per hour, controlled by a receiving area baghouse #4 and exhausting at stack point # S-13.
- (b) One (1) totally enclosed truck soybean receiving pit drag conveyor (DC-431), constructed in 1989, with a maximum capacity of 25,000 bushels per hour, aspirated to baghouse #10, and exhausting at stack point # S-2.
- (c) One (1) totally enclosed soybean receiving pit drag conveyor (DC-432), constructed in 1989, with a maximum capacity of 25,000 bushels per hour, aspirated to baghouse #10, and exhausting at stack point # S-2.
- (d) One (1) rail soybean unloading system, constructed in 1956, with a maximum unloading capacity of 12,000 bushels per hour, controlled by baghouse #10 and exhausted at stack point S-2.
- (e) One (1) soybean receiving bucket elevator #301, constructed in 1989, with a maximum capacity of 25,000 bushels per hour, controlled by a baghouse #10 and exhausting at stack point # S-2.
- (f) Three (3) totally enclosed soybean drag conveyors (DC-441, 442, & 443) operated in series, constructed in 1988, each with a maximum capacity of 25,000 bushels per hour, each aspirated to baghouse #9 and exhausting at stack point # S-1.
- (g) One (1) totally enclosed soybean drag conveyor (DC-434), constructed in 1988, with a maximum capacity of 25,000 bushels per hour, aspirated to baghouse #10 and exhausting at stack point # S-2.
- (h) Four (4) soybean storage tanks, constructed in the 1950's, with a total capacity of 1,213,000 bushels.
- (i) Two (2) totally enclosed soybean drag conveyors (DC-436, & 437) operated in series, constructed in 1988, each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #10 and exhausting at stack point # S-2.
- (j) Two (2) totally enclosed soybean drag conveyors (DC-444, & 446) operated in series, constructed in 1988, each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #10 and exhausting at stack point # S-2.
- (k) One (1) soybean transfer bucket elevator #303, constructed in 1956, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #10 and exhausting at stack point # S-2.
- (l) One (1) Texas shaker #2 screener, constructed in 1988, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #1 and exhausting at stack point # S-3.
- (m) One (1) weed seed Kice, constructed in 1988, with a maximum capacity of 150 bushels per hour, controlled by a baghouse #1 and exhausting at stack point # S-3.
- (n) One (1) Kice #1, constructed in 1988, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #1 and exhausting at stack point # S-3.

- (o) Two (2) totally enclosed soybean drag conveyors (DC-448, & 448A) operated in series, constructed in 1986 (DC-448) and 1996 (DC-448A), each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #1 and exhausting at stack point # S-3.
- (p) One (1) totally enclosed soybean screw conveyor (SC212), constructed in 1989 with a maximum capacity of 150 bushels per hour.
- (q) Two (2) totally enclosed soybean drag conveyors (DC-449, & 450) operated in series, constructed in 1986, each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #10 and exhausting at stack point # S-2.
- (r) One (1) dry soybean transfer bucket elevator #307, constructed in 1986, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #9 and exhausting at stack point # S-1.
- (s) One (1) totally enclosed dry soybean drag conveyor (DC-453), constructed in 1988, with a maximum capacity of 5,000 bushels per hour, aspirated to baghouse #9 and exhausting at stack point # S-1.
- (t) Eighteen (18) soybean bins (501, 502, 503, 506, 507, 508, 511, 512, 513, 516, 517, 518, 521, 522, 523, 526, 527, and 528), constructed in the 1930's, with a maximum total capacity of 261,000 bushels.
- (u) Two (2) totally enclosed soybean drag conveyors (DC-454, & 447) operated in series, constructed in 1986, each with a maximum capacity of 5,000 bushels per hour each, each aspirated to baghouse #10 and exhausting at stack point # S-2.
- (v) One (1) dry soybean transfer bucket elevator #304, constructed in 1956, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #10 and exhausting at stack point # S-2.
- (w) One (1) totally enclosed dry soybean drag conveyor (DC-400A), constructed in 1986, with a maximum capacity of 5,000 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.
- (x) One (1) soybean Thayer scale, constructed in 1986, with a maximum capacity of 5000 bushels per hour, controlled by a baghouse #3 and exhausting at stack point # S-7.
- (y) Two (2) weed seed bins (#207 & 208) constructed in 1930, with a maximum storage capacity of 14,000 bushels each, a total nominal throughput of 5,000 bushels per day.
- (z) Two (2) totally enclosed soybean screw conveyors (SC 213 & 214), operated in series, constructed in 1986, each with a maximum capacity of 150 bushels per hour.
- (aa) Three (3) totally enclosed soybean meal drag conveyors (DC-427, 428, & 429) operated in series, constructed in 1988, each with a maximum capacity of 5,000 bushels per hour each.
- (bb) One (1) totally enclosed dry soybean drag conveyor (DC-400), constructed in 1986, with a maximum capacity of 5,000 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.

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

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

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

(b) Pursuant to 40 CFR 60.19, 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 Ave.  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

E.1.2 Standards of Performance for Grain Elevators [40 CFR 60, Subpart DD] [326 IAC 12]

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Pursuant to 40 CFR 60, Subpart DD, the Permittee shall comply with the provisions of Standards of Performance Standards of Performance for Grain Elevators, which are incorporated by reference as 326 IAC 12, (included as attachment A of this permit) as specified as follows:

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

**SECTION E.2 NEW SOURCE PERFORMANCE STANDARDS (NSPS) FOR SMALL INDUSTRIAL-COMMERCIAL-INSTITUTIONAL STEAM GENERATING UNITS [40 CFR 60, Subpart Dc]**

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

- (1) One (1) boiler, Model no. NS-C-57, Nebraska Boiler Company, identified as Boiler #2, constructed in 1996, with a heat input capacity of 75.0 MMBtu per hour, firing natural gas, distillate fuel oil, residual fuel oil, vegetable oil, animal fats ("tallow"), animal oils ("grease") or blends of these fuels. Emissions are exhausted to stack S-17. Under NSPS, Subpart Dc, this unit is considered to be an affected facility.

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

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

- (a) The provisions of 40 CFR 60, Subpart A – General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facilities described in this SECTION E.1, except when otherwise specified in 40 CFR 60, Subpart Dc.
- (b) Pursuant to 40 CFR 60.19, 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 Ave.  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

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

Pursuant to 40 CFR 60, Subpart Dc, the Permittee shall comply with the provisions of Standards of Performance Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, which are incorporated by reference as 326 IAC 12, (included as attachment B of this permit) as specified as follows:

- (1) 40 CFR 60.40c  
(2) 40 CFR 60.41c  
(3) 40 CFR 60.42c(d)(e)(g)(h)(i)  
(4) 40 CFR 60.43c(c)(d)  
(5) 40 CFR 60.44c(a)(b)(c)(e)(g)(h)(i)(j)  
(6) 40 CFR 60.45c(a)(c)  
(7) 40 CFR 60.46c  
(8) 40 CFR 60.47c  
(9) 40 CFR 60.48c all except (f)(3)

### SECTION E.3 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS: SOLVENT EXTRACTION FOR VEGETABLE OIL PRODUCTION [40 CFR 63, Subpart GGGG]

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

- (a) One (1) desolventizer/toaster (EU-16), constructed in 2006 with a maximum capacity of 3,350 bushels per hour controlled by the mineral oil system and exhausted at stack points S-15. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (b) One (1) dryer/cooler with three (3) dryer decks and one (1) cooler deck; constructed in 1988 (cooler deck), 1990 (1st dryer deck), 2006 (2<sup>nd</sup> & 3<sup>rd</sup> dryer decks), with a maximum total capacity of 3350 bushels per hour, controlled by four (4) integral cyclones identified as # 6, 7, 8, and 9, and exhausted at stack points # S-11, S-12, S-21, and S-25. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (c) One (1) flake desolventizer system, constructed in 1989, with a maximum capacity of 100.5 tons per hour and controlled by a mineral oil absorber system. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (c) One (1) flake desolventizer system cooler collector, constructed in 1989, with a maximum capacity of 100.5 tons per hour equipped with a fabric filter media separator (baghouse #6) and exhausted at stack point S-22. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (d) One (1) Iso-hexane conversion system (involving a rotocell condenser, a refrigerant type cooler with condenser and an additional cooling tower cell and pump), constructed in 2002, and controlled by the mineral oil system and exhausted at stack point S-15. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (e) One (1) mineral oil absorber system, constructed in 1982, with a maximum capacity of 150 pounds of hexane per hour and exhausted at stack point S-15. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (f) One (1) solvent/water separator, constructed in 2002, with a maximum capacity of 600 gallons per minute and controlled by the mineral oil system and exhausted at stack point S-15. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (g) Two (2) hexane tanks #809 A & B, constructed in 2002 and 2009, with a capacity of 18,800 and 18,800 gallons respectively, vented to the process for control except under emergency conditions when they are vented through the flame arrester. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

(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 NESHAP GGGG [326 IAC 20-1] [40 CFR Part 63, Subpart A]

- (a) Pursuant to 40 CFR 63.4480, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, as specified in 40 CFR Part 63, Subpart GGGG in accordance with 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.3.2 Solvent Extraction for Vegetable Oil Production NESHAP [326 IAC 20-60][40 CFR Part 63, Subpart GGGG]

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The Permittee which engages in production of vegetable oil shall comply with the following provisions of 40 CFR 63, Subpart GGGG (included as Attachment C of this permit), as specified as follows:

- (1) 40 CFR 63.2830
- (2) 40 CFR 63.2831
- (3) 40 CFR 63.2832(a)
- (4) 40 CFR 63.2833
- (5) 40 CFR 63.2834(a)
- (6) 40 CFR 63.2840 all except (e)
- (7) 40 CFR 63.2850(a)(b)(d)(e)(1)(i)(iii)(2)
- (8) 40 CFR 63.2851
- (9) 40 CFR 63.2852
- (10) 40 CFR 63.2853
- (11) 40 CFR 63.2854
- (12) 40 CFR 63.2855
- (13) 40 CFR 63.2860
- (14) 40 CFR 63.2861
- (15) 40 CFR 63.2862
- (16) 40 CFR 63.2863
- (17) 40 CFR 63.2870
- (18) 40 CFR 63.2871
- (19) 40 CFR 63.2872

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
PART 70 OPERATING PERMIT  
CERTIFICATION**

Source Name: Cargill, Inc. - Soybean Processing Division  
Source Address: 1502 Wabash Avenue, Lafayette, Indiana 47905  
Mailing Address: 1502 Wabash Avenue, Lafayette, IN 47905  
Part 70 Permit No.: T157-25200-00038

**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: Cargill, Inc. - Soybean Processing Division  
Source Address: 1502 Wabash Avenue, Lafayette, Indiana 47905  
Mailing Address: 1502 Wabash Avenue, Lafayette, IN 47905  
Part 70 Permit No.: T157-25200-00038

**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) daytime business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
  - The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

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

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

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

Page 2 of 2

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

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

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

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

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

A certification is not required for this report.

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

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

Source Name: Cargill, Inc. - Soybean Processing Division  
Source Address: 1502 Wabash Avenue, Lafayette, Indiana 47905  
Mailing Address: 1502 Wabash Avenue, Lafayette, IN 47905  
Part 70 Permit No.: T157-25200-00038

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

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

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

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

### Part 70 Semi Annual Report (Submit Report Quarterly)

Source Name: Cargill, Inc. - Soybean Processing Division  
 Source Address: 1503 Wabash Avenue, Lafayette, IN 47905-1039  
 Mailing Address: 1503 Wabash Avenue, Lafayette, IN 47905-1039  
 Part 70 Permit No.: T157-25200-00038  
 Facility: Boiler No. 2 (Capacity 75 million Btu per hour)  
 Parameter: SO<sub>2</sub>  
 Limit: 0.5 lbs/MMBtu sulfur dioxide for distillate and residual fuel oil rolled on 30 days average.

Month: \_\_\_\_\_ Year: \_\_\_\_\_

Day	Type Fuel Combusted	Sulfur dioxide (this Day)	Sulfur dioxide (for the last 29 days)	Sulfur dioxide Avg. (for the last 30 days)	Day	Type Fuel Combusted	Sulfur dioxide (this Day)	Sulfur dioxide (for the last 29 days)	Sulfur dioxide Avg. (for the last 30 days)
1					17				
2					18				
3					19				
4					20				
5					21				
6					22				
7					23				
8					24				
9					25				
10					26				
11					27				
12					28				
13					29				
14					30				
15					31				
16					no. of deviations				

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

Comments for Noncompliance: \_\_\_\_\_  
Corrective Action Taken: \_\_\_\_\_

Method of Determining Sulfur Content: \_\_\_\_\_

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

Attach a signed certification to complete this report.

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

### Part 70 Semi Annual Report

Source Name: Cargill, Inc. - Soybean Processing Division  
 Source Address: 1503 Wabash Avenue, Lafayette, IN 47905-1039  
 Mailing Address: 1503 Wabash Avenue, Lafayette, IN 47905-1039  
 Part 70 Permit No.: T157-5863-00038  
 Facility: Boiler No. 2 (Capacity 75 million Btu per hour)  
 Parameter: SO<sub>2</sub>  
 Limit: 0.5% sulfur by weight for distillate and residual fuel oil rolled on 30 days average.

Month: \_\_\_\_\_ Year: \_\_\_\_\_

Day	Type Fuel Combusted	Wt. % Sulfur (this Day)	Wt. % Sulfur (for the last 29 days)	Wt. % Sulfur Avg. (for the last 30 days)	Day	Type Fuel Combusted	Wt. % Sulfur (this Day)	Wt. % Sulfur (for the last 29 days)	Wt. % Sulfur Avg. (for the last 30 days)
1					17				
2					18				
3					19				
4					20				
5					21				
6					22				
7					23				
8					24				
9					25				
10					26				
11					27				
12					28				
13					29				
14					30				
15					31				
16					no. of deviations				

No deviation occurred in this month.

Deviation/s occurred in this month.

Deviation has been reported on:

Comments for Noncompliance: \_\_\_\_\_  
Corrective Action Taken: \_\_\_\_\_

Method of Determining Sulfur Content: \_\_\_\_\_

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

Attach a signed certification to complete this report.

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

### Part 70 Quarterly Report

Source Name: Cargill, Inc. - Soybean Processing Division  
 Source Address: 1503 Wabash Avenue, Lafayette, IN 47905-1039  
 Mailing Address: 1503 Wabash Avenue, Lafayette, IN 47905-1039  
 Part 70 Permit No.: T157-25200-00038  
 Facility: Entire Plant / Dump Bed Truck Unloading / Reject Flakes Loadout  
 Pollutant: PM and PM<sub>10</sub>  
 Limits: Soybeans Processed by Plant: 821,250 tons per 12 month period.  
 Soybeans Received by Trucks: 82,125 tons per 12 month period.  
 Reject Flakes Loadout: 2,400 tons per 12 month period.

MONTHS \_\_\_\_\_ TO \_\_\_\_\_ YEAR: \_\_\_\_\_

Soybeans Processed By Plant	This Month	Previous 11 Months	12 Month Total
Conventional: Month 1			
Conventional: Month 2			
Conventional: Month 3			
Specialty: Month 1			
Specialty: Month 2			
Specialty: Month 3			
Both Types: Month 1			
Both Types: Month 2			
Both Types: Month 3			

Soybeans Received By Trucks	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

Reject Flakes Loadout	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

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

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

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

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

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

Attach a signed certification to complete this report.

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

**Part 70 Quarterly Report**

Source Name: Cargill, Inc. - Soybean Processing Division  
 Source Address: 1503 Wabash Avenue, Lafayette, IN 47905-1039  
 Mailing Address: 1503 Wabash Avenue, Lafayette, IN 47905-1039  
 Part 70 Permit No.: T157-25200-00038  
 Facility: Boiler no. 2 (75 MMBTU/HR)  
 Pollutant: SO<sub>2</sub>  
 Limit: 1042 Kgal as no. 2 fuel oil per twelve (12) consecutive months

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	Total fuel usage as No. 2 fuel oil (Kgal) This Month	Total fuel usage as No. 2 fuel oil (Kgal) Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

Conversion: 1.00 Kgal no. 4 fuel oil = 1.00 Kgal no. 2 fuel oil  
 1.00 Kgal no. 5 fuel oil = 1.16 Kgal no. 2 fuel oil  
 1.00 Kgal no. 6 fuel oil = 1.16 Kgal no. 2 fuel oil

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

Attach a signed certification to complete this report.

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

**Part 70 Quarterly Report**

Source Name: Cargill, Inc. - Soybean Processing Division  
 Source Address: 1503 Wabash Avenue, Lafayette, IN 47905-1039  
 Mailing Address: 1503 Wabash Avenue, Lafayette, IN 47905-1039  
 Part 70 Permit No.: T157-25200-00038  
 Facility: Boiler #1 (60 MMBTU/HR)  
 Pollutant: SO<sub>2</sub>  
 Limit: 102 Kgal as no. 2 fuel oil per twelve (12) consecutive month period.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	Fuel Usage as No. 2 Fuel Oil (Kgal) This Month	Fuel Usage as No. 2 Fuel Oil (Kgal) Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

Conversion: 1.00 Kgal no. 4 fuel oil = 1.00 Kgal no. 2 fuel oil  
 1.00 Kgal no. 5 fuel oil = 1.16 Kgal no. 2 fuel oil  
 1.00 Kgal no. 6 fuel oil = 1.16 Kgal no. 2 fuel oil

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

Attach a signed certification to complete this report.

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

**Part 70 Quarterly Report**

Source Name: Cargill, Inc. - Soybean Processing Division  
 Source Address: 1503 Wabash Avenue, Lafayette, IN 47905-1039  
 Mailing Address: 1503 Wabash Avenue, Lafayette, IN 47905-1039  
 Part 70 Permit No.: T157-25200-00038  
 Facility: Boiler #2 (75 MMBTU/HR)  
 Pollutant: NOx  
 Limits: 657 MMCF per twelve (12) consecutive month period. (46 tons of NOx per year.)  
 Boiler #1 and Boiler #2 must total less than 794 MMCF per twelve (12) consecutive month period. (39.7 tons of NOx per year.)

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	Natural Gas Usage (MMCF) This Month	Natural Gas Usage (MMCF) Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

Conversion:

1 Kgal of no. 2 fuel oil = 0.143 MMCF of natural gas  
 1 Kgal of no. 4 fuel oil = 0.143 MMCF of natural gas  
 1 Kgal of no. 5 fuel oil = 0.393 MMCF of natural gas  
 1 Kgal of no. 6 fuel oil = 0.393 MMCF of natural gas  
 1 Kgal of vegetable oil = 0.209 MMCF of natural gas  
 1 Kgal of tallow = 0.247 MMCF of natural gas  
 1 Kgal of grease = 0.093 MMCF of natural gas

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

Attach a signed certification to complete this report.

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

**Part 70 Quarterly Report**

Source Name: Cargill, Inc. - Soybean Processing Division  
 Source Address: 1503 Wabash Avenue, Lafayette, IN 47905-1039  
 Mailing Address: 1503 Wabash Avenue, Lafayette, IN 47905-1039  
 Part 70 Permit No.: T157-25200-00038  
 Facility: Boiler #1 (60 MMBTU/HR)  
 Pollutant: NOx  
 Limits: 314 MMCF per twelve (12) consecutive month period. (22 tons of NOx per year.)  
 Boiler #1 and Boiler #2 must total less than 794 MMCF per twelve (12) consecutive month period. (39.7 tons of NOx per year.)

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	Natural Gas Usage (MMCF) This Month	Natural Gas Usage (MMCF) Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

Conversion:

1 Kgal of no. 2 fuel oil = 0.143 MMCF of natural gas  
 1 Kgal of no. 4 fuel oil = 0.143 MMCF of natural gas  
 1 Kgal of no. 5 fuel oil = 0.393 MMCF of natural gas  
 1 Kgal of no. 6 fuel oil = 0.393 MMCF of natural gas  
 1 Kgal of vegetable oil = 0.209 MMCF of natural gas  
 1 Kgal of tallow = 0.247 MMCF of natural gas  
 1 Kgal of grease = 0.093 MMCF of natural gas

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

Attach a signed certification to complete this report.

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

**Part 70 Quarterly Report**

Source Name: Cargill, Inc. - Soybean Processing Division  
 Source Address: 1503 Wabash Avenue, Lafayette, IN 47905-1039  
 Mailing Address: 1503 Wabash Avenue, Lafayette, IN 47905-1039  
 Part 70 Permit No.: T157-25200-00038  
 Facility: Boiler #1 (60 MMBTU/HR) and Boiler #2 (75 MMBTU/HR)  
 Pollutant: PM and PM<sub>10</sub>  
 Limit: 794.13MMCF of natural gas per 12 consecutive month (7.60 lb of PM or PM<sub>10</sub> per MMCF of natural gas each)

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	Total Natural Gas usage (MMCF) This Month	Total Natural Gas usage (MMCF) Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

Conversion:

1.00 Kgal no. 2 fuel oil = 0.434 MMCF natural gas  
 1.00 Kgal no. 4 fuel oil = 1.12 MMCF natural gas  
 1.00 Kgal no. 5 fuel oil =  $[(9.19(S)+4.72)/7.6]$  MMCF natural gas  
 1.00 Kgal no. 6 fuel oil = 1.513 MMCF natural gas

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

Attach a signed certification to complete this report.

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

**Part 70 Quarterly Report**

Source Name: Cargill, Inc. - Soybean Processing Division  
 Source Address: 1503 Wabash Avenue, Lafayette, IN 47905-1039  
 Mailing Address: 1503 Wabash Avenue, Lafayette, IN 47905-1039  
 Part 70 Permit No.: T157-25200-00038  
 Facility: Whole Soybean Extraction Plant  
 Pollutant: VOC  
 Limit: 0.503 gal/ton soybean processed, according to either of the following equations:

Compliance Ratio = (Actual VOC loss)/( Allowable VOC loss) (Eq. 1)

Compliance Ratio = 
$$\frac{[f * \text{Actual Solvent Loss}] / 0.64[ \{(Soybean\ processed)_C * (SLF_C)\} + \{(Soybean\ processed)_S * (SLF_S)\}]}{(Eq. 2)}$$

f = The weighted average volume fraction of VOC in solvent received during the previous twelve (12) operating months, dimensionless

0.64 = The average volume fraction of VOC in solvent in the baseline performance data, dimensionless

Actual Solvent Loss = Gallons of actual solvent loss during previous twelve (12) operating month

SLF<sub>S</sub> = 1.5 gals/ton (for new source, specialty soybean process)

SLF<sub>C</sub> = 0.2 gals/ton (for existing source, conventional soybean process)

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

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

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR QUALITY  
 COMPLIANCE AND ENFORCEMENT BRANCH  
 PART 70 OPERATING PERMIT  
 QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Cargill, Inc. - Soybean Processing Division  
 Source Address: 1502 Wabash Avenue, Lafayette, Indiana 47905  
 Mailing Address: 1502 Wabash Avenue, Lafayette, IN 47905  
 Part 70 Permit No.: T157-25200-00038

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

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

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

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

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

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

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

Attach a signed certification to complete this report.

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

**Attachment A**

**Subpart DD—Standards of Performance for Grain Elevators**

**Source:** 43 FR 34347, Aug. 3, 1978, unless otherwise noted.

**§ 60.300 Applicability and designation of affected facility.**

(a) The provisions of this subpart apply to each affected facility at any grain terminal elevator or any grain storage elevator, except as provided under §60.304(b). The affected facilities are each truck unloading station, truck loading station, barge and ship unloading station, barge and ship loading station, railcar loading station, railcar unloading station, grain dryer, and all grain handling operations.

(b) Any facility under paragraph (a) of this section which commences construction, modification, or reconstruction after August 3, 1978, is subject to the requirements of this part.

[43 FR 34347, Aug. 3, 1978, as amended at 52 FR 42434, Nov. 5, 1988]

**§ 60.301 Definitions.**

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

(a) *Grain* means corn, wheat, sorghum, rice, rye, oats, barley, and soybeans.

(b) *Grain elevator* means any plant or installation at which grain is unloaded, handled, cleaned, dried, stored, or loaded.

(c) *Grain terminal elevator* means any grain elevator which has a permanent storage capacity of more than 88,100 m<sup>3</sup> (ca. 2.5 million U.S. bushels), except those located at animal food manufacturers, pet food manufacturers, cereal manufacturers, breweries, and livestock feedlots.

(d) *Permanent storage capacity* means grain storage capacity which is inside a building, bin, or silo.

(e) *Railcar* means railroad hopper car or boxcar.

(f) *Grain storage elevator* means any grain elevator located at any wheat flour mill, wet corn mill, dry corn mill (human consumption), rice mill, or soybean oil extraction plant which has a permanent grain storage capacity of 35,200 m<sup>3</sup> (ca. 1 million bushels).

(g) *Process emission* means the particulate matter which is collected by a capture system.

(h) *Fugitive emission* means the particulate matter which is not collected by a capture system and is released directly into the atmosphere from an affected facility at a grain elevator.

(i) *Capture system* means the equipment such as sheds, hoods, ducts, fans, dampers, etc. used to collect particulate matter generated by an affected facility at a grain elevator.

(j) *Grain unloading station* means that portion of a grain elevator where the grain is transferred from a truck, railcar, barge, or ship to a receiving hopper.

(k) *Grain loading station* means that portion of a grain elevator where the grain is transferred from the elevator to a truck, railcar, barge, or ship.

(l) *Grain handling operations* include bucket elevators or legs (excluding legs used to unload barges or ships), scale hoppers and surge bins (garners), turn heads, scalpers, cleaners, trippers, and the headhouse and other such structures.

(m) *Column dryer* means any equipment used to reduce the moisture content of grain in which the grain flows from the top to the bottom in one or more continuous packed columns between two perforated metal sheets.

(n) *Rack dryer* means any equipment used to reduce the moisture content of grain in which the grain flows from the top to the bottom in a cascading flow around rows of baffles (racks).

(o) *Unloading leg* means a device which includes a bucket-type elevator which is used to remove grain from a barge or ship.

[43 FR 34347, Aug. 3, 1978, as amended at 65 FR 61759, Oct. 17, 2000]

**§ 60.302 Standard for particulate matter.**

(a) On and after the 60th day of achieving the maximum production rate at which the affected facility will be operated, but no later than 180 days after initial startup, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere any gases which exhibit greater than 0 percent opacity from any:

- (1) Column dryer with column plate perforation exceeding 2.4 mm diameter (ca. 0.094 inch).
- (2) Rack dryer in which exhaust gases pass through a screen filter coarser than 50 mesh.

(b) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility except a grain dryer any process emission which:

- (1) Contains particulate matter in excess of 0.023 g/dscm (ca. 0.01 gr/dscf).
- (2) Exhibits greater than 0 percent opacity.

(c) On and after the 60th day of achieving the maximum production rate at which the affected facility will be operated, but no later than 180 days after initial startup, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere any fugitive emission from:

- (1) Any individual truck unloading station, railcar unloading station, or railcar loading station, which exhibits greater than 5 percent opacity.
- (2) Any grain handling operation which exhibits greater than 0 percent opacity.
- (3) Any truck loading station which exhibits greater than 10 percent opacity.
- (4) Any barge or ship loading station which exhibits greater than 20 percent opacity.

(d) The owner or operator of any barge or ship unloading station shall operate as follows:

(1) The unloading leg shall be enclosed from the top (including the receiving hopper) to the center line of the bottom pulley and ventilation to a control device shall be maintained on both sides of the leg and the grain receiving hopper.

(2) The total rate of air ventilated shall be at least 32.1 actual cubic meters per cubic meter of grain handling capacity (ca. 40 ft<sup>3</sup> /bu).

(3) Rather than meet the requirements of paragraphs (d)(1) and (2) of this section the owner or operator may use other methods of emission control if it is demonstrated to the Administrator's satisfaction that they would reduce emissions of particulate matter to the same level or less.

**§ 60.303 Test methods and procedures.**

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (c) of this section.

(b) The owner or operator shall determine compliance with the particulate matter standards in §60.302 as follows:

(1) Method 5 shall be used to determine the particulate matter concentration and the volumetric flow rate of the effluent gas. The sampling time and sample volume for each run shall be at least 60 minutes and 1.70 dscm (60 dscf). The probe and filter holder shall be operated without heaters.

(2) Method 2 shall be used to determine the ventilation volumetric flow rate.

(3) Method 9 and the procedures in §60.11 shall be used to determine opacity.

(c) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) For Method 5, Method 17 may be used.

[54 FR 6674, Feb. 14, 1989]

**§ 60.304 Modifications.**

(a) The factor 6.5 shall be used in place of "annual asset guidelines repair allowance percentage," to determine whether a capital expenditure as defined by §60.2 has been made to an existing facility.

(b) The following physical changes or changes in the method of operation shall not by themselves be considered a modification of any existing facility:

(1) The addition of gravity loadout spouts to existing grain storage or grain transfer bins.

(2) The installation of automatic grain weighing scales.

(3) Replacement of motor and drive units driving existing grain handling equipment.

(4) The installation of permanent storage capacity with no increase in hourly grain handling capacity.

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

**Attachment B**

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

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

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

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

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

(c) Steam generating units that meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO<sub>2</sub>) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in §60.41c.

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

(e) Heat recovery steam generators that are associated with combined cycle gas turbines and meet the applicability requirements of subpart KKKK of this part are not subject to this subpart. This subpart will continue to apply to all other heat recovery steam generators that are capable of combusting more than or equal to 2.9 MW (10 MMBtu/hr) heat input of fossil fuel but less than or equal to 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).

(f) Any facility covered by subpart AAAA of this part is not subject by this subpart.

(g) Any facility covered by an EPA approved State or Federal section 111(d)/129 plan implementing subpart BBBB of this part is not subject by this subpart.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009]

**§ 60.41c Definitions.**

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

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

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

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

*Cogeneration steam generating unit* means a steam generating unit that simultaneously produces both electrical (or mechanical) and thermal energy from the same primary energy source.

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

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

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

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

*Dry flue gas desulfurization technology* means a SO<sub>2</sub> control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline reagent and water, whether introduced separately or as a premixed slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

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

*Emerging technology* means any SO<sub>2</sub> control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under §60.48c(a)(4).

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

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

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

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

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

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

*Natural gas* means:

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

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

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

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

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

*Potential sulfur dioxide emission rate* means the theoretical SO<sub>2</sub> emissions (nanograms per joule (ng/J) or lb/MMBtu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

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

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

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

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

*Wet flue gas desulfurization technology* means an SO<sub>2</sub> control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

*Wet scrubber system* means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of PM or SO<sub>2</sub>.

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

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009]

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

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

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

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

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 20 percent (0.20) of the potential SO<sub>2</sub> emission rate (80 percent reduction); nor

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

(2) Combusts only coal and that uses an emerging technology for the control of SO<sub>2</sub> emissions shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of 50 percent (0.50) of the potential SO<sub>2</sub> emission rate (50 percent reduction); nor

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

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

- (1) Affected facilities that have a heat input capacity of 22 MW (75 MMBtu/hr) or less.
  - (2) Affected facilities that have an annual capacity for coal of 55 percent (0.55) or less and are subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for coal of 55 percent (0.55) or less.
  - (3) Affected facilities located in a noncontinental area.
  - (4) Affected facilities that combust coal in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat entering the steam generating unit is from combustion of coal in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from exhaust gases entering the duct burner.
- (d) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of 215 ng/J (0.50 lb/MMBtu) heat input; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.
- (e) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, or coal and oil with any other fuel shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of the following:
- (1) The percent of potential SO<sub>2</sub> emission rate or numerical SO<sub>2</sub> emission rate required under paragraph (a) or (b)(2) of this section, as applicable, for any affected facility that
    - (i) Combusts coal in combination with any other fuel;
    - (ii) Has a heat input capacity greater than 22 MW (75 MMBtu/hr); and
    - (iii) Has an annual capacity factor for coal greater than 55 percent (0.55); and
  - (2) The emission limit determined according to the following formula for any affected facility that combusts coal, oil, or coal and oil with any other fuel:

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

Where:

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

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

K<sub>b</sub>= 260 ng/J (0.60 lb/MMBtu);

K<sub>c</sub>= 215 ng/J (0.50 lb/MMBtu);

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

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

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

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

(1) Fuel pretreatment results in a 50 percent (0.50) or greater reduction in the potential SO<sub>2</sub> emission rate; and

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

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

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

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

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

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

(i) The SO<sub>2</sub> emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

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

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009]

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

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

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

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

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

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

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

(c) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that can combust coal, wood, or oil and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. 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.

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

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

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

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

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

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

(4) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, an owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that

contains no more than 0.50 weight percent sulfur or a mixture of 0.50 weight percent sulfur oil with other fuels not subject to a PM standard under §60.43c and not using a post-combustion technology (except a wet scrubber) to reduce PM or SO<sub>2</sub> emissions is not subject to the PM limit in this section.

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

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

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

(b) The initial performance test required under §60.8 shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the percent reduction requirements and SO<sub>2</sub> emission limits under §60.42c shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affect facility will be operated, but not later than 180 days after the initial startup of the facility. The steam generating unit load during the 30-day period does not have to be the maximum design heat input capacity, but must be representative of future operating conditions.

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

(d) If only coal, only oil, or a mixture of coal and oil is combusted in an affected facility, the procedures in Method 19 of appendix A of this part are used to determine the hourly SO<sub>2</sub> emission rate (E<sub>ho</sub>) and the 30-day average SO<sub>2</sub> emission rate (E<sub>ao</sub>). The hourly averages used to compute the 30-day averages are obtained from the CEMS. Method 19 of appendix A of this part shall be used to calculate E<sub>ao</sub> when using daily fuel sampling or Method 6B of appendix A of this part.

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

(1) An adjusted E<sub>ho</sub> (E<sub>ho0</sub>) is used in Equation 19–19 of Method 19 of appendix A of this part to compute the adjusted E<sub>ao</sub> (E<sub>ao0</sub>). The E<sub>ho0</sub> is computed using the following formula:

$$E_{ho0} = \frac{E_{ho} - E_w(1 - X_k)}{X_k}$$

Where:

E<sub>ho0</sub> = Adjusted E<sub>ho</sub>, ng/J (lb/MMBtu);

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

E<sub>w</sub> = SO<sub>2</sub> concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 9 of appendix A of this part, ng/J (lb/MMBtu). The value E<sub>w</sub> for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure E<sub>w</sub> if the owner or operator elects to assume E<sub>w</sub> = 0.

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

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

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

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

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

Where:

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

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

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

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

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

$$\%R_{gO} = 100 \left( 1 - \frac{E_{aO}}{E_{aiO}} \right)$$

Where:

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

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

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

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

$$E_{hiO} = \frac{E_{hi} - E_w(1 - X_1)}{X_1}$$

Where:

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

$E_{hi}$  = Hourly SO<sub>2</sub> inlet rate, ng/J (lb/MMBtu);

$E_w$  = SO<sub>2</sub> concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 19 of appendix A of this part, ng/J (lb/MMBtu). The value  $E_w$  for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure  $E_w$  if the owner or operator elects to assume  $E_w = 0$ ; and

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

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

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

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

(j) The owner or operator of an affected facility shall use all valid SO<sub>2</sub> emissions data in calculating %P<sub>s</sub> and E<sub>h0</sub> under paragraphs (d), (e), or (f) of this section, as applicable, whether or not the minimum emissions data requirements under §60.46c(f) are achieved. All valid emissions data, including valid data collected during periods of startup, shutdown, and malfunction, shall be used in calculating %P<sub>s</sub> or E<sub>h0</sub> pursuant to paragraphs (d), (e), or (f) of this section, as applicable.

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

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

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

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

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

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

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

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

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

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

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

(6) For determination of PM emissions, an oxygen (O<sub>2</sub>) or carbon dioxide (CO<sub>2</sub>) measurement shall be obtained simultaneously with each run of Method 5, 5B, or 17 of appendix A of this part by traversing the duct at the same sampling location.

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

(i) The O<sub>2</sub> or CO<sub>2</sub> measurements and PM measurements obtained under this section, (ii) The dry basis F factor, and

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

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

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

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

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

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

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

(4) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under §60.8 of subpart A of this part or within 180 days of

notification to the Administrator of use of CEMS if the owner or operator was previously determining compliance by Method 5, 5B, or 17 of appendix A of this part performance tests, whichever is later.

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

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

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

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

(ii) [Reserved]

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

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

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

(11) During the correlation testing runs of the CEMS required by Performance Specification 11 in appendix B of this part, PM and O<sub>2</sub>(or CO<sub>2</sub>) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and 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) After July 1, 2010 or after Method 202 of appendix M of part 51 has been revised to minimize artifact measurement and notice of that change has been published in the Federal Register, whichever is later, for condensable PM emissions, Method 202 of appendix M of part 51 shall be used; and

(iii) For O<sub>2</sub> (or CO<sub>2</sub>), Method 3A or 3B of appendix A-2 of this part, as applicable shall be used.

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

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

(14) After July 1, 2011, within 90 days after the date of completing each performance evaluation required by paragraph (c)(11) of this section, the owner or operator of the affected facility must either submit the test data to EPA by successfully entering the data electronically into EPA's WebFIRE data base available 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.

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

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

**§ 60.46c Emission monitoring for sulfur dioxide.**

(a) Except as provided in paragraphs (d) and (e) of this section, the owner or operator of an affected facility subject to the SO<sub>2</sub> emission limits under §60.42c shall install, calibrate, maintain, and operate a CEMS for measuring SO<sub>2</sub> concentrations and either O<sub>2</sub> or CO<sub>2</sub> concentrations at the outlet of the SO<sub>2</sub> control device (or the outlet of the steam generating unit if no SO<sub>2</sub> control device is used), and shall record the output of the system. The owner or operator of an affected facility subject to the percent reduction requirements under §60.42c shall measure SO<sub>2</sub> concentrations and either O<sub>2</sub> or CO<sub>2</sub> concentrations at both the inlet and outlet of the SO<sub>2</sub> control device.

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

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

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

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

(3) For affected facilities subject to the percent reduction requirements under §60.42c, the span value of the SO<sub>2</sub> CEMS at the inlet to the SO<sub>2</sub> control device shall be 125 percent of the maximum estimated hourly potential SO<sub>2</sub> emission rate of the fuel combusted, and the span value of the SO<sub>2</sub> CEMS at the outlet from the SO<sub>2</sub> control device shall be 50 percent of the maximum estimated hourly potential SO<sub>2</sub> emission rate of the fuel combusted.

(4) For affected facilities that are not subject to the percent reduction requirements of §60.42c, the span value of the SO<sub>2</sub> CEMS at the outlet from the SO<sub>2</sub> control device (or outlet of the steam generating unit if no SO<sub>2</sub> control device is used) shall be 125 percent of the maximum estimated hourly potential SO<sub>2</sub> emission rate of the fuel combusted.

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

(1) For affected facilities combusting coal or oil, coal or oil samples shall be collected daily in an as-fired condition at the inlet to the steam generating unit and analyzed for sulfur content and heat content according

the Method 19 of appendix A of this part. Method 19 of appendix A of this part provides procedures for converting these measurements into the format to be used in calculating the average SO<sub>2</sub> input rate.

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

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

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

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

#### **§ 60.47c Emission monitoring for particulate matter.**

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

(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 30 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 30 calendar days according to the requirements in §60.45c(a)(8).

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

(c) Owners and operators of an affected facilities that burn only distillate oil that contains no more than 0.5 weight percent sulfur and/or liquid or gaseous fuels with potential sulfur dioxide emission rates of 26 ng/J (0.060 lb/MMBtu) heat input or less and that do not use a post-combustion technology to reduce SO<sub>2</sub> or PM

emissions and that are subject to an opacity standard in §60.43c(c) are not required to operate a COMS if they follow the applicable procedures in §60.48c(f).

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

(e) Owners and operators of an affected facility that is subject to an opacity standard in §60.43c(c) and that does not use post-combustion technology (except a wet scrubber) for reducing PM, SO<sub>2</sub>, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.5 weight percent sulfur, and is operated such that emissions of CO discharged to the atmosphere from the affected facility are maintained at levels less than or equal to 0.15 lb/MMBtu on a boiler operating day average basis is not required to operate a COMS. Owners and operators of affected facilities electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (e)(1) through (4) of this section; or

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

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

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

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

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

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

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

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

(f) Owners and operators of an affected facility that is subject to an opacity standard in §60.43c(c) and that 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 is not required to operate a COMS.

(g) Owners and operators of an affected facility that is subject to an opacity standard in §60.43c(c) and that burns only gaseous fuels or fuel oils that contain less than or equal to 0.5 weight percent sulfur and operates according to a written site-specific monitoring plan approved by the permitting authority is not required to operate a COMS. 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.

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

**§ 60.48c Reporting and recordkeeping requirements.**

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction and actual startup, as provided by §60.7 of this part. This notification shall include:

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

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

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

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

(b) The owner or operator of each affected facility subject to the SO<sub>2</sub> emission limits of §60.42c, or the PM or opacity limits of §60.43c, shall submit to the Administrator the performance test data from the initial and any subsequent performance tests and, if applicable, the performance evaluation of the CEMS and/or COMS using the applicable performance specifications in appendix B of this part.

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

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

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

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

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

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

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

- (ii) Name and affiliation for each visible emission observer participating in the performance test;
  - (iii) Copies of all visible emission observer opacity field data sheets; and
  - (iv) Documentation of any adjustments made and the time the adjustments were completed to the affected facility operation by the owner or operator to demonstrate compliance with the applicable monitoring requirements.
- (3) For each digital opacity compliance system, the owner or operator shall maintain records and submit reports according to the requirements specified in the site-specific monitoring plan approved by the Administrator
- (d) The owner or operator of each affected facility subject to the SO<sub>2</sub> emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall submit reports to the Administrator.
- (e) The owner or operator of each affected facility subject to the SO<sub>2</sub> emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall keep records and submit reports as required under paragraph (d) of this section, including the following information, as applicable.
- (1) Calendar dates covered in the reporting period.
  - (2) Each 30-day average SO<sub>2</sub> emission rate (ng/J or lb/MMBtu), or 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.
  - (3) Each 30-day average percent of potential SO<sub>2</sub> emission rate calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of the corrective actions taken.
  - (4) Identification of any steam generating unit operating days for which SO<sub>2</sub> or diluent (O<sub>2</sub> or CO<sub>2</sub>) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and a description of corrective actions taken.
  - (5) Identification of any times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and a description of corrective actions taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.
  - (6) Identification of the F factor used in calculations, method of determination, and type of fuel combusted.
  - (7) Identification of whether averages have been obtained based on CEMS rather than manual sampling methods.
  - (8) If a CEMS is used, identification of any times when the pollutant concentration exceeded the full span of the CEMS.
  - (9) If a CEMS is used, description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specifications 2 or 3 of appendix B of this part.
  - (10) If a CEMS is used, results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.
  - (11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), (3), or (4) of this section, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the

affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

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

(1) For distillate oil:

(i) The name of the oil supplier;

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

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

(2) For residual oil:

(i) The name of the oil supplier;

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

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

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

(3) For coal:

(i) The name of the coal supplier;

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

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

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

(4) For other fuels:

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

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

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

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

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

(3) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in §60.42C to use fuel certification to demonstrate compliance with the SO<sub>2</sub> standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.

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

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

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

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

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

**Attachment C**

**Subpart GGGG—National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production**

**Source:** 66 FR 19011, Apr. 12, 2001, unless otherwise noted.

**What This Subpart Covers**

**§ 63.2830 What is the purpose of this subpart?**

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for emissions during vegetable oil production. This subpart limits hazardous air pollutant (HAP) emissions from specified vegetable oil production processes. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission standards.

**§ 63.2831 Where can I find definitions of key words used in this subpart?**

You can find definitions of key words used in this subpart in §63.2872.

**§ 63.2832 Am I subject to this subpart?**

(a) You are an affected source subject to this subpart if you meet all of the criteria listed in paragraphs (a)(1) and (2) of this section:

(1) You own or operate a vegetable oil production process that is a major source of HAP emissions or is collocated within a plant site with other sources that are individually or collectively a major source of HAP emissions.

(i) A *vegetable oil production process* is defined in §63.2872. In general, it is the collection of continuous process equipment and activities that produce crude vegetable oil and meal products by removing oil from oilseeds listed in Table 1 to §63.2840 through direct contact with an organic solvent, such as a hexane isomer blend.

(ii) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year.

(2) Your vegetable oil production process processes any combination of eight types of oilseeds listed in paragraphs (a)(2)(i) through (viii) of this section:

(i) Corn germ;

(ii) Cottonseed;

(iii) Flax;

(iv) Peanut;

(v) Rapeseed (for example, canola);

- (vi) Safflower;
- (vii) Soybean; and
- (viii) Sunflower.

(b) You are not subject to this subpart if your vegetable oil production process meets any of the criteria listed in paragraphs (b)(1) through (4) of this section:

- (1) It uses only mechanical extraction techniques that use no organic solvent to remove oil from a listed oilseed.
- (2) It uses only batch solvent extraction and batch desolventizing equipment.
- (3) It processes only agricultural products that are not listed oilseeds as defined in §63.2872.
- (4) It functions only as a research and development facility and is not a major source.

(c) As listed in §63.1(c)(5) of the General Provisions, if your HAP emissions increase such that you become a major source, then you are subject to all of the requirements of this subpart.

**§ 63.2833 Is my source categorized as existing or new?**

(a) This subpart applies to each existing and new affected source. You must categorize your vegetable oil production process as either an existing or a new source in accordance with the criteria in Table 1 of this section, as follows:

**Table 1 to §63.2833—Categorizing Your Source as Existing or New**

<b>If your affected source...</b>	<b>And if...</b>	<b>Then your affected source...</b>
(1) was constructed or began construction before May 26, 2000	reconstruction has not occurred	is an existing source.
(2) began reconstruction, as defined in §63.2, on or after May 26, 2000	(i) reconstruction was part of a scheduled plan to comply with the existing source requirements of this subpart; and (ii) reconstruction was completed no later than 3 years after the effective date of this subpart	remains an existing source.
(3) began a significant modification, as defined in §63.2872, at any time on an existing source	the modification does not constitute reconstruction	remains an existing source.
(4) began a significant modification, as defined in §63.2872, at any time on a new source	the modification does not constitute reconstruction	remains a new source.
(5) began reconstruction on or after May 26, 2000	reconstruction was completed later than 3 years after the effective date of this subpart	is a new source
(6) began construction on or after May 26, 2000		is a new source.

(b) *Reconstruction of a source.* Any affected source is reconstructed if components are replaced so that the criteria in the definition of *reconstruction* in §63.2 are satisfied. In general, a vegetable oil production process

is reconstructed if the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost for constructing a new vegetable oil production process, and it is technically and economically feasible for the reconstructed source to meet the relevant new source requirements of this subpart. The effect of reconstruction on the categorization of your existing and new affected source is described in paragraphs (b)(1) and (2) of this section:

(1) After reconstruction of an existing source, the affected source is recategorized as a new source and becomes subject to the new source requirements of this subpart.

(2) After reconstruction of a new source, the affected source remains categorized as a new source and remains subject to the new source requirements of this subpart.

(c) *Significant modification of a source.* A significant modification to an affected source is a term specific to this subpart and is defined in §63.2872.

(1) In general, a significant modification to your source consists of adding new equipment or the modification of existing equipment within the affected source that significantly affects solvent losses from the affected source. Examples include adding or replacing extractors, desolventizer-toasters (conventional and specialty), and meal dryer-coolers. All other significant modifications must meet the criteria listed in paragraphs (c)(1)(i) and (ii) of this section:

(i) The fixed capital cost of the modification represents a significant percentage of the fixed capital cost of building a comparable new vegetable oil production process.

(ii) It does not constitute reconstruction as defined in §63.2.

(2) A significant modification has no effect on the categorization of your source as existing and new. An existing source remains categorized as an existing source and subject to the existing source requirements of this subpart. A new source remains categorized as a new source and subject to the new source requirements of this subpart.

(d) Changes in the type of oilseed processed by your affected source does not affect the categorization of your source as new or existing. Recategorizing an affected source from existing to new occurs only when you add or modify process equipment within the source which meets the definition of *reconstruction*.

**§ 63.2834 When do I have to comply with the standards in this subpart?**

You must comply with this subpart in accordance with one of the schedules in Table 1 of this section, as follows:

**Table 1 of §63.2834—Compliance Dates for Existing and New Sources**

<b>If your affected source is categorized as...</b>	<b>And if...</b>	<b>Then your compliance date is...</b>
(a) an existing source		3 years after the effective date of this subpart.
(b) a new source	you startup your affected source before the effective date of this subpart	the effective date of this subpart.
(c) a new source	you startup your affected source on or after the effective date of this subpart	your startup date.

## Standards

### § 63.2840 What emission requirements must I meet?

For each facility meeting the applicability criteria in §63.2832, you must comply with either the requirements specified in paragraphs (a) through (d), or the requirements in paragraph (e) of this section.

(a)(1) The emission requirements limit the number of gallons of HAP lost per ton of listed oilseeds processed. For each operating month, you must calculate a compliance ratio which compares your actual HAP loss to your allowable HAP loss for the previous 12 operating months as shown in Equation 1 of this section. An operating month, as defined in §63.2872, is any calendar month in which a source processes a listed oilseed, excluding any entire calendar month in which the source operated under an initial startup period subject to §63.2850(c)(2) or (d)(2) or a malfunction period subject to §63.2850(e)(2). Equation 1 of this section follows:

$$\text{Compliance Ratio} = \frac{\text{Actual Hap Loss}}{\text{Allowable Hap Loss}} \quad (\text{Eq. 1})$$

(2) Equation 1 of this section can also be expressed as a function of total solvent loss as shown in Equation 2 of this section. Equation 2 of this section follows:

$$\text{Compliance Ratio} = \frac{f * \text{Actual Solvent Loss}}{0.64 * \sum_{i=1}^n ((\text{Oilseed})_i * (\text{SLF})_i)} \quad (\text{Eq. 2})$$

Where:

f = The weighted average volume fraction of HAP in solvent received during the previous 12 operating months, as determined in §63.2854, dimensionless.

0.64 = The average volume fraction of HAP in solvent in the baseline performance data, dimensionless.

Actual Solvent Loss = Gallons of actual solvent loss during previous 12 operating months, as determined in §63.2853.

Oilseed = Tons of each oilseed type "i" processed during the previous 12 operating months, as shown in §63.2855.

SLF = The corresponding solvent loss factor (gal/ton) for oilseed "i" listed in Table 1 of this section, as follows:

**Table 1 of §63.2840—Oilseed Solvent Loss Factors for Determining Allowable HAP Loss**

Type of oilseed process	A source that...	Oilseed solvent loss factor (gal/ton)	
		Existing sources	New sources
(i) Corn Germ, Wet Milling	processes corn germ that has been separated from other corn components using a “wet” process of centrifuging a slurry steeped in a dilute sulfurous acid solution	0.4	0.3
(ii) Corn Germ, Dry Milling	processes corn germ that has been separated from the other corn components using a “dry” process of mechanical chafing and air sifting	0.7	0.7
(iii) Cottonseed, Large	processes 120,000 tons or more of a combination of cottonseed and other listed oilseeds during all normal operating periods in a 12 operating month period	0.5	0.4
(iv) Cottonseed, Small	processes less than 120,000 tons of a combination of cottonseed and other listed oilseeds during all normal operating periods in a 12 operating month period	0.7	0.4
(v) Flax	processes flax	0.6	0.6
(vi) Peanuts	processes peanuts	1.2	0.7
(vii) Rapeseed	processes rapeseed	0.7	0.3
(viii) Safflower	processes safflower	0.7	0.7
(ix) Soybean, Conventional	uses a conventional style desolventizer to produce crude soybean oil products and soybean animal feed products	0.2	0.2
(x) Soybean, Specialty	uses a special style desolventizer to produce soybean meal products for human and animal consumption	1.7	1.5
(xi) Soybean, Combination Plant with Low Specialty Production	processes soybeans in both specialty and conventional desolventizers and the quantity of soybeans processed in specialty desolventizers during normal operating periods is less than 3.3 percent of total soybeans processed during all normal operating periods in a 12 operating month period. The corresponding solvent loss factor is an overall value and applies to the total quantity of soybeans processed.	0.25	0.25
(xii) Sunflower	processes sunflower	0.4	0.3

(b) When your source has processed listed oilseed for 12 operating months, calculate the compliance ratio by the end of each calendar month following an operating month using Equation 2 of this section. When calculating your compliance ratio, consider the conditions and exclusions in paragraphs (b)(1) through (6) of this section:

(1) If your source processes any quantity of listed oilseeds in a calendar month and the source is not operating under an initial startup period or malfunction period subject to §63.2850, then you must categorize the month as an operating month, as defined in §63.2872.

(2) The 12-month compliance ratio may include operating months occurring prior to a source shutdown and operating months that follow after the source resumes operation.

(3) If your source shuts down and processes no listed oilseed for an entire calendar month, then you must categorize the month as a nonoperating month, as defined in §63.2872. Exclude any nonoperating months from the compliance ratio determination.

(4) If your source is subject to an initial startup period as defined in §63.2872, exclude from the compliance ratio determination any solvent and oilseed information recorded for the initial startup period.

(5) If your source is subject to a malfunction period as defined in §63.2872, exclude from the compliance ratio determination any solvent and oilseed information recorded for the malfunction period.

(6) For sources processing cottonseed or specialty soybean, the solvent loss factor you use to determine the compliance ratio may change each operating month depending on the tons of oilseed processed during all normal operating periods in a 12 operating month period.

(c) If the compliance ratio is less than or equal to 1.00, your source was in compliance with the HAP emission requirements for the previous operating month.

(d) To determine the compliance ratio in Equation 2 of this section, you must select the appropriate oilseed solvent loss factor from Table 1 of this section. First, determine whether your source is new or existing using Table 1 of §63.2833. Then, under the appropriate existing or new source column, select the oilseed solvent loss factor that corresponds to each type oilseed or process operation for each operating month.

(e) *Low-HAP solvent option.* For all vegetable oil production processes subject to this subpart, you must exclusively use solvent where the volume fraction of each HAP comprises 1 percent or less by volume of the solvent (low-HAP solvent) in each delivery, and you must meet the requirements in paragraphs (e)(1) through (5) of this section. Your vegetable oil production process is not subject to the requirements in §§63.2850 through 63.2870 unless specifically referenced in paragraphs (e)(1) through (5) of this section.

(1) You shall determine the HAP content of your solvent in accordance with the specifications in §63.2854(b)(1).

(2) You shall maintain documentation of the HAP content determination for each delivery of the solvent at the facility at all times.

(3) You must submit an initial notification for existing sources in accordance with §63.2860(a).

(4) You must submit an initial notification for new and reconstructed sources in accordance with §63.2860(b).

(5) You must submit an annual compliance certification in accordance with §63.2861(a). The certification should only include the information required under §63.2861(a)(1) and (2), and a certification indicating whether the source complied with all of the requirements in paragraph (e) of this section.

(f) You may change compliance options for your source if you submit a notice to the Administrator at least 60 days prior to changing compliance options. If your source changes from the low-HAP solvent option to the compliance ratio determination option, you must determine the compliance ratio for the most recent 12 operating months beginning with the first month after changing compliance options.

[66 FR 19011, Apr. 12, 2001, as amended at 69 FR 53341, Sept. 1, 2004]

## **Compliance Requirements**

### **§ 63.2850 How do I comply with the hazardous air pollutant emission standards?**

(a) *General requirements.* The requirements in paragraphs (a)(1)(i) through (iv) of this section apply to all affected sources:

(1) Submit the necessary notifications in accordance with §63.2860, which include:

- (i) Initial notifications for existing sources.
- (ii) Initial notifications for new and reconstructed sources.
- (iii) Initial notifications for significant modifications to existing or new sources.
- (iv) Notification of compliance status.

(2) Develop and implement a plan for demonstrating compliance in accordance with §63.2851.

(3) Develop a written startup, shutdown and malfunction (SSM) plan in accordance with the provisions in §63.2852.

(4) Maintain all the necessary records you have used to demonstrate compliance with this subpart in accordance with §63.2862.

(5) Submit the reports in paragraphs (a)(5)(i) through (iii) of this section:

- (i) Annual compliance certifications in accordance with §63.2861(a).
- (ii) Periodic SSM reports in accordance with §63.2861(c).
- (iii) Immediate SSM reports in accordance with §63.2861(d).

(6) Submit all notifications and reports and maintain all records required by the General Provisions for performance testing if you add a control device that destroys solvent.

(b) *Existing sources under normal operation.* You must meet all of the requirements listed in paragraph (a) of this section and table 1 of this section for sources under normal operation, and the schedules for demonstrating compliance for existing sources under normal operation in table 2 of this section.

(c) *New sources.* Your new source, including a source that is categorized as new due to reconstruction, must meet the requirements associated with one of two compliance options. Within 15 days of the startup date, you must choose to comply with one of the options listed in paragraph (c)(1) or (2) of this section:

(1) *Normal operation.* Upon startup of your new source, you must meet all of the requirements listed in §63.2850(a) and table 1 of this section for sources under normal operation, and the schedules for demonstrating compliance for new sources under normal operation in table 2 of this section.

(2) *Initial startup period.* For up to 6 calendar months after the startup date of your new source, you must meet all of the requirements listed in paragraph (a) of this section and table 1 of this section for sources operating under an initial startup period, and the schedules for demonstrating compliance for new sources operating under an initial startup period in Table 2 of this section. After a maximum of 6 calendar months, your new source must then meet all of the requirements listed in table 1 of this section for sources under normal operation.

(d) *Existing or new sources that have been significantly modified.* Your existing or new source that has been significantly modified must meet the requirements associated with one of two compliance options. Within 15 days of the modified source startup date, you must choose to comply with one of the options listed in paragraph (d)(1) or (2) of this section:

(1) *Normal operation.* Upon startup of your significantly modified existing or new source, you must meet all of the requirements listed in paragraph (a) of this section and table 1 of this section for sources under

normal operation, and the schedules for demonstrating compliance for an existing or new source that has been significantly modified in table 2 of this section.

(2) *Initial startup period.* For up to 3 calendar months after the startup date of your significantly modified existing or new source, you must meet all of the requirements listed in paragraph (a) of this section and table 1 of this section for sources operating under an initial startup period, and the schedules for demonstrating compliance for a significantly modified existing or new source operating under an initial startup period in table 2 of this section. After a maximum of 3 calendar months, your new or existing source must meet all of the requirements listed in Table 1 of this section for sources under normal operation.

(e) *Existing or new sources experiencing a malfunction.* A *malfunction* is defined in §63.2. In general, it means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment or process equipment to function in a usual manner. If your existing or new source experiences an unscheduled shutdown as a result of a malfunction, continues to operate during a malfunction (including the period reasonably necessary to correct the malfunction), or starts up after a shutdown resulting from a malfunction, then you must meet the requirements associated with one of two compliance options. Routine or scheduled process startups and shutdowns resulting from, but not limited to, market demands, maintenance activities, and switching types of oilseed processed, are not startups or shutdowns resulting from a malfunction and, therefore, do not qualify for this provision. Within 15 days of the beginning date of the malfunction, you must choose to comply with one of the options listed in paragraphs (e)(1) through (2) of this section:

(1) *Normal operation.* Your source must meet all of the requirements listed in paragraph (a) of this section and one of the options listed in paragraphs (e)(1)(i) through (iii) of this section:

(i) Existing source normal operation requirements in paragraph (b) of this section.

(ii) New source normal operation requirements in paragraph (c)(1) of this section.

(iii) Normal operation requirements for sources that have been significantly modified in paragraph (d)(1) of this section.

(2) *Malfunction period.* Throughout the malfunction period, you must meet all of the requirements listed in paragraph (a) of this section and Table 1 of this section for sources operating during a malfunction period. At the end of the malfunction period, your source must then meet all of the requirements listed in table 1 of this section for sources under normal operation. Table 1 of this section follows:

**Table 1 of §63.2850—Requirements for Compliance with HAP Emission Standards**

<b>Are you required to . . .</b>	<b>For periods of normal operation?</b>	<b>For initial startup periods subject to §63.2850(c)(2) or (d)(2)?</b>	<b>For malfunction periods subject to §63.2850(e)(2)?</b>
(a) Operate and maintain your source in accordance with general duty provisions of §63.6(e)?	Yes. Additionally, the HAP emission limits will apply.	Yes, you are required to minimize emissions to the extent practicable throughout the initial startup period. Such measures should be described in the SSM plan.	Yes, you are required to minimize emissions to the extent practicable throughout the initial startup period. Such measures should be described in the SSM plan.
(b) Determine and record the extraction solvent loss in gallons from your source?	Yes, as described in §63.2853	Yes, as described in §63.2862(e)	Yes, as described in §63.2862(e).
(c) Record the volume fraction of HAP present at greater than 1 percent by	Yes	Yes	Yes.

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)?
volume and gallons of extraction solvent in shipment received?			
(d) Determine and record the tons of each oilseed type processed by your source?	Yes, as described in §63.2855	No	No.
(e) Determine the weighted average volume fraction of HAP in extraction solvent received as described in §63.2854 by the end of the following calendar month?	Yes	No. Except for solvent received by a new or reconstructed source commencing operation under an initial startup period, the HAP volume fraction in any solvent received during an initial startup period is included in the weighted average HAP determination for the next operating month	No, the HAP volume fraction in any solvent received during a malfunction period is included in the weighted average HAP determination for the next operating month.
(f) Determine and record the actual solvent loss, weighted average volume fraction HAP, oilseed processed and compliance ratio for each 12 operating month period as described in §63.2840 by the end of the following calendar month?	Yes,	No, these requirements are not applicable because your source is not required to determine the compliance ratio with data recorded for an initial startup period	No, these requirements are not applicable because your source is not required to determine the compliance ratio with data recorded for a malfunction period.
(g) Submit a Notification of Compliance Status or Annual Compliance Certification as appropriate?	Yes, as described in §§63.2860(d) and 63.2861(a)	No. However, you may be required to submit an annual compliance certification for previous operating months, if the deadline for the annual 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	Yes, only if your source does not follow the SSM plan	Yes, only if your source does not follow the SSM plan.

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)?
	normal operation		

**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:

Monthly Actual

$$\text{Solvent (gal)} = \sum_{i=1}^n (\text{SOLV}_B - \text{SOLV}_E + \text{SOLV}_R \pm \text{SOLV}_A)_i \quad (\text{Eq. 1})$$

Where:

SOLV<sub>B</sub>= Gallons of solvent in the inventory at the beginning of normal operating period "i" as determined in paragraph (a)(3) of this section.

SOLV<sub>E</sub>= Gallons of solvent in the inventory at the end of normal operating period "i" as determined in paragraph (a)(3) of this section.

SOLV<sub>R</sub>= Gallons of solvent received between the beginning and ending inventory dates of normal operating period "i" as determined in paragraph (a)(4) of this section.

SOLV<sub>A</sub>= Gallons of solvent added or removed from the extraction solvent inventory during normal operating period "i" as determined in paragraph (a)(5) of this section.

n = Number of normal operating periods in a calendar month.

(c) The actual solvent loss is the total solvent losses during normal operating periods for the previous 12 operating months. You determine your actual solvent loss by summing the monthly actual solvent losses for the previous 12 operating months. You must record the actual solvent loss by the end of each calendar month following an operating month. Use the actual solvent loss in Equation 2 of §63.2840 to determine the compliance ratio. Actual solvent loss does not include losses that occur during operating status periods listed in paragraphs (c)(1) through (4) of this section. If any one of these four operating status periods span an entire month, then the month is treated as nonoperating and there is no compliance ratio determination.

(1) Nonoperating periods as described in paragraph (a)(2)(ii) of this section.

- (2) Initial startup periods as described in §63.2850(c)(2) or (d)(2).
- (3) Malfunction periods as described in §63.2850(e)(2).
- (4) Exempt operation periods as described in paragraph (a)(2)(v) of this section.

**§ 63.2854 How do I determine the weighted average volume fraction of HAP in the actual solvent loss?**

(a) This section describes the information and procedures you must use to determine the weighted average volume fraction of HAP in extraction solvent received for use in your vegetable oil production process. By the end of each calendar month following an operating month, determine the weighted average volume fraction of HAP in extraction solvent received since the end of the previous operating month. If you have determined the monthly weighted average volume fraction of HAP in solvent received for 12 or more operating months, then also determine an overall weighted average volume fraction of HAP in solvent received for the previous 12 operating months. Use the volume fraction of HAP determined as a 12 operating months weighted average in Equation 2 of §63.2840 to determine the compliance ratio.

(b) To determine the volume fraction of HAP in the extraction solvent determined as a 12 operating months weighted average, you must comply with paragraphs (b)(1) through (3) of this section:

(1) Record the volume fraction of each HAP comprising more than 1 percent by volume of the solvent in each delivery of solvent, including solvent recovered from off-site oil. To determine the HAP content of the material in each delivery of solvent, the reference method is EPA Method 311 of appendix A of this part. You may use EPA Method 311, an approved alternative method, or any other reasonable means for determining the HAP content. Other reasonable means of determining HAP content include, but are not limited to, a material safety data sheet or a manufacturer's certificate of analysis. A certificate of analysis is a legal and binding document provided by a solvent manufacturer. The purpose of a certificate of analysis is to list the test methods and analytical results that determine chemical properties of the solvent and the volume percentage of all HAP components present in the solvent at quantities greater than 1 percent by volume. You are not required to test the materials that you use, but the Administrator may require a test using EPA Method 311 (or an approved alternative method) to confirm the reported HAP content. However, if the results of an analysis by EPA Method 311 are different from the HAP content determined by another means, the EPA Method 311 results will govern compliance determinations.

(2) Determine the weighted average volume fraction of HAP in the extraction solvent each operating month. The weighted average volume fraction of HAP for an operating month includes all solvent received since the end of the last operating month, regardless of the operating status at the time of the delivery. Determine the monthly weighted average volume fraction of HAP by summing the products of the HAP volume fraction of each delivery and the volume of each delivery and dividing the sum by the total volume of all deliveries as expressed in Equation 1 of this section. Record the result by the end of each calendar month following an operating month. Equation 1 of this section follows:

$$\begin{array}{l} \text{Monthly Weighted} \\ \text{Average HAP Content} \\ \text{of Extraction Solvent} \\ \text{(volume fraction)} \end{array} = \frac{\sum_{i=1}^n (\text{Received}_i * \text{Content}_i)}{\text{Total Received}} \quad (\text{Eq. 1})$$

Where:

Received<sub>i</sub>= Gallons of extraction solvent received in delivery "i."

Content<sub>i</sub>= The volume fraction of HAP in extraction solvent delivery "i."

Total Received = Total gallons of extraction solvent received since the end of the previous operating month.

n = Number of extraction solvent deliveries since the end of the previous operating month.

(3) Determine the volume fraction of HAP in your extraction solvent as a 12 operating months weighted average. When your source has processed oilseed for 12 operating months, sum the products of the monthly weighted average HAP volume fraction and corresponding volume of solvent received, and divide the sum by the total volume of solvent received for the 12 operating months, as expressed by Equation 2 of this section. Record the result by the end of each calendar month following an operating month and use it in Equation 2 of §63.2840 to determine the compliance ratio. Equation 2 of this section follows:

$$\begin{array}{l} \text{12-Month Weighted} \\ \text{Average of HAP Content} \\ \text{in Solvent Received} \\ \text{(volume fraction)} \end{array} = \frac{\sum_{i=1}^{12} (\text{Received}_i * \text{Content}_i)}{\text{Total Received}} \quad (\text{Eq. 2})$$

Where:

Received<sub>i</sub> = Gallons of extraction solvent received in operating month "i" as determined in accordance with §63.2853(a)(4).

Content<sub>i</sub> = Average volume fraction of HAP in extraction solvent received in operating month "i" as determined in accordance with paragraph (b)(1) of this section.

Total Received = Total gallons of extraction solvent received during the previous 12 operating months.

#### § 63.2855 How do I determine the quantity of oilseed processed?

All oilseed measurements must be determined on an *as received* basis, as defined in §63.2872. The *as received* basis refers to the oilseed chemical and physical characteristics as initially received by the source and prior to any oilseed handling and processing. By the end of each calendar month following an operating month, you must determine the tons as received of each listed oilseed processed for the operating month. The total oilseed processed for an operating month includes the total of each oilseed processed during all normal operating periods that occur within the operating month. If you have determined the tons of oilseed processed for 12 or more operating months, then you must also determine the 12 operating months rolling sum of each type oilseed processed by summing the tons of each type of oilseed processed for the previous 12 operating months. The 12 operating months rolling sum of each type of oilseed processed is used to calculate the compliance ratio as described in §63.2840.

(a) To determine the tons as received of each type of oilseed processed at your source, follow the procedures in your plan for demonstrating compliance to determine the items in paragraphs (a)(1) through (5) of this section:

(1) *The dates that define each operating status period.* The dates that define each operating status period include the beginning date of each calendar month and the date of any change in the source operating status. If, prior to the effective date of this rule, your source determines the oilseed inventory on an accounting month rather than a calendar month basis, and you have 12 complete accounting months of approximately equal duration in a calendar year, you may substitute the accounting month time interval for the calendar month time interval. If you choose to use an accounting month rather than a calendar month, you must document this measurement frequency selection in your plan for demonstrating compliance, and you must remain on this schedule unless you request and receive written approval from the agency responsible for these NESHAP. The dates on each oilseed inventory log must be consistent with the dates recorded for the solvent inventory.

(2) *Source operating status.* You must categorize the source operation for each recorded time interval. The source operating status for each time interval recorded on the oilseed inventory for each type of oilseed

must be consistent with the operating status recorded on the solvent inventory logs as described in §63.2853(a)(2).

(3) *Measuring the beginning and ending inventory for each oilseed.* You are required to measure and record the oilseed inventory on the beginning and ending dates of each normal operating period that occurs during an operating month. An operating month is any calendar month with at least one normal operating period. You must consistently follow the procedures described in your plan for demonstrating compliance, as specified in §63.2851, to determine the oilseed inventory on an as received basis and maintain readily available records of the oilseed inventory as described by §63.2862(c)(3).

(4) *Tons of each oilseed received.* Record the type of oilseed and tons of each shipment of oilseed received and added to your on-site storage.

(5) *Oilseed inventory adjustments.* In some situations, determining the quantity of oilseed processed directly from the measured oilseed inventory and quantity of oilseed received is not an accurate estimate of the tons of oilseed processed for use in determining compliance ratios. For example, spoiled and molded oilseed removed from storage but not processed by your source will result in an overestimate of the quantity of oilseed processed. In such cases, you must adjust the oilseed inventory and provide a justification for the adjustment. Situations that may require oilseed inventory adjustments include, but are not limited to, the situations listed in paragraphs (a)(5)(i) through (v) of this section:

(i) Oilseed that mold or otherwise become unsuitable for processing.

(ii) Oilseed you sell before it enters the processing operation.

(iii) Oilseed destroyed by an event such as a process malfunction, fire, or natural disaster.

(iv) Oilseed processed through operations prior to solvent extraction such as screening, dehulling, cracking, drying, and conditioning; but that are not routed to the solvent extractor for further processing.

(v) Periodic physical measurements of inventory. For example, some sources periodically empty oilseed storage silos to physically measure the current oilseed inventory. This periodic measurement procedure typically results in a small inventory correction. The correction factor, usually less than 1 percent, may be used to make an adjustment to the source's oilseed inventory that was estimated previously with indirect measurement techniques. To make this adjustment, your plan for demonstrating compliance must provide for such an adjustment.

(b) Use Equation 1 of this section to determine the quantity of each oilseed type processed at your affected source during normal operating periods recorded within a calendar month. Equation 1 of this section follows:

$$\begin{array}{l} \text{Monthly Quantity} \\ \text{of Each Oilseed} \\ \text{Processed (tons)} \end{array} = \sum_{n=1}^n (SEED_B - SEED_E + SEED_R \pm SEED_A) \quad (Eq. 1)$$

Where:

SEED<sub>B</sub>= 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<sub>E</sub>= 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<sub>R</sub>= Tons of oilseed received during normal operating period "i" as determined in accordance with paragraph (a)(4) of this section.

SEED<sub>A</sub> = 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]			
§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

General provisions citation	Subject of citation	Brief description of requirement	Applies to subpart	Explanation
				the subpart GGGG requirements for quantifying.
§63.6	Applicability of General Provisions	Applicability	Yes	Except for subsections of §63.6 as listed below.
§63.6(b)(1)–(3)	Compliance dates, new and reconstructed sources		No	Section 63.2834 of subpart GGGG specifies the compliance dates for new and reconstructed sources.
§63.6(b)(6)	[Reserved]			
§63.6(c)(3)–(4)	[Reserved]			
§63.6(d)	[Reserved]			
§63.6(e)(1) through (e)(3)(ii) and §63.6(e)(3)(v) through (vii)	Operation and maintenance requirements		Yes	Minimize emissions to the extent practical.
§63.6(e)(3)(iii)	Operation and maintenance requirements		No	Minimize emissions to the extent practical
§63.6(e)(3)(iv)	Operation and maintenance requirements		No	Report SSM and in accordance with §63.2861(c) and (d).
§63.6(e)(3)(viii)	Operation and maintenance requirements		Yes	Except, report each revision to your SSM plan in accordance with §63.2861(c) rather than §63.10(d)(5) as required under §63.6(e)(3) (viii).
§63.6(e)(3)(ix)	Title V permit		Yes	
§63.6(f)–(g)	Compliance with nonopacity emission standards except during SSM	Comply with emission standards at all times except during SSM	No	Subpart GGGG does not have nonopacity requirements.
§63.6(h)	Opacity/Visible emission (VE) standards		No	Subpart GGGG has no opacity or VE standards.
§63.6(i)	Compliance extension	Procedures and criteria for 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

<b>General provisions citation</b>	<b>Subject of citation</b>	<b>Brief description of requirement</b>	<b>Applies to subpart</b>	<b>Explanation</b>
				destroys solvent. Section 63.2850(a)(6) requires sources to follow the performance testing guidelines of the General Provisions if a control is added.
§63.8	Monitoring requirements		No	Subpart GGGG does not require monitoring other than as specified therein.
§63.9	Notification requirements	Applicability and state delegation	Yes	Except for subsections of §63.9 as listed below.
§63.9(b)(2)	Notification requirements	Initial notification requirements for existing sources	No	Section 63.2860(a) of subpart GGGG specifies the requirements of the initial notification for existing sources.
§63.9(b)(3)–(5)	Notification requirements	Notification requirement for certain new/reconstructed sources	Yes	Except the information requirements differ as described in §63.2860(b) of subpart GGGG.
§63.9(e)	Notification of performance test	Notify responsible agency 60 days ahead	Yes	Applies only if performance testing is performed.
§63.9(f)	Notification of VE/opacity observations	Notify responsible agency 30 days ahead	No	Subpart GGGG has no opacity or VE standards.
§63.9(g)	Additional notifications when using a continuous monitoring system (CMS)	Notification of performance evaluation; Notification using COMS data; notification that exceeded criterion 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	No	Applies only if air pollution

<b>General provisions citation</b>	<b>Subject of citation</b>	<b>Brief description of requirement</b>	<b>Applies to subpart</b>	<b>Explanation</b>
		pollution equipment		control equipment has been added to the process and is necessary for the source to meet the emission limit.
§63.10(b)(2)(vi)	Recordkeeping	CMS recordkeeping	No	Subpart GGGG has no CMS requirements.
§63.10(b)(2)(viii)–(ix)	Recordkeeping	Conditions of performance test	Yes	Applies only if performance tests are performed. Subpart GGGG does not have any CMS opacity or VE observation requirements.
§63.10(b)(2)(x)–(xii)	Recordkeeping	CMS, performance testing, and opacity and VE observations recordkeeping	No	Subpart GGGG does not require CMS.
§63.10(c)	Recordkeeping	Additional CMS recordkeeping	No	Subpart GGGG does not require CMS.
§63.10(d)(2)	Reporting	Reporting performance test results	Yes	Applies only if performance testing is performed.
§63.10(d)(3)	Reporting	Reporting opacity or VE observations	No	Subpart GGGG has no opacity or VE standards.
§63.10(d)(4)	Reporting	Progress reports	Yes	Applies only if a condition of compliance extension exists.
§63.10(d)(5)	Reporting	SSM reporting	No	Section 63.2861(c) and (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	Yes	

General provisions citation	Subject of citation	Brief description of requirement	Applies to subpart	Explanation
		information		

[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]

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

Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

**Source Background and Description**

Source Name:	Cargill, Inc. - Soybean Processing Division
Source Location:	1502 Wabash Avenue, Lafayette, IN 47905
County:	Tippecanoe
SIC Code:	2075
Permit Renewal No.:	T157-25200-00038
Permit Reviewer:	Kristen Layton

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Cargill, Inc. - Soybean Processing Division relating to the operation of a soybean oil extraction plant consisting of conventional desolventizer system and a flake desolventizer system.

**History**

On August 27, 2007, Cargill, Inc. - Soybean Processing Division submitted an application to the OAQ requesting to renew its operating permit. Cargill, Inc. - Soybean Processing Division was issued a Part 70 Operating Permit on May 29, 2003.

**Permitted Emission Units and Pollution Control Equipment**

- (a) One (1) truck soybean receiving pit, constructed in 1989, with a maximum capacity of 25,000 bushels per hour, controlled by a receiving area baghouse #4 and exhausting at stack point # S-13.
- (b) One (1) totally enclosed truck soybean receiving pit drag conveyor (DC-431), constructed in 1989, with a maximum capacity of 25,000 bushels per hour, aspirated to baghouse #10, and exhausting at stack point # S-2.
- (c) One (1) totally enclosed soybean receiving pit drag conveyor (DC-432), constructed in 1989, with a maximum capacity of 25,000 bushels per hour, aspirated to baghouse #10, and exhausting at stack point # S-2.
- (d) One (1) rail soybean unloading system, constructed in 1956, with a maximum unloading capacity of 12,000 bushels per hour, controlled by baghouse #10 and exhausted at stack point S-2.
- (e) One (1) soybean receiving bucket elevator #301, constructed in 1989, with a maximum capacity of 25,000 bushels per hour, controlled by a baghouse #10 and exhausting at stack point # S-2.
- (f) Three (3) totally enclosed soybean drag conveyors (DC-441, 442, & 443) operated in series, constructed in 1988, each with a maximum capacity of 25,000 bushels per hour, each aspirated to baghouse #9 and exhausting at stack point # S-1.
- (g) One (1) totally enclosed soybean drag conveyor (DC-434), constructed in 1988, with a maximum capacity of 25,000 bushels per hour, aspirated to baghouse #10 and exhausting at stack point # S-2.

- (h) Four (4) soybean storage tanks, constructed in the 1950's, with a total capacity of 1,213,000 bushels.
- (i) Two (2) totally enclosed soybean drag conveyors (DC-436, & 437) operated in series, constructed in 1988, each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #10 and exhausting at stack point # S-2.
- (j) Two (2) totally enclosed soybean drag conveyors (DC-444, & 446) operated in series, constructed in 1988, each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #10 and exhausting at stack point # S-2.
- (k) One (1) soybean transfer bucket elevator #303, constructed in 1956, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #10 and exhausting at stack point # S-2.
- (l) One (1) Texas shaker #2 screener, constructed in 1988, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #1 and exhausting at stack point # S-3.
- (m) One (1) weed seed Kice, constructed in 1988, with a maximum capacity of 150 bushels per hour, controlled by a baghouse #1 and exhausting at stack point # S-3.
- (n) One (1) Kice #1, constructed in 1988, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #1 and exhausting at stack point # S-3.
- (o) Two (2) totally enclosed soybean drag conveyors (DC-448, & 448A) operated in series, constructed in 1986 (DC-448) and 1996 (DC-448A), each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #1 and exhausting at stack point # S-3.
- (p) One (1) totally enclosed soybean screw conveyor (SC212), constructed in 1989 with a maximum capacity of 150 bushels per hour.
- (q) One (1) 29 MMBtu natural gas fired soybean column dryer, constructed in 1986, with a maximum capacity of 5,000 bushels per hour and exhausting at stack point # S-20.
- (r) Two (2) totally enclosed soybean drag conveyors (DC-449, & 450) operated in series, constructed in 1986, each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #10 and exhausting at stack point # S-2.
- (s) One (1) dry soybean transfer bucket elevator #307, constructed in 1986, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #9 and exhausting at stack point # S-1.
- (t) One (1) totally enclosed dry soybean drag conveyor (DC-453), constructed in 1988, with a maximum capacity of 5,000 bushels per hour, aspirated to baghouse #9 and exhausting at stack point # S-1.
- (u) Eighteen (18) soybean bins (501, 502, 503, 506, 507, 508, 511, 512, 513, 516, 517, 518, 521, 522, 523, 526, 527, and 528), constructed in the 1930's, with a maximum total capacity of 261,000 bushels.
- (v) Two (2) totally enclosed soybean drag conveyors (DC-454, & 447) operated in series, constructed in 1986, each with a maximum capacity of 5,000 bushels per hour each, each aspirated to baghouse #10 and exhausting at stack point # S-2.

- (w) One (1) dry soybean transfer bucket elevator #304, constructed in 1956, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #10 and exhausting at stack point # S-2.
- (x) One (1) totally enclosed dry soybean drag conveyor (DC-400A), constructed in 1986, with a maximum capacity of 5,000 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.
- (y) One (1) soybean Thayer scale, constructed in 1986, with a maximum capacity of 5000 bushels per hour, controlled by a baghouse #3 and exhausting at stack point # S-7.
- (z) Two (2) weed seed bins (#207 & 208) constructed in 1930, with a maximum storage capacity of 14,000 bushels each, a total nominal throughput of 5,000 bushels per day.
- (aa) Two (2) totally enclosed soybean screw conveyors (SC 213 & 214), operated in series, constructed in 1986, each with a maximum capacity of 150 bushels per hour.
- (bb) Three (3) totally enclosed soybean meal drag conveyors (DC-427, 428, & 429) operated in series, constructed in 1988, each with a maximum capacity of 5,000 bushels per hour each.
- (cc) One (1) totally enclosed dry soybean drag conveyor (DC-400), constructed in 1986, with a maximum capacity of 5,000 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.
- (dd) Five (5) soybean surge bins, constructed in 1930, with a total maximum capacity of 22,000 bushels, and a total maximum throughput of 3,350 bushels per hour.
- (ee) Five (5) sets of cracking rolls (EU-6), constructed between 1986 and 2004, with a total maximum capacity of 3,350 bushels per hour (100.5 tons per hour), controlled by bag house #3 and exhausted at stack point S-7.
- (ff) Two (2) totally enclosed cracked soybean drag conveyor (DC-401 & 403) operated in series, constructed in 1986, each with a maximum capacity of 3350 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.
- (gg) One (1) primary Kice #1, constructed in 1986, with a maximum capacity of 3350 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.
- (hh) Two (2) totally enclosed cracked soybean screw conveyors (SC-201 & 202) operated in series, constructed in 1986, each with a maximum capacity of 3350 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.
- (ii) One (1) triple S shaker, constructed in 1994, with a maximum capacity of 3350 bushels per hour, controlled by a baghouse #3 and exhausting at stack point # S-7.
- (jj) One (1) hull grinder, constructed in 1986, with a maximum capacity of 6 tons per hour, controlled by a cyclone #3 and a baghouse #3 and exhausting at stack point # S-7.
- (kk) One (1) coarse cut aspiration, constructed in 1994, with a maximum capacity of 150 bushels per hour, controlled by a cyclone #1 and a baghouse #3 and exhausting at stack point # S-7.
- (ll) One (1) fine cut aspiration, constructed in 1994, with a maximum capacity of 150 bushels per hour, controlled by a cyclone #2 and a baghouse #3 and exhausting at stack point # S-7.

- (mm) One (1) rotary conditioner, constructed in 1982, with a maximum capacity of 3350 bushels per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.
- (nn) Four (4) totally enclosed conditioned soybean drag conveyor (DC-404, 405, 406 & 407), constructed in 1986, each with a maximum capacity of 3350 bushels per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.
- (oo) Two (2) flaker banks #1 & 2, constructed in 1986, with a maximum total capacity of 100.5 tons per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.
- (pp) Two (2) totally enclosed soybean flake screw conveyors (SC-206 & 207), constructed in 1986, with a total maximum capacity of 100.5 tons per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.
- (qq) Two (2) expanders (EU-12), constructed in 1986, with a total maximum capacity of 833 bushels per hour (25 ton per hour), controlled by cyclone #4 and exhausted at stack point S-5.
- (rr) One (1) totally enclosed soybean flake drag conveyor (DC-409), constructed in 2005, with a maximum capacity 3350 bushels per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.
- (ss) One (1) totally enclosed soybean flake drag conveyor (DC-410), constructed in 1986, with a maximum capacity of 100.5 tons per hour and exhausting at steam vents.
- (tt) One (1) totally enclosed soybean flake drag conveyor (DC-411), constructed in 1986, with a maximum capacity of 100.5 tons per hour and exhausting at safety vent.
- (uu) Two (2) fully enclosed, sealed conveyors, DC-412, and DC-413, and DT seal screw, constructed in 2006, with a maximum total capacity of 3,350 bushels per hour.
- (vv) One (1) totally enclosed soybean flake screw conveyor (SC-209), constructed in 1986, with a maximum capacity of 100.5 tons per hour.
- (ww) One (1) desolventizer/toaster (EU-16), constructed in 2006 with a maximum capacity of 3,350 bushels per hour controlled by the mineral oil system and exhausted at stack points S-15. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (xx) One (1) dryer/cooler with three (3) dryer decks and one (1) cooler deck; constructed in 1988 (cooler deck), 1990 (1st dryer deck), 2006 (2<sup>nd</sup> & 3<sup>rd</sup> dryer decks), with a maximum total capacity of 3350 bushels per hour, controlled by four (4) integral cyclones identified as # 6, 7, 8, and 9, and exhausted at stack points # S-11, S-12, S-21, and S-25. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (yy) One (1) totally enclosed soybean meal drag conveyor (DC-414), constructed in 1986, with a maximum capacity of 100.5 tons per hour.
- (zz) Two (2) totally enclosed soybean meal drag conveyors (DC 414A & 415), in series, constructed in 1986, each with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.
- (aaa) Three (3) meal sifters, constructed in 1986, with a maximum total capacity of 100.5 tons per hour.

- (bbb) One (1) totally enclosed oversized soybean meal drag conveyor (DC 416), constructed by 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.
- (ccc) One (1) totally enclosed soybean meal screw conveyor (SC 223), constructed in 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.
- (ddd) Three soybean meal grinders, constructed in 1986, with a maximum total capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.
- (eee) One (1) totally enclosed soybean meal screw conveyor (SC 221), constructed in 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.
- (fff) One (1) totally enclosed soybean meal drag conveyor (DC 417), constructed in 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.
- (ggg) One (1) dry soybean meal transfer bucket elevator (BE 300), constructed in 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.
- (hhh) Two (2) totally enclosed dry soybean meal drag conveyors (DC 418 & 419), in series, constructed in 1986, each with a maximum capacity of 100.5 tons per hour aspirated to a baghouse #2 and exhausting at stack point # S-6.
- (iii) One (1) 48% meal tank constructed in 1986 with a maximum capacity of 1,000 tons.
- (jjj) One (1) 44% meal tank constructed in 1986 with a maximum capacity of 500 tons.
- (kkk) One (1) truck soybean meal and hull loadout system, constructed in 1986, with a maximum capacity of 200 tons per hour and controlled by a baghouse #5 and exhausting at stack point # S-14.
- (lll) One (1) rail soybean meal and hull loadout system, constructed in 1986, with a maximum capacity of 200 tons per hour controlled by a baghouse #5 and exhausting at stack point # S-14.
- (mmm) One (1) pneumatic flake conveying system consisting of two material handling baghouses #6 and 7, constructed in 1989, with a maximum capacity of 31.5 tons per hour and exhausting at stack points # S-22 and 23.
- (nnn) One (1) pneumatic reject flake conveying system consisting of one material baghouse #8, constructed in 1986, with a maximum capacity of 9 tons per hour and exhausting at stack point # S-24.
- (ooo) One (1) totally enclosed soybean flake screw conveyor, constructed in 1989, with a maximum capacity of 9 tons per hour (SC 218).
- (ppp) Two (2) totally enclosed soybean flake drag conveyors (DC 461 & 462), in series, constructed in 1989, each with a maximum capacity of 200 tons per hour.
- (qqq) One (1) soybean flake loadout system, constructed in 1989, with a maximum capacity of 200 tons per hour controlled by a baghouse #7 and exhausting at stack point # S-23.

- (rrr) One (1) pod grinder, constructed in 1990, with a maximum capacity of 3 tons per hour controlled by baghouse # 10 and exhausted at stack point # S-2
- (sss) One (1) pneumatic hull conveying system consisting of one material handling filter separator, constructed in 1986, with a maximum capacity of 6 tons per hour and exhausting at stack point # S-4.
- (ttt) One (1) flake desolventizer system, constructed in 1989, with a maximum capacity of 100.5 tons per hour and controlled by a mineral oil absorber system. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (uuu) One (1) flake desolventizer system cooler collector, constructed in 1989, with a maximum capacity of 100.5 tons per hour equipped with a fabric filter media separator (baghouse #6) and exhausted at stack point S-22. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (vvv) One (1) first stage rising film evaporator associated with the solvent extraction equipment (EU-13), constructed in 2006, with a maximum capacity of 20 tons of soybean oil per hour and controlled by the mineral oil system and exhausted at stack point S-15. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (www) One (1) Iso-hexane conversion system (involving a rotocell condenser, a refrigerant type cooler with condenser and an additional cooling tower cell and pump), constructed in 2002, and controlled by the mineral oil system and exhausted at stack point S-15. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (xxx) One (1) mineral oil absorber system, constructed in 1982, with a maximum capacity of 150 pounds of hexane per hour and exhausted at stack point S-15. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (yyy) One (1) solvent/water separator, constructed in 2002, with a maximum capacity of 600 gallons per minute and controlled by the mineral oil system and exhausted at stack point S-15. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.
- (zzz) One (1) boiler, identified as Boiler #1, constructed in 1955, with a heat input capacity of 60.0 MMBtu per hour, firing natural gas, distillate fuel oil, residual fuel oil, vegetable oil, animal fats ("tallow"), animal oils ("grease") or blends of these fuels. Emissions are exhausted to stack S-16.
- (aaaa) One (1) boiler, identified as Boiler #2, constructed in 1996, with a heat input capacity of 75.0 MMBtu per hour, firing natural gas, distillate fuel oil, residual fuel oil, vegetable oil, animal fats ("tallow"), animal oils ("grease") or blends of these fuels. Emissions are exhausted to stack S-17. Under NSPS, Subpart Dc, this unit is considered to be an affected facility.
- (bbbb) One (1) hexane tank #809 B, constructed in 2002, with a capacity 18,800 gallons respectively, vented to the process for control except under emergency conditions when they are vented through the relief valve. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

The source also consists of the following emission units that were not previously included in the permit:

One (1) hexane tank #809 A, constructed in 2009, with a capacity of 18,800 gallons respectively, vented to the process for control except under emergency conditions when they are vented through the flame arrester. Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

The uncontrolled potential VOC emissions from the hexane storage is estimated to be less than the Exemption threshold values of five (5) tons per year. Therefore, pursuant to 326 IAC 2-1.1-3(e)(1)(A), the source was not required to submit an application for the addition of this emission unit.

### **Emission Units and Pollution Control Equipment Removed From the Source**

These units have either been removed from the source or were approved for construction, but not built.

#### **Permitted on December 3, 2001**

- (3) One (1) column grain dryer (EU-4) with column plate perforation less than or equal to 2.4 mm diameter (0.094 inch) with a maximum capacity of 7,500 bushels per hour (225 tons per hour) exhausted at stack point S-20.
- (6) One (1) flaker aspiration system that collects and delivers dust from flakers (EU-11) to cyclone #4 and exhausted at stack point S-5.
- (7) Three (3) dust collection systems for baghouse #4 exhausting at stack point S-13; baghouse #3 exhausting at stack point S-7; and cyclone #4 exhausting at stack point S-5.
- (13) One (1) deaerator tank with a maximum capacity of 130 gallons per minute.
- (16) One (1) meal cooler (EU-18) with a maximum capacity of 3,350 bushels per hour and exhausted at stack point S-21.
- (17) One (1) meal dryer (EU-17) with a maximum capacity of 3,350 bushels per hour and exhausted at stack point S-25.
- (18) Two (2) main transfer legs (north and south elevators).
- (19) One (1) second stage rising film evaporator associated with the solvent extraction process (EU-13) with a maximum capacity of 20 tons of soybean oil per hour, controlled by the mineral oil system, and exhausted at stack point S-15.
- (20) One (1) liquid brine tank.
- (21) One (1) bean truck scale with an enlarged pit.
- (23) One (1) final vent condenser with a maximum capacity of 1100 pounds of hexane per hour, and exhausted at stack point S-15.
- (24) One (1) flaker (#2 Flaker) with a maximum capacity of 400 bushels per hour, controlled by cyclone #9, and exhausted at stack point S-5.
- (25) One (1) hull grinder.

### Permitted and existing before December 3, 2001

- (69) One (1) desolventizer toaster, maximum capacity of 100.5 tons per hour, controlled by a mineral oil absorber system.
- (77) Three (3) fuel oil storage tanks #860 A, B, and C, maximum capacity of 25000 gallons each.
- (78) One (1) fuel oil storage tank #815, maximum capacity of 125000 gallons.

### Insignificant Activities

- (a) An emission unit or activity whose potential uncontrolled emissions meet the exemption levels specified in 326 IAC 2-1.1-3(e)(1) or the exemption levels specified in the following, whichever is lower:

- (1) For volatile organic compounds (VOC), the exemption limit is three (3) pounds per hour or fifteen (15) pounds per day.

And

For units with potential uncontrolled emissions of HAPs, that are not listed as insignificant in clauses (D) through (G) or defined as trivial in subdivision (40), an insignificant activity is any of the following:

- (1) Any unit, not regulated by a NESHAP, emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP.

Storage tanks emitting less than one (1) ton per year of a single HAP and less than fifteen (15) pounds per day of VOC.

- (1) Three (3) fuel oil storage tanks #860 A, B, and C, constructed in 1960, and with a maximum capacity of 25,000 gallons each.
- (2) One (1) fuel oil storage tank #815, constructed in 1960, and with a maximum capacity of 125,000 gallons.

- (b) Emissions from a laboratory as defined in this clause. As used in this clause, "laboratory" means a place or activity devoted to experimental study or teaching, or to the testing and analysis of drugs, chemicals, chemical compounds or other substances, or similar activities, provided that the activities described in this clause are conducted on a laboratory scale. Activities are conducted on a laboratory scale if the containers used for reactions, transfers, and other handling of substances are designed to be easily and safely manipulated by one (1) person. If a facility manufactures or produces products for profit in any quantity, it shall not be considered to be a laboratory under this clause. Support activities necessary to the operation of the laboratory are considered to be part of the laboratory. Support activities do not include the provision of power to the laboratory from sources that provide power to multiple projects or from sources that would otherwise require permitting, such as boilers that provide power to an entire facility.

- (c) Combustion related activities, including the following:

- (1) Space heaters, process heaters, heat treat furnaces, or boilers using the following fuels:
  - (A) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.

- (B) Propane or liquefied petroleum gas or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British thermal units per hour.
- (2) Combustion source flame safety purging on startup.
- (d) The following VOC and HAP storage containers:
  - (1) Storage tanks with capacity less than or equal to one thousand (1,000) gallons and annual throughputs equal to or less than twelve thousand (12,000) gallons.
  - (2) Vessels storing the following:
    - (A) Lubricating oils.
    - (B) Hydraulic oils.
    - (C) Machining fluids.
- (e) Cleaners and solvents characterized as:
  - (1) having a vapor pressure equal to or less than two (2.0) kilo Pascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pound per square inch) measured at thirty-eight (38) degrees Centigrade (one hundred (100) degrees Fahrenheit); or
  - (2) having a vapor pressure equal to or less than seven-tenths (0.7) kilo Pascal (five (5) millimeters of mercury or one-tenth (0.1) pound per square inch) measured at twenty (20) degrees Centigrade (sixty-eight (68) degrees Fahrenheit);

the use of which, for all cleaners and solvents combined, does not exceed one hundred forty-five (145) gallons per twelve (12) months.
- (f) Closed loop heating and cooling systems.
- (g) Water based activities, including the following:
  - (1) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to one percent (1%) by volume.
    - (A) Noncontact cooling tower systems with either of the following:
      - (i) Forced and induced draft cooling tower systems not regulated under a NESHAP.
- (h) Repair activities, including the following:
  - (1) Replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment.
  - (2) Heat exchanger cleaning and repair.
  - (3) Process vessel degassing and cleaning to prepare for internal repairs.
- (i) Asbestos abatement projects regulated by 326 IAC 14-10.
- (j) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including the following:
  - (1) Catch tanks.
  - (2) Temporary liquid separators.

- (3) Tanks.
- (4) Fluid handling equipment.
- (k) Blowdown for the following:
  - (1) Sight glass.
  - (2) Boiler.
  - (3) Cooling tower.
  - (4) Compressors.
  - (5) Pumps.
- (l) Activities associated with emergencies, including the following:
  - (1) Stationary fire pump engines manufactured in the 1960s. Therefore, these units are not subject to the requirements of 40 CFR 60, Subpart IIII.
- (m) Purge double block and bleed valves.
- (n) Paved and unpaved roads and parking lots with public access. [6-5-4]

### **Existing Approvals**

Since the issuance of the Part 70 Operating T157-5863-00038 on May 29, 2003, the source has constructed or has been operating under the following approvals as well:

- (a) Administrative Amendment No. 157-17769-00038, issued on July 16, 2003;
- (b) Significant Permit Modification No. 157-19644-00038, issued on October 13, 2004;
- (c) Significant Permit Modification No. 157-20830-00038, issued on October 27, 2005; and
- (d) Significant Permit Modification No. 157-21911-00038, issued on July 13, 2006.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

The following terms and conditions from previous approvals have been revised in this Part 70 Operating Permit Renewal:

- (a) The equipment list has been updated to reflect the units that were actually constructed and modified as part of PSD/ SSM No. 157-11361-00038, issued December 3, 2001.
- (b) Section D.0 was added to incorporate the limits required pursuant to the Consent Decree entered by the United States District Court for the District of Minnesota on March 3, 2006 in United States v. Cargill, Inc. No. 05-2037 (D.Minn.).
- (c) The Table in Condition D.2.1 has been modified for clarification purposes and to remove units that were not constructed.

- (d) New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants have been removed from the D Sections and relocated to new E Sections where they are incorporated by reference. Therefore, Conditions D.2.2, D.2.3, D.2.5, D.2.6 D.2.10, D.3.2, D.3.8, D.3.9, D.4.2, D.4.4 and part of D.2.17, D.2.18, D.3.4, D.3.6, D.3.11, and D.3.12 have been deleted. Copies of the New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants in their entirety are found as attachments to the permit.
- (e) A new compliance determination condition D.1.7 has been added along with associated record keeping and reporting to determine compliance with Condition D.1.2.
- (f) Old Condition number D.1.11 - Parametric Monitoring has been removed upon the request of the Permittee and further review by IDEM.
- (g) The language for Condition D.2.1 was updated to match the current model language IDEM uses and the requirements of 326 IAC 6-3-2 have been added as a separate Condition D.1.3.
- (h) Old Condition number D.2.8 - Testing Requirements was updated to reflect the representative stack testing plan submitted by Cargill, Inc. on January 20, 2003 and remove the (c) and (d) language which are duplicative of Condition C.17 - Actions Related to Noncompliance Demonstrated by a Stack Test.
- (i) Old Condition number D.2.16 - Miner Oil Absorber was updated to reflect the normal flow rate range of the Mineral Oil Absorber and to be consistent with the CAM Plan submitted by the Permittee.
- (j) With regards to record keeping requirements for visible emission notations (and other parametric monitoring), the intent is that the Permittee needs to make a record of some sort every day. So if they do the VE observation, then they write down normal or abnormal. Additionally, if they don't do the VE observation, they still need to make some sort of record that day as to why they didn't, such as the unit was not operating, or the unit was venting indoors that day, etc. In order to clarify the requirements, the recordkeeping requirements relating the VEs and other daily parametric monitoring have been revised.
- (k) The capacity for the totally enclosed dry soybean drag conveyor (DC-400) was corrected from 3,350 bu/hr to 5,000 bu/hr. This does not change the potential to emit of the unit since it already had a federally enforceable limit to make the provisions of 326 IAC 2-2 not enforceable.
- (l) The capacity for the pneumatic hull conveying system was corrected from 4.5 ton/hr to 6 ton/hr. This does not change the potential to emit of the unit since it already had a federally enforceable limit to make the provisions of 326 IAC 2-2 not enforceable.
- (m) To clarify the permit term and the term of the conditions, original Conditions B.2 – Permit Term, B.13 – Prior Permits Superseded, and B.16 – Permit Renewal have been modified. Additionally, a new Section B condition, B.3 – Term of Conditions has been added.

The following terms and conditions from previous approvals have been determined no longer applicable; therefore, were not incorporated into this Part 70 Operating Permit Renewal:

- (a) Section D.1 has been removed since PSD/ SSM No. 157-11361-00038 is complete. All other Sections and the Table of Contents were renumbered accordingly.

### Air Pollution Control Justification as an Integral Part of the Process

The determination was made previously in Significant Source Modification No. 157-11361-00038 that:

- (a) the cyclones #6, #7, #8, and #9 are considered an integral part of the Desolventizer Toaster Dryer and Cooling Decks.
- (b) the cyclone #3 is considered an integral part of the hull grinder.
- (c) the baghouse # 7 is considered an integral part of the soybean flake loadout system.

### Emission Calculations

See Appendix A of this document for detailed emission calculations.

### County Attainment Status

The source is located in Tippecanoe County

Pollutant	Designation
SO <sub>2</sub>	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O <sub>3</sub>	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard. <sup>1</sup>
PM <sub>10</sub>	Unclassifiable effective November 15, 1990.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Not designated.
<sup>1</sup> Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM2.5.	

- (a) Ozone Standards
  - (1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
  - (2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, and St. Joseph as attainment for the 8-hour ozone standard.
  - (3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.
  - (4) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Tippecanoe County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (b) **PM2.5**  
Tippecanoe County has been classified as attainment for PM2.5. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM2.5 emissions, and the effective date of these rules was July 15<sup>th</sup>, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM10 emissions as a surrogate for PM2.5 emissions until 326 IAC 2-2 is revised.
- (c) **Other Criteria Pollutants**  
Tippecanoe County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) **Fugitive Emissions**  
This type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, however, there is an applicable New Source Performance Standard that was in effect on August 7, 1980, therefore fugitive emissions are counted toward the determination of PSD and Emission Offset applicability.

### Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

<b>Pollutant</b>	<b>tons/year</b>
PM	4,958.05
PM <sub>10</sub>	2,140.17
SO <sub>2</sub>	299.27
VOC	2,122.80
CO	68.97
NO <sub>x</sub>	212.64

<b>HAPs</b>	<b>tons/year</b>
n-Hexane	1,357.15
<b>Total</b>	<b>1,357.22</b>

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM, PM<sub>10</sub>, SO<sub>2</sub>, VOC, and NO<sub>x</sub> is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of CO is less than 100 tons per year.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is equal to or greater than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (d) Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-7, fugitive emissions are not counted toward the determination of Part 70 applicability.

### Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2006 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	No data
PM <sub>10</sub>	32
SO <sub>2</sub>	1
VOC	261
CO	17
NO <sub>x</sub>	20
HAP	No data

### Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

### Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 permit renewal, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/ Emission Unit	PM	PM <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>
<b>Units Controlled by Baghouses</b>	22.64	23.42	-	-	-	-
<b>Units Controlled by Cyclones</b>	18.10	20.47	-	-	-	-
<b>Colum Dryer</b>	92.24	23.55	3.62	0.70	10.67	12.70
<b>Uncontrolled Units</b>	624.31	195.22	-	-	-	-
<b>Units Routed to MOS with PM Emissions</b>	6.75	6.75	-	-	-	-
<b>Source Wide Hexane/VOC Emissions</b>	-	-	-	41.83	-	-
<b>Boilers</b>	13.23	13.23	39.00	3.25	58.30	39.00
<b>Total</b>	<b>777.26</b>	<b>282.64</b>	<b>42.62</b>	<b>45.78</b>	<b>58.30</b>	<b>51.70</b>
<b>Major Source Threshold</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>250</b>

- (a) This existing stationary source is major for PSD because the emissions of at least one attainment pollutant are greater than two hundred fifty (>250) tons per year, and is not one of the twenty-eight (28) listed source categories.
- (b) Fugitive Emissions  
 Since there are applicable New Source Performance Standards for PM and PM10 for the grain elevator part of the source that were in effect on August 7, 1980, the fugitive emissions of PM and PM10 from the grain elevator part of the source are counted toward determination of PSD applicability.

**Federal Rule Applicability**

**40 CFR 64 (CAM)**

Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to existing 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 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 Permittee has submitted the following information to justify why baghouse #6 should be considered an inherent part of the FDS cooler collector:

The specialty desolventizing system removes the hexane remaining in the soybean flakes after they have passed through oil extraction. The specialty desolventizing system (flash desolventizing system [FDS]) process uses super heated hexane to desolventize the flakes as they are pneumatically conveyed to through the FDS loop. After passing through the FDS loop, all of the desolventized flakes are pneumatically conveyed to the FDS cooler collector. The pneumatic conveying air cools the flakes as they are moved to the FDS cooler collector. The fabric filter media (baghouse #6) associated with the FDS cooler collector removes the white flake

from the transport/cooling air stream so they can be transferred to the storage silo. If Baghouse #6 was removed from the process, 100% of the flakes would be exhausted to the atmosphere. The process does not have another separation device or system.

IDEM, OAQ has evaluated the information submitted and agrees that Baghouse #6 should be considered an integral part of the FDS cooler collector.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each existing emission unit and specified pollutant subject to CAM:

Emission Unit	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE of PM <sub>10</sub> (tons/year)	Controlled PTE of PM <sub>10</sub> (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Truck soybean receiving pit	baghouse	Y	24.23	1.58	100	N	N
DC-431	baghouse	Y	13.96	2.70	100	N	N
DC-432	baghouse	Y	13.96	2.70	100	N	N
Rail soybean unloading system	baghouse	Y	3.20	2.70	100	N	N
Soybean receiving bucket elevator #301	baghouse	Y	13.96	2.70	100	N	N
DC-441	baghouse	Y	13.96	1.83	100	N	N
DC-442	baghouse	Y	13.96	1.83	100	N	N
DC-443	baghouse	Y	13.96	1.83	100	N	N
DC-434	baghouse	Y	13.96	2.70	100	N	N
DC-436	baghouse	Y	13.96	2.70	100	N	N
DC-437	baghouse	Y	13.96	2.70	100	N	N
DC-444	baghouse	Y	13.96	2.70	100	N	N
DC-446	baghouse	Y	13.96	2.70	100	N	N
soybean transfer bucket elevator #303	baghouse	Y	7.80	2.70	100	N	N
Texas shaker #2 screener	baghouse	Y	0.37	0.60	100	N	N
weed seed Kice	baghouse	Y	7.80	0.60	100	N	N
Kice #1	baghouse	Y	13.96	0.60		N	N
DC-448	baghouse	Y	13.96	0.60	100	N	N
DC-448A	baghouse	Y	13.96	0.60	100	N	N
DC-449	baghouse	Y	13.96	2.70	100	N	N
DC-450	baghouse	Y	13.96	2.70	100	N	N
soybean transfer bucket elevator #307	baghouse	Y	13.96	1.83	100	N	N
DC-453	baghouse	Y	13.96	1.83	100	N	N
DC-454	baghouse	Y	13.96	2.70	100	N	N
DC-447	baghouse	Y	13.96	2.70	100	N	N
dry soybean transfer bucket elevator #304	baghouse	Y	13.96	2.70	100	N	N
DC-400A	baghouse	Y	13.96	2.37	100	N	N
soybean Thayer scale	baghouse	Y	13.96	2.37	100	N	N

<b>Emission Unit</b>	<b>Control Device Used</b>	<b>Emission Limitation (Y/N)</b>	<b>Uncontrolled PTE of PM<sub>10</sub> (tons/year)</b>	<b>Controlled PTE of PM<sub>10</sub> (tons/year)</b>	<b>Major Source Threshold (tons/year)</b>	<b>CAM Applicable (Y/N)</b>	<b>Large Unit (Y/N)</b>
DC-400	baghouse	Y	13.96	2.37	100	N	N
Cracker Roll 1 (EU-6)	baghouse	Y	67.75	2.37	100	N	N
Cracker Roll 2 (EU 6)	baghouse	Y	67.75	2.37	100	N	N
Cracker Roll 3 (EU 6)	baghouse	Y	67.75	2.37	100	N	N
Cracker Roll 4 (EU 6)	baghouse	Y	67.75	2.37	100	N	N
Cracker Roll 5 (EU 6)	baghouse	Y	67.75	2.37	100	N	N
DC-401	baghouse	Y	13.96	2.37	100	N	N
DC-403	baghouse	Y	13.96	2.37	100	N	N
primary Kice #1	baghouse	Y	7.80	2.37	100	N	N
SC-201	baghouse	Y	13.96	2.37	100	N	N
SC-202	baghouse	Y	13.96	2.37	100	N	N
triple S shaker	baghouse	Y	7.80	2.37	100	N	N
hull grinder	baghouse	Y	0.04	2.37	100	N	N
coarse cut aspiration	baghouse	Y	0.67	2.37	100	N	N
fine cut aspiration	baghouse	Y	0.67	2.37	100	N	N
DC-414A	baghouse	Y	22.63	1.03	100	N	N
DC-415	baghouse	Y	22.63	1.03	100	N	N
DC-416	baghouse	Y	11.32	1.03	100	N	N
SC-223	baghouse	Y	27.94	1.03	100	N	N
Meal grinder #1	baghouse	Y	27.94	1.03	100	N	N
Meal grinder #2	baghouse	Y	27.94	1.03	100	N	N
Meal grinder #3	baghouse	Y	27.94	1.03	100	N	N
SC-221	baghouse	Y	11.32	1.03	100	N	N
DC-417	baghouse	Y	22.63	1.03	100	N	N
BE-300	baghouse	Y	22.63	1.03	100	N	N
DC-418	baghouse	Y	22.63	1.03	100	N	N
DC-419	baghouse	Y	22.63	1.03	100	N	N
truck soybean meal & hull loadout system	baghouse	Y	22.63	2.40	100	N	N
pneumatic flake conveying system	baghouse	Y	9.31	6.61	100	N	N
pneumatic reject flake conveying system	baghouse	Y	2.66	1.46	100	N	N
soybean flake loadout system	baghouse	Y	9.38	1.50	100	N	N
pod grinder	baghouse	Y	6.57	2.70	100	N	N
FDS cooler collector	baghouse	Y	6.61	6.61	100	N	N
rotary conditioner	cyclone	Y	10.27	3.83	100	N	N

Emission Unit	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE of PM <sub>10</sub> (tons/year)	Controlled PTE of PM <sub>10</sub> (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
DC-404	cyclone	Y	13.96	3.83	100	N	N
DC-405	cyclone	Y	13.96	3.83	100	N	N
DC-406	cyclone	Y	13.96	3.83	100	N	N
DC-407	cyclone	Y	13.96	3.83	100	N	N
flaker bank #1 & #2	cyclone	Y	58.51	3.83	100	N	N
SC-206	cyclone	Y	13.96	3.83	100	N	N
SC-207	cyclone	Y	13.96	3.83	100	N	N
EU-12	cyclone	Y	29.57	3.83	100	N	N
DC-409	cyclone	Y	13.96	3.83	100	N	N

Emission Unit / Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE of VOC (tons/year)	Controlled PTE of VOC (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
EU-16, flake desolventizer system, EU-13, iso-hexane conversion system, solvent water separator, & hexane storage tanks #809 A and B	MOS	Y	1,066.23	53.31	100	Y	N

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to EU-16, flake desolventizer system, EU-13, iso-hexane conversion system, solvent water separator, & hexane storage tanks #809 A and B (all routed to the MOS) for VOC upon issuance of the Title V Renewal. A CAM plan will be incorporated into this Part 70 permit renewal.

**326 IAC 12 and 40 CFR Part 60, Subpart DD (Standards of Performance for Grain Elevators)**

The truck unloading station, grain handling operations, screens, grain and screening surge bins; and day bins are subject to New Source Performance Standards, 326 IAC 12 and 40 CFR Subpart DD 60.302(b), because a grain elevator is located at a soybean extractor plant which has a permanent storage capacity of more than 35,200 cubic meters or one million bushels.

- (a) Pursuant to 326 IAC 12 and 40 CFR 60.302, the gases discharged into the atmosphere from the above operations shall not exhibit greater than 0 percent opacity.
- (b) Pursuant to 326 IAC 12 and 40 CFR Subpart DD 60.302(c), the fugitive gases discharged from truck unloading station; and grain handling operations shall not exhibit greater than 5; and 0 percent opacity respectively.
- (c) The column grain dryer has 0.083-inch diameter screen openings in the column plate, which is less than 0.094 inch. Therefore the column grain dryer is not subject to New Source Performance Standards, 326 IAC 12 and 40 CFR Subpart DD 60.302(a).

Nonapplicable portions of the NSPS will not be included in the permit. This source is subject to the following portions of Subpart DD.

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

**326 IAC 12 and 40 CFR 60 (New Source Performance Standards (NSPS) for Small Industrial- Commercial-Institutional Steam Generating Units)**

- (a) Boiler #1 predates the applicability of the New Source Performance Standards (NSPS), 326 IAC 12 (40 CFR 60, Subpart Dc) "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units."
- (b) Boiler #2 is subject to the requirements of the New Source Performance Standards (NSPS), 326 IAC 12 (40 CFR 60, Subpart Dc) "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units." The boiler was constructed after June 9, 1989 and the maximum heat input capacity is between 10 and 100 MMBtu per hour. Pursuant to this rule:
  - (1) SO<sub>2</sub> emissions from Boiler #2 shall not exceed five tenths (0.5) pounds per million Btu heat input; or
  - (2) The sulfur content of the fuel oil shall not exceed five-tenths percent (0.5%) by weight. [40 CFR 60.42c(d)]

Pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur content limit applies at all times, including periods of startup, shutdown, and malfunction.

Additionally, pursuant to 40 CFR 60.43c(c), when combusting fuel oil, Boiler #2 is limited to less than twenty percent (20%) opacity (6-minute average), except for one 6-minute period per hour of not more than twenty-seven percent (27%) opacity. Instead of complying with this opacity standard, the Permittee can elect to install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring PM emissions according to the requirements of 40 CFR 60.43b and are subject to a federally enforceable PM limit of 0.030 lb/MMBtu or less.

There are no requirements in 40 CFR 60 Subpart Dc specifically related to vegetable oil combustion, tallow combustion or grease combustion. Pure vegetable oil does not conform to the definition of "oil" under 326 IAC 40 CFR 60.41c because it is not petroleum based. The same is true of tallow and grease. Therefore, the fuel oil limits apply only to burning fuel oil or blends of fuel oil with other fuels.

Nonapplicable portions of the NSPS will not be included in the permit. This source is subject to the following portions of Subpart Dc.

- (1) 40 CFR 60.40c
- (2) 40 CFR 60.41c
- (3) 40 CFR 60.42c(d)(e)(g)(h)(i)
- (4) 40 CFR 60.43c(c)(d)
- (5) 40 CFR 60.44c(a)(b)(c)(e)(g)(h)(i)(j)
- (6) 40 CFR 60.45c(a)(c)
- (7) 40 CFR 60.46c
- (8) 40 CFR 60.47c
- (9) 40 CFR 60.48c all except (f)(3)

**40 CFR 60, Subpart K (Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978)**

The requirements of the New Source Performance Standard for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978, 40 CFR 60, Subpart K, are not included in the permit for the four (4) fuel oil storage tanks #860 A, B, and C and #815. Construction of these units commenced prior to June 11, 1973.

**40 CFR 60, Subpart Kb (New Source Performance Standards (NSPS) for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984)**

The requirements of the New Source Performance Standard for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, 40 CFR 60, Subpart Kb, are not included in the permit for the two (2) hexane tanks #809 A & B. Vessels subject to subpart GGGG of 40 CFR part 63 are exempt from the requirements of 40 CFR 60, Subpart Kb. Additionally, Tanks #809 A and B have a storage capacity less than 75 m<sup>3</sup> and are not subject to the requirements of 40 CFR 60, Subpart Kb.

**40 CFR 60, Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines)**

The requirements of the New Source Performance Standard for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60, Subpart IIII, are not included in the permit for the stationary fire pumps. These units were manufactured prior to July 1, 2006.

**40 CFR 63, Subpart GGGG (National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production)**

- (a) The conventional soybean process is subject to 40 CFR 63.2840 with a compliance date of three years after April 12, 2001, the effective date of the rule, because the source is emitting hexane (HAP) in excess of 10 tons per year. The solvent (hexane) loss factor from the conventional soybean process shall not exceed 0.2 gallons per ton of soybeans processed.
- (b) The specialty soybean process is subject to 40 CFR 63.2840. The solvent (hexane) loss factor from the specialty soybean process shall not exceed 1.5 gallons per ton of soybeans processed.

The specific units subject to 40 CFR 63, Subpart GGGG are:

- (a) One (1) desolventizer/toaster (EU-16), constructed in 2006 with a maximum capacity of 3,350 bushels per hour controlled by the mineral oil system and exhausted at stack points S-15.
- (b) One (1) dryer/cooler with three (3) dryer decks and one (1) cooler deck; constructed in 1988 (cooler deck), 1990 (1st dryer deck), 2006 (2<sup>nd</sup> & 3<sup>rd</sup> dryer decks), with a maximum total capacity of 3350 bushels per hour, controlled by four (4) integral cyclones identified as # 6, 7, 8, and 9, and exhausted at stack points # S-11, S-12, S-21, and S-25.
- (c) One (1) flake desolventizer system, constructed in 1989, with a maximum capacity of 100.5 tons per hour and controlled by a mineral oil absorber system.
- (c) One (1) flake desolventizer system cooler collector, constructed in 1989, with a maximum capacity of 100.5 tons per hour equipped with a fabric filter media separator (baghouse #6) and exhausted at stack point S-22.
- (d) One (1) Iso-hexane conversion system (involving a rotocell condenser, a refrigerant type cooler with condenser and an additional cooling tower cell and pump), constructed in 2002, and controlled by the mineral oil system and exhausted at stack point S-15.

- (e) One (1) mineral oil absorber system, constructed in 1982, with a maximum capacity of 150 pounds of hexane per hour and exhausted at stack point S-15.
- (f) One (1) solvent/water separator, constructed in 2002, with a maximum capacity of 600 gallons per minute and controlled by the mineral oil system and exhausted at stack point S-15.
- (g) Two (2) hexane tanks #809 A & B, constructed in 2002 and 2009, with a capacity of 18,800 and 18,800 gallons respectively, vented to the process for control except under emergency conditions when they are vented through the flame arrester.

Nonapplicable portions of the NSPS will not be included in the permit. This source is subject to the following portions of Subpart GGGG.

- (1) 40 CFR 63.2830
- (2) 40 CFR 63.2831
- (3) 40 CFR 63.2832(a)
- (4) 40 CFR 63.2833
- (5) 40 CFR 63.2834(a)
- (6) 40 CFR 63.2840 all except (e)
- (7) 40 CFR 63.2850(a)(b)(d)(e)(1)(i)(iii)(2)
- (8) 40 CFR 63.2851
- (9) 40 CFR 63.2852
- (10) 40 CFR 63.2853
- (11) 40 CFR 63.2854
- (12) 40 CFR 63.2855
- (13) 40 CFR 63.2860
- (14) 40 CFR 63.2861
- (15) 40 CFR 63.2862
- (16) 40 CFR 63.2863
- (17) 40 CFR 63.2870
- (18) 40 CFR 63.2871
- (19) 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.

**40 CFR 63, Subpart DDDDD (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters)**

The Boiler #1 and Boiler #2 would have been subject to the requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. However, on June 8, 2007, the United States Court of appeals for the District of Columbia Circuit (in NRDC v. EPA, no. 04-1386) vacated in its entirety the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. Additionally, since the state rule at 326 IAC 20-95 incorporated the requirements of the NESHAP 40 CFR 63, Subpart DDDDD by reference, the requirements of 326 IAC 20-95 are no longer effective. Therefore, the requirements of 40 CFR 63, Subpart DDDDD and 326 IAC 20-95 are not included in the permit.

**State Rule Applicability - Entire Source**

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

The source is subject to 326 IAC 1-6-3.

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

The source is subject to 326 IAC 1-5-2. The Source submitted an Emergency Reduction Plan on June 17, 1999.

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

This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit under 326 IAC 2-7, Part 70 program. Pursuant to this rule, the Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. In accordance with the compliance schedule specified in 326 IAC 2-6-3, an emission statement must be submitted annually by July 1 every year. Therefore, the next emission statement for this source must be submitted by July 1, 2010. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

### **326 IAC 5-1 (Opacity Limitations)**

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

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

### **326 IAC 2-2 (PSD)**

This major source was constructed and operated before July 1977 as a major source for the purpose of PSD, because VOC was being emitted at more than 250 tons per year.

- (1) On September 26, 1996, a construction permit (CP 157-5397-00038) was issued for one natural gas; and fuel oils no. 2, 4, 5, and 6 fired 75 MMBtu per hour boiler (Boiler # 2). This permit limited the Boiler # 1 and Boiler # 2 to 71.4 MMCF of natural gas equivalent and 1156 kgal measured as no. 2 fuel oil per year, respectively. This avoided the PSD review for SO<sub>2</sub> and NO<sub>x</sub> emissions for this modification.

On August 20 1998, the construction permit CP157-5397-00038 was amended (A157-9427) to readjust NO<sub>x</sub> emissions from Boiler # 1 and Boiler # 2; and removal of an old boiler rated at 23 MMBtu per hour. This amendment limited the fuel oil no. 2 equivalent from Boiler # 1 and Boiler # 2 to 1042 and 102 kgal, respectively. It also limited the natural gas equivalent from Boiler # 1 and Boiler # 2 to 657 and 314 MMCF, respectively.

- (2) On July 13, 2006, Significant Permit Modification No. 157-21911-0038 was issued which allowed the combustion of vegetable oil, grease and tallow to be added to Boiler #1 and Boiler #2. These units had existing PSD minor limits. Therefore, the combustion of vegetable oil, grease and/or tallow shall be limited to comply with existing conditions on Boiler #1 and Boiler #2 as follows (The source has not yet tested when combusting with a fuel other than natural gas):
  - (a) The input of fuel oil no. 2 and no. 2 equivalents to Boiler #1 and Boiler #2 shall be limited to 102 and 1042 Kgal measured as no. 2 fuel oil per twelve (12) consecutive month period, with compliance demonstrated at the end of each month, respectively. For compliance purposes, the following equivalencies shall be used.

1Kgal of no. 4 fuel oil = 1.00 Kgal of no. 2 fuel oil  
1Kgal of no. 5 fuel oil = 1.16 Kgal of no. 2 fuel oil

1Kgal of no. 6 fuel oil = 1.16 Kgal of no. 2 fuel oil

This usage limit is equivalent to a potential to emit of 39.0 tons of sulfur dioxide per year.

- (b) The input of natural gas and natural gas equivalents to Boiler #1 and Boiler #2 shall be limited to 314 MMCF and 657 MMCF of natural gas per twelve (12) consecutive month period, with compliance demonstrated at the end of each month, respectively. Compliance with these limits are necessary to restrict nitrogen oxide emissions from Boiler #1 and Boiler #2 to less than 22 tons per year and 46 tons per year, respectively.
- (c) When burning vegetable oil, or blends of vegetable oil and distillate fuel oil, nitrogen oxide emissions shall not exceed 0.162 pounds per million Btu heat input.
- (d) When burning grease, tallow, or blends of grease or tallow and fuels other than residual fuel oil, nitrogen oxide emissions shall not exceed 0.195 pounds per million Btu heat input.
- (e) Pursuant to Condition D.1.1, the combined input of natural gas and natural gas equivalents to Boiler #1 and Boiler #2 shall be limited to 794.13 MMCF of natural gas per twelve (12) consecutive month period, with compliance demonstrated at the end of each month. Compliance with this limit is necessary to restrict nitrogen oxide emissions from Boiler #1 and Boiler #2 to less than 39.7 tons per year.

For compliance purposes, the following equivalencies shall be used.

1 Kgal of no. 2 fuel oil	= 0.143 MMCF of natural gas
1 Kgal of no. 4 fuel oil	= 0.143 MMCF of natural gas
1 Kgal of no. 5 fuel oil	= 0.393 MMCF of natural gas
1 Kgal of no. 6 fuel oil	= 0.393 MMCF of natural gas
1 Kgal of vegetable oil	= 0.209 MMCF of natural gas
1 Kgal of tallow	= 0.247 MMCF of natural gas
1 Kgal of grease	= 0.093 MMCF of natural gas

Compliance with this condition makes the Prevention of Significant Deterioration (PSD) rules (326 IAC 2-2) not applicable.

- (3) On December 3, 2001, a Prevention of Significant Deterioration (PSD) and Significant Source Modification (SSM 157-11361-00038) permit was issued to add new equipment and modify the existing equipment to process additional soybeans from the plant. This permit limited the soybean processing to 821,250 tons per year.

The following BACT was established in SSM 157-11361-00038 permit issued on December 3, 2001.

326 IAC 2-2-3, and 40 CFR 52.21 (Best Available Control Technology (BACT))  
Cargill Inc. shall apply BACT for VOC emissions because this source has incurred an increase in VOC emissions from the conventional and specialty processes in 1995 above the PSD significant level.

Best Available Control Technology (BACT) is an emission limit based on the maximum degree of pollution reduction, which the OAQ determines is achievable on a case-by-case basis taking into consideration energy, environmental, economic, and other cost factors. Any major stationary source that is affected by PSD regulations must conduct an analysis to

ensure that BACT is specified for each criteria pollutant, which exceeds the "significant level".

BACT is determined on a case by case basis by reviewing controls on similar processes, BACT used by the OAQ and other states, and new technologies available.

A BACT analysis for VOC has been conducted in accordance with USEPA "Top Down BACT Guidance". The RACT/BACT/LAER Clearinghouse and related state permits, and related federal permits issued by other state agencies were reviewed for control technology information.

#### Best Available Control Technology (BACT) Analysis

The Office of Air Quality has determined from the analysis that BACT for this plant is as follows:

(a)	<u>Facility</u>	<u>Control</u>	<u>VOC (Hexane) Emission Limit</u>
	Oil extractor	Mineral oil absorber system	0.012 gal/ton soybean
	Meal dryers	No VOC control device	0.0042 gal/ton soybean
	Meal cooler	No VOC control device	0.0 gal/ton soybean
	FDS Cooler collector	No VOC control device	0.391 gal/ton soybean
	Whole soybean extraction plant		0.503 gals/ton soybean processed
	Maximum annual Soybean process Throughput		821,250 tons

- (b) BACT for the fugitive hexane loss will include an annual leak check in accordance with Cargill's standard operating procedures accompanied by continuous monitoring of the process area by flammable gas monitors. The leak check will be conducted in conjunction with the annual maintenance shutdown of the facility.

For emergency repairs and/or maintenance completed between annual maintenance shutdowns, a leak check will be completed on the affected system before hexane is reintroduced into the system. Any leaks detected will be repaired prior to introducing hexane into the system.

Within 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 the solvent extraction portion of the installation.

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 within five days and be completed within 15 days of detecting the leaking components. If the repair can not 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 and Enforcement Branch, Office of Air Quality, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 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
  - (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
  - (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

(4) On December 3, 2001, a Prevention of Significant Deterioration (PSD) and Significant Source Modification (SSM 157-11361-00038) permit was issued to add new equipment and modify the existing equipment to process additional soybeans from the plant. This permit limited the soybean processing to 821,250 tons per year.

A netting analysis was done and the following PSD minor limits were established for PM and PM<sub>10</sub>.

- (a) The soybean processed by the plant shall be limited to 821,250 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month. This soybean limitation is required to limit the potential to emit of PM, and PM<sub>10</sub> emissions of 140.2 and 72.6 tons per twelve (12) consecutive months, respectively.
- (b) The soybean received by the dump bed trucks shall be limited to 82,125 tons per twelve- (12)-consecutive month period, with compliance demonstrated at the end of each month.
- (c) The reject flakes loadout shall be limited to 2,400 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month.
- (d) The total natural gas or natural gas equivalent to Boiler no. 1 and Boiler no. 2 shall not exceed 794.13 million cubic feet per year.
- (e) The following facilities' PM and PM<sub>10</sub> emissions rates shall be limited as follows:

Facility	Control	Air Flow Rate Limit (dscfm)	Grain Loading Limit (gr/dscf)	PM Limit (lbs/hour)	PM <sub>10</sub> Limit (lbs/hour)
Grain receiving system (Truck Soybean Receiving Pit)	Baghouse #4	14,000	0.003	0.360	0.360
Grain storage loading (bin vent emissions resulting from filling the four soybean storage tanks and 18 soybean storage bins from the grain receiving system)	No PM/PM10 control device	infinite	0.01	15.0	8.36

Facility	Control	Air Flow Rate Limit (dscfm)	Grain Loading Limit (gr/dscf)	PM Limit (lbs/hour)	PM <sub>10</sub> Limit (lbs/hour)
Grain storage unloading (DC-431, DC-432, rail soybean unloading system, bucket elevator #301, DC-434, DC-436, DC-437, DC-444, DC-446, bucket elevator #303, DC-454, DC-447, bucket elevator #304, DC-449, DC-450, and a pod grinder)	Baghouse #10	24,000	0.003	0.617	0.617
Bean screener (Texas shaker #2 screen, weed seed Kice, Kice #1, DC-448, and DC-448A)	Baghouse #1	14,000	0.0033	0.136	0.4
Grain tanks and silos loading (bin vent emissions resulting from filling the four soybean storage tanks and 18 soybean storage bins from the column dryer)	No PM/PM10 control device	-	-	3.05	1.72
Grain tanks and silos unloading (DC-441, DC-442, DC-443, bucket elevator #307, and DC-453)	Baghouse #9	16,200	0.003	0.417	0.417
Soybean cracking & hulling system (Soybean Thayer scale, DC-400A, DC-400, EU-6, DC-401, DC-403, primary Kice #1, SC-201, SC-202, triple S shaker, hull grinder, coarse cut aspiration, and fine cut aspiration)	Baghouse #3	21,000	0.03	0.540	0.540
Soybean flaking (rotary conditioner, DC-404, DC-405, DC-406, DC-407, flaker banks 1 & 2, SC-206, SC-207, EU-12, and DC-409)	Cyclone #4	17,000	0.006	0.874	0.874
Hull transfer (pneumatic hull conveying system)		320	0.003	0.008	0.008
DTDC meal dryers	Integral Cyclone #6	10,000	0.007	0.600	0.600
DTDC meal dryers	Integral Cyclone #7	10,000	0.007	0.600	0.600
Meal coolers	Integral Cyclone #8	8,000	0.015 (PM) 0.019 (PM <sub>10</sub> )	1.029	1.30
Meal coolers	Integral Cyclone #9	8,000			

Facility	Control	Air Flow Rate Limit (dscfm)	Grain Loading Limit (gr/dscf)	PM Limit (lbs/hour)	PM <sub>10</sub> Limit (lbs/hour)
Meal sizing and grinding (DC-414A, DC-415, DC-416, SC-223, 3 soybean meal grinders, SC-221, DC-417, BE-300, DC-418, and DC-419)	Baghouse #2	5,500	0.005	0.236	0.236
FDS cooler collector	Baghouse #6	22,000	0.008	1.51	1.51
Truck and Rail soybean meal and hull loadout systems	Baghouse #5	16,000	0.004	0.549	0.549
Flake loadout (flake loadout system and pneumatic flake conveying system)	Integral Baghouse #7	10,000	0.004	0.343	0.343
Reject flake storage Based on 2400 tons of reject flake loadout	Baghouse #8	3,000	0.013	0.334	0.334
Hull blend back (pneumatic hull conveying system)	No PM/PM10 control device	320	0.01	0.027	0.027
Boiler no. 1 and 2	No PM/PM10 control device	794.13 Million cubic feet of natural gas or equivalent	-	7.60 lb per MMCF	7.60 lb per MMCF

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

This source is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Solvent Extraction for Vegetable Oil Production (40 CFR 63, Subpart GGGG), on and after April 12, 2004. Therefore, the existing source is exempt from the requirements of 326 IAC 2-4.1-1 on and after April 12, 2004.

**326 IAC 6-4 (Fugitive Dust Emissions)**

Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions) the Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

**326 IAC 1-7 (Stack height provisions)**

The potential emissions of particulate matter from baghouses, and cyclones exhaust gas stacks are more than 25 tons per year. Therefore, these exhaust gas stacks shall be constructed using good engineering practice (GEP).

**State Rule Applicability – Individual Facilities**

**Soybean Processing Operations**

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from each of following operations shall not exceed the pound per hour limit listed in the table below:

Unit	Process Weight Rate (ton/hr)	PM Limit (lb/hr)
Truck Soybean receiving pit	750	73.93
DC-431	750	73.93
DC-432	750	73.93
rail soybean unloading system	360	65.09
soybean receiving bucket elevator #301	750	73.93
DC-441	750	73.93
DC-442	750	73.93
DC-443	750	73.93
DC-434	750	73.93
DC-436	150	55.44
DC-437	150	55.44
DC-444	150	55.44
DC-446	150	55.44
soybean transfer bucket elevator #303	150	55.44
Texas shaker #2 screener	150	55.44
weed seed Kice	150	55.44
Kice #1	150	55.44
DC-448	150	55.44
DC-448A	150	55.44
DC-449	150	55.44
DC-450	150	55.44
soybean transfer bucket elevator #307	150	55.44
DC-453	150	55.44
DC-454	150	55.44
DC-447	150	55.44
dry soybean transfer bucket elevator #304	150	55.44
DC-400A	150	55.44
soybean Thayer scale	150	55.44
DC-400	150	55.44
Cracker Roll 1 (EU-6)	20.1	30.61
Cracker Roll 2 (EU 6)	20.1	30.61
Cracker Roll 3 (EU 6)	20.1	30.61
Cracker Roll 4 (EU 6)	20.1	30.61
Cracker Roll 5 (EU 6)	20.1	30.61
DC-401	100.5	51.33
DC-403	100.5	51.33
primary Kice #1	100.5	51.33
SC-201	100.5	51.33
SC-202	100.5	51.33
triple S shaker	100.5	51.33
hull grinder	6	12.23
coarse cut aspiration	4.5	11.23
fine cut aspiration	4.5	11.23
DC-414A	100.5	51.33
DC-415	100.5	51.33
DC-416	100.5	51.33
SC-223	100.5	51.33

Unit	Process Weight Rate (ton/hr)	PM Limit (lb/hr)
Meal grinder #1	33.5	40.93
Meal grinder #2	33.5	40.93
Meal grinder #3	33.5	40.93
SC-221	100.5	51.33
DC-417	100.5	51.33
BE-300	100.5	51.33
DC-418	100.5	51.33
DC-419	100.5	51.33
truck soybean meal & hull loadout system	200	58.51
rail soybean meal & hull loadout system	200	58.51
pneumatic flake conveying system	31.5	40.39
pneumatic reject flake conveying system	9	17.87
soybean flake loadout system	200	58.51
pod grinder	3	8.56
FDS cooler collector	100.5	51.33
rotary conditioner	100.5	51.33
DC-404	100.5	51.33
DC-405	100.5	51.33
DC-406	100.5	51.33
DC-407	100.5	51.33
flaker bank #1 & #2	100.5	51.33
SC-206	100.5	51.33
SC-207	100.5	51.33
EU-12	25	35.43
DC-409	100.5	51.33
Column dryer	150	55.44
4 soybean storage tanks	93.75	50.63
SC-212	4.5	11.23
18 storage bins	93.75	50.63
2 weed seed bins (207 & 208)	150	55.44
SC-213	150	55.44
SC-214	150	55.44
DC-427	150	55.44
DC-428	150	55.44
DC-429	150	55.44
5 surge bins	100.5	51.33
DC-410	100.5	51.33
DC-411	100.5	51.33
DC-412, DC-413, DC seal screw	100.5	51.33
SC-209	100.5	51.33
DC-414	100.5	51.33
3 meal sifters	100.5	51.33
SC-218	9	17.87
DC-461	200	58.51
DC-462	200	58.51

Unit	Process Weight Rate (ton/hr)	PM Limit (lb/hr)
pneumatic hull conveying system	6	12.23

The pounds per hour limitations were 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:

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

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

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

The baghouses and cyclones used for control shall be in operation at all times their associated units are in operation, in order to comply with these limits. The column dryer, DC-412, DC-413, DC seal screw, SC-209, DC-414, and the 3 meal sifters shall have a control device installed in order to comply these limits. All other units can meet these limits without control devices.

### 326 IAC 8-1-6 (BACT)

The VOC emissions from the mineral oil absorption system (MOS) which controls the desolventizer/toaster, flake desolventizer system, first stage rising film evaporator, iso-hexane conversion system, and solvent/water separator are greater than twenty-five (25) tons per year. However, the MOS is subject to the requirements of 326 IAC 2-2 (PSD BACT). Therefore, the requirements of 326 IAC 8-1-6 are satisfied by complying with the requirements of 326 IAC 2-2.

### Boilers

#### 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating: Emission Limitations for Facilities Specified in 326 IAC 6-2-1(c))

Boiler #1, which is considered sources of indirect heat, was constructed before June 8, 1972. Therefore, the boiler is subject to the requirements of 326 IAC 6-2-3 and shall comply with the following emission limit:

The PM emissions from the boiler (#1) shall not exceed 0.447 pounds per million Btu heat input (lb/MMBtu). This limitation was calculated using the following equation:

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

where

$$C = 50 \text{ u/m}^3$$

Pt = emission rate limit (lbs/MMBtu)

Q = total source heat input capacity (MMBtu/hr)

N = number of stacks

a = plume rise factor (0.67)

h = stack height (ft)

**326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating: Emission Limitations for Facilities Specified in 326 IAC 6-2-1(d))**

Boiler #2, which is considered sources of indirect heat, was constructed after September 21, 1983. Therefore, the boiler is subject to the requirements of 326 IAC 6-2-4 and shall comply with the following emission limit:

The PM emissions from the boiler (#2) shall not exceed 0.304 pounds per million Btu heat input (lb/MMBtu). This limitation was calculated using the following equation:

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

where Q = total source heat input capacity (MMBtu/hr)  
For this unit, Q = 135.0 MMBtu/hr.

**326 IAC 7 (Sulfur Dioxide Rules)**

Pursuant to 326 IAC 7-1.1-2 (SO<sub>2</sub> Emissions Limitations), the SO<sub>2</sub> emissions from boilers #1 and #2 shall not exceed 0.5 pounds per MMBtu heat input when combusting distillate oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

Pursuant to 326 IAC 7-1.1-2 (SO<sub>2</sub> Emissions Limitations), the SO<sub>2</sub> emissions from boilers #1 and #2 shall not exceed 1.6 pounds per MMBtu heat input when combusting residual oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

**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 Soybean Processing Facilities have applicable compliance determination and monitoring conditions as specified below:

- (1) Testing Requirements
  - (a) In order to demonstrate compliance with Conditions D.1.1 and D.1.3, the Permittee shall perform PM and PM-10 testing of the following:
    - Receiving area baghouse (#4)
    - Receiving area baghouse (#10)
    - Storage tank area baghouse (#9)
    - Screening area baghouse (#1)
    - Cracking system bag house (#3)
    - Flaking Cyclone #4

Meal sizing and screening (Baghouse #2)  
DTDC meal dryer #1 (Cyclones #6 and #7)  
DTDC meal cooler #1 (Cyclones #8 and #9)  
Hull storage (Cyclone #3)

within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM<sub>2.5</sub>), signed on May 8th, 2008. This 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 this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM-10 includes filterable and condensable PM.

- (b) In order to demonstrate compliance with Condition D.1.2, the Permittee shall perform VOC testing for the Mineral oil absorber utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

(2) VOC (BACT) Compliance

Compliance with Condition D.1.2 shall be demonstrated within 30 days of the end of each month by determining the average of twelve (12) consecutive month period of the followings:

- (a) The amount of VOC (hexane) used per calendar month.
- (b) The amounts of soybean processed by the conventional and specialty processes.
- (c) The gallons of hexane used per ton of soybean processed by the conventional and specialty processes.

(3) Solvent Loss Ratio

Compliance with Condition D.1.2 shall be demonstrated within 30 days of the end of each month by determining the average of twelve (12) consecutive month period in the following manner:

Calculate a compliance ratio, which compares the actual VOC loss to the allowable VOC loss for the previous twelve (12) months. The equation to calculate a compliance ratio follows:

(a) Compliance Ratio = (Actual VOC loss)/( Allowable VOC loss) (Eq. 1)

- (b) Equation 1 can also be expressed as a function of total solvent loss as shown in Equation 2.

(c) Compliance Ratio = [f\* Actual Solvent Loss]/

$$0.64 \left[ \frac{\{(Soybean\ processed)_C * (SLF_C)\} + \{(Soybean\ processed)_S * (SLF_S)\}}{\dots} \right] \quad (Eq. 2)$$

f = The weighted average volume fraction of VOC in solvent received during the previous twelve (12) operating months, dimensionless

$0.64 =$  The average volume fraction of VOC in solvent in the baseline performance data, dimensionless

Actual Solvent Loss = Gallons of actual solvent loss during previous twelve (12) operating month

$SLF_S = 1.5$  gals/ton (for new source, specialty soybean process)

$SLF_C = 0.2$  gals/ton (for existing source, conventional soybean process)

- (4) Particulate Matter (PM) and Particulate Matter 10 (PM<sub>10</sub>)  
In order to comply with Conditions D.1.1 and D.1.3, the baghouses and cyclones shall be in operation and control emissions from the associated facilities at all times when the associated facilities are in operation.
- (5) Visible Emissions Notations
- (a) Visible emission notations of the stack exhaust S-13, S-2, S-1, S-3, S-20, S-7, S-5, S-11, S-12, S-21, S-25, S-6, S-14, S-4, S-22, S-23, and S-24 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 in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (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 shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
  - (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the process line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

(7) Cyclone Failure

In the event that cyclone failure has been observed:

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

(8) Mineral Oil Absorber

- (a) The absorber shall operate at all times the oil extractor process is in operation within the mineral oil flow rate range of five (5) to thirty (30) gallons per minute or the average flow rate determined during the latest VOC (hexane) compliance test.
- (b) The Permittee shall monitor and record the mineral oil flow rate at least once per day. The Preventive Maintenance Plan for the absorber shall contain troubleshooting contingency and corrective actions for when the flow rate readings are outside of the normal range for any one reading.
- (c) The instruments used for determining the flow rate shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.
- (d) The gauge employed to take the mineral oil flow across the scrubber shall have a scale such that the expected normal reading shall be no less than 20 percent of full scale and be accurate within  $\pm 10\%$  of full scale reading. The instrument shall be quality assured and maintained as specified by the vendor.
- (e) In the event that the absorber's failure has been observed, an inspection will be conducted. Based upon the findings of the inspection, any corrective actions will be devised within twenty-four (24) hours of discovery and will include a timetable for completion.
- (f) The mineral oil to the mineral oil stripping column shall be kept at a minimum of 180°F for adequate stripping of the absorbed hexane from the oil. When the process is in operation, an electronic data management system (EDMS) shall record the instantaneous temperature on a frequency of not less than every two hours. As an alternate to installing an EDMS, manual readings shall be taken every two hours.

These compliance determination and monitoring conditions are necessary because the baghouses, cyclones, and mineral oil absorber for the soybean processing facilities must operate properly to ensure compliance with 326 IAC 2-2 (PSD), 326 IAC 8-1-6 (BACT), 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

The Boilers have applicable compliance determination and monitoring conditions as specified below:

(1) Sulfur Dioxide Emissions and Sulfur Content

Compliance with Condition D.2.3 shall be determined utilizing one of the following options:

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions from Boiler #1 do not exceed five-tenths (0.5) pound per million Btu heat input by:
  - (1) Providing vendor analysis of fuel oil delivered, if accompanied by a vendor certification, or;
  - (2) Analyzing the fuel oil sample to determine the sulfur content of the fuel oil via the procedures in 40 CFR 60, Appendix A, Method 19.
    - (A) Fuel oil samples may be collected from the fuel oil tank immediately after the fuel oil tank is filled and before any fuel oil is combusted; and
    - (B) If a partially empty fuel oil tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from Boiler #1 and Boiler #2 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) and (b) above shall not be refuted by evidence of compliance pursuant to another method.

(2) Testing Requirements

In order to demonstrate compliance with Condition D.2.2:

- (a) No later than 180 days from the commencement of vegetable oil combustion, the Permittee shall conduct performance tests for nitrogen oxide emissions on either Boiler #1 or Boiler #2 during vegetable oil combustion, and furnish the Commissioner a written report of the results of such performance tests.
- (b) No later than 180 days from the commencement of tallow combustion, the Permittee shall conduct performance tests for nitrogen oxide emissions on either Boiler #1 or Boiler #2 during tallow combustion, and furnish the Commissioner a written report of the results of such performance tests.
- (c) No later than 180 days from the commencement of grease combustion, the Permittee shall conduct performance tests for nitrogen oxide emissions on either Boiler #1 or Boiler #2 during grease combustion, and furnish the Commissioner a written report of the results of such performance tests.

(3) Visible Emissions Notations

- (a) The Permittee shall perform visible emission notations of the Boiler #1 stack exhaust once per day during normal daylight operations, when combusting fuels other than natural gas. A trained employee shall record whether emissions are normal or abnormal.
- (b) The Permittee shall perform visible emission notations of the Boiler #2 stack exhaust once per day during normal daylight operations, when combusting fuels other than natural gas, if there is no COMS installed or if the COMS is down for maintenance or under breakdown. A trained employee shall record whether emissions are normal or abnormal.

- (c) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (d) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (e) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (f) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

These compliance determination and monitoring conditions are necessary because the baghouses, cyclones, and mineral oil absorber for the soybean processing facilities must operate properly to ensure compliance with 326 IAC 2-2 (PSD), 326 IAC 6-2-3 (Particulate Matter Emission Limitations for Sources of Indirect Heating), 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating), 326 IAC 7 (Sulfur Dioxide Emission Limitations), 40 CFR 64 (CAM), and 326 IAC 2-7 (Part 70).

The paved and unpaved roads have applicable compliance determination conditions as specified below:

- (1) Control Measures  
Fugitive particulate matter emissions resulting from paved roads, unpaved roads and parking lots shall be controlled by using one or more of the following measures:
  - (a) Paved roads and parking lots:
    - (1) Cleaning by sweeping.
    - (2) Flushing.
    - (3) An equivalent alternate measure.
  - (b) Unpaved roads and parking lots:
    - (1) Paving with a material such as asphalt or concrete.
    - (2) Treating with a suitable and effective oil or chemical dust suppressant approved by the commissioner. The frequency shall be as on a needed basis.
    - (3) Spraying with water, the frequency of application shall be on a needed basis.
    - (4) Double chip and seal the road surface and maintain on an as needed basis.
    - (5) An equivalent alternate measures.

## **Recommendation**

The staff recommends to the Commissioner that the Part 70 Operating Permit Renewal be approved. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on August 28, 2007. Additional information was received on May 20, 2008, February 10, 2009, April 15, 2009, August 13, 2009, and September 14, 2009.

## **Conclusion**

The operation of this soybean oil extraction plant shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No. 157-25200-00038.

**Appendix A: Emissions Calculations  
Summary**

**Company Name: Cargill, Inc. - Soybean Processing Division**  
**Address: 1503 Wabash Avenue, Lafayette, Indiana 47905**  
**Part 70 Operating Permit Renewal No.: 157-25200-00038**  
**Reviewer: Kristen Layton**  
**Date: June 15, 2009**

Potential to Emit (ton/yr)								
Process / Control	PM	PM <sub>10</sub>	SO <sub>2</sub>	VOC	NO <sub>x</sub>	CO	HAPs	n-Hexane
Units Controlled by Baghouses	4,157.20	1,262.85	-	-	-	-	-	-
Units Controlled by Cyclone	480.02	196.07	-	-	-	-	-	-
Column Dryer	92.24	23.55	3.62	0.70	12.70	10.67	0.03	0.03
Uncontrolled Units	195.22	624.31	-	-	-	-	-	-
Units Routed to MOS with PM Emissions	0.14	0.14	-	-	-	-	-	-
Source Wide Hexane / Also VOC	-	-	-	2118.85	-	-	1356.06	1356.06
Boilers	33.24	33.24	295.65	3.25	199.94	58.30	1.13	1.06
<b>Total</b>	<b>4,958.05</b>	<b>2,140.17</b>	<b>299.27</b>	<b>2,122.80</b>	<b>212.64</b>	<b>68.97</b>	<b>1,357.22</b>	<b>1,357.15</b>

Controlled Potential to Emit (ton/yr)								
Process / Control	PM	PM <sub>10</sub>	SO <sub>2</sub>	VOC	NO <sub>x</sub>	CO	HAPs	n-Hexane
Units Controlled by Baghouses	23.60	22.47	-	-	-	-	-	-
Units Controlled by Cyclone	18.10	18.10	-	-	-	-	-	-
Column Dryer	92.24	23.55	3.62	0.70	12.70	10.67	0.03	0.03
Uncontrolled Units	195.22	624.31	-	-	-	-	-	-
Units Routed to MOS with PM Emissions	0.14	0.14	-	-	-	-	-	-
Source Wide Hexane / Also VOC	-	-	-	1105.93	-	-	707.80	707.80
Boilers	33.24	33.24	295.65	3.25	199.94	58.30	1.13	1.06
<b>Total</b>	<b>362.53</b>	<b>721.81</b>	<b>299.27</b>	<b>1,109.88</b>	<b>212.64</b>	<b>68.97</b>	<b>708.95</b>	<b>708.89</b>

Limited Potential to Emit (ton/yr)								
Process / Control	PM	PM <sub>10</sub>	SO <sub>2</sub>	VOC	NO <sub>x</sub>	CO	HAPs	n-Hexane
Units Controlled by Baghouses	22.64	23.42	-	-	-	-	-	-
Units Controlled by Cyclone	18.10	20.47	-	-	-	-	-	-
Column Dryer	92.24	23.55	3.62	0.70	12.70	10.67	0.03	0.03
Uncontrolled Units	195.22	624.31	-	-	-	-	-	-
Units Routed to MOS with PM Emissions	6.75	6.75	-	-	-	-	-	-
Source Wide Hexane / Also VOC	-	-	-	41.83	-	-	26.77	26.77
Boilers	13.23	13.23	39.00	3.25	39.00	58.30	1.13	1.06
<b>Total</b>	<b>348.17</b>	<b>711.73</b>	<b>42.62</b>	<b>45.78</b>	<b>51.70</b>	<b>68.97</b>	<b>27.92</b>	<b>27.86</b>

**Appendix A: Emissions Calculations  
Baghouses**

Company Name: Cargill, Inc. - Soybean Processing Division  
Address: 1503 Wabash Avenue, Lafayette, Indiana 47905  
Part 70 Operating Permit Renewal No.: 157-25200-00038  
Reviewer: Kristen Layton  
Date: June 15, 2009

Process / Units	Baghouse ID #	Flow Rate (dscfm)	PM Outlet Grain Loading (gr/dscf)	Control Efficiency %	Controlled PM (lb/hr)	Controlled PM (ton/yr)	Limited PM (ton/yr)	Limited PM <sub>10</sub> (ton/yr)
Receiving Area Baghouse (Truck Soybean Receiving Pit)	4	14000	0.003	99%	0.360	1.577	1.58	1.58
Bean Screener Baghouse (Texas shaker #2 screen, weed seed Kice, Kice #1, DC-448, and DC-448A)	1	11000	0.00144	99%	0.136	0.595	0.60	1.75
Cracking System Baghouse (Soybean Thayer scale, DC-400A, DC-400, EU-6, DC-401, DC-403, primary Kice #1, SC-201, SC-202, triple S shaker, hull grinder, coarse cut aspiration, and fine cut aspiration)	3	21000	0.003	99%	0.540	2.365	2.37	2.37
Receiving Area Baghouse <sup>b</sup> (DC-431, DC-432, rail soybean unloading system, bucket elevator #301, DC-434, DC-436, DC-437, DC-444, DC-446, bucket elevator #303, DC-454, DC-447, bucket elevator #304, DC-449, DC-450, and a pod grinder)	10	24000	0.003	99%	0.617	2.703	2.70	2.70
Storage Tank Area Baghouse (DC-441, DC-442, DC-443, bucket elevator #307, and DC-453)	9	16200	0.003	99%	0.417	1.825	1.83	1.83
Meal Sizing and Screening (DC-414A, DC-415, DC-416, SC-223, 3 soybean meal grinders, SC-221, DC-417, BE-300, DC-418, and DC-419)	2	5500	0.005	99%	0.236	1.032	1.03	1.03
Pneumatic Flake Conveying System & FDS Cooler Collector	6	22000	0.008	99%	1.509	6.608	6.61	6.61
Pneumatic Reject Flake Conveying System	8	3000	0.013	99%	0.334	1.464	1.46	1.46
Truck and Rail soybean meal and hull loadout systems	5	16000	0.004	99%	0.549	2.403	2.40	2.40
<b>The following process has control(s) integral to the process:</b>								
Flake Loadout System (flake loadout system and pneumatic flake conveying system)	7	10000	0.004	99%	0.343	1.502	1.50	1.50
<b>Total:</b>					<b>5.04</b>	<b>22.07</b>	<b>22.08</b>	<b>23.24</b>

**Methodology:**

PM<sub>10</sub> assumed to be the equal to PM.

Controlled PM (ton/yr) = Flow rate (dscfm) x Grain Loading (gr/dscf) x 1 lb/7000 grains x 60 minutes/hr x 8760 hr/yr x 1 ton/2000 lb

Process / Units	Limited Throughput (ton/hr)	PM EF (lb/ton)	PM <sub>10</sub> EF (lb/ton)	Capture Efficiency %	Fugitive PM Emissions (ton/yr)	Fugitive PM <sub>10</sub> Emissions (ton/yr)	EF Source
Straight Truck	9.375	0.18	0.059	92.5%	0.55	0.18	AP-42, Table 9.9.1-1
Hopper Truck and Rail Receiving System	84.375	0.035	0.0078	92.5%	0.97	0.22	AP-42, Table 9.9.1-1
<b>Total:</b>					<b>1.52</b>	<b>0.40</b>	

**Methodology:**

Fugitive PM/PM<sub>10</sub> (ton/yr) = Limited Throughput (ton/hr) \* EF (lb/ton) \* 8760 (hr/yr) \* 1 ton/2000lb \* (1 - Capture Efficiency (%))

Process / Units	Throughput	PM EF	PM <sub>10</sub> EF	Potential to Emit PM	Potential to Emit PM <sub>10</sub>	EF Source
	(ton/hr)	(lb/ton)	(lb/ton)	(ton/yr)	(ton/yr)	
Truck soybean receiving pit	93.75	0.18	0.059	73.91	24.23	AP-42, Table 9.9.1-1
DC-431	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
DC-432	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
rail soybean unloading system	93.75	0.032	0.0078	13.14	3.20	AP-42, Table 9.9.1-1
soybean receiving bucket elevator #301	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
DC-441	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
DC-442	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
DC-443	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
DC-434	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
DC-436	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
DC-437	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
DC-444	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
DC-446	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
soybean transfer bucket elevator #303	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
Texas shaker #2 screener	93.75	0.075	0.019	30.80	7.80	AP-42, Table 9.9.1-1
weed seed Kice	4.5	0.075	0.019	1.48	0.37	AP-42, Table 9.9.1-1
Kice #1	93.75	0.075	0.019	30.80	7.80	AP-42, Table 9.9.1-1
DC-448	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
DC-448A	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
DC-449	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
DC-450	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
soybean transfer bucket elevator #307	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
DC-453	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
DC-454	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
DC-447	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
dry soybean transfer bucket elevator #304	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
DC-400A	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
soybean Thayer scale	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
DC-400	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
Cracker Roll 1 (EU-6)	18.75	3.3	0.825	271.01	67.75	FIRE SCC 3-02-007-85**
Cracker Roll 2 (EU-6)	18.75	3.3	0.825	271.01	67.75	FIRE SCC 3-02-007-85**
Cracker Roll 3 (EU-6)	18.75	3.3	0.825	271.01	67.75	FIRE SCC 3-02-007-85**
Cracker Roll 4 (EU-6)	18.75	3.3	0.825	271.01	67.75	FIRE SCC 3-02-007-85**
Cracker Roll 5 (EU-6)	18.75	3.3	0.825	271.01	67.75	FIRE SCC 3-02-007-85**
DC-401	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
DC-403	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
primary Kice #1	93.75	0.075	0.019	30.80	7.80	AP-42, Table 9.9.1-1
SC-201	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
SC-202	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
triple S shaker	93.75	0.075	0.019	30.80	7.80	AP-42, Table 9.9.1-1
hull grinder*	6	NA	NA	0.04	0.04	See note
coarse cut aspiration	4.5	0.061	0.034	1.20	0.67	AP-42, Table 9.9.1-1
fine cut aspiration	4.5	0.061	0.034	1.20	0.67	AP-42, Table 9.9.1-1
DC-414A	76.56	0.27	0.068	90.54	22.63	AP-42, Table 9.9.1-1
DC-415	76.56	0.27	0.068	90.54	22.63	AP-42, Table 9.9.1-1
DC-416	76.56	0.27	0.068	90.54	22.63	AP-42, Table 9.9.1-1
SC-223	38.28	0.27	0.068	45.27	11.32	AP-42, Table 9.9.1-1
Meal grinder #1	12.76	2	0.5	111.78	27.94	FIRE SCC 3-02-007-86**
Meal grinder #2	12.76	2	0.5	111.78	27.94	FIRE SCC 3-02-007-86**
Meal grinder #3	12.76	2	0.5	111.78	27.94	FIRE SCC 3-02-007-86**
SC-221	38.28	0.27	0.068	45.27	11.32	AP-42, Table 9.9.1-1
DC-417	76.56	0.27	0.068	90.54	22.63	AP-42, Table 9.9.1-1
BE-300	76.56	0.27	0.068	90.54	22.63	AP-42, Table 9.9.1-1
DC-418	76.56	0.27	0.068	90.54	22.63	AP-42, Table 9.9.1-1
DC-419	76.56	0.27	0.068	90.54	22.63	AP-42, Table 9.9.1-1
truck soybean meal and hull loadout system	76.56	0.27	0.068	90.54	22.63	AP-42, Table 9.9.1-1
pneumatic flake conveying system	31.5	0.27	0.068	37.25	9.31	AP-42, Table 9.9.1-1
pneumatic reject flake conveying system	9	0.27	0.068	10.64	2.66	AP-42, Table 9.9.1-1
soybean flake loadout system*	31.5	0.27	0.068	1.50	1.50	See note
pod grinder	3	2	0.5	26.28	6.57	FIRE SCC 3-02-007-86**
FDS Cooler Collector	93.75	NA	NA	660.75	165.19	See note***

**Total: 4,157.20 1,262.85**

\*This unit has an integral control device, therefore potential to emit is evaluated post control.

\*\*No data is given on PM<sub>10</sub> emission factor. Therefore, per AP-42 9.9.1-1 Note h a conservative estimate that PM10 = 25% of PM has been used.

**Methodology:**

Uncontrolled PM/PM<sub>10</sub> (ton/yr) = Throughput (ton/hr) \* EF (lb/ton) \* 8760 (hr/yr) \* 1 ton/2000lb

\*\*\*Uncontrolled PM/PM<sub>10</sub>(ton/yr) = Controlled PM / (1 - Control Efficiency (%))

Note: The Permittee has provided the throughputs based on the federally enforceable source wide throughput limit and the amount of product actually processed at each step of the operation.

1) Conservative estimate that PM10 = 25% of PM per AP-42 9.9.1-1 Note h

**Appendix A: Emissions Calculations  
Cyclones**

**Company Name: Cargill, Inc. - Soybean Processing Division**  
**Address: 1503 Wabash Avenue, Lafayette, Indiana 47905**  
**Part 70 Operating Permit Renewal No.: 157-25200-00038**  
**Reviewer: Kristen Layton**  
**Date: June 15, 2009**

Process / Units	Control Device ID#	Flow Rate (dscfm)	PM Outlet Grain Loading (gr/dscf)	PM <sub>10</sub> Outlet Grain Loading (gr/dscf)	Controlled PM (lb/hr)	Controlled PM <sub>10</sub> (lb/hr)	Controlled PM (ton/yr)	Controlled PM <sub>10</sub> (ton/yr)	Limited PM (ton/yr)	Limited PM <sub>10</sub> (ton/yr)
Flaking Cyclone (rotary conditioner, DC-404, DC-405, DC 406, DC-407, flaker banks 1 & 2, SC-206, SC-207, EU-12, and DC-409)	Cyclone#4	17000	0.006	0.006	0.87	0.87	3.83	3.83	3.83	3.83
<b>The following control devices are considered integral to the process:</b>										
DTDC Meal Dryer	Cyclone#6	10000	0.007	0.007	0.60	0.60	2.63	2.63	2.63	2.63
DTDC Meal Dryer	Cyclone#7	10000	0.007	0.007	0.60	0.60	2.63	2.63	2.63	2.63
DTDC Meal Cooler	Cyclone#8	8000	0.015	0.019	1.03	1.30	4.51	4.51	4.51	5.69
DTDC Meal Cooler	Cyclone#9	8000	0.015	0.019	1.03	1.30	4.51	4.51	4.51	5.69
Hull Storage (hull grinder)*	Cyclone#3	320	0.003	0.003	0.01	0.01	0.04	0.04	N/A	N/A
<b>Total:</b>					<b>4.13</b>	<b>4.68</b>	<b>18.10</b>	<b>18.10</b>	<b>18.1</b>	<b>20.5</b>

**Methodology:**

Controlled PM/PM<sub>10</sub> (ton/yr) = Flow rate (dscfm) x Grain Loading (gr/dscf) x 1 lb/7000 grains x 60 minutes/hr x 8760 hr/yr x 1 ton/2000 lb

Process / Units	Control Device ID#	Throughput (ton/hr)	PM EF (lb/ton)	PM <sub>10</sub> EF (lb/ton)	Control Efficiency (%)	Controlled PM (ton/yr)	Controlled PM <sub>10</sub> (ton/yr)	EF Source
Coarse Cut Aspiration*	Cyclone #1	4.5	0.061	0.034	99.6%	0.0048	0.0027	AP-42, Table 9.9.1-1
Fine Cut Aspiration*	Cyclone #2	4.5	0.061	0.034	99.6%	0.0048	0.0027	AP-42, Table 9.9.1-1
<b>Total:</b>						<b>0.0096</b>	<b>0.0054</b>	

**Methodology:**

Controlled PM/PM<sub>10</sub>/PM<sub>2.5</sub> (ton/hr) = Throughput (ton/hr) \* EF (lb/ton) \* 8760 (hr/yr) \* 1 ton/2000lb \* (1 - Control Efficiency)

\*Cyclones #1, #2, and #3 route to baghouse #3. Emissions from these units are counted towards total emissions after baghouse #3 on Baghouses page.

Process / Units	Throughput (ton/hr)	PM EF (lb/ton)	PM <sub>10</sub> EF (lb/ton)	Potential to Emit PM (ton/yr)	Potential to Emit PM <sub>10</sub> (ton/yr)	EF Source
rotary conditioner	93.75	0.1	0.025	41.06	10.27	FIRE 3-02-007-87*
DC-404	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
DC-405	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
DC-406	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
DC-407	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
flaker bank #1 & #2	93.75	0.57	0.143	234.06	58.51	FIRE 3-02-007-88*
SC-206	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
SC-207	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
EU-12	25	0.27	0.27	29.57	29.57	AP-42, Table 9.9.1-1
DC-409	93.75	0.061	0.034	25.05	13.96	AP-42, Table 9.9.1-1
Coarse Cut Aspiration	4.5	0.061	0.034	Calculated in Baghouses		AP-42, Table 9.9.1-1
Fine Cut Aspiration	4.5	0.061	0.034	Calculated in Baghouses		AP-42, Table 9.9.1-1

**Total: 480.02 196.07**

**Methodology:**

Uncontrolled PM/PM<sub>10</sub> (ton/hr) = Throughput (ton/hr) \* EF (lb/ton) \* 8760 (hr/yr) \* 1 ton/2000lb

Note: The Permittee has provided the throughputs based on the federally enforceable source wide throughput limit and the amount of product actually processed at each step of the operation.

\*No data is given on PM<sub>10</sub> emission factor. Therefore, per AP-42 9.9.1-1 Note h a conservative estimate that PM10 = 25% of PM has been used.

**Appendix A: Emissions Calculations  
Natural Gas Combustion Only  
Column Dryer**

**Company Name: Cargill, Inc. - Soybean Processing Division  
Address: 1503 Wabash Avenue, Lafayette, Indiana 47905  
Part 70 Operating Permit Renewal No.: 157-25200-00038  
Reviewer: Kristen Layton  
Date: June 15, 2009**

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

29.0

254.0

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	28.5	100	5.5	84
				**see below		
Potential Emission in tons/yr	0.2	1.0	3.6	12.7	0.7	10.7

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

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

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

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

See page 7 for HAPs emissions calculations.

**Appendix A: Emissions Calculations  
Natural Gas Combustion Only**

**Column Dryer  
HAPs Emissions**

**Company Name: Cargill, Inc. - Soybean Processing Division  
Address: 1503 Wabash Avenue, Lafayette, Indiana 47905  
Part 70 Operating Permit Renewal No.: 157-25200-00038  
Reviewer: Kristen Layton  
Date: June 15, 2009**

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	3.045E-05	1.740E-05	1.088E-03	2.610E-02	4.930E-05

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	7.250E-06	1.595E-05	2.030E-05	5.510E-06	3.045E-05

Methodology is the same as page 6.

The five highest organic and metal HAPs emission factors are provided above.  
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Process / Unties	Throughput (ton/hr)	PM EF (lb/ton)	PM <sub>10</sub> EF (lb/ton)	Potential to Emit PM (ton/yr)	Potential to Emit PM <sub>10</sub> (ton/yr)
Column dryer *	93.75	0.22	0.055	90.34	22.58

**Methodology:**

\*Process emissions only.

Uncontrolled PM/PM<sub>10</sub>(ton/hr) = Throughput (ton/hr) \* EF (lb/ton) \* 8760 (hr/yr) \* 1 ton/2000lb

Emission Factor from AP-42, Table 9.9.1-1.

Note: The Permittee has provided the throughputs based on the federally enforceable source wide throughput limit and the amount of product actually processed at each step of the operation.

Column Dryer	PM	PM <sub>10</sub>	SO <sub>2</sub>	VOC	NO <sub>x</sub>	CO	HAPs	Hexane
Total	92.24	23.55	3.6	0.7	12.7	10.7	2.736E-02	2.610E-02

**Appendix A: Emissions Calculations  
Uncontrolled Units**

**Company Name: Cargill, Inc. - Soybean Processing Division**  
**Address: 1503 Wabash Avenue, Lafayette, Indiana 47905**  
**Part 70 Operating Permit Renewal No.: 157-25200-00038**  
**Reviewer: Kristen Layton**  
**Date: June 15, 2009**

<b>Process / Unties</b>	<b>Throughput (ton/hr)</b>	<b>PM EF (lb/ton)</b>	<b>PM<sub>10</sub> EF (lb/ton)</b>	<b>Potential to Emit PM (ton/yr)</b>	<b>Potential to Emit PM<sub>10</sub> (ton/yr)</b>
4 soybean storage tanks	93.75	0.025	0.0063	10.27	2.59
SC-212	4.50	0.061	0.0063	1.20	0.12
18 storage bins (501 -503, 506-508, 511-513, 516-518, 521-523, 526-528)	93.75	0.025	0.0063	10.27	2.59
2 weed seed bins (207 and 208)	93.75	0.025	0.0063	10.27	2.59
SC-213	4.50	0.061	0.034	1.20	0.67
SC-214	4.50	0.061	0.034	1.20	0.67
DC-427	93.75	0.061	0.034	25.05	13.96
DC-428	93.75	0.061	0.034	25.05	13.96
DC-429	93.75	0.061	0.034	25.05	13.96
5 surge bins	93.75	0.025	0.0063	10.27	2.59
DC-410	93.75	0.061	0.034	25.05	13.96
DC-411	93.75	0.061	0.034	25.05	13.96
DC-412, DC-413, and DC seal screw	76.56	0.27	0.068	90.54	22.63
SC-209	76.56	0.27	0.068	90.54	22.63
DC-414	76.56	0.27	0.068	90.54	22.63
3 meal sifters	76.56	0.27	0.068	90.54	22.63
SC-218	9.00	0.27	0.068	10.64	2.66
DC-461	31.50	0.27	0.068	37.25	9.31
DC-462	31.50	0.27	0.068	37.25	9.31
pneumatic hull conveying system	6.00	0.27	0.068	7.10	1.77

**Total:      624.31      195.22**

**Methodology:**

Uncontrolled PM/PM<sub>10</sub>(lb/hr) = Throughput (ton/hr) \* EF (lb/ton)

Uncontrolled PM/PM<sub>10</sub>(ton/yr) = Throughput (ton/hr) \* EF (lb/ton) \* 8760 (hr/yr) \* 1 ton/2000lb

Emission Factors from AP-42, Table 9.9.1-1.

Note: The Permittee has provided the throughputs based on the federally enforceable source wide throughput limit and the amount of product actually processed at each step of the operation.

**Appendix A: Emissions Calculations**  
**Particulate Emissions from Units Vented to the Mineral Oil Absorber System**

**Company Name: Cargill, Inc. - Soybean Processing Division**  
**Address: 1503 Wabash Avenue, Lafayette, Indiana 47905**  
**Part 70 Operating Permit Renewal No.: 157-25200-00038**  
**Reviewer: Kristen Layton**  
**Date: June 15, 2009**

48% Meal Tank

Given: 0.1 gr/dscf  
1.02E+07 cubic feet of displacement per year

$$\begin{array}{rclclclclcl}
 0.1 & / & 7,000 & \times & 1.02E+07 & / & 8760 & = & 0.02 \\
 \text{(gr/dscf)} & & \text{(gr/lb)} & & \text{(cf/yr)} & & \text{(hr/yr)} & & \text{(lb/hr)} \\
 \\ 
 0.02 & \times & 8760 & / & 2000 & = & 0.07 & & \\
 \text{(lb/hr)} & & \text{(hr/yr)} & & \text{(lb/ton)} & & \text{(ton/year)} & & 
 \end{array}$$

44% Meal Tank

Given: 0.1 gr/dscf  
8.75E+06 cubic feet of displacement per year

$$\begin{array}{rclclclclcl}
 0.1 & / & 7,000 & \times & 8.75E+06 & / & 8760 & = & 0.01 \\
 \text{(gr/dscf)} & & \text{(gr/lb)} & & \text{(cf/yr)} & & \text{(hr/yr)} & & \text{(lb/hr)} \\
 \\ 
 0.01 & \times & 8760 & / & 2000 & = & 0.06 & & \\
 \text{(lb/hr)} & & \text{(hr/yr)} & & \text{(lb/ton)} & & \text{(ton/year)} & & 
 \end{array}$$

The gr/dscf are based on engineering estimates and process knowledge provided by the source.  
The cubic feet of air displaced per year was calculated by the source by converting the potential throughput of meal in tons/year to a volume assuming an average density of 40 pounds per cubic feet.

**Appendix A: Emissions Calculations  
Hexane Emissions**

**Company Name: Cargill, Inc. - Soybean Processing Division**  
**Address: 1503 Wabash Avenue, Lafayette, Indiana 47905**  
**Part 70 Operating Permit Renewal No.: 157-25200-00038**  
**Reviewer: Kristen Layton**  
**Date: June 15, 2009**

Hexane (VOC) emissions

Density of hexane	=	5.6	lb /gal
Process limit of soybean	=	821,250	tons/yr
	=	100.50	tons/hr

Hexane is lost from the extraction and desolventizing operations in soybean extraction and in refining plants. These include:

Point sources

- a) Vent system gas during normal operation
- b) Meal dryers
- c) Meal cooler

Fugitive emissions

- d) Solvent samples

Bound in product/by-product

- e) Desolventized flakes (meal)
- f) Process wastewater

Main gas vent (Mineral Oil Absorber System) - controls EU-16, flake desolventizer system, EU-13, iso-hexane conversion system, and solvent/water separator

Given:	3000	ppm outlet from vent - provided by the source in SSM No. 157-11361-00038
	300	cubic feet per minute flowrate
	8760	hours per year operating rate
	95%	control efficiency based on AP-24 Chapter 9.11
	3000	x
(ppm)	86.17	/
	(lb/lbmol)	3.82E+08
		(cf ppm / lbmol)
		=
	6.76E-04	(lb/cf)
6.76E-04	x	
(lb/cf)	300	x
	(cf/min)	60
		(min/hr)
		=
	12.17	(lb/hr)
12.17	x	
(lb/hr)	8760	/
	(hr/yr)	2000
		(lb/ton)
		=
	53.31	controlled emissions
(ton/year)	/	(1 - 95%)
		=
	1066.23	uncontrolled emissions
		(ton/year)

FDS Cooler Collector

Given:	1000	ppm outlet from vent - provided by the source in SSM No. 157-11361-00038
	22000	cubic feet per minute flowrate
	6000	hours per year operating rate
	1000	x
(ppm)	86.17	/
	(lb/lbmol)	3.82E+08
		(cf ppm / lbmol)
		=
	2.25E-04	(lb/cf)
2.25E-04	x	
(lb/cf)	22000	x
	(cf/min)	60
		(min/hr)
		=
	297.53	(lb/hr)
297.53	x	
(lb/hr)	6000	/
	(hr/yr)	2000
		(lb/ton)
		=
	892.6	(ton/year)

Dryer/Cooler

Given:	20	ppm outlet from vent - provided by the source in SSM No. 157-11361-00038
	8500	cubic feet per minute flowrate
	8760	hours per year operating rate
	20	x
(ppm)	86.17	/
	(lb/lbmol)	3.82E+08
		(cf ppm / lbmol)
		=
	4.51E-06	(lb/cf)
4.51E-06	x	
(lb/cf)	8500	x
	(cf/min)	60
		(min/hr)
		=
	2.30	(lb/hr)
2.30	x	
(lb/hr)	8760	/
	(hr/yr)	2000
		(lb/ton)
		=
	10.07	(ton/year)

48% Meal Tank

Given:	200	ppm outlet from vent - provided by the source in SSM No. 157-11361-00038				
	1.02E+07	cubic feet of displacement per year				
	200	x	86.17	/	3.82E+08	= 4.51E-05
	(ppm)		(lb/lbmol)		(cf ppm / lbmol)	(lb/cf)
	4.51E-05	x	1.02E+07	/	2000	= 0.23
	(lb/cf)		(cf/yr)		(lb/ton)	(lb/hr)
	0.23	x	8760	/	2000	= 1.01
	(lb/hr)		(hr/yr)		(lb/ton)	(ton/year)

44% Meal Tank

Given:	70	ppm outlet from vent - provided by the source in SSM No. 157-11361-00038				
	8.75E+06	cubic feet of displacement per year				
	70	x	86.17	/	3.82E+08	= 1.58E-05
	(ppm)		(lb/lbmol)		(cf ppm / lbmol)	(lb/cf)
	1.58E-05	x	8.75E+06	/	2000	= 0.07
	(lb/cf)		(cf/yr)		(lb/ton)	(lb/hr)
	0.07	x	8760	/	2000	= 0.30
	(lb/hr)		(hr/yr)		(lb/ton)	(ton/year)

Air Emissions - Products and Byproducts

Soybean Meal

Given:	30	ppm hexane concentration in product - provided by the source in SSM No. 157-11361-00038				
	323299	tons meal produced per year				
	30	x	323299	/	1000000	= 9.70
	(ppm)		(tons/yr)		(ppm)	(ton/year)

Soybean Oil

Given:	90	ppm hexane concentration in product - provided by the source in SSM No. 157-11361-00038				
	162608	tons soy oil produced per year				
	90	x	162608	/	1000000	= 14.63
	(ppm)		(tons/yr)		(ppm)	(ton/yr)

Soybean Flake

Given:	250	ppm hexane concentration in product - provided by the source in SSM No. 157-11361-00038				
	273750	tons soy flake produced per year				
	250	x	273750	/	1000000	= 68.44
	(ppm)		(tons/yr)		(ppm)	(ton/yr)

Process Wastewater

Given:	10	ppm hexane concentration in water - provided by the source in SSM No. 157-11361-00038				
	40	gpm flowrate				
	40	x	8.345	x	60	= 20028
	(gal/min)		(lb/gal)		(min/hr)	(lb/hr)
	20028	x	10	/	1000000	= 0.20
	(lb/hr)		(ppm)		(ppm)	(lb/hr)
	0.20	x	8760	/	2000	= 0.88
	(lb/hr)		(hr/yr)		(lb/ton)	(ton/year)

Air Emissions - Fugitives

Sampling/Hexane Unloading

Given:	53	Hexane samples are collected per year - provided by the source in SSM No. 157-11361-00038				
	0.1	gallon volume sample collected				
	5.5	pounds per gallon (density of hexane)				
	53	x	0.1	x	5.5	= 29
	(sample/yr)		(gallon/sample)		(lb/gal)	(lb/yr)
	29	/	2000	=	0.01	
	(lb/yr)		(lb/ton)		(ton/year)	

General Fugitives

Based on past experience and knowledge of the process Cargill estimates an additional 55 tons of hexane will be lost through various other fugitive sources.

Process Weight Based Losses Controlled	
Type of Hexane Loss	Annual Average (lb/ton)
<b>Air Emissions - Point Sources</b>	
MOS Final Vent	0.130
FDS Cooler Collector	2.17
Dryer/Cooler	0.025
48% Meal Tank	0.002
44% Meal Tank	0.001
<b>SUBTOTAL</b>	<b>2.33</b>
<b>Air Emissions - Fugitive</b>	
Sampling/Hexane Unloading	0.00004
General	0.1339
<b>SUBTOTAL</b>	<b>0.1340</b>
<b>Products and Byproducts</b>	
Meal	0.024
Oil	0.036
Flake	0.167
Proc. Wastewater	0.002
<b>SUBTOTAL</b>	<b>0.228</b>
<b>TOTAL</b>	<b>2.69</b>

Assumptions: 821,250 tons of soybeans processed per year

Process Weight Based Losses Controlled	
Type of Hexane Loss	Annual Average (gal/ton)
<b>Air Emissions - Point Sources</b>	
MOS Final Vent	0.02
FDS Cooler Collector	0.39
Dryer/Cooler	0.004
48% Meal Tank	0.0004
44% Meal Tank	0.0001
<b>SUBTOTAL</b>	<b>0.416</b>
<b>Air Emissions - Fugitive</b>	
Sampling/Hexane Unloading	0.00001
General	0.02392
<b>SUBTOTAL</b>	<b>0.02393</b>
<b>Products and Byproducts</b>	
Meal	0.0042
Oil	0.0064
Flake	0.0298
Decanted Water	0.0004
<b>SUBTOTAL</b>	<b>0.041</b>
<b>TOTAL</b>	<b>0.481</b>

Assumptions: 821,250 tons of soybeans processed per year

Type of Hexane Loss	Total Controlled Hexane Loss (ton/yr)
<b>Air Emissions - Point Sources</b>	
MOS Final Vent	53.31
FDS Cooler Collector	892.58
Dryer/Cooler	10.07
48% Meal Tank	1.01
44% Meal Tank	0.30
<b>SUBTOTAL</b>	<b>957</b>
<b>Air Emissions - Fugitive</b>	
Sampling/Hexane Unloading	0.01
General	55.00
<b>SUBTOTAL</b>	<b>55.01</b>
<b>Products and Byproducts</b>	
Meal	9.70
Oil	14.63
Flake	68.44
Proc. Wastewater	0.88
<b>SUBTOTAL</b>	<b>93.65</b>
<b>TOTAL</b>	<b>1105.93</b>

Type of Hexane Loss	Total Uncontrolled Hexane Loss (ton/yr)
<b>Air Emissions - Point Sources</b>	
Mos Final Vent	1066.23
FDS Cooler Collector	892.58
Dryer/Cooler	10.07
48% Meal Tank	1.01
44%Meal Tank	0.30
<b>SUBTOTAL</b>	<b>1970.19</b>
<b>Air Emissions - Fugitive</b>	
Sampling/Hexane Unloading	0.01
General	55.00
<b>SUBTOTAL</b>	<b>55.01</b>
<b>Products and Byproducts</b>	
Meal	9.70
Oil	14.63
Flake	68.44
Proc. Wastewater	0.88
<b>SUBTOTAL</b>	<b>93.65</b>
<b>TOTAL</b>	<b>2118.85</b>

Note: The Permittee has provided the throughputs based on the federally enforceable source wide throughput limit and the amount of product actually processed at each step of the operation.

HAP Fraction (n-Hexane) =	64%	wt. %	Industry standard factor (for example, see 40 CFR 63, Subpart GGGG)
<b>Total Controlled n-Hexane Loss (ton/yr)</b>	<b>707.80</b>		
<b>Total Uncontrolled n-Hexane Loss (ton/yr)</b>	<b>1356.06</b>		

**Appendix A: Emissions Calculations**

**Boilers When Using Vegetable Oil**

**Company Name: Cargill, Inc. - Soybean Processing Division**

**Address: 1503 Wabash Avenue, Lafayette, Indiana 47905**

**Part 70 Operating Permit Renewal No.: 157-25200-00038**

**Reviewer: Kristen Layton**

**Date: June 15, 2009**

1st Boiler	60 MMBtu/hr
V.O. Flow rate:	3550.2959 lb/hr
Density:	7.657 lb/gal
Fuel Use:	463.66669 gal/hr
Heat Value:	129403.3 Btu/gal
Heat by V.O.:	60000000 Btu/hr

Maximum % veg. oil: 100.00%

Linear scaling of test data:

$$\frac{100.00\% \text{ maximum}}{85.78\% \text{ as tested}} = 1.17 \text{ (scaling factor)}$$

	NG / #2 oil / #6 oil emission factor	NG / #2 oil / #6 oil ton / year	85.8% veg. oil emission factor	100.0% veg. oil emission factor	100.0% veg. oil ton / year	Worst Case PTE ton / year
PM:	0.0562 lb/MMBtu	14.78 tons/year	0.0185 lb/MMBtu	0.0122 lb/MMBtu	3.21 tons/year	14.78 tons/year
PM <sub>10</sub> :	0.0562 lb/MMBtu	14.78 tons/year	0.0185 lb/MMBtu	0.0122 lb/MMBtu	3.21 tons/year	14.78 tons/year
SO <sub>2</sub> :	0.5000 lb/MMBtu	131.40 tons/year	0.0250 lb/MMBtu	0.0000 lb/MMBtu	0.00 tons/year	131.40 tons/year
NOx:	0.3381 lb/MMBtu	88.86 tons/year	0.1618 lb/MMBtu	0.1326 lb/MMBtu	34.84 tons/year	88.86 tons/year
VOC:	0.0055 lb/MMBtu	1.45 tons/year	0.0024 lb/MMBtu	0.0019 lb/MMBtu	0.49 tons/year	1.45 tons/year
CO:	0.0840 lb/MMBtu	22.08 tons/year	0.0965 lb/MMBtu	0.0986 lb/MMBtu	25.91 tons/year	25.91 tons/year

2nd Boiler	75 MMBtu/hr
V.O. Flow rate:	4441.2751 lb/hr
Density:	7.702 lb/gal
Fuel Use:	576.63919 gal/hr
Heat Value:	130064 Btu/gal
Heat by V.O.:	75000000 Btu/hr

Maximum % vegetable oil: 100.00%

Linear scaling of test data:

$$\frac{100.00\% \text{ maximum}}{85.78\% \text{ as tested}} = 1.17 \text{ (scaling factor)}$$

	NG / #2 oil / #6 oil emission factor	NG / #2 oil / #6 oil ton / year	85.8% veg. oil emission factor	100.0% veg. oil emission factor	100.0% veg. oil ton / year	Worst Case PTE ton / year
PM:	0.0562 lb/MMBtu	18.47 tons/year	0.0185 lb/MMBtu	0.0122 lb/MMBtu	4.02 tons/year	18.47 tons/year
PM <sub>10</sub> :	0.0562 lb/MMBtu	18.47 tons/year	0.0185 lb/MMBtu	0.0122 lb/MMBtu	4.02 tons/year	18.47 tons/year
SO <sub>2</sub> :	0.5000 lb/MMBtu	164.25 tons/year	0.0250 lb/MMBtu	0.0000 lb/MMBtu	0.00 tons/year	164.25 tons/year
NOx:	0.3381 lb/MMBtu	111.08 tons/year	0.1618 lb/MMBtu	0.1326 lb/MMBtu	43.55 tons/year	111.08 tons/year
VOC:	0.0055 lb/MMBtu	1.81 tons/year	0.0024 lb/MMBtu	0.0019 lb/MMBtu	0.62 tons/year	1.81 tons/year
CO:	0.0840 lb/MMBtu	27.59 tons/year	0.0965 lb/MMBtu	0.0986 lb/MMBtu	32.39 tons/year	32.39 tons/year

The vegetable oil emission calculations are based on emission tests conducted January 18 and January 23, 2001 on the EP#26 stack at the Cargill facility in Iowa Falls, IA. Baseline emission factors are from EPA document AP-42.

**Methodology:**

$$\text{(baseline emission at 0\% vegetable oil)} + \text{((change in emission between 0\% and tested \% vegetable oil) * (scaling factor))} \\ = \text{(emission at the desired \% vegetable oil)}$$

**TOTAL:**

Note: In cases where linear scaling of an emission decrease results in a negative emission factor, the emission factor is listed as zero lb/MMBtu.

	Total Worst Case PTE ton / year
PM:	33.24 tons/year
PM <sub>10</sub> :	33.24 tons/year
SO <sub>2</sub> :	295.65 tons/year
NOx:	199.94 tons/year
VOC:	3.25 tons/year
CO:	58.30 tons/year

**Appendix A: Emissions Calculations**

**Boilers When using Tallow**

**Company Name: Cargill, Inc. - Soybean Processing Division**

**Address: 1503 Wabash Avenue, Lafayette, Indiana 47905**

**Part 70 Operating Permit Renewal No.: 157-25200-00038**

**Reviewer: Kristen Layton**

**Date: June 15, 2009**

1st Boiler	60 MMBtu/hr
T. Flow rate:	3550.2959 lb/hr
Density:	7.51 lb/gal
Fuel Use:	472.74246 gal/hr
Heat Value:	126919 Btu/gal
Heat by T.:	60000000 Btu/hr

Maximum % tallow: 100.00%

Linear scaling of test data:

$$\frac{100.00\% \text{ maximum}}{50.00\% \text{ assumed}} = 2.00 \text{ (scaling factor)}$$

	NG / #2 oil / #6 oil emission factor	NG / #2 oil / #6 oil ton / year	50.0% tallow emission factor	100.0% tallow emission factor	100.0% tallow ton / year	Worst Case PTE ton / year
PM:	0.0562 lb/MMBtu	14.78 tons/year	0.0540 lb/MMBtu	0.0518 lb/MMBtu	13.61 tons/year	14.78 tons/year
PM <sub>10</sub> :	0.0562 lb/MMBtu	14.78 tons/year	0.0540 lb/MMBtu	0.0518 lb/MMBtu	13.61 tons/year	14.78 tons/year
SO <sub>2</sub> :	0.5000 lb/MMBtu	131.40 tons/year	0.0000 lb/MMBtu	0.0000 lb/MMBtu	0.00 tons/year	131.40 tons/year
NOx:	0.3381 lb/MMBtu	88.86 tons/year	0.1950 lb/MMBtu	0.0519 lb/MMBtu	13.63 tons/year	88.86 tons/year
VOC:	0.0055 lb/MMBtu	1.45 tons/year	0.0050 lb/MMBtu	0.0045 lb/MMBtu	1.18 tons/year	1.45 tons/year
CO:	0.0840 lb/MMBtu	22.08 tons/year	0.0160 lb/MMBtu	0.0000 lb/MMBtu	0.00 tons/year	22.08 tons/year

2nd Boiler	75 MMBtu/hr
T. Flow rate:	4437.8698 lb/hr
Density:	7.51 lb/gal
Fuel Use:	590.92807 gal/hr
Heat Value:	126919 Btu/gal
Heat by T.:	75000000 Btu/hr

Maximum % tallow: 100.00%

Linear scaling of test data:

$$\frac{100.00\% \text{ maximum}}{50.00\% \text{ estimated}} = 2.00 \text{ (scaling factor)}$$

	NG / #2 oil / #6 oil emission factor	NG / #2 oil / #6 oil ton / year	50.0% tallow emission factor	100.0% tallow emission factor	100.0% tallow ton / year	Worst Case PTE ton / year
PM:	0.0562 lb/MMBtu	18.47 tons/year	0.0540 lb/MMBtu	0.0518 lb/MMBtu	17.01 tons/year	18.47 tons/year
PM <sub>10</sub> :	0.0562 lb/MMBtu	18.47 tons/year	0.0540 lb/MMBtu	0.0518 lb/MMBtu	17.01 tons/year	18.47 tons/year
SO <sub>2</sub> :	0.5000 lb/MMBtu	164.25 tons/year	0.0000 lb/MMBtu	0.0000 lb/MMBtu	0.00 tons/year	164.25 tons/year
NOx:	0.3381 lb/MMBtu	111.08 tons/year	0.1950 lb/MMBtu	0.0519 lb/MMBtu	17.04 tons/year	111.08 tons/year
VOC:	0.0055 lb/MMBtu	1.81 tons/year	0.0050 lb/MMBtu	0.0045 lb/MMBtu	1.48 tons/year	1.81 tons/year
CO:	0.0840 lb/MMBtu	27.59 tons/year	0.0160 lb/MMBtu	0.0000 lb/MMBtu	0.00 tons/year	27.59 tons/year

The tallow emission calculations are based on emission tests conducted in Wapello County, IA, which indicated the highest emission results for tallow combustion. Baseline emission factors are from EPA document AP-42.

**Methodology:**

$$\text{(baseline emission at 0\% tallow) + ((change in emission between 0\% and tested \% tallow) * (scaling factor))} \\ = \text{(emission at the desired \% tallow)}$$

Note: In cases where linear scaling of an emission decrease results in a negative emission factor, the emission factor is listed as zero lb/MMBtu.

**TOTAL:**

	Total Worst Case PTE ton / year
PM:	33.24 tons/year
PM <sub>10</sub> :	33.24 tons/year
SO <sub>2</sub> :	295.65 tons/year
NOx:	199.94 tons/year
VOC:	3.25 tons/year
CO:	49.67 tons/year

**Appendix A: Emissions Calculations**

**Boilers When Using Grease**

**Company Name:** Cargill, Inc. - Soybean Processing Division  
**Address:** 1503 Wabash Avenue, Lafayette, Indiana 47905  
**Part 70 Operating Permit Renewal No.:** 157-25200-00038  
**Reviewer:** Kristen Layton  
**Date:** June 15, 2009

1st Boiler	60 MMBtu/hr
G. Flow rate:	3434.4591 lb/hr
Density:	7.506 lb/gal
Fuel Use:	457.56183 gal/hr
Heat Value:	131129.82 Btu/gal
Heat by G.:	60000000 Btu/hr

Maximum % grease: 100.00%

Linear scaling of test data:

$$\frac{100.00\% \text{ maximum}}{50.00\% \text{ assumed}} = 2.00 \text{ (scaling factor)}$$

	NG / #2 oil / #6 oil emission factor	NG / #2 oil / #6 oil ton / year	50.0% grease emission factor	100.0% grease emission factor	100.0% grease ton / year	Worst Case PTE ton / year
PM:	0.0562 lb/MMBtu	14.78 tons/year	0.0410 lb/MMBtu	0.0258 lb/MMBtu	6.77 tons/year	14.78 tons/year
PM <sub>10</sub> :	0.0562 lb/MMBtu	14.78 tons/year	0.0410 lb/MMBtu	0.0258 lb/MMBtu	6.77 tons/year	14.78 tons/year
SO <sub>2</sub> :	0.5000 lb/MMBtu	131.40 tons/year	0.0020 lb/MMBtu	0.0000 lb/MMBtu	0.00 tons/year	131.40 tons/year
NOx:	0.3381 lb/MMBtu	88.86 tons/year	0.0710 lb/MMBtu	0.0000 lb/MMBtu	0.00 tons/year	88.86 tons/year
VOC:	0.0055 lb/MMBtu	1.45 tons/year	0.0020 lb/MMBtu	0.0000 lb/MMBtu	0.00 tons/year	1.45 tons/year
CO:	0.0840 lb/MMBtu	22.08 tons/year	0.0220 lb/MMBtu	0.0000 lb/MMBtu	0.00 tons/year	22.08 tons/year

2nd Boiler	75 MMBtu/hr
G. Flow rate:	4293.0738 lb/hr
Density:	7.506 lb/gal
Fuel Use:	571.95228 gal/hr
Heat Value:	131129.82 Btu/gal
Heat by G.:	75000000 Btu/hr

Maximum % grease: 100.00%

Linear scaling of test data:

$$\frac{100.00\% \text{ maximum}}{50.00\% \text{ estimated}} = 2.00 \text{ (scaling factor)}$$

	NG / #2 oil / #6 oil emission factor	NG / #2 oil / #6 oil ton / year	50.0% grease emission factor	100.0% grease emission factor	100.0% grease ton / year	Worst Case PTE ton / year
PM:	0.0562 lb/MMBtu	18.47 tons/year	0.0410 lb/MMBtu	0.0258 lb/MMBtu	8.47 tons/year	18.47 tons/year
PM <sub>10</sub> :	0.0562 lb/MMBtu	18.47 tons/year	0.0410 lb/MMBtu	0.0258 lb/MMBtu	8.47 tons/year	18.47 tons/year
SO <sub>2</sub> :	0.5000 lb/MMBtu	164.25 tons/year	0.0020 lb/MMBtu	0.0000 lb/MMBtu	0.00 tons/year	164.25 tons/year
NOx:	0.3381 lb/MMBtu	111.08 tons/year	0.0710 lb/MMBtu	0.0000 lb/MMBtu	0.00 tons/year	111.08 tons/year
VOC:	0.0055 lb/MMBtu	1.81 tons/year	0.0020 lb/MMBtu	0.0000 lb/MMBtu	0.00 tons/year	1.81 tons/year
CO:	0.0840 lb/MMBtu	27.59 tons/year	0.0220 lb/MMBtu	0.0000 lb/MMBtu	0.00 tons/year	27.59 tons/year

The grease emission calculations are based on emission tests conducted in Wapello County, IA, which indicated the highest emission results for grease combustion. Baseline emission factors are from EPA document AP-42.

**Methodology:**

$$\text{(baseline emission at 0\% grease) + ((change in emission between 0\% and tested \% grease) * (scaling factor))} \\ = \text{(emission at the desired \% grease)}$$

Note: In cases where linear scaling of an emission decrease results in a negative emission factor, the emission factor is listed as zero lb/MMBtu.

**TOTAL:**

	Total Worst Case PTE ton / year
PM:	33.24 tons/year
PM <sub>10</sub> :	33.24 tons/year
SO <sub>2</sub> :	295.65 tons/year
NOx:	199.94 tons/year
VOC:	3.25 tons/year
CO:	49.67 tons/year

**Appendix A: Emissions Calculations  
Natural Gas Combustion Only  
MM BTU/HR <100**

**Company Name:** Cargill, Inc. - Soybean Processing Division  
**Address:** 1503 Wabash Avenue, Lafayette, Indiana 47905  
**Part 70 Operating Permit Renewal No.:** 157-25200-00038  
**Reviewer:** Kristen Layton  
**Date:** June 15, 2009

Heat Input Capacity                      Potential Throughput  
MMBtu/hr                                      MMCF/yr

135.0

1182.6

HAPs - Organics					
Emission Factor in lb/l	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in t	1.242E-03	7.096E-04	4.435E-02	1.064E+00	2.010E-03

HAPs - Metals					
Emission Factor in lb/l	Lead	Cadmium	Chromium	Manganese	Nickel
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in t	2.957E-04	6.504E-04	8.278E-04	2.247E-04	1.242E-03

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

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

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations**  
**Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)**  
**#2 Fuel Oil**

**Company Name:** Cargill, Inc. - Soybean Processing Division  
**Address:** 1503 Wabash Avenue, Lafayette, Indiana 47905  
**Part 70 Operating Permit Renewal No.:** 157-25200-00038  
**Reviewer:** Kristen Layton  
**Date:** June 15, 2009

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year
135	8447.1429

HAPs - Metals					
Emission Factor in lb/mmBtu	Arsenic 4.0E-06	Beryllium 3.0E-06	Cadmium 3.0E-06	Chromium 3.0E-06	Lead 9.0E-06
Potential Emission in tons/yr	2.37E-03	1.77E-03	1.77E-03	1.77E-03	5.32E-03

HAPs - Metals (continued)				
Emission Factor in lb/mmBtu	Mercury 3.0E-06	Manganese 6.0E-06	Nickel 3.0E-06	Selenium 1.5E-05
Potential Emission in tons/yr	1.77E-03	3.55E-03	1.77E-03	8.87E-03

**Methodology**

No data was available in AP-42 for organic HAPs.

Potential Emissions (tons/year) = Throughput (mmBtu/hr)\*Emission Factor (lb/mmBtu)\*8,760 hrs/yr / 2,000 lb/ton

No HAP data was available in AP-42 for #6 fuel oil for boilers with capacities less than 100 MMBtu/hr.

Natural Gas combustion has the highest organic HAPs and #2 fuel oil combustion has the highest metallic HAPs.

Appendix A: Emissions Calculations

Company Name: Cargill, Inc. - Soybean Processing Division  
 Address: 1503 Wabash Avenue, Lafayette, Indiana 47905  
 Part 70 Operating Permit Renewal No.: 157-25200-00038  
 Reviewer: Kristen Layton  
 Date: June 15, 2009

Veg. Oil:  $\frac{0.161818 \text{ lb NOx}^*}{\text{MMBtu}} \frac{129403.3 \text{ Btu}^*}{\text{gal}} \frac{\text{MM gal}}{1000 \text{ Kgal}} = \frac{20.93981 \text{ lb NOx}}{\text{Kgal}}$  NG:  $\frac{100 \text{ lb NOx}}{\text{MMcf}}$

1 Kgal =  $\frac{20.93981 \text{ lb/NOx}}{100 \text{ lb/NOx}} = 0.209398 \text{ MMcf}$

$\frac{657 \text{ MMcf}^*}{\text{yr}} \frac{1000 \text{ gal}^*}{0.209398 \text{ MMcf}} \frac{129403.3 \text{ Btu}^*}{\text{gal}} \frac{0.161818 \text{ lb NOx}^*}{1000000 \text{ Btu}} \frac{\text{ton}}{2000 \text{ lb}} = \frac{32.85 \text{ ton NOx}}{\text{yr}}$

$\frac{314 \text{ MMcf}^*}{\text{yr}} \frac{1000 \text{ gal}^*}{0.209398 \text{ MMcf}} \frac{129403.3 \text{ Btu}^*}{\text{gal}} \frac{0.161818 \text{ lb NOx}^*}{1000000 \text{ Btu}} \frac{\text{ton}}{2000 \text{ lb}} = \frac{15.7 \text{ ton NOx}}{\text{yr}}$

$\frac{794 \text{ MMcf}^*}{\text{yr}} \frac{1000 \text{ gal}^*}{0.209398 \text{ MMcf}} \frac{129403.3 \text{ Btu}^*}{\text{gal}} \frac{0.161818 \text{ lb NOx}^*}{1000000 \text{ Btu}} \frac{\text{ton}}{2000 \text{ lb}} = \frac{39.7 \text{ ton NOx}}{\text{yr}}$

Tallow:  $\frac{0.195 \text{ lb NOx}^*}{\text{MMBtu}} \frac{126919 \text{ Btu}^*}{\text{gal}} \frac{\text{MM gal}}{1000 \text{ Kgal}} = \frac{24.74921 \text{ lb NOx}}{\text{Kgal}}$  NG:  $\frac{100 \text{ lb NOx}}{\text{MMcf}}$

1 Kgal =  $\frac{24.74921 \text{ lb/NOx}}{100 \text{ lb/NOx}} = 0.247492 \text{ MMcf}$

$\frac{657 \text{ MMcf}^*}{\text{yr}} \frac{1000 \text{ gal}^*}{0.247492 \text{ MMcf}} \frac{126919 \text{ Btu}^*}{\text{gal}} \frac{0.195 \text{ lb NOx}^*}{1000000 \text{ Btu}} \frac{\text{ton}}{2000 \text{ lb}} = \frac{32.85 \text{ ton NOx}}{\text{yr}}$

$\frac{314 \text{ MMcf}^*}{\text{yr}} \frac{1000 \text{ gal}^*}{0.247492 \text{ MMcf}} \frac{126919 \text{ Btu}^*}{\text{gal}} \frac{0.195 \text{ lb NOx}^*}{1000000 \text{ Btu}} \frac{\text{ton}}{2000 \text{ lb}} = \frac{15.7 \text{ ton NOx}}{\text{yr}}$

$\frac{794 \text{ MMcf}^*}{\text{yr}} \frac{1000 \text{ gal}^*}{0.247492 \text{ MMcf}} \frac{126919 \text{ Btu}^*}{\text{gal}} \frac{0.195 \text{ lb NOx}^*}{1000000 \text{ Btu}} \frac{\text{ton}}{2000 \text{ lb}} = \frac{39.7 \text{ ton NOx}}{\text{yr}}$

Grease:  $\frac{0.071 \text{ lb NOx}^*}{\text{MMBtu}} \frac{131129.8 \text{ Btu}^*}{\text{gal}} \frac{\text{MM gal}}{1000 \text{ Kgal}} = \frac{9.310217 \text{ lb NOx}}{\text{Kgal}}$  NG:  $\frac{100 \text{ lb NOx}}{\text{MMcf}}$

1 Kgal =  $\frac{9.310217 \text{ lb/NOx}}{100 \text{ lb/NOx}} = 0.093102 \text{ MMcf}$

$\frac{657 \text{ MMcf}^*}{\text{yr}} \frac{1000 \text{ gal}^*}{0.093102 \text{ MMcf}} \frac{131129.8 \text{ Btu}^*}{\text{gal}} \frac{0.071 \text{ lb NOx}^*}{1000000 \text{ Btu}} \frac{\text{ton}}{2000 \text{ lb}} = \frac{32.85 \text{ ton NOx}}{\text{yr}}$

$\frac{314 \text{ MMcf}^*}{\text{yr}} \frac{1000 \text{ gal}^*}{0.093102 \text{ MMcf}} \frac{131129.8 \text{ Btu}^*}{\text{gal}} \frac{0.071 \text{ lb NOx}^*}{1000000 \text{ Btu}} \frac{\text{ton}}{2000 \text{ lb}} = \frac{15.7 \text{ ton NOx}}{\text{yr}}$

$\frac{794 \text{ MMcf}^*}{\text{yr}} \frac{1000 \text{ gal}^*}{0.093102 \text{ MMcf}} \frac{131129.8 \text{ Btu}^*}{\text{gal}} \frac{0.071 \text{ lb NOx}^*}{1000000 \text{ Btu}} \frac{\text{ton}}{2000 \text{ lb}} = \frac{39.7 \text{ ton NOx}}{\text{yr}}$



# 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](http://www.idem.IN.gov)

## SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

**TO:** John Zoss  
Cargill, Inc - Soybean Processing Div  
1502 Wabash Ave  
Lafayette, IN 47905

**DATE:** January 7, 2010

**FROM:** Matt Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

**SUBJECT:** Final Decision  
Title V  
157-25200-00038

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:  
Aaron Clotts (ENSR)  
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at [jbrush@idem.IN.gov](mailto:jbrush@idem.IN.gov).

Final Applicant Cover letter.dot 11/30/07



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

January 10, 2010

TO: Tippecanoe Public Library

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

Subject: **Important Information for Display Regarding a Final Determination**

**Applicant Name: Cargill, Inc. - Soybean Processing Division**  
**Permit Number: 157-25200-00038**

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



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Indianapolis, Indiana 46204  
(317) 232-8603  
Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

TO: Interested Parties / Applicant

DATE: January 7, 2010

RE: Cargill, Inc. - Soybean Processing Division / 157-25200-00038

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

In order to conserve paper and reduce postage costs, IDEM's Office of Air Quality is now sending many permit decisions on CDs in Adobe PDF format. The enclosed CD contains information regarding the company named above.

This permit is also available on the IDEM website at:  
<http://www.in.gov/ai/appfiles/idem-caats/>

If you would like to request a paper copy of the permit document, please contact IDEM's central file room at:

Indiana Government Center North, Room 1201  
100 North Senate Avenue, MC 50-07  
Indianapolis, IN 46204  
Phone: 1-800-451-6027 (ext. 4-0965)  
Fax (317) 232-8659

**Please Note:** *If you feel you have received this information in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at [PPEAR@IDEM.IN.GOV](mailto:PPEAR@IDEM.IN.GOV).*

Enclosures  
CD Memo.dot 11/14/08

# Mail Code 61-53

IDEM Staff	CDENNY 1/7/2010 Cargill, Inc - Soybean Processing Div 157-25200-00038 (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:  <b>CERTIFICATE OF MAILING ONLY</b>	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		John Zoss Cargill, Inc - Soybean Processing Div 1502 Wabash Ave Lafayette IN 47905 (Source CAATS)										
2		Ms. Anna Cicirelli P.O. Box 289, 102 Tipton Street Battleground IN 47920 (Affected Party)										
3		Mr. Charles L. Berger Berger & Berger, Attorneys at Law 313 Main Street Evansville IN 47700 (Affected Party)										
4		Tippecanoe County Commissioners 20 N 3rd St, County Office Building Lafayette IN 47901 (Local Official)										
5		Tippecanoe County Health Department 20 N. 3rd St Lafayette IN 47901-1211 (Health Department)										
6		Lafayette City Council and Mayors Office 20 North 6th Street Lafayette IN 47901-1411 (Local Official)										
7		Tippecanoe County Public Library 627 South Street Lafayette IN 47901-1470 (Library)										
8		Ms. Sharon McKnight 909 Southernview Drive North Lafayette IN 47909 (Affected Party)										
9		Ms. Dorothy Whicker 2700 Bonny Lane Lafayette IN 47904 (Affected Party)										
10		Tom Pierce Sr. 2029 Hall Street Lafayette IN 47904 (Affected Party)										
11		Ms. Geneva Werner 3212 Longlois Drive Lafayette IN 47904-1718 (Affected Party)										
12		Mr. Thomas Ruzicka 3509 Pine Lane Lafayette IN 47905 (Affected Party)										
13		Mrs. Phyllis Owens 3600 Cypress Lane Lafayette IN 47905 (Affected Party)										
14		Mr. Jerry White 1901 King Eider Ct West Lafayette IN 47906 (Affected Party)										
15		Ms. Rose Filley 5839 Lookout Drive West Lafayette IN 47906 (Affected Party)										

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See <b>Domestic Mail Manual R900, S913, and S921</b> for limitations of coverage on inured and COD mail. See <b>International Mail Manual</b> for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
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# Mail Code 61-53

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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:  <b>CERTIFICATE OF MAILING ONLY</b>	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		William 128 Seminole Drive West Lafayette IN 47906 (Affected Party)										
2		Mr. Robert Kelley 2555 S 30th Street Lafayette IN 44909 (Affected Party)										
3		Mr. Aaron Clotts AECOM First Natl Bank Bldg 332 Minnesota St # E1000 St Paul MN 55101 (Consultant)										
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