INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

TO: Interested Parties / Applicant

DATE: October 24, 2013

RE: Bunge North America (East), LLC /001-31996-00005

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

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted, 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 impractible to raise such issues, or if the grounds for such objection arose after the comment period.

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

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

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

Enclosures
FNTVOP.dot 6/13/2013

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Commissioner

Part 70 Operating Permit Renewal
OFFICE OF AIR QUALITY

Bunge North America (East), LLC
1200 N. 2nd Street, Decatur, Indiana 46733

(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.: T001-31996-00005	
Issued by: Jenny Acker, Section Chief Permits Branch Office of Air Quality	Issuance Date: October 24, 2013 Expiration Date: October 24, 2018

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

The Permittee owns and operates a stationary grain handling, soybean meal production, and soybean oil extraction plant.

Source Address:	1200 N. 2nd Street, Decatur, Indiana 46733
General Source Phone Number:	(260)724-2101
SIC Code:	2075, 2079, and 5153
County Location:	Adams
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(14)]

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

(a) Truck Dump #2, identified as 1EL1, constructed in 1980, with a maximum capacity of 600 tons per hour, using a baghouse for particulate matter (PM) control, and exhausting to stack 1EL. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD.

(b) The following grain elevator East Workhouse components, together identified as 2EL1, with a maximum throughput of 270 tons per hour (Bottlenecked to 240 tons per hour), each, unless otherwise stated, using a baghouse and oil suppressant for PM control, and exhausting to stack 2EL, consisting of:

(1) One (1) Megatex screener, approved for construction in 2013, with a maximum throughput of 300 tons per hour, using a baghouse, identified as 2EL4, for particulate control, and exhausting to stack 2EL4. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD;

(2) One (1) #1 scalperator, constructed in 2011 and approved for modification in 2013, with a maximum throughput of 120 tons per hour, using a baghouse, identified as 2EL4, for particulate control, and exhausting to stack 2EL4. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD;

(3) One (1) #2 scalperator, constructed in 2011 and approved for modification in 2013, with a maximum throughput of 120 tons per hour, using a baghouse, identified as 2EL4, for particulate control, and exhausting to stack 2EL4. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD;

(4) One (1) ext. screening bin, constructed prior to 1977;

(5) One (1) screening bin, constructed prior to 1977;

(6) One (1) solvent screening leg, constructed prior to 1977;

(7) One (1) #1 leg, constructed prior to 1977;

(8) One (1) #2 leg, constructed prior to 1977;

(9) One (1) #3 leg, constructed prior to 1977;

(10) One (1) west to east Hi-Roller, constructed prior to 1977;

(11) One (1) west to east belt loader, constructed prior to 1977;

(12) One (1) dry bean leg, constructed prior to 1977;

(13) One (1) #1 dryer Hi-Roller, constructed prior to 1977;

(14) One (1) weaver's belt, constructed prior to 1977; and

(15) One (1) 102 belt, constructed prior to 1977.

(c) One (1) hammermill, permitted in 2010 for construction, identified as 2EL2, with a maximum capacity of 5.60 tons per hour, using a baghouse as control (Unit ID 2EL2), and exhausting to stack 2EL2.

(d) One (1) pneumatic conveying system, permitted in 2010 for construction, identified as 2EL3, with a maximum capacity of 5.60 tons per hour, using a baghouse for control (Unit ID 22EX2) as control, and exhausting to stack 22EX2.

(e) The following grain elevator components, together identified as 5EL1, with a maximum throughput of 900 tons per hour, each, using a baghouse and oil suppressant for PM control, and exhausting to stack 5EL, consisting of:

(1) One (1) north tripper buggy, constructed prior to 1977;

(2) One (1) north galley belt loader, constructed prior to 1977;

(3) One (1) east west belt, constructed prior to 1977; and

(4) One (1) bin 102, constructed prior to 1977.

(f) One (1) north west receiving house enclosed conveyor identified as 8EL1, constructed prior to 1977, with a maximum throughput of 360 tons per hour, using oil suppressant for PM control, with no aspiration.

(g) The following grain elevator components together identified as 10EL1, with a maximum throughput of 720 tons per hour, each, using a baghouse and oil suppressant for PM control, and exhausting to stack 10EL, consisting of:

(1) One (1) rail loadout, constructed in 1984. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD;

(2) One (1) rail receiving, constructed in 1960;

(3) One (1) north leg, constructed prior to 1960; and

(4) One (1) south leg, constructed prior to 1960.

(h) The following grain elevator components together identified as 14EL1, with a maximum throughput of 600 tons per hour, each, using a baghouse and oil suppressant for PM control, and exhausting to stack 14EL, consisting of:

(1) One (1) jumbo silo east galley belt, constructed prior to 1977;

(2) One (1) jumbo silo west galley belt, constructed prior to 1977;

(3) One (1) jumbo silo crossover galley belt, constructed prior to 1977;

(i) One (1) natural gas fired grain dryer #2, identified as 19EL1, constructed in 1995, with a maximum capacity of 60 tons per hour and a maximum heat input capacity of 7 MMBtu/hr, using self-cleaning screens for PM control, and exhausting to vent 19EL. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD.

(j) One (1) truck dump #7, identified as 20EL1, constructed in 1997, with a maximum throughput of 450 tons per hour, consisting of one (1) weigh scale truck unloading pit, and two (2) enclosed bucket elevator legs, using two (2) baghouses in parallel for PM control, and exhausting to stack 20EL. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD.

(k) Silo bin vents, identified as 3EL1, constructed prior to 1977, with a maximum throughput of 900 tons per hour, total, using soybean oil as a dust suppressant, and exhausting to vent 3EL.

(l) Silo direct loadout, identified as 4EL1, constructed prior to 1977, with a maximum throughput of 270 tons per hour, using soybean oil as a dust suppressant.

(m) One (1) south tripper buggy, one (1) south galley belt loader, and one (1) north south belt, identified as 6EL1, all constructed prior to 1977, with a maximum throughput of 900 tons per hour, each, using a baghouse and oil suppressant for PM control, and exhausting to stack 6EL.

(n) One (1) south west receiving house enclosed conveyor, identified as 7EL1, constructed prior to 1977, with a maximum throughput of 360 tons per hour, using oil suppressant for PM control with no aspiration.

(o) One (1) truck dump #3, identified as 9EL1, constructed in 1976, with a maximum throughput of 900 tons per hour, using a baghouse for PM control, and exhausting to stack 9EL.

(p) One (1) truck dump #5, identified as 12EL1, constructed prior to 1977, with a maximum throughput of 600 tons per hour, using a baghouse for PM control, and exhausting to stack 12EL.

(q) One (1) jumbo silo east tunnel belt, one (1) jumbo silo west tunnel belt, and one (1) jumbo silo crossover tunnel belt, identified as 13EL1, all constructed prior to 1977, with a maximum throughput of 360 tons per hour, each, using a baghouse and oil suppressant for PM control, and exhausting to stack 13EL.

(r) One (1) truck dump #6, identified as 15EL1, constructed prior to 1977, with a maximum throughput of 360 tons per hour, using a baghouse for PM control, and exhausting to stack 15EL.

(s) One (1) natural gas fired grain dryer #1, identified as 16EL1, constructed in 1986, with a maximum capacity of 75 tons per hour and a maximum heat input capacity of 7 MMBtu/hr, using self-cleaning screens for PM control, and exhausting to stack 16EL. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD.

(t) Two (2) natural gas fired grain dryers, #4 and #5, identified as 17EL1, constructed in the 1960's, with a maximum capacity of 150 tons per hour and a maximum heat input capacity of 14 MMBtu/hr, total, using self-cleaning screens for PM control, and exhausting to vent 17EL.

(u) One (1) Lec. Dept. filter aid unit, identified as 204RO1, constructed in 1980, with a maximum throughput of 2.5 tons per hour, using a baghouse for PM control, and exhausting to stack 204RO.

(v) Daily use bins, identified as 102EO1, constructed in 1976, with a maximum throughput of 2.5 tons per hour, each, using a baghouse for PM control, and exhausting to stack 102EO.

(w) Filter aid silos, identified as 103EO1, constructed in 1976, with a maximum throughput of 16 tons per hour, each, using a baghouse for PM control, and exhausting to stack 103EO.

(x) One (1) natural gas fired hydrogen generator furnace, identified as 107EO1, constructed in 1992, with a maximum heat input capacity of 25.2 MMBtu/hr, and exhausting to stack 107EO. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

(y) Salt conveying, identified as 4SP1, constructed in 1981, with a maximum throughput of 21 tons per hour, using a baghouse for PM control, and exhausting to stack 4SP.

(z) Six (6) flaking rolls, #1, #2, #3, #4, #5, and #6, constructed in 1996, and B flake n/s drag, constructed in 1991, all identified together as 1EX1, with a maximum throughput of 93.1 tons per hour, total, using fabric filters for PM control, and exhausting to stack 1EX.

(aa) One (1) flaking roll #14 and flaking roll discharge #14, identified as 1EX2, constructed in 1991, with a maximum throughput of 93.1 tons per hour, each, using fabric filters for PM control, and exhausting to stack 1EX.

(bb) The following soybean processing equipment, together identified as 3EX1, with a maximum throughput of 48.8 tons per hour, each, sharing a cyclone with 3EX2 for PM control, and exhausting to stack 3EX, consisting of:

(1) Four (4) flaking rolls, #9, #10, #11, and #12, constructed in 1978;

(2) One (1) flaking roll #13, constructed in 1985;

(3) One (1) ‘A’ flake n/s drag, constructed in 1993; and

(4) One (1) ‘A’ flake e/w drag, constructed in 1993.

(cc) One (1) north run around drag, identified as 3EX2, constructed in 1984, with a maximum throughput of 48.8 tons per hour, sharing a cyclone with 3EX1, and exhausting to stack 3EX.

(dd) The following soybean processing equipment, together identified as 4EX1, with a maximum throughput of 156.3 tons per hour, each, sharing a baghouse with 4EX2 and 4EX3 for PM control, and exhausting to stack 4EX, consisting of:

(1) One (1) whole bean scale, constructed in 1989;

(2) One (1) 'A' whole bean leg, constructed in 1997;

(3) One (1) 'A' surge bin, constructed prior to 1979;

(4) One (1) whole bean drag, constructed in 1981; and

(5) One (1) 'B' surge bin, constructed prior to 1979.

(ee) A run around rework screw, identified as 4EX2, constructed in 1991, with a maximum throughput of 156.3 tons per hour, sharing a baghouse with 4EX1 and 4EX3 for PM control, and exhausting to stack 4EX.

(ff) The following soybean processing equipment, together identified as 4EX3, with a maximum throughput of 156.3 tons per hour, each, sharing a baghouse with 4EX1 and 4EX2 for PM control, and exhausting to stack 4EX, consisting of:

(1) One (1) hull refining screw conveyor, constructed in 1991;

(2) One (1) hull refining process, constructed in 1991; and

(3) One (1) hull grinding process, constructed in 1987.

(gg) Dehulling equipment, identified as 5EX1, constructed in 1997, with a maximum throughput of 156.3 tons per hour, sharing a baghouse with 5EX3 for PM control, and exhausting to stack 5EX.

(hh) Hot dehulling equipment, identified as 5EX2, constructed in 1991, with a maximum throughput of 156.3 tons per hour, using a water knock out box for PM control.

(ii) Screening aspiration, identified as 5EX3, constructed in 1988, with a maximum throughput of 156.3 tons per hour, sharing a baghouse with 5EX1 for PM control, and exhausting to stack 5EX.

(jj) Truck meal loadout and rail meal loadout, identified as 6EX1, constructed in 1982, replaced in 1999, with a maximum throughput of 150 tons per hour, with truck meal loadout using a baghouse for PM control, and exhausting to stack 6EX, and rail meal loadout using a choke loader for intrinsic PM control of fugitive emissions.

(kk) One (1) soybean meal sizing and grinding operation, collectively identified as 7EX, approved in 2010 for construction, using a baghouse for PM control, and exhausting to stack 7EX, consisting of:

(1) One (1) meal screener, identified as 7EX1, with a maximum capacity of 176 tons per hour;

(2) Four (4) meal grinders, identified as 7EX2 through 7EX5, each with a maximum capacity of 45 tons per hour; and

(3) Associated conveyors.

(ll) One (1) leg No. 2, one (1) mixing conveyor, and one (1) bin drag, together identified as 9EX1, all constructed in 1983, with a maximum throughput of 125 tons per hour, each, using a baghouse for PM control, and exhausting to stack 9EX.

(mm) The following soybean processing equipment, together identified as 10EX1, with a maximum throughput of 333 tons per hour, each, using a baghouse for PM control, and exhausting to stack 10EX, consisting of:

(1) One (1) leg No. 3, constructed in the 1950's;

(2) One (1) tunnel drag, constructed in 1983; and

(3) One (1) meal loadout drag, constructed in 1982.

(nn) One (1) kaolin bin, identified as 11EX1, constructed in the 1950's, with a maximum throughput of 15 tons per hour, using a baghouse for PM control, and exhausting to stack 11EX.

(oo) One (1) meal loadout bin, identified as 12EX1, constructed in 1982, with a maximum throughput of 540 tons per hour, using a baghouse for PM control, and exhausting to stack 12EX.

(pp) One (1) belt to storage bowls, one (1) large storage bowl, and one (1) small storage bowl, identified as 16EX1, 16EX2, and 16EX3, respectively, all constructed in 1982, with a maximum capacity of 93 tons per hour, each, with no PM control, and exhausting to stack 16EX.

(qq) Whole bean bins, identified as 18EX1, constructed in the 1940's, with a maximum throughput of 156.3 tons per hour, total, with no PM control, and exhausting to stack 18EX.

(rr) Meal storage silos with bin vents, identified as 23EX1, constructed in the 1950's, with a maximum throughput of 125 tons per hour, total, using one (1) bin vent filter as control, exhausting to stack 23EX.

(ss) One (1) natural gas fired steam generator, identified as 110EO1, constructed in 2002, with a maximum heat input capacity of 14 MMBtu/hr, and exhausting to stack 110EO. This is an affected facility under the New Source Performance Standards for Small Industrial - Commercial - Institutional Steam Generating Units 40 CFR 60, Subpart Dc and an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

(tt) One (1) natural gas fired steam generator #3, identified as 108EO1, constructed in 1994, with a maximum heat input capacity of 14 MMBtu/hr, and exhausting to stack 108EO. This is an affected facility under the New Source Performance Standards for Small Industrial - Commercial - Institutional Steam Generating Units 40 CFR 60, Subpart Dc and an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

(uu) One (1) B & W coal fired boiler, identified as 1SP1, constructed in 1950, with a maximum heat input capacity of 108 MMBtu/hr, using multiple cyclones and a baghouse for control of particulate and HAPs, and exhausting to stack 1SP. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD and Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units 40 CFR 60, Subpart Db.

(vv) One (1) Keeler coal fired boiler, identified as 2SP1, constructed in 1963, with a maximum heat input capacity of 52.75 MMBtu/hr, using multiple cyclones and a baghouse for control of particulate and HAPs, and exhausting to stack 1SP. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

(ww) One (1) Murray natural gas fired, vegetable oil-fired, used oil-fired, and hazardous chemical fired boiler, identified as 3SP1, constructed in 1968, with a maximum heat input capacity of 110.2 MMBtu/hr, and exhausting to stack 1SP. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD and Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units 40 CFR 60, Subpart Db.

(xx) One (1) hexane extraction system, identified collectively as 24EX, modified prior to 1980, with hexane emissions from the vent system controlled by a mineral oil absorber, and exhausting to stack 24EXA. For reporting purposes, all hexane emissions are collectively accounted for in the total hexane losses named 24EX.

(1) One (1) ‘A’ unit, identified as 24EX1, consisting of 'A' pre-DT, constructed in 1996, ‘A’ DT, constructed in 1980, and the 'A' Meal Dryer, constructed in 1980, with a maximum capacity of 109.4 tons per hour, each. 'A' pre-DT is on top of and feeds the ‘A’ DT, which is on top of and feeds the ‘A’ Meal Dryer. The ‘A’ pre-DT and the 'A' DT exhaust to the hexane solvent reclaim system. The ‘A’ Meal Dryer uses an integral cyclone for product recovery, which also provides PM control, and exhausts to stack 24EX1. Hexane emissions are reported in 24EX.

(2) One (1) ‘B’ unit, identified as 24EX2, consisting of 'B' pre-DT, constructed in 1996, 'B' DT, constructed in 1980, and the 'B' Meal Dryer, constructed in 1980, with a maximum capacity of 109.4 tons per hour, each. 'B' pre-DT is on top of and feeds the ‘B’ DT which is on top of and feeds the ‘B’ Meal Dryer. The 'B' pre-DT and the ‘B’ DT exhaust to the hexane solvent reclaim system. The ‘B’ Meal Dryer uses an integral cyclone for product recovery, which also provides PM control, and exhausts to stack 24EX2. Hexane emissions are reported in 24EX.

(3) One meal cooler, identified as 24EX3, constructed in 1996, with a maximum capacity of 110 tons per hour, using two (2) integral cyclones for product recovery, which also provide PM control, exhausting to stacks 24EX3A and 24EX3B, respectively, with hexane emissions reported in 24EX.

(4) Two (2) hexane storage tanks, identified as 24EX4A and 24EX4B, constructed in 1995 and 2005, respectively, with emissions vented to the mineral oil absorber inlet, with hexane emissions reported in 24EX.

(5) One (1) wastewater system, identified as 24EX5, constructed prior to 1980, containing traces of hexane, exhausting to the extraction hot water separation pit, with hexane emissions reported in 24EX.

(6) One (1) refined oil hot well, identified as 24EX6, constructed in 1975, with hexane emissions reported in 24EX.

(7) One (1) sampling /hexane unloading port, identified as 24EX7, with hexane emissions reported in 24EX.

(8) Oil tanks containing non-deodorized oil, identified as 24EX8, venting to the atmosphere, with hexane emissions reported at 24EX.

The hexane extraction system (24EX, consisting of 24EX1 through 24EX8) are affected facilities under the National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production 40 CFR 63, Subpart GGGG.

(yy) The following soybean processing equipment, identified as 17EX2, modified in 1987, with a maximum throughput of 156.3 tons per hour, each, using a cyclone for PM control, and exhausting to stack 17EX, consisting of:

(1) One (1) flaking roll #8, constructed in 1981; and

(2) One (1) ‘B’ flake e/w drag, constructed in 1980.

(zz) Two (2) conditioners identified as 31EX1 and 31EX2 constructed in 2002, with a maximum capacity of 156.3 tons per hour for each conditioner, and exhausting internally.

(aaa) One (1) enclosed pneumatic ash conveying and loading operation, constructed in the 1950's, identified as emission unit 8SP1 and 8SP2, with a maximum throughput of 13.8 tons per hour, using a baghouse for emission control, and exhausting to stack 1SP. The ash loading operation uses water spray for fugitive emission mitigation.

(bbb) One (1) batch enzyme bag unloader, with a maximum throughput rate of 51 tons per year, identified as 112EO1, approved in 2009 for construction, using a baghouse for emission control and exhausting to stack 112EO.

This emission unit is not an affected facility under the National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production 40 CFR 63, Subpart GGGG.

(ccc) One (1) pelletizer/pellet cooler to produce pellets from the existing dehulling/grinding (millfeed) system, approved in 2009 for construction, with a maximum rate of 10 tons per hour, identified as 32EX1, using a high efficiency cyclone for emission control and exhausting to stack 32EX.

(ddd) One (1) totally enclosed conveyor, approved in 2009 for construction, with a maximum rate of 10 tons per hour, identified as 32EX2.

(eee) One (1) loadout bin, identified as 29EX1, constructed in 1994, with a maximum throughput of 10 tons per hour, using a bin vent filter for PM control, and exhausting to stack 29EX.

(fff) One (1) natural gas-fired boiler, identified as 9SP1, approved for construction in 2012, with a maximum heat input capacity of 99 MMBtu/hr, equipped with low NOx burners and flue gas recirculation (FGR) for NOx control, and exhausting to stack 9SP. This is an

affected facility under the New Source Performance Standards for Small Industrial - Commercial - Institutional Steam Generating Units 40 CFR 60, Subpart Dc and an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

(ggg) One (1) Millfeed storage bin, identified as 22EX, with a maximum capacity of 156.3 tons/hr, using fabric filter as control and exhausting to stack 22EX.

(hhh) One (1) Coal receiving, handling and storage operation, identified as 6SP, with a maximum capacity of 150 tons/hr each and exhausting to stack 6SP.

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

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

(a) Paved and unpaved roads and parking lots with public access [326 IAC 6-4].

(b) Stationary fire pumps, as follows;

(1) Two (2) stationary diesel-fired fire pump engine, constructed in 1980, permitted in 2008, with a maximum power output rate of 380 hp.

(2) One (1) stationary diesel-fired fire pump engine, permitted in 2008, with a maximum power output rate of 85 hp.

This is an affected source under National Emission Standards for Hazardous Air Pollutants: Stationary Reciprocating Internal Combustion Engines [40 CFR 63, Subpart ZZZZ] and New Standards of Performance (NSPS) for Stationary Compression Ignition Internal Combustion Engines [40 CFR 60, Subpart IIII].

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

This stationary source also includes the following insignificant activities:

(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.

(c) Combustion source flame safety purging on start-up.

(d) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.

(e) A petroleum fuel, other than gasoline, dispensing facility having a storage capacity less than or equal to 10,500 gallons, and dispensing less than or equal to 23,000 gallons per month.

(f) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.

(g) Machining where an aqueous cutting coolant continuously floods the machining interface.

(h) Degreasing operations that do not exceed 145 gallons per 12 months, and not subject to 326 IAC 20-6.

(i) Cleaners and solvents characterized as follows:

(1) having a vapor pressure equal to or less than 2 kPa; 15 mmHg; or 0.3 psi measured at 38 degrees C (100°F); or

(2) having a vapor pressure equal to or less than 0.7 kPa; 5 mmHg; or 0.1 psi measured at 20 degrees C (68°F);

the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(j) Closed loop heating and cooling systems.

(k) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.

(l) Water based adhesives that are less than or equal to 5% by volume of VOCs, excluding HAPs.

(m) Noncontact cooling tower systems with natural draft cooling towers not regulated under a NESHAP.

(n) Replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other filtrations equipment.

(o) Heat exchanger cleaning and repair.

(p) Process vessel degreasing and cleaning to prepare for internal repairs.

(q) Underground conveyors.

(r) Coal bunker and coal scale exhausts and associated dust collector vents.

(s) Asbestos abatement projects regulated by 326 IAC 14-10.

(t) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.

(u) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.

(v) Blowdown for any of the following: sight glass, boiler, compressors, pumps, and cooling tower.

(x) Purge double block and bleed valves.

(y) Filter or coalescer media changeout.

(z) Vents from ash transport systems not operated at positive pressure.

(aa) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(bb) Emission units with PM and PM10 emissions less than five (5) tons per year, SO2, NOx, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, lead emissions less than two-tenths (0.2) tons per year, single HAP emissions less than one (1) ton per year, and combination of HAPs emissions less than two and a half (2.5) tons per year, consisting of:

(1) One (1) acetic anhydride storage tank.

(2) One (1) Hoffman vacuum system, for housekeeping.

(3) One (1) elevator/railcar pest control/fumigation.

(4) One (1) Flake drag air brake fan, 15EX.

A.5 Part 70 Permit Applicability [326 IAC 2-7-2]

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

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

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

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

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

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

(a) This permit, T001-31996-00005, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

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

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

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

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

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

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

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

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

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

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

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

(1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(35), and

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

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

(c) A "responsible official" is defined at 326 IAC 2-7-1(35).

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

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

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

and

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

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

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

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

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

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

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

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

The Permittee shall implement the PMPs.

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

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

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

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

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

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

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

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

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

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

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

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

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

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

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(8) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

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

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

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

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to

be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

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

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

(a) All terms and conditions of permits established prior to T001-31996-00005 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised under 326 IAC 2-7-10.5, or

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

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

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

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

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit.
[326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.16 Permit Renewal [326 IAC 2-7-3] [326 IAC 2-7-4] [326 IAC 2-7-8(e)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Request for renewal shall be submitted to:

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

(b) A timely renewal application is one that is:

(1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

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

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source’s failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

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

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

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

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

B.18 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12(b)(2)]

(a) No Part 70 permit revision or notice shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.19 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

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

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

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

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

and

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

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

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)(1) and (c)(1). The Permittee shall make such records available, upon reasonable request, for public review.

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

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

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

(e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.20 Source Modification Requirement [326 IAC 2-7-10.5]

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

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

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

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)] [326 IAC 2-1.1-7]

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

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.24 Advanced Source Modification Approval [326 IAC 2-7-5(16)] [326 IAC 2-7-10.5]

(a) The requirements to obtain a source modification approval under 326 IAC 2-7-10.5 or a permit modification under 326 IAC 2-7-12 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2 and A.3.

(b) Pursuant to 326 IAC 2-1.1-9 any permit authorizing construction may be revoked if construction of the emission unit has not commenced within eighteen (18) months from the date of issuance of the permit, or if during the construction, work is suspended for a continuous period of one (1) year or more.

B.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 5-1-1 (Applicability) and 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

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

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

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

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

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

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

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

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using ambient air quality modeling pursuant to 326 IAC 1-7-4. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.

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

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least

thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Licensed Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to

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

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

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

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

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

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

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

C.10 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)][40 CFR 64][326 IAC 3-8]

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

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

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

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

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

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

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

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

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

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

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

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

(b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.13 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

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

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

(I) Upon detecting an excursion where a response step is required by the D Section, or an exceedance of a limitation, not subject to CAM, in this permit:

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

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

(1) initial inspection and evaluation;

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

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

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

(1) monitoring results;

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

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

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

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

(II)

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

(1) Upon detecting an excursion or exceedance, subject to CAM, the Permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return

operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(2) Determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

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

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

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

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

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

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

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

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

(h) *CAM recordkeeping requirements.*

(1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to paragraph (II)(a)(2) of this

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

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

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.

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

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

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

C.16 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]

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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following:

(AA) All calibration and maintenance records.
(BB) All original strip chart recordings for continuous monitoring instrumentation.
(CC) Copies of all reports required by the Part 70 permit.

Records of required monitoring information include the following:

(AA) The date, place, as defined in this permit, and time of sampling or measurements.
(BB) The dates analyses were performed.
(CC) The company or entity that performed the analyses.
(DD) The analytical techniques or methods used.
(EE) The results of such analyses.
(FF) The operating conditions as existing at the time of sampling or measurement.

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

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

(c) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A), 326 IAC 2-2-8 (b)(6)(B), 326 IAC 2-3-2 (l)(6)(A), and/or 326 IAC 2-3-2 (l)(6)(B)) that a “project” (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) 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(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the “projected actual emissions” (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:

(1) Before beginning actual construction of the “project” (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) 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(pp)(2)(A)(iii) and/or 326 IAC 2-3-1 (kk)(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 326 IAC 2-2-8 (b)(6)(A) and/or 326 IAC 2-3-2 (l)(6)(A)) that a "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) 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(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), 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.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [40 CFR 64][326 IAC 3-8]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(b) The address for report submittal is:

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

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

(d) 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.

(e) 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 (oo) and/or 326 IAC 2-3-1 (jj)) 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 (ww) and/or 326 IAC 2-3-1 (pp), 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).

(f) The report for project at an existing emissions unit shall be submitted no later than 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 wishes to include in this report such as an explanation as to why the emissions differ from the preconstruction projection.

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

(g) 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.19 Compliance with 40 CFR 82 and 326 IAC 22-1

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Grain Handling and Grain Drying Facilities

(a) Truck Dump #2, identified as 1EL1, constructed in 1980, with a maximum capacity of 600 tons per hour, using a baghouse for particulate matter (PM) control, and exhausting to stack 1EL. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD.

(b) The following grain elevator East Workhouse components, together identified as 2EL1, with a maximum throughput of 270 tons per hour (Bottlenecked to 240 tons per hour), each, unless otherwise stated, using a baghouse and oil suppressant for PM control, and exhausting to stack 2EL, consisting of:

(1) One (1) Megatex screener, approved for construction in 2013, with a maximum throughput of 300 tons per hour, using a baghouse, identified as 2EL4, for particulate control, and exhausting to stack 2EL4. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD;

(2) One (1) #1 scalperator, constructed in 2011 and approved for modification in 2013, with a maximum throughput of 120 tons per hour, using a baghouse, identified as 2EL4, for particulate control, and exhausting to stack 2EL4. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD;

(3) One (1) #2 scalperator, constructed in 2011 and approved for modification in 2013, with a maximum throughput of 120 tons per hour, using a baghouse, identified as 2EL4, for particulate control, and exhausting to stack 2EL4. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD;

(4) One (1) ext. screening bin, constructed prior to 1977;

(5) One (1) screening bin, constructed prior to 1977;

(6) One (1) solvent screening leg, constructed prior to 1977;

(7) One (1) #1 leg, constructed prior to 1977;

(8) One (1) #2 leg, constructed prior to 1977;

(9) One (1) #3 leg, constructed prior to 1977;

(10) One (1) west to east Hi-Roller, constructed prior to 1977;

(11) One (1) west to east belt loader, constructed prior to 1977;

(12) One (1) dry bean leg, constructed prior to 1977;

(13) One (1) #1 dryer Hi-Roller, constructed prior to 1977;

(14) One (1) weaver's belt, constructed prior to 1977; and

(15) One (1) 102 belt, constructed prior to 1977.

(c) One (1) hammermill, permitted in 2010 for construction, identified as 2EL2, with a maximum capacity of 5.60 tons per hour, using a baghouse as control (Unit ID 2EL2), and exhausting to stack 2EL2.

(d) One (1) pneumatic conveying system, permitted in 2010 for construction, identified as 2EL3, with a maximum capacity of 5.60 tons per hour, using a baghouse for control (Unit ID 22EX2) as control, and exhausting to stack 22EX2.

(e) The following grain elevator components, together identified as 5EL1, with a maximum throughput of 900 tons per hour, each, using a baghouse and oil suppressant for PM control, and exhausting to stack 5EL, consisting of:

(1) One (1) north tripper buggy, constructed prior to 1977;

(2) One (1) north galley belt loader, constructed prior to 1977;

(3) One (1) east west belt, constructed prior to 1977; and

(4) One (1) bin 102, constructed prior to 1977.

(f) One (1) north west receiving house enclosed conveyor identified as 8EL1, constructed prior to 1977, with a maximum throughput of 360 tons per hour, using oil suppressant for PM control, with no aspiration.

(g) The following grain elevator components together identified as 10EL1, with a maximum throughput of 720 tons per hour, each, using a baghouse and oil suppressant for PM control, and exhausting to stack 10EL, consisting of:

(1) One (1) rail loadout, constructed in 1984. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD;

(2) One (1) rail receiving, constructed in 1960;

(3) One (1) north leg, constructed prior to 1960; and

(4) One (1) south leg, constructed prior to 1960.

(h) The following grain elevator components together identified as 14EL1, with a maximum throughput of 600 tons per hour, each, using a baghouse and oil suppressant for PM control, and exhausting to stack 14EL, consisting of:

(1) One (1) jumbo silo east galley belt, constructed prior to 1977;

(2) One (1) jumbo silo west galley belt, constructed prior to 1977; and

(3) One (1) jumbo silo crossover galley belt, constructed prior to 1977.

(i) One (1) natural gas fired grain dryer #2, identified as 19EL1, constructed in 1995, with a maximum capacity 60 tons per hour and a maximum heat input capacity of 7 MMBtu/hr, using self-cleaning screens for PM control, and exhausting to vent 19EL. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD.

(j) One (1) truck dump #7, identified as 20EL1, constructed in 1997, with a maximum throughput of 450 tons per hour, consisting of one (1) weigh scale truck unloading pit, and two (2)

enclosed bucket elevator legs, using two (2) baghouses in parallel for PM control, and exhausting to stack 20EL. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD.

(k) One (1) natural gas fired grain dryer #1, identified as 16EL1, constructed in 1986, with a maximum capacity of 75 tons per hour and a maximum heat input capacity of 7 MMBtu/hr, using self-cleaning screens for PM control, and exhausting to stack 16EL. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD.

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

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

D.1.1 PSD Minor Limits [326 IAC 2-2]

(a) Pursuant to CP 001-4673-00005, issued May 10, 1996, and AA 001-9930-00005, issued September 17, 1998:

(1) The amount of soybean grains processed after the grain dryers shall be limited to less than 1,368,750 tons per twelve (12) consecutive month period, with compliance determined at the end of each month, and

(2) The PM emissions from emission unit 19EL1 shall be limited to less than 1.36 pounds per hour and the PM10 emissions from emission unit 19EL1 shall be limited to less than 0.283 pounds per hour.

These limits, in combintion with the limits in Condition D.2.1, restrict the net increases of PM and PM_{10} emissions from the modification in 1996 to below the PSD significant levels of twenty-five (25) and fifteen (15) tons per year, respectively. This will render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the modification performed in 1996.

D.1.2 PSD Minor Limits [326 IAC 2-2]

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

(a) The total emissions from the Megatex screener, #1 scalperator, and #2 scalperator shall be limited to the following:

(1) The PM emission rate from the Megatex screener, #1 scalperator, and #2 scalperator, controlled by the baghouse for 2EL4, shall not exceed 5.7 pounds per hour,

(2) The PM_{10} emission rate from the Megatex screener, #1 scalperator, and #2 scalperator, controlled by the baghouse for 2EL4, shall not exceed 3.40 pounds per hour, and

(3) The $PM_{2.5}$ emission rate from the Megatex screener, #1 scalperator, and #2 scalperator, controlled by the baghouse for 2EL4, shall not exceed 2.28 pounds per hour.

Compliance with these limits shall limit the potential to emit from this modification to less than twenty-five (25) tons of PM, less than fifteen (15) tons of PM_{10} and less than ten (10) tons of $PM_{2.5}$ per twelve (12) consecutive month period and render the requirements of 326 IAC 2-2 not applicable to the Megatex screener, #1 scalperator, and #2 scalperator.

(b) The PM/PM_{10} emissions from the hammermill plenum baghouse filter, Unit ID 2EL2, shall not exceed 0.17 lb/hr.

(c) The PM/PM_{10} emissions from the screenings pneumatic conveyor baghouse filter, Unit ID 2EL3, shall not exceed 0.03 lb/hr.

Compliance with these limits shall limit the potential to emit from this modification to less than twenty-five (25) tons of PM and less than fifteen (15) tons of PM_{10} per twelve (12) consecutive month period and render the requirements of 326 IAC 2-2 not applicable.

D.1.3 Particulate Matter (PM) [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)
1EL1	600	71.16
2EL1	240	60.50
2EL2	5.6	13.00
2EL3	5.6	13.00
5EL1	900	76.23
8EL1	360	65.09
10EL1	720	73.41
14EL1	600	71.16
16EL1	75	48.43
19EL1	60	46.29
20EL1	450	67.70
Megatex Screener	300	63.00
#1 Scalperator	120	53.13
#2 Scalperator	120	53.13

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 60,000 pounds per hour shall be accomplished by use of the equation:

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

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

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

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

D.1.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) In order to demonstrate compliance with Condition D.1.2(a)(1), (2), (3), and D.1.3 the Permittee shall perform PM and PM_{10} testing of the baghouse, unit ID 2EL4, when only the Megatex screener, #1 scalperator and #2 scalperator is operating, utilizing methods as approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM_{10} includes filterable and condensable PM.

(b) In order to demonstrate compliance with Condition D.1.2(c), the Permittee shall perform PM and PM_{10} testing of the hammermill plenum baghouse filter, unit ID 2EL2, utilizing methods as approved by the Commissioner at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM_{10} includes filterable and condensable PM.

D.1.6 Particulate Matter (PM)

(a) In order to comply with Conditions D.1.1, D.1.2, and D.1.3 the baghouses for particulate control shall be in operation and control emissions from 1EL1, 2EL1, Megatex screener, #1 scalperator, #2 scalperator, 2EL2, 2EL3, 5EL1, 10EL1, 14EL1, and 20EL1 at all times that these processes are in operation.

(b) In order to comply with Conditions D.1.1 and D.1.3, the self-cleaning screens for PM control shall be in operation and control emissions from 19EL1 and 16 EL1 at all times that these processes are in operation.

(c) In order to comply with Conditions D.1.1 and D.1.3, dust control oil shall be applied on all grain received at the dump pits serving the emission units identified as 2EL1, 5EL1, 8EL1, 10EL1, and 14EL1.

(d) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

D.1.7 Visible Emissions Notations

(a) Daily visible emission notations of the grain handling and grain drying stack exhausts/vents (2EL, 2EL2, 22EX2, 5EL, 19EL, 16EL) shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

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

D.1.8 Visible Emissions Notations [40 CFR 64 (CAM)]

(a) Daily visible emission notations of the grain handling and grain drying stack exhausts/vents (1EL, 10EL, 14EL, 20EL) shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

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

D.1.9 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses used in conjunction with 2EL1, 2EL2, 2EL3, 2EL4, and 5EL1 at least once per day when the associated facilities are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range the Permittee shall take a reasonable response. The normal range for these units is a pressure drop between 0.5 and 10.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C – Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

D.1.10 Parametric Monitoring [40 CFR 64 (CAM)]

The Permittee shall record the pressure drop across the baghouses used in conjunction with 1EL1, 14EL1, 10EL1, and 20EL1 at least once per day when the associated facilities are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range the Permittee shall take a reasonable response. The normal range for these units is a pressure drop between 0.5 and 10.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C – Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

D.1.11 Broken or Failed Bag Detection

(a) For a single compartment baghouses 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 have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

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

D.1.12 Record Keeping Requirements

(a) To document the compliance status with Condition D.1.1, the Permittee shall maintain monthly records of the amount of soybean grains processed after the grain dryers.

(b) To document the compliance status with Condition D.1.7 and D.1.8, the Permittee shall maintain a daily record of visible emission notations of the grain handling processes' stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(c) To document the compliance status with Condition D.1.9 and D.1.10, the Permittee shall maintain a daily record of the pressure drop across the baghouses controlling the grain handling processes. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

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

D.1.13 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.1.1(a)(1) shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Grain Handling and Soybean Meal Production Facilities

(k) Silo bin vents, identified as 3EL1, constructed prior to 1977, with a maximum throughput of 900 tons per hour, total, using soybean oil as a dust suppressant, and exhausting to vent 3EL.

(l) Silo direct loadout, identified as 4EL1, constructed prior to 1977, with a maximum throughput of 270 tons per hour, using soybean oil as a dust suppressant.

(m) One (1) south tripper buggy, one (1) south galley belt loader, and one (1) north south belt, identified as 6EL1, all constructed prior to 1977, with a maximum throughput of 900 tons per hour, each, using a baghouse and oil suppressant for PM control, and exhausting to stack 6EL.

(n) One (1) south west receiving house enclosed conveyor, identified as 7EL1, constructed prior to 1977, with a maximum throughput of 360 tons per hour, using oil suppressant for PM control with no aspiration.

(o) One (1) truck dump #3, identified as 9EL1, constructed in 1976, with a maximum throughput of 900 tons per hour, using a baghouse for PM control, and exhausting to stack 9EL.

(p) One (1) truck dump #5, identified as 12EL1, constructed prior to 1977, with a maximum throughput of 600 tons per hour, using a baghouse for PM control, and exhausting to stack 12EL.

(q) One (1) jumbo silo east tunnel belt, one (1) jumbo silo west tunnel belt, and one (1) jumbo silo crossover tunnel belt, identified as 13EL1, all constructed prior to 1977, with a maximum throughput of 360 tons per hour, each, using a baghouse and oil suppressant for PM control, and exhausting to stack 13EL.

(r) One (1) truck dump #6, identified as 15EL1, constructed prior to 1977, with a maximum throughput of 360 tons per hour, using a baghouse for PM control, and exhausting to stack 15EL.

(t) Two (2) natural gas fired grain dryers, #4 and #5, identified as 17EL1, constructed in the 1960's, with a maximum capacity of 150 tons per hour and a maximum heat input capacity of 14 MMBtu/hr, total, using self-cleaning screens for PM control, and exhausting to vent 17EL.

(u) One (1) Lec. Dept. filter aid unit, identified as 204RO1, constructed in 1980, with a maximum throughput of 2.5 tons per hour, using a baghouse for PM control, and exhausting to stack 204RO.

(v) Daily use bins, identified as 102EO1, constructed in 1976, with a maximum throughput of 2.5 tons per hour, each, using a baghouse for PM control, and exhausting to stack 102EO.

(w) Filter aid silos, identified as 103EO1, constructed in 1976, with a maximum throughput of 16 tons per hour, each, using a baghouse for PM control, and exhausting to stack 103EO.

(y) Salt conveying, identified as 4SP1, constructed in 1981, with a maximum throughput of 21 tons per hour, using a baghouse for PM control, and exhausting to stack 4SP.

(z) Six (6) flaking rolls, #1, #2, #3, #4, #5, and #6, constructed in 1996, and B flake n/s drag, constructed in 1991, all identified together as 1EX1, with a maximum throughput of 93.1 tons per hour, total, using fabric filters for PM control, and exhausting to stack 1EX.

(aa) One (1) flaking roll #14 and flaking roll discharge #14, identified as 1EX2, constructed in 1991, with a maximum throughput of 93.1 tons per hour, each, using fabric filters for PM control, and exhausting to stack 1EX.

(bb) The following soybean processing equipment, together identified as 3EX1, with a maximum throughput of 48.8 tons per hour, each, sharing a cyclone with 3EX2 for PM control, and exhausting to stack 3EX, consisting of:

(1) Four (4) flaking rolls, #9, #10, #11, and #12, constructed in 1978;

(2) One (1) flaking roll #13, constructed in 1985;

(3) One (1) 'A' flake n/s drag, constructed in 1993; and

(4) One (1) 'A' flake e/w drag, constructed in 1993.

(cc) One (1) north run around drag, identified as 3EX2, constructed in 1984, with a maximum throughput of 48.8 tons per hour, sharing a cyclone with 3EX1, and exhausting to stack 3EX.

(dd) The following soybean processing equipment, together identified as 4EX1, with a maximum throughput of 156.3 tons per hour, each, sharing a baghouse with 4EX2 and 4EX3 for PM control, and exhausting to stack 4EX, consisting of:

(1) One (1) whole bean scale, constructed in 1989;

(2) One (1) 'A' whole bean leg, constructed in 1997;

(3) One (1) 'A' surge bin, constructed prior to 1979;

(4) One (1) whole bean drag, constructed in 1981; and

(5) One (1) 'B' surge bin, constructed prior to 1979.

(ee) A run around rework screw, identified as 4EX2, constructed in 1991, with a maximum throughput of 156.3 tons per hour, sharing a baghouse with 4EX1 and 4EX3 for PM control, and exhausting to stack 4EX.

(ff) The following soybean processing equipment, together identified as 4EX3, with a maximum throughput of 156.3 tons per hour, each, sharing a baghouse with 4EX1 and 4EX2 for PM control, and exhausting to stack 4EX, consisting of:

(1) One (1) hull refining screw conveyor, constructed in 1991;

(2) One (1) hull refining process, constructed in 1991; and

(3) One (1) hull grinding process, constructed in 1987.

(gg) Dehulling equipment, identified as 5EX1, constructed in 1997, with a maximum throughput of 156.3 tons per hour, sharing a baghouse with 5EX3 for PM control, and exhausting to stack 5EX.

(hh) Hot dehulling equipment, identified as 5EX2, constructed in 1991, with a maximum throughput of 156.3 tons per hour, using a water knock out box for PM control.

(ii) Screening aspiration, identified as 5EX3, constructed in 1988, with a maximum throughput of 156.3 tons per hour, sharing a baghouse with 5EX1 for PM control, and exhausting to stack 5EX.

(jj) Truck meal loadout and rail meal loadout, identified as 6EX1, constructed in 1982, replaced in 1999, with a maximum throughput of 150 tons per hour, with truck meal loadout using a baghouse for PM control, and exhausting to stack 6EX, and rail meal loadout using a choke loader for intrinsic PM control of fugitive emissions.

(kk) One (1) soybean meal sizing and grinding operation, collectively identified as 7EX, approved in 2010 for construction, using a baghouse for PM control, and exhausting to stack 7EX, consisting of:

(1) One (1) meal screener, identified as 7EX1, with a maximum capacity of 176 tons per hour;
(2) Four (4) meal grinders, identified as 7EX2 through 7EX5, each with a maximum capacity of 45 tons per hour; and

(3) Associated conveyors.

(ll) One (1) leg No. 2, one (1) mixing conveyor, and one (1) bin drag, together identified as 9EX1, all constructed in 1983, with a maximum throughput of 125 tons per hour, each, using a baghouse for PM control, and exhausting to stack 9EX.

(mm) The following soybean processing equipment, together identified as 10EX1, with a maximum throughput of 333 tons per hour, each, using a baghouse for PM control, and exhausting to stack 10EX, consisting of:

(1) One (1) leg No. 3, constructed in the 1950's;

(2) One (1) tunnel drag, constructed in 1983; and

(3) One (1) meal loadout drag, constructed in 1982.

(nn) One (1) kaolin bin, identified as 11EX1, constructed in the 1950's, with a maximum throughput of 15 tons per hour, using a baghouse for PM control, and exhausting to stack 11EX.

(oo) One (1) meal loadout bin, identified as 12EX1, constructed in 1982, with a maximum throughput of 540 tons per hour, using a baghouse for PM control, and exhausting to stack 12EX.

(pp) One (1) belt to storage bowls, one (1) large storage bowl, and one (1) small storage bowl, identified as 16EX1, 16EX2, and 16EX3, respectively, all constructed in 1982, with a maximum capacity of 93 tons per hour, each, with no PM control, and exhausting to stack 16EX.

(qq) Whole bean bins, identified as 18EX1, constructed in the 1940's, with a maximum throughput of 156.3 tons per hour, total, with no PM control, and exhausting to stack 18EX.

(rr) Meal storage silos with bin vents, identified as 23EX1, constructed in the 1950's, with a maximum throughput of 125 tons per hour, total, using one (1) bin vent filter as control, exhausting to stack 23EX.

(xx) One (1) hexane extraction system, identified collectively as 24EX, modified prior to 1980, with

hexane emissions from the vent system controlled by a mineral oil absorber, and exhausting to stack 24EXA. For reporting purposes, all hexane emissions are collectively accounted for in the total hexane losses named 24EX.

(1) One (1) 'A' unit, identified as 24EX1, consisting of 'A' pre-DT, constructed in 1996, 'A' DT, constructed in 1980, and the 'A' Meal Dryer, constructed in 1980, with a maximum capacity of 109.4 tons per hour, each. 'A' pre-DT is on top of and feeds the 'A' DT, which is on top of and feeds the 'A' Meal Dryer. The 'A' pre-DT and the 'A' DT exhaust to the hexane solvent reclaim system. The 'A' Meal Dryer uses an integral cyclone for product recovery, which also provides PM control, and exhausts to stack 24EX1. Hexane emissions are reported in 24EX.

(2) One (1) 'B' unit, identified as 24EX2, consisting of 'B' pre-DT, constructed in 1996, 'B' DT, constructed in 1980, and the 'B' Meal Dryer, constructed in 1980, with a maximum capacity of 109.4 tons per hour, each. 'B' pre-DT is on top of and feeds the 'B' DT which is on top of and feeds the 'B' Meal Dryer. The 'B' pre-DT and the 'B' DT exhaust to the hexane solvent reclaim system. The 'B' Meal Dryer uses an integral cyclone for product recovery, which also provides PM control, and exhausts to stack 24EX2. Hexane emissions are reported in 24EX.

(3) One meal cooler, identified as 24EX3, constructed in 1996, with a maximum capacity of 110 tons per hour, using two (2) integral cyclones for product recovery, which also provide PM control, exhausting to stacks 24EX3A and 24EX3B, respectively, with hexane emissions reported in 24EX.

(yy) The following soybean processing equipment, identified as 17EX2, modified in 1987, with a maximum throughput of 156.3 tons per hour, each, using a cyclone for PM control, and exhausting to stack 17EX, consisting of:

(1) One (1) flaking roll #8, constructed in 1981; and

(2) One (1) 'B' flake e/w drag, constructed in 1980.

(zz) Two (2) conditioners identified as 31EX1 and 31EX2 constructed in 2002, with a maximum capacity of 156.3 tons per hour for each conditioner, and exhausting internally.

(aaa) One (1) enclosed pneumatic ash conveying and loading operation, constructed in the 1950's, identified as emission unit 8SP1 and 8SP2, with a maximum throughput of 13.8 tons per hour, using a baghouse for emission control, and exhausting to stack 1SP. The ash loading operation uses water spray for fugitive emission mitigation.

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

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

D.2.1 PSD Minor Limits [326 IAC 2-2]

The Permittee shall comply with the following:

(a) The amount of soybean grains processed after the grain dryers shall be limited to less than 1,368,750 tons per twelve (12) consecutive month period, with compliance determined at the end of each month, and

(b) Pursuant to CP 001-4673-00005, issued May 10, 1996 and AA 001-9930-00005, issued September 17, 1998, the PM and PM10 emissions shall be limited as follows:

EU ID	**Stack ID**	**PM Limit** (lb/hr)	**PM_{10} Limit** (lb/hr)
19EL1	19EL	1.36	0.283
1EX1, 1EX2	1EX	0.474	0.474
4EX1, 4EX2, 4EX3	4EX	1.441	1.441
5EX1, 5EX3	5EX	1.505	1.505
5EX2	33EX	0.171	0.171
24EX1	24EX1	6.79	6.79
24EX2	24EX2	6.79	6.79
24EX3	24EX3A, 24EX3B	2.18, each	2.18, each
23EX1	23EX	0.021	0.021
6EX1	6EX	2.218	2.218

These limits, in combintion with the limits in Condition D.1.1 and D.2.1(a), restrict the net increases of PM and PM_{10} emissions from the modification in 1996 to below the PSD significant levels of twenty-five (25) and fifteen (15) tons per year, respectively. This will render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the modification performed in 1996.

(c) Pursuant to SSM No. 001-29100-00005, the PM and PM_{10} emissions shall be limited as follows:

EU ID	**Stack ID**	**PM Limit** (lb/hr)	**PM_{10} Limit** (lb/hr)
7EX	7EX	0.514	0.514

These limits, in combintion with the limits in Condition D.2.1(a), restrict the increase of PM and PM_{10} emissions from SSM No. 001-29100-00005 to below the PSD significant levels of twenty-five (25) and fifteen (15) tons per year, respectively. This will render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to SSM No. 001-29100-00005.

D.2.2 Particulate Matter (PM) [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)
102EO1	2.5	7.58
103EO1	16	26.28
10EX1	333	64.19
11EX1	15	25.16
12EL1	600	71.16
12EX1	540	69.88
13EL1	360	65.09
15EL1	360	65.09
16EX1	93	50.55
16EX2	93	50.55
16EX3	93	50.55
17EL1	150	55.44
17EX2	156.3	55.87
18EX1	156.3	55.87

Unit	**Process Weight Rate** (ton/hr)	**PM Limit** (lb/hr)
19EL1	60	46.29
1EX1	93.1	50.56
1EX2	93.1	50.56
204RO1	2.5	7.58
23EX1	125	53.55
24EX1	109.4	52.18
24EX2	109.4	52.18
24EX3	110	52.24
31EX1	156.3	55.87
31EX2	156.3	55.87
3EL1	900	76.23
3EX1	48.8	44.35
3EX2	48.8	44.35
4EL1	270	61.82
4EX1	156.3	55.87
4EX2	156.3	55.87
4EX3	156.3	55.87
4SP1	21	31.53
5EX1	156.3	55.87
5EX2	156.3	55.87
5EX3	156.3	55.87
6EL1	900	76.23
6EX1	150	55.44
7EL1	360	65.09
7EX1	176	57.13
7EX2	45	43.60
7EX3	45	43.60
7EX4	45	43.60
7EX5	45	43.60
8EL1	360	65.09
8SP1	13.8	23.80
8SP2	13.8	23.80
9EL1	900	76.23
9EX1	125	53.55
Conveyor (each)	176	57.13

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

D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

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

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

D.2.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) In order to demonstrate compliance with Condition D.2.1(c), the Permittee shall perform PM and PM_{10} testing of the meal sizing and grinding operation, unit ID 7EX, utilizing methods as approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM_{10} includes filterable and condensablePM.

(b) In order to demonstrate compliance with Condition D.2.1(b), the Permittee shall perform PM and PM_{10} testing of the hot dehulling equipment (5EX2), within sixty (60) days after achieving the maximum capacity, but not later than one hundred eighty (180) days after initial startup, utilizing methods as approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee’s obligation with regard to the performance testing required by this condition. Testing shall be conducted in accordance with Section C - Performance Testing. PM_{10} includes filterable and condensible PM_{10}.

D.2.5 Particulate Matter (PM)

(a) In order to comply with Conditions D.2.1 and D.2.2, the baghouses, filters, and cyclones for PM control shall be in operation and control emissions from the listed facilities at all times that these facilities are in operation.

(b) In order to comply with Conditions D.2.1 and D.2.2, dust control oil shall be applied on all grain received at the dump pits serving the emission units identified as 3EL1, 4EL1, 6EL1, 7EL1, and 13 EL1.

(c) In order to comply with Conditions D.2.1 and D.2.2, the self-cleaning screens for PM control shall be in operation and control emissions from the grain dryers #4 and #5 (17EL1) at all times that these facilities are in operation.

(d) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.2.6 Particulate Matter (PM)

In order to comply with Condition D.2.1(c), the baghouse shall be in operation and control emissions from the meal sizing and grinding operation, unit ID 7EX, at all times when the equipment is in operation.

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

D.2.7 Visible Emissions Notations

(a) Visible emission notations of the grain handling, grain drying, and soybean meal production stack exhausts/vents (6EL, 12EL, 13EL, 15EL, 17EL, 204RO, 102EO, 103EO, 4SP, 1EX, 3EX, 4EX, 5EX, 9EX, 10EX, 11EX, 12EX, 23EX, 33EX, 1SP, and 17EX) shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

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

D.2.8 Visible Emissions Notations [326 IAC 6-3-2]

(a) Visible emission notations of the grain handling, grain drying, and soybean meal production stack exhausts/vents (24EX1, 24EX2, 24EX3A, and 24EX3B) shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

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

D.2.9 Visible Emissions Notations [40 CFR 64 (CAM)]

(a) Visible emission notations of the grain handling, grain drying, and soybean meal production stack exhausts/vents (9EL, 6EX, and 7EX) shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

counting startup or shut down time.

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

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

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

D.2.10 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses used in conjunction with 6EL1, 12EL1, 13EL1, 15EL1, 204RO1, 102EO1, 103EO1, 4SP1, 1EX1, 1EX2, 4EX1, 4EX2, 4EX3, 5EX1, 5EX3, 9EX1, 10EX1, 11EX1, and 12EX1 at least once per day when the associatedfacilities are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range, the Permittee shall take a reasonable response. The normal range for this unit is a pressure drop between 0.5 and 12.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C – Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

D.2.11 Parametric Monitoring [40 CFR 64 (CAM)]

The Permittee shall record the pressure drop across the baghouses used in conjunction with 9EL1, 6EX1, 7EX and 8SP1 at least once per day when the associatedfacilities are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range, the Permittee shall take a reasonable response. The normal range for this unit is a pressure drop between 0.5 and 12.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C – Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

D.2.12 Broken or Failed Bag Detection

(a) For a single compartment baghouses 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 have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

D.2.13 Cyclone Failure Detection

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emission unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

D.2.14 Record Keeping Requirements

(a) To document the compliance status with Condition D.2.1, the Permittee shall maintain monthly records of the amount of soybean grains processed after the grain dryers.

(b) To document the compliance status with Condition D.2.7, D.2.8 and D.2.9, the Permittee shall maintain a daily record of visible emission notations of the grain handling and soybean meal production processes' stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(c) To document the compliance status with Condition D.2.10 and D.2.11, the Permittee shall maintain a daily record of the pressure drop across the baghouses controlling the grain handling and soybean meal production processes. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

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

D.2.15 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.2.1(a)(1) shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee’s obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official” as defined by 326 IAC 2-7-1(35).

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Boilers and Heaters

(x) One (1) natural gas fired hydrogen generator furnace, identified as 107EO1, constructed in 1992, with a maximum heat input capacity of 25.2 MMBtu/hr, and exhausting to stack 107EO. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

(ss) One (1) natural gas fired steam generator, identified as 110EO1, constructed in 2002, with a maximum heat input capacity of 14 MMBtu/hr, and exhausting to stack 110EO. This is an affected facility under the New Source Performance Standards for Small Industrial - Commercial - Institutional Steam Generating Units 40 CFR 60, Subpart Dc and an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

(tt) One (1) natural gas fired steam generator #3, identified as 108EO1, constructed in 1994, with a maximum heat input capacity of 14 MMBtu/hr, and exhausting to stack 108EO. This is an affected facility under the New Source Performance Standards for Small Industrial - Commercial - Institutional Steam Generating Units 40 CFR 60, Subpart Dc and an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

(uu) One (1) B & W coal fired boiler, identified as 1SP1, constructed in 1950, with a maximum heat input capacity of 108 MMBtu/hr, using multiple cyclones and a baghouse for control of particulate and HAPs, and exhausting to stack 1SP. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD and Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units 40 CFR 60, Subpart Db.

(vv) One (1) Keeler coal fired boiler, identified as 2SP1, constructed in 1963, with a maximum heat input capacity of 52.75 MMBtu/hr, using multiple cyclones and a baghouse for control of particulate and HAPs, and exhausting to stack 1SP. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

(ww) One (1) Murray natural gas fired, vegetable oil-fired, used oil-fired, and hazardous chemical fired boiler, identified as 3SP1, constructed in 1968, with a maximum heat input capacity of 110.2 MMBtu/hr, and exhausting to stack 1SP. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD and Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units 40 CFR 60, Subpart Db.

(fff) One (1) natural gas-fired boiler, identified as 9SP1, approved for construction in 2012, with a maximum heat input capacity of 99 MMBtu/hr, equipped with low NOx burners and flue gas recirculation (FGR) for NOx control, and exhausting to stack 9SP. This is an affected facility under the New Source Performance Standards for Small Industrial - Commercial - Institutional Steam Generating Units 40 CFR 60, Subpart Dc and an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

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

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

D.3.1 Particulate Matter Limitation (PM) [326 IAC 6-2-3] [326 IAC 6-2-4]

(a) Pursuant to 326 IAC 6-2-3(d) (Particulate Emission Limitations for Sources of Indirect Heating), the particulate matter (PM) emissions from the boilers identified as 1SP1, 2SP1, and 3SP1 shall not exceed 0.8 pounds per MMBtu of heat input, each.

(b) Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Source of Indirect Heating), the particulate matter (PM) emissions from the boiler identified as 107EO1 shall be limited to 0.263 pounds per MMBtu of heat input.

(c) Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Source of Indirect Heating), the particulate matter (PM) emissions from the boiler identified as 108EO1 shall be limited to less than 0.260 pounds per MMBtu of heat input.

(d) Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Source of Indirect Heating), the particulate matter (PM) emissions from the boiler identified as 110EO1 shall be limited to 0.257 pounds per MMBtu of heat input.

(e) Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Source of Indirect Heating), the particulate matter (PM) emissions from the boiler identified as 9SP1 shall be limited to 0.24 pounds per MMBtu of heat input.

The emission limits for boilers 107EO1, 108EO1, 110EO1, and 9SP1 were calculated by the following equation:

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

Where Pt = emission rate limit (lbs/MMBtu)
Q = total source heat input capacity (MMBtu/hr)

D.3.2 Consent Decree Limits, Compliance, and Record Keeping Requirements

(a) As used in this section, "Consent Decree" shall mean the consent decree entered on January 16, 2007, in Civil Action No. 2:06-CV-02209, United States District Court for the Central District of Illinois, in which the Permittee and IDEM were parties. As required by Section 41.a of the Consent Decree, the Permittee shall modify their existing Part 70 Operating Permit to incorporate the emission limits set forth in the Control Technology Plan (CTP).

(b) As required by Section 41.a of the Consent Decree and the Control Technology Plan (CTP), the particulate matter (PM) emissions from the boilers identified as 1SP1 and 2SP1 shall each be limited to less than 0.07 pounds per MMBtu of heat input.

D.3.3 Sulfur Dioxide (SO_2) [326 IAC 7-1.1-1]

Pursuant to 326 IAC 7-1.1-2(a)(1), (Sulfur Dioxide Emission Limitations) the sulfur dioxide emissions from the B&W boiler (1SP1) and the Keeler boiler (2SP1), when combusting coal, shall be less than 6.0 pounds per MMBtu. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average in accordance with the coal sampling requirements indicated in Condition D.3.4, Sulfur Dioxide Emissions and Sulfur Content.

D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

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

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

D.3.5 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 2-7-5(3)(A)] [326 IAC 2-7-6]

(a) Pursuant to 326 IAC 7-2-1(c)(2), The Permittee shall submit quarterly reports of the calendar month average coal sulfur content, coal heat content, the sulfur dioxide emission rate in pounds per MMBtu, and the total monthly coal consumption.

(b) Pursuant to 326 IAC 7-2-1(e), coal sampling and analysis data shall be collected pursuant to the procedures specified in 326 IAC 3-7-2(b) or 326 IAC 3-7-3 as follows:

(1) Minimum Coal Sampling Requirements and Analysis Methods:

(A) The coal sample acquisition point shall be at a location where representative samples of the total coal flow to be combusted by the facility or facilities may be obtained. A single as-bunkered or as-burned sampling station may be used to represent the coal to be combusted by multiple facilities using the same stockpile feed system;

(B) Coal shall be sampled at least one (1) time per day;

(C) Minimum sample size shall be five hundred (500) grams;

(D) Samples shall be composited and analyzed at the end of each calendar month;

(E) Preparation of the coal sample, heat content analysis, and sulfur content analysis shall be determined pursuant to 326 IAC 3-7-2(c); or

(2) Sample and analyze the coal pursuant to 326 IAC 3-7-3.

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

D.3.6 Visible Emissions Notations

(a) Visible emission notations of the boiler's (1SP1, 2SP1, 3SP1) stack exhaust (1SP) shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

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

D.3.7 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouse used in conjunction with 1SP1 and 2SP1 at least once per day when the associated emissions units are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range, the Permittee shall take a reasonable response. The normal range for this unit is a pressure drop between of 0.5 and 12.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C – Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

D.3.8 Broken or Failed Bag Detection

(a) For a single compartment baghouses 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 have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

D.3.9 Cyclone Failure Detection

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emission unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

D.3.10 Record Keeping Requirements

(a) To document the compliance status with Conditions D.3.2 and D.3.4, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the PM and SO_2 emission limits established in Conditions D.3.2 and D.3.4.

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

(2) Actual coal usage since last compliance determination period;

(3) Sulfur content, heat content, and ash content;

(4) Sulfur dioxide emission rates; and

(5) Independent laboratory analysis of coal.

(b) To document the compliance status with Condition D.3.6, the Permittee shall maintain a daily record of visible emission notations of the boiler's stack exhaust (SP1). The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(c) To document the compliance status with Condition D.3.7, the Permittee shall maintain a daily record of the pressure drop across the baghouses controlling the boilers. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

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

D.3.11 Reporting Requirements

A quarterly summary of the information to document the compliance status with Conditions D.3.2 and D.3.4 shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee’s obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official” as defined by 326 IAC 2-7-1(35).

Consent Decree

D.3.12 Consent Decree Limits, Compliance, and Record Keeping Requirements

(a) As used in this section, "Consent Decree" shall mean the consent decree entered on January 16, 2007 and modified on June 14, 2011, in Civil Action No. 2:06-CV-02209, United States District Court for the Central District of Illinois, in which the Permittee and IDEM were parties. As required by Paragraph 23.b.(i) of the Consent Decree, the Permittee shall perform the following two (2) projects:

(1) install a new heat exchange system on the make-up water system to recover wasted flash steam presently going to the atmosphere and the energy on hot water now sent to the sewer; and

(2) capture steam escaping from the turbine seals to heat make-up water by using an ejector, heat exchangers, and associated control system to condense most of the captured steam.

(b) As required by Paragraph 23.b.(i) of the Consent Decree, the Permittee shall commence installation and begin operation of the projects identified in paragraphs (a)(1) and (a)(2) of this condition no later than December 31, 2011.

(c) After installation of the projects identified in paragraphs (a)(1) and (a)(2) of this condition, the Permittee shall demonstrate that the projects result in the following emissions reductions:

(1) 0.24 tons per year (tpy) of PM;

(2) 0.24 tons per year (tpy) of PM_{10};

(3) 0.24 tons per year (tpy) of $PM_{2.5}$;

(4) 1.50 tons per year (tpy) of CO;

(5) 12.44 tons per year (tpy) of SO_2;

(6) 2.99 tons per year (tpy) of NO_X; and

(7) 1,593 tons per year (tpy) of CO_2.

(d) The U.S. EPA shall extend the Compliance Date upon receiving the written statement of basis for extension by the Permittee demonstrating to EPA that third parties involved in the projects identified in paragraphs (a)(1) and (a)(2) of this condition require additional time (e.g., the equipment fabrication, delivery and availability schedules provided by third party vendors and the construction availability schedules of third party contractors). The Permittee shall take all reasonable steps to limit the duration of any extension of the Compliance Date under this provision. Court approval shall not be required for an extension of the Compliance Date pursuant to this provision. Any such extension beyond March 31, 2012, may require additional emission reductions from other projects if U.S. EPA determines that the delay has caused significant lost emission reductions.

(e) The Permittee shall demonstrate that the emission reduction targets specified in paragraphs (c)(1) through (c)(7) of this condition were achieved by measuring the reduction in energy losses during the first three (3) months of operation of the projects identified in paragraphs (a)(1) and (a)(2) of this condition and comparing it with the energy losses occurring prior to the installation of the projects. The Permittee shall then calculate the annualized emissions reductions resulting from the reduction in energy losses assuming that the fuel mix was the same as the average fuel mix during the during the years 2007 through 2008 (Emissions Target Report).

(f) The Permittee shall submit the Emissions Target Report required by paragraph (e) of this condition no later than sixty (60) days after completion of the first three (3) months of operation of the projects identified in paragraphs (a)(1) and (a)(2) of this condition.

(g) The Permittee shall be deemed to have achieved the emission reduction targets specified in paragraphs (c)(1) through (c)(7) of this condition as long as the Emissions Target Report required by paragraph (e) of this condition demonstrates that the projects identified in paragraphs (a)(1) and (a)(2) of this condition achieved at least ninety percent (90%) of the emission reduction targets.

The above projects were completed in August of 2011 and October of 2011.

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Hexane Extraction System

(xx) One (1) hexane extraction system, identified collectively as 24EX, modified prior to 1980, with hexane emissions from the vent system controlled by a mineral oil absorber, and exhausting to stack 24EXA. For reporting purposes, all hexane emissions are collectively accounted for in the total hexane losses named 24EX.

(1) One (1) ‘A’ unit, identified as 24EX1, consisting of 'A' pre-DT, constructed in 1996, ‘A’ DT, constructed in 1980, and the 'A' Meal Dryer, constructed in 1980, with a maximum capacity of 109.4 tons per hour, each. 'A' pre-DT is on top of and feeds the ‘A’ DT, which is on top of and feeds the ‘A’ Meal Dryer. The ‘A’ pre-DT and the 'A' DT exhaust to the hexane solvent reclaim system. The ‘A’ Meal Dryer uses an integral cyclone for product recovery, which also provides PM control, and exhausts to stack 24EX1. Hexane emissions are reported in 24EX.

(2) One (1) ‘B’ unit, identified as 24EX2, consisting of 'B' pre-DT, constructed in 1996, 'B' DT, constructed in 1980, and the 'B' Meal Dryer, constructed in 1980, with a maximum capacity of 109.4 tons per hour, each. 'B' pre-DT is on top of and feeds the ‘B’ DT which is on top of and feeds the ‘B’ Meal Dryer. The 'B' pre-DT and the ‘B’ DT exhaust to the hexane solvent reclaim system. The ‘B’ Meal Dryer uses an integral cyclone for product recovery, which also provides PM control, and exhausts to stack 24EX2. Hexane emissions are reported in 24EX.

(3) One meal cooler, identified as 24EX3, constructed in 1996, with a maximum capacity of 110 tons per hour, using two (2) integral cyclones for product recovery, which also provide PM control, exhausting to stacks 24EX3A and 24EX3B, respectively, with hexane emissions reported in 24EX.

(4) Two (2) hexane storage tanks, identified as 24EX4A and 24EX4B, constructed in 1995 and 2005, respectively, with emissions vented to the mineral oil absorber inlet, with hexane emissions reported in 24EX.

(5) One (1) wastewater system, identified as 24 EX5, constructed prior to 1980, containing traces of hexane, exhausting to the extraction hot water separation pit, with hexane emissions reported in 24EX.

(6) One (1) refined oil hot well, identified as 24 EX6, constructed in 1975, with hexane emissions reported in 24EX.

(7) One (1) sampling /hexane unloading port, identified as 24 EX7, with hexane emissions reported in 24EX.

(8) Oil tanks containing non-deodorized oil, identified as 24EX8, venting to the atmosphere, with hexane emissions reported at 24EX.

The hexane extraction system (24EX, consisting of 24EX1 through 24EX8) are affected facilities under the National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production 40 CFR 63, Subpart GGGG.

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

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

D.4.1 PSD Minor Limit [326 IAC 2-2]

Pursuant to CP (002) 2005, issued August 23, 1991, the hexane usage for all of the oil extraction facilities (24EX, consisting of 24EX1 through 24EX8) combined shall be limited to less than 330,000 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month, to ensure that the increase in hexane emissions from these units remains below 39.2 tons per year. This will ensure that 326 IAC 2-2 (Prevention of Significant Deterioration) does not apply to this modification.

D.4.2 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

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

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

D.4.3 Volatile Organic Compounds (VOC) [40 CFR 64 (CAM)]

In order to comply with Condition D.4.1, the mineral oil absorber for VOC control shall be in operation and control emissions from the listed facilities at all times when the facilities are in operation.

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

D.4.4 Monitoring

To document compliance with Condition D.4.1, the mineral oil absorption vent VOC (hexane) emission rate shall be determined daily by measuring the airflow rate and the concentration of hexane in the air stream. This concentration will be determined daily by measuring percent Lower Explosive Limit (LEL). If the air flow meter proves unreliable, airflow can be determined by calculations.

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

D.4.5 Record Keeping Requirements

(a) To document the compliance status with Condition D.4.1, the Permittee shall maintain records of the hexane usage for the oil extraction facilities.

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

D.4.6 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.4.1 shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee’s obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official” as defined by 326 IAC 2-7-1(35).

Consent Decree

D.4.7 Consent Decree Limits, Compliance, and Record Keeping Requirements

(a) As used in this section, "Consent Decree" shall mean the consent decree entered on January 16, 2007, in Civil Action No. 2:06-CV-02209, United States District Court for the Central District of Illinois, in which the Permittee and IDEM were parties.

(b) The provisions of this subsection are designed to ensure compliance with the final volatile organic compound solvent loss ratio requirements of the consent decree entered into between the Permittee and IDEM on October 26, 2006. Nothing in this subsection is intended to expand, restrict or otherwise alter the obligations imposed on The Permittee by the consent decree.

(c) The VOC solvent loss ratio (SLR) for this facility shall be 0.15 gallons of solvent lost per ton of oilseed processed for conventional soybean processing at this existing source. To determine compliance with the VOC SLR limit, the Permittee shall maintain a Compliance Ratio of less than or equal to 1.0, which compliance ratio shall be calculated as follows:

Compliance Ratio = Actual Solvent Loss (gal) / Allowable Solvent Loss (gal)

Where:

Actual Solvent Loss (gal) = Gallons of solvent loss during previous 12 operating months
Allowable Solvent Loss = Oilseed (tons) x VOC Solvent Loss Ratio
Oilseed (tons) = Tons of each oilseed processed during the previous 12 operating months
VOC Solvent Loss Ratio (SLR) = 0.15 gallons per ton of oilseed

(d) Solvent losses and quantities of oilseed processed during startup and shutdown periods shall not be excluded in determining solvent losses.

(e) For purposes of calculating SLR, the Permittee may apply the provisions of 40 CFR Part 63, Subpart GGGG, pertaining to malfunction periods when both of the following conditions are met:

(1) The malfunction results in a total plant shutdown, which means a shutdown of the solvent extraction system; and

(2) The total amount of solvent loss to which the provisions of 40 CFR Part 63, Subpart GGGG relating to malfunctions is applied in a rolling 12-month period does not exceed the Allowable Malfunction Volume as determined below. The Allowable Malfunction Volume in gallons is equal to the facility's 12-month Crush capacity times its final VOC SLR limit (0.15 gal/ton) times 0.024, as follows:

Allowable Malfunction Volume (gal) =12-month Crush capacity (tons) x Final VOC SLR limit (0.15 gal/ton) x 0.024

Except as otherwise set forth herein, the Permittee shall include all solvent losses when determining compliance with the VOC SLR limits. The total solvent loss corresponding to a malfunction period shall be calculated as the difference in the solvent inventory, as defined in 40 CFR 63.2862(c)(1), for the day before the malfunction period began and the solvent inventory on the day the plant resumes normal operation. During a malfunction period, the facility shall comply with the Startup, Shutdown, Malfunction (SSM) Plan as required under Subpart GGGG.

(f) To document the compliance status with the Consent Decree, the Permittee shall maintain the following records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC SLR limits established in paragraph (c) above. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

(1) The amount of oilseed processed, in tons, on a monthly basis.

(2) The total solvent loss due to malfunction, in gallons, for each month.

(3) The total solvent loss during normal operations, in gallons, for each month.

(4) The adjusted solvent loss (total solvent loss - allowable malfunction volume), in gallons, for each month.

(5) The solvent loss ratio.

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(bbb) One (1) batch enzyme bag unloader, with a maximum throughput rate of 51 tons per year, identified as 112EO1, approved in 2009 for construction, using a baghouse for emission control and exhausting to stack 112EO.

This emission unit is not an affected facility under the National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production 40 CFR 63, Subpart GGGG.

(ggg) One (1) Millfeed storage bin, identified as 22EX, with a maximum capacity of 156.3 tons/hr, using fabric filter as control and exhausting to stack 22EX.

(hhh) One (1) Coal receiving, handling and storage operation, identified as 6SP, with a maximum capacity of 150 tons/hr each and exhausting to stack 6SP.

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

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

D.5.1 Particulate Emissions [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), particulate emissions from each of following operations shall not exceed the pound per hour limit listed in the table below:

Process / Emission Unit	P (tons/hr)	E (lbs/hr)
22EX	156.3	55.87
6SP	150	55.44
112EO1	3.3	9.1

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

$E = 4.10\ P^{0.67}$

Where: E = Rate of emission in pounds per hour
P = Process weight rate in tons per hour

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

SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Pelletizer/Pellet Cooler System

(ccc) One (1) pelletizer/pellet cooler to produce pellets from the existing dehulling/grinding (millfeed) system, approved in 2009 for construction, with a maximum rate of 10 tons per hour, identified as 32EX1, using a high efficiency cyclone for emission control and exhausting to stack 32EX.

(ddd) One (1) totally enclosed conveyor, approved in 2009 for construction, with a maximum rate of 10 tons per hour, identified as 32EX2.

(eee) One (1) loadout bin, identified as 29EX1, constructed in 1994, with a maximum capacity of 10 tons per hour, using a bin vent filter for PM control, and exhausting to stack 29EX.

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

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

D.6.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), 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)
29EX1	10	19.18
32EX1	10	19.18
32EX2	10	19.18

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

D.6.2 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

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

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

D.6.3 Particulate Control

In order to ensure compliance with Condition D.6.1, the cyclone for Particulate control shall be in operation at all times and control emissions from the pelletizer/pellet cooler at all times the pelletizer/pellet cooler is in operation.

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

D.6.4 Visible Emissions Notations

(a) Visible emission notations of pelletizer/pellet cooler cyclone stack 32EX and loadout bin stack 29EX shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

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

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

D.6.5 Record Keeping Requirements

(a) To document the compliance status with Condition D.6.5, the Permittee shall maintain records of daily visible emission notations of the pelletizer/pellet cooler cyclone stack 32EX and loadout bin stack 29EX. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the pelletizer/pellet cooler did not operate that day; loadout bin was not loaded, etc.).

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

SECTION E.1 Standards of Performance for Grain Elevators [40 CFR 60, Subpart DD] [326 IAC 12]

Facility Description [326 IAC 2-7-5(14)]

(a) Truck Dump #2, identified as 1EL1, constructed in 1980, with a maximum capacity of 600 tons per hour, using a baghouse for particulate matter (PM) control, and exhausting to stack 1EL. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD.

(b) The following grain elevator East Workhouse components, together identified as 2EL1, with a maximum throughput of 270 tons per hour (Bottlenecked to 240 tons per hour), each, unless otherwise stated, using a baghouse and oil suppressant for PM control, and exhausting to stack 2EL, consisting of:

(1) One (1) Megatex screener, approved for construction in 2013, with a maximum throughput of 300 tons per hour, using a baghouse, identified as 2EL4, for particulate control, and exhausting to stack 2EL4. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD;

(2) One (1) #1 scalperator, ~~c~~onstructed in 2011 and approved for modification in 2013, with a maximum throughput of 120 tons per hour, using a baghouse, identified as 2EL4, for particulate control, and exhausting to stack 2EL4. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD;

(3) One (1) #2 scalperator, constructed in 2011 and approved for modification in 2013, with a maximum throughput of 120 tons per hour, using a baghouse, identified as 2EL4, for particulate control, and exhausting to stack 2EL4. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD;

(g) The following grain elevator components together identified as 10EL1, with a maximum throughput of 720 tons per hour, each, using a baghouse and oil suppressant for PM control, and exhausting to stack 10EL, consisting of:

(1) One (1) rail loadout, constructed in 1984. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD;

(i) One (1) natural gas fired grain dryer #2, identified as 19EL1, constructed in 1995, with a maximum capacity 60 tons per hour and a maximum heat input capacity of 7 MMBtu/hr, using self-cleaning screens for PM control, and exhausting to vent 19EL. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD.

(j) One (1) truck dump #7, identified as 20EL1, constructed in 1997, with a maximum throughput of 450 tons per hour, consisting of one (1) weigh scale truck unloading pit, and two (2) enclosed bucket elevator legs, using two (2) baghouses in parallel for PM control, and exhausting to stack 20EL. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD.

(s) One (1) natural gas fired grain dryer #1, identified as 16EL1, constructed in 1986, with a maximum capacity of 75 tons per hour and a maximum heat input capacity of 7 MMBtu/hr, using self-cleaning screens for PM control, and exhausting to stack 16EL. This is an affected

facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD.

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

New Source Performance Standards (NSPS) [40 CFR 60]

E.1.1 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 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]

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)
(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] [326 IAC 12]

Facility Description [326 IAC 2-7-5(14)]

(x) One (1) natural gas fired hydrogen generator furnace, identified as 107EO1, constructed in 1992, with a maximum heat input capacity of 25.2 MMBtu/hr, and exhausting to stack 107EO. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

(ss) One (1) natural gas fired steam generator, identified as 110EO1, constructed in 2002, with a maximum heat input capacity of 14 MMBtu/hr, and exhausting to stack 110EO. This is an affected facility under the New Source Performance Standards for Small Industrial - Commercial - Institutional Steam Generating Units 40 CFR 60, Subpart Dc and an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

(tt) One (1) natural gas fired steam generator #3, identified as 108EO1, constructed in 1994, with a maximum heat input capacity of 14 MMBtu/hr, and exhausting to stack 108EO. This is an affected facility under the New Source Performance Standards for Small Industrial - Commercial - Institutional Steam Generating Units 40 CFR 60, Subpart Dc and an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

(fff) One (1) natural gas-fired boiler, identified as 9SP1, approved for construction in 2012, with a maximum heat input capacity of 99 MMBtu/hr, equipped with low NOx burners and flue gas recirculation (FGR) for NOx control, and exhausting to stack 9SP. This is an affected facility under the New Source Performance Standards for Small Industrial - Commercial - Institutional Steam Generating Units 40 CFR 60, Subpart Dc and an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

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

New Source Performance Standards (NSPS) [40 CFR 60]

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

SECTION E.3 National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production [40 CFR 63, Subpart GGGG] [326 IAC 20-60]

Facility Description [326 IAC 2-7-5(14)]

(xx) One (1) hexane extraction system, identified collectively as 24EX, modified prior to 1980, with hexane emissions from the vent system controlled by a mineral oil absorber, and exhausting to stack 24EXA. For reporting purposes, all hexane emissions are collectively accounted for in the total hexane losses named 24EX.

(1) One (1) ‘A’ unit, identified as 24EX1, consisting of 'A' pre-DT, constructed in 1996, ‘A’ DT, constructed in 1980, and the 'A' Meal Dryer, constructed in 1980, with a maximum capacity of 109.4 tons per hour, each. 'A' pre-DT is on top of and feeds the ‘A’ DT, which is on top of and feeds the ‘A’ Meal Dryer. The ‘A’ pre-DT and the 'A' DT exhaust to the hexane solvent reclaim system. The ‘A’ Meal Dryer uses an integral cyclone for product recovery, which also provides PM control, and exhausts to stack 24EX1. Hexane emissions are reported in 24EX.

(2) One (1) ‘B’ unit, identified as 24EX2, consisting of 'B' pre-DT, constructed in 1996, 'B' DT, constructed in 1980, and the 'B' Meal Dryer, constructed in 1980, with a maximum capacity of 109.4 tons per hour, each. 'B' pre-DT is on top of and feeds the ‘B’ DT which is on top of and feeds the ‘B’ Meal Dryer. The 'B' pre-DT and the ‘B’ DT exhaust to the hexane solvent reclaim system. The ‘B’ Meal Dryer uses an integral cyclone for product recovery, which also provides PM control, and exhausts to stack 24EX2. Hexane emissions are reported in 24EX.

(3) One meal cooler, identified as 24EX3, constructed in 1996, with a maximum capacity of 110 tons per hour, using two (2) integral cyclones for product recovery, which also provide PM control, exhausting to stacks 24EX3A and 24EX3B, respectively, with hexane emissions reported in 24EX.

(4) Two (2) hexane storage tanks, identified as 24EX4A and 24EX4B, constructed in 1995 and 2005, respectively, with emissions vented to the mineral oil absorber inlet, with hexane emissions reported in 24EX.

(5) One (1) wastewater system, identified as 24 EX5, constructed prior to 1980, containing traces of hexane, exhausting to the extraction hot water separation pit, with hexane emissions reported in 24EX.

(6) One (1) refined oil hot well, identified as 24 EX6, constructed in 1975, with hexane emissions reported in 24EX.

(7) One (1) sampling /hexane unloading port, identified as 24 EX7, with hexane emissions reported in 24EX.

(8) Oil tanks containing non-deodorized oil, identified as 24EX8, venting to the atmosphere, with hexane emissions reported at 24EX.

The hexane extraction system (24EX, consisting of 24EX1 through 24EX8) are affected facilities under the National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production 40 CFR 63, Subpart GGGG.

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) [40 CFR 60]

E.3.1 General Provisions Relating to NESHAP GGGG [326 IAC 20-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.2870, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, 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 National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production NESHAP [326 IAC 20-60] [40 CFR Part 63, Subpart GGGG]

The Permittee which engages in production of vegetable oil shall comply with the following provisions of 40 CFR 63, Subpart GGGG, which are incorporated by reference as 326 IAC 20-60 (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
(4) 40 CFR 63.2833(a), (d)
(5) 40 CFR 63.2834
(6) 40 CFR 63.2840(a), (b), (c), (d)
(7) 40 CFR 63.2850(a), (b), (e)
(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(a), (c), (d)
(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

SECTION E.4 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR 63, Subpart DDDDD] [326 IAC 20-95]

Facility Description [326 IAC 2-7-5(14)]

(x) One (1) natural gas fired hydrogen generator furnace, identified as 107EO1, constructed in 1992, with a maximum heat input capacity of 25.2 MMBtu/hr, and exhausting to stack 107EO. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

(ss) One (1) natural gas fired steam generator, identified as 110EO1, constructed in 2002, with a maximum heat input capacity of 14 MMBtu/hr, and exhausting to stack 110EO. This is an affected facility under the New Source Performance Standards for Small Industrial - Commercial - Institutional Steam Generating Units 40 CFR 60, Subpart Dc and an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

(tt One (1) natural gas fired steam generator #3, identified as 108EO1, constructed in 1994, with a maximum heat input capacity of 14 MMBtu/hr, and exhausting to stack 108EO. This is an affected facility under the New Source Performance Standards for Small Industrial - Commercial - Institutional Steam Generating Units 40 CFR 60, Subpart Dc and an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

(uu) One (1) B & W coal fired boiler, identified as 1SP1, constructed in 1950, with a maximum heat input capacity of 108 MMBtu/hr, using multiple cyclones and a baghouse for control of particulate and HAPs, and exhausting to stack 1SP. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

(vv) One (1) Keeler coal fired boiler, identified as 2SP1, constructed in 1963, with a maximum heat input capacity of 52.75 MMBtu/hr, using multiple cyclones and a baghouse for control of particulate and HAPs, and exhausting to stack 1SP. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD and Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units 40 CFR 60, Subpart Db.

(ww) One (1) Murray natural gas fired, vegetable oil-fired, used oil-fired, and hazardous chemical fired boiler, identified as 3SP1, constructed in 1968, with a maximum heat input capacity of 110.2 MMBtu/hr, and exhausting to stack 1SP. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD and Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units 40 CFR 60, Subpart Db.

(fff) One (1) natural gas-fired boiler, identified as 9SP1, approved for construction in 2012, with a maximum heat input capacity of 99 MMBtu/hr, equipped with low NOx burners and flue gas recirculation (FGR) for NOx control, and exhausting to stack 9SP. This is an affected facility under the New Source Performance Standards for Small Industrial - Commercial - Institutional Steam Generating Units 40 CFR 60, Subpart Dc and an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) [40 CFR 60]

E.4.1 General Provisions Relating to NESHAP DDDDD [326 IAC 20-1] [40 CFR Part 63, Subpart A]

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

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

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

and

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

E.4.2 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters [326 IAC 20-95] [40 CFR Part 63, Subpart DDDDD]

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

(1) 40 CFR 63.7480
(2) 40 CFR 63.7485
(3) 40 CFR 63.7490
(4) 40 CFR 63.7495(a), (b), and (d)
(5) 40 CFR 63.7499
(6) 40 CFR 63.7500
(7) 40 CFR 63.7505
(8) 40 CFR 63.7506(b)
(9) 40 CFR 63.7507
(10) 40 CFR 63.7510(a), (b), (c), (d), and (g)
(11) 40 CFR 63.7515
(12) 40 CFR 63.7520(a), (b), (d), (e), (f), and (g)
(13) 40 CFR 63.7521
(14) 40 CFR 63.7522
(15) 40 CFR 63.7525
(16) 40 CFR 63.7530(a), (c), (d), and (e)
(17) 40 CFR 63.7535
(18) 40 CFR 63.7540
(19) 40 CFR 63.7541
(20) 40 CFR 63.7545(a), (b), (c), (d), (e)(1-7), and (e)(9)
(21) 40 CFR 63.7550
(22) 40 CFR 63.7555
(23) 40 CFR 63.7560

(24) 40 CFR 63.7565
(25) 40 CFR 63.7570
(26) 40 CFR 63.7575
(27) Table 1 to 40 CFR 63
(28) Table 2 to 40 CFR 63
(29) Table 3 to 40 CFR 63
(30) Table 4 to 40 CFR 63
(31) Table 5 to 40 CFR 63
(32) Table 6 to 40 CFR 63
(33) Table 7 to 40 CFR 63
(34) Table 8 to 40 CFR 63
(35) Table 9 to 40 CFR 63
(36) Table 10 to 40 CFR 63
(37) Appendix A to 40 CFR 63

E.4.3 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

The Permittee shall perform the stack testing required under NESHAP 40 CFR 63, Subpart DDDDD, utilizing methods as approved by the Commissioner to document compliance with Condition E.4.2. These tests shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

SECTION E.5 New Source Performance Standards (NSPS) for Industrial-Commercial-Institutional Steam Generating Units [40 CFR 60, Subpart Db]

Facility Description [326 IAC 2-7-5(14)]

(uu) One (1) B & W coal fired boiler, identified as 1SP1, constructed in 1950, with a maximum heat input capacity of 108 MMBtu/hr, using multiple cyclones and a baghouse for control of particulate and HAPs, and exhausting to stack 1SP. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD and Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units 40 CFR 60, Subpart Db.

(ww) One (1) Murray natural gas fired, vegetable oil-fired, used oil-fired, and hazardous chemical fired boiler, identified as 3SP1, constructed in 1968, with a maximum heat input capacity of 110.2 MMBtu/hr, and exhausting to stack 1SP. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD and Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units 40 CFR 60, Subpart Db.

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

New Source Performance Standards (NSPS) [40 CFR 60]

E.5.1 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.5, except when otherwise specified in 40 CFR 60, Subpart Db.

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

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

E.5.2 Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units [40 CFR 60, Subpart Db] [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 Industrial-Commercial-Institutional Steam Generating Units, which are incorporated by reference as 326 IAC 12, (included as attachment E of this permit) as specified as follows:

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

(9) 40 CFR 60.48b (a), (b), (c), (d), (e), (f), (i), (j), (j)(2), (l)
(10) 40 CFR 60.49b (a), (b), (d), (f), (g), (i), (j), (k), (m), (n), (o), (r), (p), (v), (w)

SECTION E.6 New Standards of Performance (NSPS) for Stationary Compression Ignition Internal Combustion Engines [40 CFR 60, Subpart IIII]

Facility Description [326 IAC 2-7-5(14)]

(b) Stationary fire pumps.

(1) Two (2) stationary diesel-fired fire pump engine, constructed in 1980, permitted in 2008, with a maximum power output rate of 380 hp.

(2) One (1) stationary diesel-fired fire pump engine, permitted in 2008, with a maximum power output rate of 85 hp.

This is an affected source under National Emission Standards for Hazardous Air Pollutants: Stationary Reciprocating Internal Combustion Engines [40 CFR 63, Subpart ZZZZ] and New Standards of Performance (NSPS) for Stationary Compression Ignition Internal Combustion Engines [40 CFR 60, Subpart IIII].

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

New Source Performance Standards (NSPS) [40 CFR 60]

E.6.1 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.6, except when otherwise specified in 40 CFR 60, Subpart IIII.

(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.6.2 Standards of Performance for Stationary Compression Ignition Internal Combustion Engines [40 CFR 60, Subpart IIII] [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 Industrial-Commercial-Institutional Steam Generating Units, which are incorporated by reference as 326 IAC 12, (included as attachment F of this permit) as specified as follows:

(1) 40 CFR 60.4200(a)(2)(ii) and (a)(4)
(2) 40 CFR 60.4205(c) and (e)
(3) 40 CFR 60.4206
(4) 40 CFR 60.4207(b)
(5) 40 CFR 60.4208
(6) 40 CFR 60.4209, (a)
(7) 40 CFR 60.4211(a), (c), (f), and (g)(2)
(8) 40 CFR 60.4212, (a), (b), (c), and (e)
(9) 40 CFR 60.4214(b)
(10) 40 CFR 60.4218

(11) 40 CFR 60.4219
(12) Table 4 to 40 CFR 60, Subpart IIII
(13) Table 5 to 40 CFR 60, Subpart IIII
(14) Table 8 to 40 CFR 60, Subpart IIII

SECTION E.7 National Emission Standards for Hazardous Air Pollutants: Stationary Reciprocating Internal Combustion Engines [40 CFR 63, Subpart ZZZZ] [326 IAC 20-63]

Facility Description [326 IAC 2-7-5(14)]

Insignificant Activities

(b) Stationary fire pumps.

(1) Two (2) stationary diesel-fired fire pump engine, constructed in 1980, permitted in 2008, with a maximum power output rate of 380 hp.

(2) One (1) stationary diesel-fired fire pump engine, permitted in 2008, with a maximum power output rate of 85 hp.

This is an affected source under National Emission Standards for Hazardous Air Pollutants: Stationary Reciprocating Internal Combustion Engines [40 CFR 63, Subpart ZZZZ] and New Standards of Performance (NSPS) for Stationary Compression Ignition Internal Combustion Engines [40 CFR 60, Subpart IIII].

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) [40 CFR 60]

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

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

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

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

and

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

E.7.2 National Emission Standards for Hazardous Air Pollutants: Stationary Reciprocating Internal Combustion Engines [326 IAC 20-82] [40 CFR 63, Subpart ZZZZ]

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

(1) 40 CFR 63.6580;
(2) 40 CFR 63.6585(a), (b);
(3) 40 CFR 63.6590(a)(1)(ii);
(4) 40 CFR 63.6595(a)(1), (c);
(5) 40 CFR 63.6602;
(6) 40 CFR 63.6605;
(7) 40 CFR 63.6612;
(8) 40 CFR 63.6620;
(9) 40 CFR 63.6625(e), (f), (h), (i), (j);
(10) 40 CFR 63.6635;
(11) 40 CFR 63.6640(a), (b), (f)(1);
(12) 40 CFR 63.6645(a)(5);
(13) 40 CFR 63.6650(a), (b), (c)(1) through (c)(5), (d), (f);
(14) 40 CFR 63.6655(a), (d), (e)(2);
(15) 40 CFR 63.6660;
(16) 40 CFR 63.6665;
(17) 40 CFR 63.6670;
(18) 40 CFR 63.6675;
(19) Table 2c to 40 CFR 63 Subpart ZZZZ;
(20) Table 4 to 40 CFR 63 Subpart ZZZZ;
(21) Table 6 to 40 CFR 63 Subpart ZZZZ; and
(22) Table 7 to 40 CFR 63 Subpart ZZZZ.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT
CERTIFICATION

Source Name: Bunge North America (East), LLC
Source Address: 1200 North 2nd Street, Decatur, Indiana 46733
Part 70 Permit No.: T001-31996-00005

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: Bunge North America (East), LLC
Source Address: 1200 North 2nd Street, Decatur, Indiana 46733
Part 70 Permit No.: T001-31996-00005

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), no later than four (**4**) daytime business hours (1-800-451-6027 or 317-233-0178, ask for Compliance and Enforcement Branch); and
- The Permittee must submit notice in writing or by facsimile no later than two (**2**) days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

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

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

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

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

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

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

Part 70 Quarterly Report

Source Name: Bunge North America (East), LLC
Source Address: 1200 North 2nd Street, Decatur, Indiana 46733
Part 70 Permit No.: T001-31996-00005
Facility: Oil Extraction facilities
Parameter: Hexane Usage
Limit: Less than 330,000 gallons per twelve consecutive month period.

QUARTER: _____ YEAR: _____

Month	Hexane Usage for This Month (gal)	Hexane Usage for Previous 11 Months (gal)	Hexane Usage for 12-Month Period (gal)

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: _____

Submitted By: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

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

Part 70 Quarterly Report

Source Name: Bunge North America (East), LLC
Source Address: 1200 North 2nd Street, Decatur, Indiana 46733
Part 70 Permit No.: T001-31996-00005
Facility: Grain Processing facilities
Parameter: Soybean grain processed after the grain dryers
Limit: Less than 1,368,750 tons per twelve consecutive month period

QUARTER: _____ YEAR: _____

Month	Soybean grain processed for This Month (tons)	Soybean grain processed for Previous 11 Months (tons)	Soybean grain processed for 12-Month Period (tons)

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: _____

Submitted By: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

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

Part 70 Quarterly Report

Source Name: Bunge North America (East), LLC
Source Address: 1200 North 2nd Street, Decatur, Indiana 46733
Part 70 Permit No.: T001-31996-00005
Facility: Coal-fired Boilers (1SP1 and 2SP1)
Parameter: SO_2 Emissions
Limit: Less than 6.0 pounds per MMBtu

QUARTER: _____ YEAR: _____

Month	Coal Sulfur Content (lb/ton)	Coal Heat Content (MMBtu/ton)	SO_2 Emission Rate (lb/MMBtu)	Coal Consumption (tons)
Month 1				
Month 2				
Month 3				

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: _____

Submitted By: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

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

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Bunge North America (East), LLC
Source Address: 1200 North 2nd Street, Decatur, Indiana 46733
Part 70 Permit No.: T001-31996-00005

Months: _____ to _____ Year: _____

Page 1 of 2

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

Page 2 of 2

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

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attachment A
Part 70 Operating Permit Renewal T001-31996-00005

[Downloaded from the eCFR on May 13, 2013]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

Subpart DD—Standards of Performance for Grain Elevators

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

§ 60.300 Applicability and designation of affected facility.

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

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

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

§ 60.301 Definitions.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

§ 60.302 Standard for particulate matter.

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

(1) Column dryer with column plate perforation exceeding 2.4 mm diameter (ca. 0.094 inch).

(2) Rack dryer in which exhaust gases pass through a screen filter coarser than 50 mesh.

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

(1) Contains particulate matter in excess of 0.023 g/dscm (ca. 0.01 gr/dscf).

(2) Exhibits greater than 0 percent opacity.

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

(1) Any individual truck unloading station, railcar unloading station, or railcar loading station, which exhibits greater than 5 percent opacity.

(2) Any grain handling operation which exhibits greater than 0 percent opacity.

(3) Any truck loading station which exhibits greater than 10 percent opacity.

(4) Any barge or ship loading station which exhibits greater than 20 percent opacity.

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

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

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

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

§ 60.303 Test methods and procedures.

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

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

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

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

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

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

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

[54 FR 6674, Feb. 14, 1989]

§ 60.304 Modifications.

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

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

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

(2) The installation of automatic grain weighing scales.

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

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

Attachment B
Part 70 Operating Permit Renewal T001-31996-00005

[Downloaded from the eCFR on May 13, 2013]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

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

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

§ 60.40c Applicability and delegation of authority.

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

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

(c) Steam generating units that meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO_2) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§ 60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in § 60.41c.

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

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

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

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

(h) Affected facilities that also meet the applicability requirements under subpart J or subpart Ja of this part are subject to the PM and NO_X standards under this subpart and the SO_2 standards under subpart J or subpart Ja of this part, as applicable.

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

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

§ 60.41c Definitions.

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

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

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

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

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

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

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

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

Dry flue gas desulfurization technology means a SO_2 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_2 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_2 emissions (nanograms per joule (ng/J) or lb/MMBtu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

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

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

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

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

Temporary boiler means a steam generating unit that combusts natural gas or distillate oil with a potential SO_2 emissions rate no greater than 26 ng/J (0.060 lb/MMBtu), and the unit is designed to, and is capable of, being carried or moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers, or platforms. A steam generating unit is not a temporary boiler if any one of the following conditions exists:

(1) The equipment is attached to a foundation.

(2) The steam generating unit or a replacement remains at a location for more than 180 consecutive days. Any temporary boiler that replaces a temporary boiler at a location and performs the same or similar function will be included in calculating the consecutive time period.

(3) The equipment is located at a seasonal facility and operates during the full annual operating period of the seasonal facility, remains at the facility for at least 2 years, and operates at that facility for at least 3 months each year.

(4) The equipment is moved from one location to another in an attempt to circumvent the residence time requirements of this definition.

Wet flue gas desulfurization technology means an SO_2 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_2 .

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

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

§ 60.42c Standard for sulfur dioxide (SO2).

(a) Except as provided in paragraphs (b), (c), and (e) of this section, on and after the date on which the performance test is completed or required to be completed under § 60.8, whichever date comes first, the owner or operator of an affected facility that combusts only coal shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO_2 emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2 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_2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO_2 emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2 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_2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 20 percent (0.20) of the potential SO_2 emission rate (80 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of SO_2 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_2 emissions limit or the 90 percent SO_2 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_2 emissions shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 50 percent (0.50) of the potential SO_2 emission rate (50 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 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_2 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_2 in excess of the emission limit determined pursuant to paragraph (e)(2) of this section. Percent reduction requirements are not applicable to affected facilities under paragraphs (c)(1), (2), (3), or (4).

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

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

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

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

(d) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 215 ng/J (0.50 lb/MMBtu) heat input from oil; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.

(e) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, or coal and oil with any other fuel shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of the following:

(1) The percent of potential SO_2 emission rate or numerical SO_2 emission rate required under paragraph (a) or (b)(2) of this section, as applicable, for any affected facility that

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

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

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

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

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

Where:

E_s = SO_2 emission limit, expressed in ng/J or lb/MMBtu heat input;

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

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

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

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

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

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

(f) Reduction in the potential SO_2 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_2 emission rate; and

(2) Emissions from the pretreated fuel (without either combustion or post-combustion SO_2 control) are equal to or less than the emission limits specified under paragraph (b)(2) of this section.

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

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

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

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

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

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

(i) The SO_2 emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(j) For affected facilities located in noncontinental areas and affected facilities complying with the percent reduction standard, only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this

section. No credit is provided for the heat input to the affected facility from wood or other fuels or for heat derived from exhaust gases from other sources, such as stationary gas turbines, internal combustion engines, and kilns.

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

§ 60.43c Standard for particulate matter (PM).

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

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

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

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

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

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

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

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

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

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

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

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

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

(4) An owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.50 weight percent sulfur or a mixture of 0.50 weight percent sulfur oil with other fuels not subject to a PM standard under § 60.43c and not using a post-combustion technology (except a wet scrubber) to reduce PM or SO_2 emissions is not subject to the PM limit in this section.

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

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

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

(b) The initial performance test required under § 60.8 shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the percent reduction requirements and SO_2 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_2 emission limits under § 60.42c is based on the average percent reduction and the average SO_2 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_2 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_2 emission rate (E_{ho}) and the 30-day average SO_2 emission rate (E_{ao}). The hourly averages used to compute the 30-day averages are obtained from the CEMS. Method 19 of appendix A of this part shall be used to calculate E_{ao} when using daily fuel sampling or Method 6B of appendix A of this part.

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

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

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

Where:

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

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

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

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

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

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

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

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

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

$$\%R_g o = 100\left(1 - \frac{E^{\circ}_{ao}}{E^{\circ}_{ai}}\right)$$

Where:

$\%R_g$ o = Adjusted $\%R_g$, in percent;

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

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

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

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

Where:

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

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

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

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

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

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

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

(j) The owner or operator of an affected facility shall use all valid SO_2 emissions data in calculating $\%P_s$ and E_{ho} under paragraphs (d), (e), or (f) of this section, as applicable, whether or not the minimum emissions data requirements under § 60.46c(f) are achieved. All valid emissions data, including valid data collected during periods of startup, shutdown, and malfunction, shall be used in calculating $\%P_s$ or E_{ho} 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_2) or carbon dioxide (CO_2) 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_2 or CO_2 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_2 (or CO_2) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and performance tests conducted using the following test methods.

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

(ii) For O2 (or CO_2), Method 3A or 3B of appendix A-2 of this part, as applicable shall be used.

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

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

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

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

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

§ 60.46c Emission monitoring for sulfur dioxide.

(a) Except as provided in paragraphs (d) and (e) of this section, the owner or operator of an affected facility subject to the SO_2 emission limits under § 60.42c shall install, calibrate, maintain, and operate a CEMS for measuring SO_2 concentrations and either O_2 or CO_2 concentrations at the outlet of the SO_2 control device (or the outlet of the steam generating unit if no SO_2 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_2 concentrations and either O_2 or CO_2 concentrations at both the inlet and outlet of the SO_2 control device.

(b) The 1-hour average SO_2 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_2 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_2 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_2 CEMS at the inlet to the SO_2 control device shall be 125 percent of the maximum estimated hourly potential SO_2 emission rate of the fuel combusted, and the span value of the SO_2 CEMS at the outlet from the SO_2 control device shall be 50 percent of the maximum estimated hourly potential SO_2 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_2 CEMS at the outlet from the SO_2 control device (or outlet of the steam generating unit if no SO_2 control device is used) shall be 125 percent of the maximum estimated hourly potential SO_2 emission rate of the fuel combusted.

(d) As an alternative to operating a CEMS at the inlet to the SO_2 control device (or outlet of the steam generating unit if no SO_2 control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO_2 emission rate by sampling the fuel prior to combustion. As an alternative to operating a CEMS at the outlet from the SO_2 control device (or outlet of the steam generating unit if no SO_2 control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO_2 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_2 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_2 at the inlet or outlet of the SO_2 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_2 and CO_2 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_2 standards based on fuel supplier certification, as described under § 60.48c(f), as applicable.

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

§ 60.47c Emission monitoring for particulate matter.

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

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

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

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

(iii) If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 3 calendar months from

the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; or

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

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

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

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

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

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

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

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

(e) Owners and operators of an affected facility that is subject to an opacity standard in § 60.43c(c) and that does not use post-combustion technology (except a wet scrubber) for reducing PM, SO_2 , or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.5 weight percent sulfur, and is operated such that emissions of CO discharged to the atmosphere from the affected facility are maintained at levels less than or equal to 0.15 lb/MMBtu on a boiler operating day average basis is not required to operate a COMS.

Owners and operators of affected facilities electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (e)(1) through (4) of this section; or

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

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

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

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

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

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

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

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

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

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

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

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

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

§ 60.48c Reporting and recordkeeping requirements.

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

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

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

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

(4) Notification if an emerging technology will be used for controlling SO_2 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_2 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_2 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_2 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_2 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_2 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_2 or diluent (O_2 or CO_2) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and 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_2 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_2 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]

Attachment C
Part 70 Operating Permit Renewal T001-31996-00005

[Downloaded from the eCFR on May 22, 2013]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

Part 63, Subpart GGGG—National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production

§ 63.2830 What is the purpose of this subpart?

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

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

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

§ 63.2832 Am I subject to this subpart?

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

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

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

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

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

(i) Corn germ;

(ii) Cottonseed;

(iii) Flax;

(iv) Peanut;

(v) Rapeseed (for example, canola);

(vi) Safflower;

(vii) Soybean; and

(viii) Sunflower.

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

(1) It uses only mechanical extraction techniques that use no organic solvent to remove oil from a listed oilseed.

(2) It uses only batch solvent extraction and batch desolventizing equipment.

(3) It processes only agricultural products that are not listed oilseeds as defined in § 63.2872.

(4) It functions only as a research and development facility and is not a major source.

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

§ 63.2833 Is my source categorized as existing or new?

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

TABLE 1 TO § 63.2833—CATEGORIZING YOUR SOURCE AS EXISTING OR NEW

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

(6) began construction on or after May 26, 2000		is a new source.

(b) Reconstruction of a source. Any affected source is reconstructed if components are replaced so that the criteria in the definition of reconstruction in § 63.2 are satisfied. In general, a vegetable oil production process is reconstructed if the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost for constructing a new vegetable oil production process, and it is technically and economically feasible for the reconstructed source to meet the relevant new source requirements of this subpart. The effect of reconstruction on the categorization of your existing and new affected source is described in paragraphs (b)(1) and (2) of this section:

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

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

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

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

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

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

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

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

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

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

TABLE 1 OF § 63.2834—COMPLIANCE DATES FOR EXISTING AND NEW SOURCES

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

Standards

§ 63.2840 What emission requirements must I meet?

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

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

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

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

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

Where:

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

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

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

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

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

TABLE 1 OF § 63.2840—OILSEED SOLVENT LOSS FACTORS FOR DETERMINING ALLOWABLE HAP LOSS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Compliance Requirements

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

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

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

(i) Initial notifications for existing sources.

(ii) Initial notifications for new and reconstructed sources.

(iii) Initial notifications for significant modifications to existing or new sources.

(iv) Notification of compliance status.

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

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

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

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

(i) Annual compliance certifications in accordance with § 63.2861(a).

(ii) Periodic SSM reports in accordance with § 63.2861(c).

(iii) Immediate SSM reports in accordance with § 63.2861(d).

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

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

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

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

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

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

(1) Normal operation. Upon startup of your significantly modified existing or new source, you must meet all of the requirements listed in paragraph (a) of this section and table 1 of this section for sources under normal operation, and the schedules for demonstrating compliance for an existing or new source that has been significantly modified in table 2 of this section.

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

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

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

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

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

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

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

TABLE 1 OF § 63.2850—REQUIREMENTS FOR COMPLIANCE WITH HAP EMISSION STANDARDS

Are you required to . . .	For periods of normal operation?	For initial startup periods subject to § 63.2850(c)(2) or (d)(2)?	For malfunction periods subject to § 63.2850(e)(2)?
(a) Operate and maintain your source in accordance with general duty provisions of § 63.6(e)?	Yes. Additionally, the HAP emission limits will apply.	Yes, you are required to minimize emissions to the extent practible throughout the initial startup period. Such measures should be described in the SSM plan.	Yes, you are required to minimizwe emissions to the extent practible throughout the initial startup period. Such measures should be described in the SSM plan.
(b) Determine and record the extraction solvent loss in gallons from your source?	Yes, as described in § 63.2853	Yes, as described in § 63.2862(e)	Yes, as described in § 63.2862(e).
(c) Record the volume fraction of HAP present at greater than 1 percent by volume and gallons of extraction solvent in shipment received?	Yes	Yes	Yes.
(d) Determine and record the tons of each oilseed type processed by your source?	Yes, as described in § 63.2855	No	No.
(e) Determine the weighted average volume fraction of HAP in extraction solvent received as described in § 63.2854 by the end of the following calendar month?	Yes	No. Except for solvent received by a new or reconstructed source commencing operation under an initial startup period, the HAP volume fraction in any solvent received during an initial startup period is included in the weighted average HAP determination for the next operating month	No, the HAP volume fraction in any solvent received during a malfunction period is included in the weighted average HAP determination for the next operating month.
(f) Determine and record the actual solvent loss, weighted average volume fraction HAP, oilseed processed and compliance ratio for each 12 operating month period as described in § 63.2840 by the end of the following calendar month?	Yes,	No, these requirements are not applicable because your source is not required to determine the compliance ratio with data recorded for an initial startup period	No, these requirements are not applicable because your source is not required to determine the compliance ratio with data recorded for a malfunction period.

Are you required to . . .	For periods of normal operation?	For initial startup periods subject to § 63.2850(c)(2) or (d)(2)?	For malfunction periods subject to § 63.2850(e)(2)?
(g) Submit a Notification of Compliance Status or Annual Compliance Certification as appropriate?	Yes, as described in §§ 63.2860(d) and 63.2861(a)	No. However, you may be required to submit an annual compliance certification for previous operating months, if the deadline for the annual compliance certification happens to occur during the initial startup period	No. However, you may be required to submit an annual compliance certification for previous operating months, if the deadline for the annual compliance certification happens to occur during the malfunction period.
(h) Submit a Deviation Notification Report by the end of the calendar month following the month in which you determined that the compliance ratio exceeds 1.00 as described in § 63.2861(b)?	Yes	No, these requirements are not applicable because your source is not required to determine the compliance ratio with data recorded for an initial startup period	No, these requirements are not applicable because your source is not required to determine the compliance ratio with data recorded for a malfunction period.
(i) Submit a Periodic SSM Report as described in § 63.2861(c)?	No, a SSM activity is not categorized as normal operation	Yes	Yes.
(j) Submit an Immediate SSM Report as described in § 63.2861(d)?	No, a SSM activity is not categorized as normal operation	Yes, only if your source does not follow the SSM plan	Yes, only if your source does not follow the SSM plan.

TABLE 2 OF § 63.2850—SCHEDULES FOR DEMONSTRATING COMPLIANCE UNDER VARIOUS SOURCE OPERATING MODES

If your source is . . .	and is operating under. . .	then your recordkeeping schedule. . .	You must determine your first compliance ratio by the end of the calendar month following. . .	Base your first compliance ratio on information recorded. . .
(a) Existing	Normal operation	Begins on the compliance date	The first 12 operating months after the compliance date	During the first 12 operating months after the compliance date.
(b) New	(1) Normal operation	Begins on the startup date of your new source	The first 12 operating months after the startup date of the new source	During the first 12 operating months after the startup date of the new source.
	(2) An initial startup period	Begins on the startup date of your new source	The first 12 operating months after termination of the initial startup period, which can last for up to 6 months	During the first 12 operating months after the initial startup period, which can last for up to 6 months.

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. . .**
(c) Existing or new that has been significantly modified	(1) Normal operation	Resumes on the startup date of the modified source	The first operating month after the startup date of the modified source	During the previous 11 operating months prior to the significant modification and the first operating month following the initial startup date of the source.
	(2) An initial startup period	Resumes on the startup date of the modified source	The first operating month after termination of the initial startup period, which can last up to 3 months	During the 11 operating months before the significant modification and the first operating month after the initial startup period.

[66 FR 19011, Apr. 12, 2001, as amended at 71 FR 20463, Apr. 20, 2006]

§ 63.2851 What is a plan for demonstrating compliance?

(a) You must develop and implement a written plan for demonstrating compliance that provides the detailed procedures you will follow to monitor and record data necessary for demonstrating compliance with this subpart. Procedures followed for quantifying solvent loss from the source and amount of oilseed processed vary from source to source because of site-specific factors such as equipment design characteristics and operating conditions. Typical procedures include one or more accurate measurement methods such as weigh scales, volumetric displacement, and material mass balances. Because the industry does not have a uniform set of procedures, you must develop and implement your own site-specific plan for demonstrating compliance before the compliance date for your source. You must also incorporate the plan for demonstrating compliance by reference in the source's title V permit and keep the plan on-site and readily available as long as the source is operational. If you make any changes to the plan for demonstrating compliance, then you must keep all previous versions of the plan and make them readily available for inspection for at least 5 years after each revision. The plan for demonstrating compliance must include the items in paragraphs (a)(1) through (7) of this section:

(1) The name and address of the owner or operator.

(2) The physical address of the vegetable oil production process.

(3) A detailed description of all methods of measurement your source will use to determine your solvent losses, HAP content of solvent, and the tons of each type of oilseed processed.

(4) When each measurement will be made.

(5) Examples of each calculation you will use to determine your compliance status. Include examples of how you will convert data measured with one parameter to other terms for use in compliance determination.

(6) Example logs of how data will be recorded.

(7) A plan to ensure that the data continue to meet compliance demonstration needs.

(b) The responsible agency of these NESHAP may require you to revise your plan for demonstrating compliance. The responsible agency may require reasonable revisions if the procedures lack detail, are inconsistent or do not accurately determine solvent loss, HAP content of the solvent, or the tons of oilseed processed.

§ 63.2852 What is a startup, shutdown, and malfunction plan?

You must develop a written SSM plan in accordance with § 63.6(e)(3). You must complete the SSM plan before the compliance date for your source. You must also keep the SSM plan on-site and readily available as long as the source is operational. The SSM plan provides detailed procedures for operating and maintaining your source to minimize emissions during a qualifying SSM event for which the source chooses the § 63.2850(e)(2) malfunction period, or the § 63.2850(c)(2) or (d)(2) initial startup period. The SSM plan must specify a program of corrective action for malfunctioning process and air pollution control equipment and reflect the best practices now in use by the industry to minimize emissions. Some or all of the procedures may come from plans you developed for other purposes such as a Standard Operating Procedure manual or an Occupational Safety and Health Administration Process Safety Management plan. To qualify as a SSM plan, other such plans must meet all the applicable requirements of these NESHAP.

[66 FR 19011, Apr. 12, 2001, as amended at 67 FR 16321, Apr. 5, 2002; 71 FR 20463, Apr. 20, 2006]

§ 63.2853 How do I determine the actual solvent loss?

By the end of each calendar month following an operating month, you must determine the total solvent loss in gallons for the previous operating month. The total solvent loss for an operating month includes all solvent losses that occur during normal operating periods within the operating month. If you have determined solvent losses for 12 or more operating months, then you must also determine the 12 operating months rolling sum of actual solvent loss in gallons by summing the monthly actual solvent loss for the previous 12 operating months. The 12 operating months rolling sum of solvent loss is the “actual solvent loss,” which is used to calculate your compliance ratio as described in § 63.2840.

(a) To determine the actual solvent loss from your source, follow the procedures in your plan for demonstrating compliance to determine the items in paragraphs (a)(1) through (7) of this section:

(1) The dates that define each operating status period during a calendar month. The dates that define each operating status period include the beginning date of each calendar month and the date of any change in the source operating status. If the source maintains the same operating status during an entire calendar month, these dates are the beginning and ending dates of the calendar month. If, prior to the effective date of this rule, your source determines the solvent loss on an accounting month, as defined in § 63.2872, rather than a calendar month basis, and you have 12 complete accounting months of approximately equal duration in a calendar year, you may substitute the accounting month time interval for the calendar month time interval. If you choose to use an accounting month rather than a calendar month, you must document this measurement frequency selection in your plan for demonstrating compliance, and you must remain on this schedule unless you request and receive written approval from the agency responsible for these NESHAP.

(2) Source operating status. You must categorize the operating status of your source for each recorded time interval in accordance with criteria in Table 1 of this section, as follows:

TABLE 1 OF § 63.2853—CATEGORIZING YOUR SOURCE OPERATING STATUS

If during a recorded time interval . . .	**then your source operating status is . . .**
(i) Your source processes any amount of listed oilseed and source is not operating under an initial startup operating period or a malfunction period subject to § 63.2850(c)(2), (d)(2), or (e)(2)	A normal operating period.
(ii) Your source processes no agricultural product and your source is not operating under an initial startup period or malfunction period subject to § 63.2850(c)(2), (d)(2), or (e)(2)	A nonoperating period.
(iii) You choose to operate your source under an initial startup period subject to § 63.2850(c)(2) or (d)(2)	An initial startup period.
(iv) You choose to operate your source under a malfunction period subject to § 63.2850(e)(2)	A malfunction period.
(v) Your source processes agricultural products not defined as listed oilseed	An exempt period.

(3) Measuring the beginning and ending solvent inventory. You are required to measure and record the solvent inventory on the beginning and ending dates of each normal operating period that occurs during an operating month. An operating month is any calendar month with at least one normal operating period. You must consistently follow the procedures described in your plan for demonstrating compliance, as specified in § 63.2851, to determine the extraction solvent inventory, and maintain readily available records of the actual solvent loss inventory, as described in § 63.2862(c)(1). In general, you must measure and record the solvent inventory only when the source is actively processing any type of agricultural product. When the source is not active, some or all of the solvent working capacity is transferred to solvent storage tanks which can artificially inflate the solvent inventory.

(4) Gallons of extraction solvent received. Record the total gallons of extraction solvent received in each shipment. For most processes, the gallons of solvent received represents purchases of delivered solvent added to the solvent storage inventory. However, if your process refines additional vegetable oil from off-site sources, recovers solvent from the off-site oil, and adds it to the on-site solvent inventory, then you must determine the quantity of recovered solvent and include it in the gallons of extraction solvent received.

(5) Solvent inventory adjustments. In some situations, solvent losses determined directly from the measured solvent inventory and quantity of solvent received is not an accurate estimate of the “actual solvent loss” for use in determining compliance ratios. In such cases, you may adjust the total solvent loss for each normal operating period as long as you provide a reasonable justification for the adjustment. Situations that may require adjustments of the total solvent loss include, but are not limited to, situations in paragraphs (a)(5)(i) and (ii) of this section:

(i) Solvent destroyed in a control device. You may use a control device to reduce solvent emissions to meet the emission standard. The use of a control device does not alter the emission limit for the source. If you use a control device that reduces solvent emissions through destruction of the solvent instead of recovery, then determine the gallons of solvent that enter the control device and are destroyed there during each normal operating period. All solvent destroyed in a control device during a normal operating period can be subtracted from the total solvent loss. Examples of destructive emission control devices include catalytic incinerators, boilers, or flares. Identify and describe, in your plan for demonstrating compliance, each type of reasonable and sound measurement method that you use to quantify the gallons of solvent entering and exiting the control device and to determine the destruction efficiency of the control device. You may use design evaluations to document the gallons of solvent destroyed or removed

by the control device instead of performance testing under § 63.7. The design evaluations must be based on the procedures and options described in § 63.985(b)(1)(i)(A) through (C) or § 63.11, as appropriate. All data, assumptions, and procedures used in such evaluations must be documented and available for inspection. If you use performance testing to determine solvent flow rate to the control device or destruction efficiency of the device, follow the procedures as outlined in § 63.997(e)(1) and (2). Instead of periodic performance testing to demonstrate continued good operation of the control device, you may develop a monitoring plan, following the procedures outlined in § 63.988(c) and using operational parametric measurement devices such as fan parameters, percent measurements of lower explosive limits, and combustion temperature.

(ii) Changes in solvent working capacity. In records you keep on-site, document any process modifications resulting in changes to the solvent working capacity in your vegetable oil production process. Solvent working capacity is defined in § 63.2872. In general, solvent working capacity is the volume of solvent normally retained in solvent recovery equipment such as the extractor, desolventizer-toaster, solvent storage, working tanks, mineral oil absorber, condensers, and oil/solvent distillation system. If the change occurs during a normal operating period, you must determine the difference in working solvent volume and make a one-time documented adjustment to the solvent inventory.

(b) Use Equation 1 of this section to determine the actual solvent loss occurring from your affected source for all normal operating periods recorded within a calendar month. Equation 1 of this section follows:

$$\text{Monthly Actual Solvent (gal)} = \sum_{i=1}^{n} \left(SOLV_B - SOLV_E + SOLV_R \pm SOLV_A \right)_i \qquad (Eq.\ 1)$$

Where:

$SOLV_B$ = Gallons of solvent in the inventory at the beginning of normal operating period “i” as determined in paragraph (a)(3) of this section.

$SOLV_E$ = Gallons of solvent in the inventory at the end of normal operating period “i” as determined in paragraph (a)(3) of this section.

$SOLV_R$ = Gallons of solvent received between the beginning and ending inventory dates of normal operating period “i” as determined in paragraph (a)(4) of this section.

$SOLV_A$ = Gallons of solvent added or removed from the extraction solvent inventory during normal operating period “i” as determined in paragraph (a)(5) of this section.

n = Number of normal operating periods in a calendar month.

(c) The actual solvent loss is the total solvent losses during normal operating periods for the previous 12 operating months. You determine your actual solvent loss by summing the monthly actual solvent losses for the previous 12 operating months. You must record the actual solvent loss by the end of each calendar month following an operating month. Use the actual solvent loss in Equation 2 of § 63.2840 to determine the compliance ratio. Actual solvent loss does not include losses that occur during operating status periods listed in paragraphs (c)(1) through (4) of this section. If any one of these four operating status periods span an entire month, then the month is treated as nonoperating and there is no compliance ratio determination.

(1) Nonoperating periods as described in paragraph (a)(2)(ii) of this section.

(2) Initial startup periods as described in § 63.2850(c)(2) or (d)(2).

(3) Malfunction periods as described in § 63.2850(e)(2).

(4) Exempt operation periods as described in paragraph (a)(2)(v) of this section.

§ 63.2854 How do I determine the weighted average volume fraction of HAP in the actual solvent loss?

(a) This section describes the information and procedures you must use to determine the weighted average volume fraction of HAP in extraction solvent received for use in your vegetable oil production process. By the end of each calendar month following an operating month, determine the weighted average volume fraction of HAP in extraction solvent received since the end of the previous operating month. If you have determined the monthly weighted average volume fraction of HAP in solvent received for 12 or more operating months, then also determine an overall weighted average volume fraction of HAP in solvent received for the previous 12 operating months. Use the volume fraction of HAP determined as a 12 operating months weighted average in Equation 2 of § 63.2840 to determine the compliance ratio.

(b) To determine the volume fraction of HAP in the extraction solvent determined as a 12 operating months weighted average, you must comply with paragraphs (b)(1) through (3) of this section:

(1) Record the volume fraction of each HAP comprising more than 1 percent by volume of the solvent in each delivery of solvent, including solvent recovered from off-site oil. To determine the HAP content of the material in each delivery of solvent, the reference method is EPA Method 311 of appendix A of this part. You may use EPA Method 311, an approved alternative method, or any other reasonable means for determining the HAP content. Other reasonable means of determining HAP content include, but are not limited to, a material safety data sheet or a manufacturer's certificate of analysis. A certificate of analysis is a legal and binding document provided by a solvent manufacturer. The purpose of a certificate of analysis is to list the test methods and analytical results that determine chemical properties of the solvent and the volume percentage of all HAP components present in the solvent at quantities greater than 1 percent by volume. You are not required to test the materials that you use, but the Administrator may require a test using EPA Method 311 (or an approved alternative method) to confirm the reported HAP content. However, if the results of an analysis by EPA Method 311 are different from the HAP content determined by another means, the EPA Method 311 results will govern compliance determinations.

(2) Determine the weighted average volume fraction of HAP in the extraction solvent each operating month. The weighted average volume fraction of HAP for an operating month includes all solvent received since the end of the last operating month, regardless of the operating status at the time of the delivery. Determine the monthly weighted average volume fraction of HAP by summing the products of the HAP volume fraction of each delivery and the volume of each delivery and dividing the sum by the total volume of all deliveries as expressed in Equation 1 of this section. Record the result by the end of each calendar month following an operating month. Equation 1 of this section follows:

$$\begin{array}{c}\text{Monthly Weighted}\\ \textit{Average}\ \text{HAP Content}\\ \text{of Extraction Solvent}\\ \text{(volume fraction)}\end{array} = \frac{\sum_{i=1}^{n}\left(\text{Received}_i * \textit{Content}_i\right)}{\textit{Total}\ \text{Received}} \qquad (\textit{Eq.}\ 1)$$

Where:

Received_i = Gallons of extraction solvent received in delivery “i.”

Content_i = The volume fraction of HAP in extraction solvent delivery “i.”

Total Received = Total gallons of extraction solvent received since the end of the previous operating month.

n = Number of extraction solvent deliveries since the end of the previous operating month.

(3) Determine the volume fraction of HAP in your extraction solvent as a 12 operating months weighted average. When your source has processed oilseed for 12 operating months, sum the products of the monthly weighted average HAP volume fraction and corresponding volume of solvent received, and divide the sum by the total volume of solvent received for the 12 operating months, as expressed by Equation 2 of this section. Record the result by the end of each calendar month following an operating month and use it in Equation 2 of § 63.2840 to determine the compliance ratio. Equation 2 of this section follows:

$$\begin{array}{c}\text{12-Month Weighted}\\ \textit{Average}\text{ of HAP Content}\\ \text{in Solvent Received}\\ \text{(volume fraction)}\end{array} = \frac{\sum_{i=1}^{12}(\text{Received}_i * \textit{Content}_i)}{\textit{Total}\text{ Received}} \qquad (\textit{Eq.}\ 2)$$

Where:

Received_i = Gallons of extraction solvent received in operating month “i” as determined in accordance with § 63.2853(a)(4).

Content_i = Average volume fraction of HAP in extraction solvent received in operating month “i” as determined in accordance with paragraph (b)(1) of this section.

Total Received = Total gallons of extraction solvent received during the previous 12 operating months.

§ 63.2855 How do I determine the quantity of oilseed processed?

All oilseed measurements must be determined on an as received basis, as defined in § 63.2872. The as received basis refers to the oilseed chemical and physical characteristics as initially received by the source and prior to any oilseed handling and processing. By the end of each calendar month following an operating month, you must determine the tons as received of each listed oilseed processed for the operating month. The total oilseed processed for an operating month includes the total of each oilseed processed during all normal operating periods that occur within the operating month. If you have determined the tons of oilseed processed for 12 or more operating months, then you must also determine the 12 operating months rolling sum of each type oilseed processed by summing the tons of each type of oilseed processed for the previous 12 operating months. The 12 operating months rolling sum of each type of oilseed processed is used to calculate the compliance ratio as described in § 63.2840.

(a) To determine the tons as received of each type of oilseed processed at your source, follow the procedures in your plan for demonstrating compliance to determine the items in paragraphs (a)(1) through (5) of this section:

(1) The dates that define each operating status period. The dates that define each operating status period include the beginning date of each calendar month and the date of any change in the source operating status. If, prior to the effective date of this rule, your source determines the oilseed inventory on an accounting month rather than a calendar month basis, and you have 12 complete accounting months of approximately equal duration in a calendar year, you may substitute the accounting month time interval for the calendar month time interval. If you choose to use an accounting month rather than a calendar month, you must document this measurement frequency selection in your plan for demonstrating compliance, and you must remain on this schedule unless you request and receive written approval from

the agency responsible for these NESHAP. The dates on each oilseed inventory log must be consistent with the dates recorded for the solvent inventory.

(2) Source operating status. You must categorize the source operation for each recorded time interval. The source operating status for each time interval recorded on the oilseed inventory for each type of oilseed must be consistent with the operating status recorded on the solvent inventory logs as described in § 63.2853(a)(2).

(3) Measuring the beginning and ending inventory for each oilseed. You are required to measure and record the oilseed inventory on the beginning and ending dates of each normal operating period that occurs during an operating month. An operating month is any calendar month with at least one normal operating period. You must consistently follow the procedures described in your plan for demonstrating compliance, as specified in § 63.2851, to determine the oilseed inventory on an as received basis and maintain readily available records of the oilseed inventory as described by § 63.2862(c)(3).

(4) Tons of each oilseed received. Record the type of oilseed and tons of each shipment of oilseed received and added to your on-site storage.

(5) Oilseed inventory adjustments. In some situations, determining the quantity of oilseed processed directly from the measured oilseed inventory and quantity of oilseed received is not an accurate estimate of the tons of oilseed processed for use in determining compliance ratios. For example, spoiled and molded oilseed removed from storage but not processed by your source will result in an overestimate of the quantity of oilseed processed. In such cases, you must adjust the oilseed inventory and provide a justification for the adjustment. Situations that may require oilseed inventory adjustments include, but are not limited to, the situations listed in paragraphs (a)(5)(i) through (v) of this section:

(i) Oilseed that mold or otherwise become unsuitable for processing.

(ii) Oilseed you sell before it enters the processing operation.

(iii) Oilseed destroyed by an event such as a process malfunction, fire, or natural disaster.

(iv) Oilseed processed through operations prior to solvent extraction such as screening, dehulling, cracking, drying, and conditioning; but that are not routed to the solvent extractor for further processing.

(v) Periodic physical measurements of inventory. For example, some sources periodically empty oilseed storage silos to physically measure the current oilseed inventory. This periodic measurement procedure typically results in a small inventory correction. The correction factor, usually less than 1 percent, may be used to make an adjustment to the source's oilseed inventory that was estimated previously with indirect measurement techniques. To make this adjustment, your plan for demonstrating compliance must provide for such an adjustment.

(b) Use Equation 1 of this section to determine the quantity of each oilseed type processed at your affected source during normal operating periods recorded within a calendar month. Equation 1 of this section follows:

$$\text{Monthly Quantity of Each Oilseed Processed (tons)} = \sum_{n=1}^{n}\left(SEED_B - SEED_E + SEED_R \pm SEED_A\right) \qquad (Eq.\ 1)$$

Where:

$SEED_B$ = Tons of oilseed in the inventory at the beginning of normal operating period "i" as determined in accordance with paragraph (a)(3) of this section.

$SEED_E$ = Tons of oilseed in the inventory at the end of normal operating period "i" as determined in accordance with paragraph (a)(3) of this section.

$SEED_R$ = Tons of oilseed received during normal operating period "i" as determined in accordance with paragraph (a)(4) of this section.

$SEED_A$ = Tons of oilseed added or removed from the oilseed inventory during normal operating period "i" as determined in accordance with paragraph (a)(5) of this section.

n = Number of normal operating periods in the calendar month during which this type oilseed was processed.

(c) The quantity of each oilseed processed is the total tons of each type of listed oilseed processed during normal operating periods in the previous 12 operating months. You determine the tons of each oilseed processed by summing the monthly quantity of each oilseed processed for the previous 12 operating months. You must record the 12 operating months quantity of each type of oilseed processed by the end of each calendar month following an operating month. Use the 12 operating months quantity of each type of oilseed processed to determine the compliance ratio as described in § 63.2840. The quantity of oilseed processed does not include oilseed processed during the operating status periods in paragraphs (c)(1) through (4) of this section:

(1) Nonoperating periods as described in § 63.2853 (a)(2)(ii).

(2) Initial startup periods as described in § 63.2850(c)(2) or (d)(2).

(3) Malfunction periods as described in § 63.2850(e)(2).

(4) Exempt operation periods as described in § 63.2853 (a)(2)(v).

(5) If any one of these four operating status periods span an entire calendar month, then the calendar month is treated as a nonoperating month and there is no compliance ratio determination.

Notifications, Reports, and Records

§ 63.2860 What notifications must I submit and when?

You must submit the one-time notifications listed in paragraphs (a) through (d) of this section to the responsible agency:

(a) Initial notification for existing sources. For an existing source, submit an initial notification to the agency responsible for these NESHAP no later than 120 days after the effective date of this subpart. In the notification, include the items in paragraphs (a)(1) through (5) of this section:

(1) The name and address of the owner or operator.

(2) The physical address of the vegetable oil production process.

(3) Identification of the relevant standard, such as the vegetable oil production NESHAP, and compliance date.

(4) A brief description of the source including the types of listed oilseeds processed, nominal operating capacity, and type of desolventizer(s) used.

(5) A statement designating the source as a major source of HAP or a demonstration that the source meets the definition of an area source. An area source is a source that is not a major source and is not collocated within a plant site with other sources that are individually or collectively a major source.

(b) Initial notifications for new and reconstructed sources. New or reconstructed sources must submit a series of notifications before, during, and after source construction per the schedule listed in § 63.9. The information requirements for the notifications are the same as those listed in the General Provisions with the exceptions listed in paragraphs (b)(1) and (2) of this section:

(1) The application for approval of construction does not require the specific HAP emission data required in § 63.5(d)(1)(ii)(H) and (iii), (d)(2) and (d)(3)(ii). The application for approval of construction would include, instead, a brief description of the source including the types of listed oilseeds processed, nominal operating capacity, and type of desolventizer(s) used.

(2) The notification of actual startup date must also include whether you have elected to operate under an initial startup period subject to § 63.2850(c)(2) and provide an estimate and justification for the anticipated duration of the initial startup period.

(c) Significant modification notifications. Any existing or new source that plans to undergo a significant modification as defined in § 63.2872 must submit two reports as described in paragraphs (c)(1) and (2) of this section:

(1) Initial notification. You must submit an initial notification to the agency responsible for these NESHAP 30 days prior to initial startup of the significantly modified source. The initial notification must demonstrate that the proposed changes qualify as a significant modification. The initial notification must include the items in paragraphs (c)(1)(i) and (ii) of this section:

(i) The expected startup date of the modified source.

(ii) A description of the significant modification including a list of the equipment that will be replaced or modified. If the significant modification involves changes other than adding or replacing extractors, desolventizer-toasters (conventional and specialty), and meal dryer-coolers, then you must also include the fixed capital cost of the new components, expressed as a percentage of the fixed capital cost to build a comparable new vegetable oil production process; supporting documentation for the cost estimate; and documentation that the proposed changes will significantly affect solvent losses.

(2) Notification of actual startup. You must submit a notification of actual startup date within 15 days after initial startup of the modified source. The notification must include the items in paragraphs (c)(2)(i) through (iv) of this section:

(i) The initial startup date of the modified source.

(ii) An indication whether you have elected to operate under an initial startup period subject to § 63.2850(d)(2).

(iii) The anticipated duration of any initial startup period.

(iv) A justification for the anticipated duration of any initial startup period.

(d) Notification of compliance status. As an existing, new, or reconstructed source, you must submit a notification of compliance status report to the responsible agency no later than 60 days after determining your initial 12 operating months compliance ratio. If you are an existing source, you generally must submit this notification no later than 50 calendar months after the effective date of these NESHAP (36 calendar months for compliance, 12 operating months to record data, and 2 calendar months to complete the report). If you are a new or reconstructed source, the notification of compliance status is generally due no later than 20 calendar months after initial startup (6 calendar months for the initial startup period, 12 operating months to record data, and 2 calendar months to complete the report). The notification of compliance status must contain the items in paragraphs (d)(1) through (6) of this section:

(1) The name and address of the owner or operator.

(2) The physical address of the vegetable oil production process.

(3) Each listed oilseed type processed during the previous 12 operating months.

(4) Each HAP identified under § 63.2854(a) as being present in concentrations greater than 1 percent by volume in each delivery of solvent received during the 12 operating months period used for the initial compliance determination.

(5) A statement designating the source as a major source of HAP or a demonstration that the source qualifies as an area source. An area source is a source that is not a major source and is not collocated within a plant site with other sources that are individually or collectively a major source.

(6) A compliance certification indicating whether the source complied with all of the requirements of this subpart throughout the 12 operating months used for the initial source compliance determination. This certification must include a certification of the items in paragraphs (d)(6)(i) through (iii) of this section:

(i) The plan for demonstrating compliance (as described in § 63.2851) and SSM plan (as described in § 63.2852) are complete and available on-site for inspection.

(ii) You are following the procedures described in the plan for demonstrating compliance.

(iii) The compliance ratio is less than or equal to 1.00.

§ 63.2861 What reports must I submit and when?

After the initial notifications, you must submit the reports in paragraphs (a) through (d) of this section to the agency responsible for these NESHAP at the appropriate time intervals:

(a) Annual compliance certifications. The first annual compliance certification is due 12 calendar months after you submit the notification of compliance status. Each subsequent annual compliance certification is due 12 calendar months after the previous annual compliance certification. The annual compliance certification provides the compliance status for each operating month during the 12 calendar months period ending 60 days prior to the date on which the report is due. Include the information in paragraphs (a)(1) through (6) of this section in the annual certification:

(1) The name and address of the owner or operator.

(2) The physical address of the vegetable oil production process.

(3) Each listed oilseed type processed during the 12 calendar months period covered by the report.

(4) Each HAP identified under § 63.2854(a) as being present in concentrations greater than 1 percent by volume in each delivery of solvent received during the 12 calendar months period covered by the report.

(5) A statement designating the source as a major source of HAP or a demonstration that the source qualifies as an area source. An area source is a source that is not a major source and is not collocated within a plant site with other sources that are individually or collectively a major source.

(6) A compliance certification to indicate whether the source was in compliance for each compliance determination made during the 12 calendar months period covered by the report. For each such compliance determination, you must include a certification of the items in paragraphs (a)(6)(i) through (ii) of this section:

(i) You are following the procedures described in the plan for demonstrating compliance.

(ii) The compliance ratio is less than or equal to 1.00.

(b) Deviation notification report. Submit a deviation report for each compliance determination you make in which the compliance ratio exceeds 1.00 as determined under § 63.2840(c). Submit the deviation report by the end of the month following the calendar month in which you determined the deviation. The deviation notification report must include the items in paragraphs (b)(1) through (4) of this section:

(1) The name and address of the owner or operator.

(2) The physical address of the vegetable oil production process.

(3) Each listed oilseed type processed during the 12 operating months period for which you determined the deviation.

(4) The compliance ratio comprising the deviation. You may reduce the frequency of submittal of the deviation notification report if the agency responsible for these NESHAP does not object as provided in § 63.10(e)(3)(iii).

(c) Periodic startup, shutdown, and malfunction report. If you choose to operate your source under an initial startup period subject to § 63.2850(c)(2) or (d)(2) or a malfunction period subject to § 63.2850(e)(2), you must submit a periodic SSM report by the end of the calendar month following each month in which the initial startup period or malfunction period occurred. The periodic SSM report must include the items in paragraphs (c)(1) through (3) of this section:

(1) The name, title, and signature of a source's responsible official who is certifying that the report accurately states that all actions taken during the initial startup or malfunction period were consistent with the SSM plan.

(2) A description of events occurring during the time period, the date and duration of the events, and reason the time interval qualifies as an initial startup period or malfunction period.

(3) An estimate of the solvent loss during the initial startup or malfunction period with supporting documentation.

(d) Immediate SSM reports. If you handle a SSM during an initial startup period subject to § 63.2850(c)(2) or (d)(2) or a malfunction period subject to § 63.2850(e)(2) differently from procedures in the SSM plan and the relevant emission requirements in § 63.2840 are exceeded, then you must submit an immediate SSM report. Immediate SSM reports consist of a telephone call or facsimile transmission to the responsible agency within 2 working days after starting actions inconsistent with the SSM plan, followed by a letter within 7 working days after the end of the event. The letter must include the items in paragraphs (d)(1) through (3) of this section:

(1) The name, title, and signature of a source's responsible official who is certifying the accuracy of the report, an explanation of the event, and the reasons for not following the SSM plan.

(2) A description and date of the SSM event, its duration, and reason it qualifies as a SSM.

(3) An estimate of the solvent loss for the duration of the SSM event with supporting documentation.

[66 FR 19011, Apr. 12, 2001, as amended at 67 FR 16321, Apr. 5, 2002]

§ 63.2862 What records must I keep?

(a) You must satisfy the recordkeeping requirements of this section by the compliance date for your source specified in Table 1 of § 63.2834.

(b) Prepare a plan for demonstrating compliance (as described in § 63.2851) and a SSM plan (as described in § 63.2852). In these two plans, describe the procedures you will follow in obtaining and recording data, and determining compliance under normal operations or a SSM subject to the § 63.2850(c)(2) or (d)(2) initial startup period or the § 63.2850(e)(2) malfunction period. Complete both plans before the compliance date for your source and keep them on-site and readily available as long as the source is operational.

(c) If your source processes any listed oilseed, record the items in paragraphs (c)(1) through (5) of this section:

(1) For the solvent inventory, record the information in paragraphs (c)(1)(i) through (vii) of this section in accordance with your plan for demonstrating compliance:

(i) Dates that define each operating status period during a calendar month.

(ii) The operating status of your source such as normal operation, nonoperating, initial startup period, malfunction period, or exempt operation for each recorded time interval.

(iii) Record the gallons of extraction solvent in the inventory on the beginning and ending dates of each normal operating period.

(iv) The gallons of all extraction solvent received, purchased, and recovered during each calendar month.

(v) All extraction solvent inventory adjustments, additions or subtractions. You must document the reason for the adjustment and justify the quantity of the adjustment.

(vi) The total solvent loss for each calendar month, regardless of the source operating status.

(vii) The actual solvent loss in gallons for each operating month.

(2) For the weighted average volume fraction of HAP in the extraction solvent, you must record the items in paragraphs (c)(2)(i) through (iii) of this section:

(i) The gallons of extraction solvent received in each delivery.

(ii) The volume fraction of each HAP exceeding 1 percent by volume in each delivery of extraction solvent.

(iii) The weighted average volume fraction of HAP in extraction solvent received since the end of the last operating month as determined in accordance with § 63.2854(b)(2).

(3) For each type of listed oilseed processed, record the items in paragraphs (c)(3)(i) through (vi) of this section, in accordance with your plan for demonstrating compliance:

(i) The dates that define each operating status period. These dates must be the same as the dates entered for the extraction solvent inventory.

(ii) The operating status of your source such as normal operation, nonoperating, initial startup period, malfunction period, or exempt operation for each recorded time interval. On the log for each type of listed oilseed that is not being processed during a normal operating period, you must record which type of listed oilseed is being processed in addition to the source operating status.

(iii) The oilseed inventory for the type of listed oilseed being processed on the beginning and ending dates of each normal operating period.

(iv) The tons of each type of listed oilseed received at the affected source each normal operating period.

(v) All listed oilseed inventory adjustments, additions or subtractions for normal operating periods. You must document the reason for the adjustment and justify the quantity of the adjustment.

(vi) The tons of each type of listed oilseed processed during each operating month.

(d) After your source has processed listed oilseed for 12 operating months, and you are not operating during an initial startup period as described in § 63.2850(c)(2) or (d)(2), or a malfunction period as described in § 63.2850(e)(2), record the items in paragraphs (d)(1) through (5) of this section by the end of the calendar month following each operating month:

(1) The 12 operating months rolling sum of the actual solvent loss in gallons as described in § 63.2853(c).

(2) The weighted average volume fraction of HAP in extraction solvent received for the previous 12 operating months as described in § 63.2854(b)(3).

(3) The 12 operating months rolling sum of each type of listed oilseed processed at the affected source in tons as described in § 63.2855(c).

(4) A determination of the compliance ratio. Using the values from §§ 63.2853, 63.2854, 63.2855, and Table 1 of § 63.2840, calculate the compliance ratio using Equation 2 of § 63.2840.

(5) A statement of whether the source is in compliance with all of the requirements of this subpart. This includes a determination of whether you have met all of the applicable requirements in § 63.2850.

(e) For each SSM event subject to an initial startup period as described in § 63.2850(c)(2) or (d)(2), or a malfunction period as described in § 63.2850(e)(2), record the items in paragraphs (e)(1) through (3) of this section by the end of the calendar month following each month in which the initial startup period or malfunction period occurred:

(1) A description and date of the SSM event, its duration, and reason it qualifies as an initial startup or malfunction.

(2) An estimate of the solvent loss in gallons for the duration of the initial startup or malfunction period with supporting documentation.

(3) A checklist or other mechanism to indicate whether the SSM plan was followed during the initial startup or malfunction period.

§ 63.2863 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for review in accordance with § 63.10(b)(1).

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, in accordance with § 3.10(b)(1). You can keep the records off-site for the remaining 3 years.

Other Requirements and Information

§ 63.2870 What parts of the General Provisions apply to me?

Table 1 of this section shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you. Table 1 of § 63.2870 follows:

TABLE 1 TO § 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	

General provisions citation	Subject of citation	Brief description of requirement	Applies to subpart	Explanation
§ 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 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.

General provisions citation	Subject of citation	Brief description of requirement	Applies to subpart	Explanation
§ 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	

General provisions citation	Subject of citation	Brief description of requirement	Applies to subpart	Explanation
§ 63.7	Performance testing requirements	Schedule, conditions, notifications and procedures	Yes	Subpart GGGG requires performance testing only if the source applies additional control that destroys solvent. Section 63.2850(a)(6) requires sources to follow the performance testing guidelines of the General Provisions if a control is added.
§ 63.8	Monitoring requirements		No	Subpart GGGG does not require monitoring other than as specified therein.
§ 63.9	Notification requirements	Applicability and state delegation	Yes	Except for subsections of § 63.9 as listed below.
§ 63.9(b)(2)	Notification requirements	Initial notification requirements for existing sources	No	Section 63.2860(a) of subpart GGGG specifies the requirements of the initial notification for existing sources.
§ 63.9(b)(3)-(5)	Notification requirements	Notification requirement for certain new/reconstructed sources	Yes	Except the information requirements differ as described in § 63.2860(b) of subpart GGGG.
§ 63.9(e)	Notification of performance test	Notify responsible agency 60 days ahead	Yes	Applies only if performance testing is performed.
§ 63.9(f)	Notification of VE/opacity observations	Notify responsible agency 30 days ahead	No	Subpart GGGG has no opacity or VE standards.
§ 63.9(g)	Additional notifications when using a continuous monitoring system (CMS)	Notification of performance evaluation; Notification using COMS data; notification that exceeded criterion 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.

General provisions citation	Subject of citation	Brief description of requirement	Applies to subpart	Explanation
§ 63.10	Recordkeeping/reporting	Schedule for reporting, record storage	Yes	Except for subsections of § 63.10 as listed below.
§ 63.10(b)(2)(i)	Recordkeeping	Record SSM event	Yes	Applicable to periods when sources must implement their SSM plan as specified in subpart GGGG.
§ 63.10(b)(2)(ii)-(iii)	Recordkeeping	Malfunction of air pollution equipment	No	Applies only if air pollution control equipment has been added to the process and is necessary for the source to meet the emission limit.
§ 63.10(b)(2)(vi)	Recordkeeping	CMS recordkeeping	No	Subpart GGGG has no CMS requirements.
§ 63.10(b)(2)(viii)-(ix)	Recordkeeping	Conditions of performance test	Yes	Applies only if performance tests are performed. Subpart GGGG does not have any CMS opacity or VE observation requirements.
§ 63.10(b)(2)(x)-(xii)	Recordkeeping	CMS, performance testing, and opacity and VE observations recordkeeping	No	Subpart GGGG does not require CMS.
§ 63.10(c)	Recordkeeping	Additional CMS recordkeeping	No	Subpart GGGG does not require CMS.
§ 63.10(d)(2)	Reporting	Reporting performance test results	Yes	Applies only if performance testing is performed.
§ 63.10(d)(3)	Reporting	Reporting opacity or VE observations	No	Subpart GGGG has no opacity or VE standards.
§ 63.10(d)(4)	Reporting	Progress reports	Yes	Applies only if a condition of compliance extension exists.
§ 63.10(d)(5)	Reporting	SSM reporting	No	Section 63.2861(c) and (d) specify SSM reporting requirements.
§ 63.10(e)	Reporting	Additional CMS reports	No	Subpart GGGG does not require CMS.

General provisions citation	Subject of citation	Brief description of requirement	Applies to subpart	Explanation
§ 63.11	Control device requirements	Requirements for flares	Yes	Applies only if your source uses a flare to control solvent emissions. Subpart GGGG does not require flares.
§ 63.12	State authority and delegations	State authority to enforce standards	Yes	
§ 63.13	State/regional addresses	Addresses where reports, notifications, and requests are sent	Yes	
§ 63.14	Incorporation by reference	Test methods incorporated by reference	Yes	
§ 63.15	Availability of information and confidentiality	Public and confidential information	Yes	

[66 FR 19011, Apr. 12, 2001, as amended at 67 FR 16321, Apr. 5, 2002; 71 FR 20463, Apr. 20, 2006]

§ 63.2871 Who implements and enforces this subpart?

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

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

(c) The authorities that will not be delegated to State, local, or tribal agencies are as follows:

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

(2) Approval of alternative opacity standards under § 63.6(h)(9).

(3) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(4) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.

(5) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

§ 63.2872 What definitions apply to this subpart?

Terms used in this subpart are defined in the sources listed:

(a) The Clean Air Act, section 112(a).

(b) In 40 CFR 63.2, the NESHAP General Provisions.

(c) In this section as follows:

Accounting month means a time interval defined by a business firm during which corporate economic and financial factors are determined on a consistent and regular basis. An accounting month will consist of approximately 4 to 5 calendar weeks and each accounting month will be of approximate equal duration. An accounting month may not correspond exactly to a calendar month, but 12 accounting months will correspond exactly to a calendar year.

Actual solvent loss means the gallons of solvent lost from a source during 12 operating months as determined in accordance with § 63.2853.

Agricultural product means any commercially grown plant or plant product.

Allowable HAP loss means the gallons of HAP that would have been lost from a source if the source was operating at the solvent loss factor for each listed oilseed type. The allowable HAP loss in gallons is determined by multiplying the tons of each oilseed type processed during the previous 12 operating months, as determined in accordance with § 63.2855, by the corresponding oilseed solvent loss factor (gal/ton) listed in Table 1 of § 63.2840, and by the dimensionless constant 0.64, and summing the result for all oilseed types processed.

Area source means any source that does not meet the major source definition.

As received is the basis upon which all oilseed measurements must be determined and refers to the oilseed chemical and physical characteristics as initially received by the source and prior to any oilseed handling and processing.

Batch operation means any process that operates in a manner where the addition of raw material and withdrawal of product do not occur simultaneously. Typically, raw material is added to a process, operational steps occur, and a product is removed from the process. More raw material is then added to the process and the cycle repeats.

Calendar month means 1 month as specified in a calendar.

Compliance date means the date on which monthly compliance recordkeeping begins. For existing sources, recordkeeping typically begins 3 years after the effective date of the subpart. For new and reconstructed sources, recordkeeping typically begins upon initial startup, except as noted in § 63.2834.

Compliance ratio means a ratio of the actual HAP loss in gallons from the previous 12 operating months to an allowable HAP loss in gallons, which is determined by using oilseed solvent loss factors in Table 1 of § 63.2840, the weighted average volume fraction of HAP in solvent received for the previous 12 operating months, and the tons of each type of listed oilseed processed in the previous 12 operating months. Months during which no listed oilseed is processed, or months during which the § 63.2850(c)(2) or (d)(2) initial startup period or the § 63.2850(e)(2) malfunction period applies, are excluded from this calculation. Equation 2 of § 63.2840 is used to calculate this value. If the value is less than or equal to

1.00, the source is in compliance. If the value is greater than 1.00, the source is deviating from compliance.

Continuous operation means any process that adds raw material and withdraws product simultaneously. Mass, temperature, concentration and other properties typically approach steady-state conditions.

Conventional desolventizer means a desolventizer toaster that operates with indirect and direct-contact steam to remove solvent from the extracted meal. Oilseeds processed in a conventional desolventizer produce crude vegetable oil and crude meal products, such as animal feed.

Corn germ dry milling means a source that processes corn germ that has been separated from the other corn components using a “dry” process of mechanical chafing and air sifting.

Corn germ wet milling means a source that processes corn germ that has been separated from other corn components using a “wet” process of centrifuging a slurry steeped in a dilute sulfurous acid solution.

Exempt period means a period of time during which a source processes agricultural products not defined as listed oilseed.

Extraction solvent means an organic chemical medium used to remove oil from an oilseed. Typically, the extraction solvent is a commercial grade of hexane isomers which have an approximate HAP content of 64 percent by volume.

Hazardous air pollutant (HAP) means any substance or mixture of substances listed as a hazardous air pollutant under section 112(b) of the Clean Air Act, as of April 12, 2001.

Initial startup date means the first calendar day that a new, reconstructed or significantly modified source processes any listed oilseed.

Initial startup period means a period of time from the initial startup date of a new, reconstructed or significantly modified source, for which you choose to operate the source under an initial startup period subject to § 63.2850(c)(2) or (d)(2). During an initial startup period, a source complies with the standards by minimizing HAP emissions to the extent practical. The initial startup period following initial startup of a new or reconstructed source may not exceed 6 calendar months. The initial startup period following a significant modification may not exceed 3 calendar months. Solvent and oilseed inventory information recorded during the initial startup period is excluded from use in any compliance ratio determinations.

Large cottonseed plant means a vegetable oil production process that processes 120,000 tons or more of cottonseed and other listed oilseed during all normal operating periods in a 12 operating months period used to determine compliance.

Malfunction period means a period of time between the beginning and end of a process malfunction and the time reasonably necessary for a source to correct the malfunction for which you choose to operate the source under a malfunction period subject to § 63.2850(e)(2). This period may include the duration of an unscheduled process shutdown, continued operation during a malfunction, or the subsequent process startup after a shutdown resulting from a malfunction. During a malfunction period, a source complies with the standards by minimizing HAP emissions to the extent practical. Therefore, solvent and oilseed inventory information recorded during a malfunction period is excluded from use in any compliance ratio determinations.

Mechanical extraction means removing vegetable oil from oilseeds using only mechanical devices such as presses or screws that physically force the oil from the oilseed. Mechanical extraction techniques use no organic solvents to remove oil from an oilseed.

Nonoperating period means any period of time in which a source processes no agricultural product. This operating status does not apply during any period in which the source operates under an initial startup period as described in § 63.2850(c)(2) or (d)(2), or a malfunction period, as described in § 63.2850(e)(2).

Normal operating period means any period of time in which a source processes a listed oilseed that is not categorized as an initial startup period as described in § 63.2850(c)(2) or (d)(2), or a malfunction period, as described in § 63.2850(e)(2). At the beginning and ending dates of a normal operating period, solvent and oilseed inventory information is recorded and included in the compliance ratio determination.

Oilseed or listed oilseed means the following agricultural products: corn germ, cottonseed, flax, peanut, rapeseed (for example, canola), safflower, soybean, and sunflower.

Oilseed solvent loss factor means a ratio expressed as gallons of solvent loss per ton of oilseed processed. The solvent loss factors are presented in Table 1 of § 63.2840 and are used to determine the allowable HAP loss.

Operating month means any calendar or accounting month in which a source processes any quantity of listed oilseed, excluding any entire calendar or accounting month in which the source operated under an initial startup period as described in § 63.2850(c)(2) or (d)(2), or a malfunction period as described in § 63.2850(e)(2). An operating month may include time intervals characterized by several types of operating status. However, an operating month must have at least one normal operating period.

Significant modification means the addition of new equipment or the modification of existing equipment that:

(1) Significantly affects solvent losses from your vegetable oil production process;

(2) The fixed capital cost of the new components represents a significant percentage of the fixed capital cost of building a comparable new vegetable oil production process;

(3) The fixed capital cost of the new equipment does not constitute reconstruction as defined in § 63.2; and

(4) Examples of significant modifications include replacement of or major changes to solvent recovery equipment such as extractors, desolventizer-toasters/dryer-coolers, flash desolventizers, and distillation equipment associated with the mineral oil system, and equipment affecting desolventizing efficiency and steady-state operation of your vegetable oil production process such as flaking mills, oilseed heating and conditioning equipment, and cracking mills.

Small cottonseed plant means a vegetable oil production process that processes less than 120,000 tons of cottonseed and other listed oilseed during all normal operating periods in a 12 operating months period used to determine compliance.

Solvent extraction means removing vegetable oil from listed oilseed using an organic solvent in a direct-contact system.

Solvent working capacity means the volume of extraction solvent normally retained in solvent recovery equipment. Examples include components such as the solvent extractor, desolventizer-toaster, solvent storage and working tanks, mineral oil absorption system, condensers, and oil/solvent distillation system.

Specialty desolventizer means a desolventizer that removes excess solvent from soybean meal using vacuum conditions, energy from superheated solvent vapors, or reduced operating conditions (e.g., temperature) as compared to the typical operation of a conventional desolventizer. Soybeans processed

in a specialty desolventizer result in high-protein vegetable meal products for human and animal consumption, such as calf milk replacement products and meat extender products.

Vegetable oil production process means the equipment comprising a continuous process for producing crude vegetable oil and meal products, including specialty soybean products, in which oil is removed from listed oilseeds through direct contact with an organic solvent. Process equipment typically includes the following components: oilseed preparation operations (including conditioning, drying, dehulling, and cracking), solvent extractors, desolventizer-toasters, meal dryers, meal coolers, meal conveyor systems, oil distillation units, solvent evaporators and condensers, solvent recovery system (also referred to as a mineral oil absorption system), vessels storing solvent-laden materials, and crude meal packaging and storage vessels. A vegetable oil production process does not include vegetable oil refining operations (including operations such as bleaching, hydrogenation, and deodorizing) and operations that engage in additional chemical treatment of crude soybean meals produced in specialty desolventizer units (including operations such as soybean isolate production).

[66 FR 19011, Apr. 12, 2001, as amended at 71 FR 20464, Apr. 20, 2006]

Attachment D
Part 70 Operating Permit Renewal T001-31996-00005

[Downloaded from the eCFR on May 10, 2013]

Title 40: Protection of Environment

Part 63, Subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

Source: 76 FR 15664, Mar. 21, 2011, unless otherwise noted.

What This Subpart Covers

§ 63.7480 What is the purpose of this subpart?

This subpart establishes national emission limitations and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters located at major sources of HAP. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and work practice standards.

§ 63.7485 Am I subject to this subpart?

You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler or process heater as defined in § 63.7575 that is located at, or is part of, a major source of HAP, except as specified in § 63.7491. For purposes of this subpart, a major source of HAP is as defined in § 63.2, except that for oil and natural gas production facilities, a major source of HAP is as defined in § 63.7575.

[78 FR 7162, Jan. 31, 2013]

§ 63.7490 What is the affected source of this subpart?

(a) This subpart applies to new, reconstructed, and existing affected sources as described in paragraphs (a)(1) and (2) of this section.

(1) The affected source of this subpart is the collection at a major source of all existing industrial, commercial, and institutional boilers and process heaters within a subcategory as defined in § 63.7575.

(2) The affected source of this subpart is each new or reconstructed industrial, commercial, or institutional boiler or process heater, as defined in § 63.7575, located at a major source.

(b) A boiler or process heater is new if you commence construction of the boiler or process heater after June 4, 2010, and you meet the applicability criteria at the time you commence construction.

(c) A boiler or process heater is reconstructed if you meet the reconstruction criteria as defined in § 63.2, you commence reconstruction after June 4, 2010, and you meet the applicability criteria at the time you commence reconstruction.

(d) A boiler or process heater is existing if it is not new or reconstructed.

(e) An existing electric utility steam generating unit (EGU) that meets the applicability requirements of this subpart after the effective date of this final rule due to a change (e.g., fuel switch) is considered to be an existing source under this subpart.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7162, Jan. 31, 2013]

§ 63.7491 Are any boilers or process heaters not subject to this subpart?

The types of boilers and process heaters listed in paragraphs (a) through (n) of this section are not subject to this subpart.

(a) An electric utility steam generating unit (EGU) covered by subpart UUUUU of this part.

(b) A recovery boiler or furnace covered by subpart MM of this part.

(c) A boiler or process heater that is used specifically for research and development, including test steam boilers used to provide steam for testing the propulsion systems on military vessels. This does not include units that provide heat or steam to a process at a research and development facility.

(d) A hot water heater as defined in this subpart.

(e) A refining kettle covered by subpart X of this part.

(f) An ethylene cracking furnace covered by subpart YY of this part.

(g) Blast furnace stoves as described in EPA-453/R-01-005 (incorporated by reference, see § 63.14).

(h) Any boiler or process heater that is part of the affected source subject to another subpart of this part, such as boilers and process heaters used as control devices to comply with subparts JJJ, OOO, PPP, and U of this part.

(i) Any boiler or process heater that is used as a control device to comply with another subpart of this part, or part 60, part 61, or part 65 of this chapter provided that at least 50 percent of the average annual heat input during any 3 consecutive calendar years to the boiler or process heater is provided by regulated gas streams that are subject to another standard.

(j) Temporary boilers as defined in this subpart.

(k) Blast furnace gas fuel-fired boilers and process heaters as defined in this subpart.

(l) Any boiler specifically listed as an affected source in any standard(s) established under section 129 of the Clean Air Act.

(m) A unit that burns hazardous waste covered by Subpart EEE of this part. A unit that is exempt from Subpart EEE as specified in § 63.1200(b) is not covered by Subpart EEE.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7162, Jan. 31, 2013]

EDITORIAL NOTE: At 78 FR 7162, Jan. 31, 2013, § 63.7491 was amended by revising paragraph (n). However, there is no paragraph (n) to revise.

§ 63.7495 When do I have to comply with this subpart?

(a) If you have a new or reconstructed boiler or process heater, you must comply with this subpart by January 31, 2013, or upon startup of your boiler or process heater, whichever is later.

(b) If you have an existing boiler or process heater, you must comply with this subpart no later than January 31, 2016, except as provided in § 63.6(i).

(c) If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, paragraphs (c)(1) and (2) of this section apply to you.

(1) Any new or reconstructed boiler or process heater at the existing source must be in compliance with this subpart upon startup.

(2) Any existing boiler or process heater at the existing source must be in compliance with this subpart within 3 years after the source becomes a major source.

(d) You must meet the notification requirements in § 63.7545 according to the schedule in § 63.7545 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limits and work practice standards in this subpart.

(e) If you own or operate an industrial, commercial, or institutional boiler or process heater and would be subject to this subpart except for the exemption in § 63.7491(l) for commercial and industrial solid waste incineration units covered by part 60, subpart CCCC or subpart DDDD, and you cease combusting solid waste, you must be in compliance with this subpart on the effective date of the switch from waste to fuel.

(f) If you own or operate an existing EGU that becomes subject to this subpart after January 31, 2013, you must be in compliance with the applicable existing source provisions of this subpart on the effective date such unit becomes subject to this subpart.

(g) If you own or operate an existing industrial, commercial, or institutional boiler or process heater and would be subject to this subpart except for a exemption in § 63.7491(i) that becomes subject to this subpart after January 31, 2013, you must be in compliance with the applicable existing source provisions of this subpart within 3 years after such unit becomes subject to this subpart.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7162, Jan. 31, 2013]

EDITORIAL NOTE: At 78 FR 7162, Jan. 31, 2013, § 63.7495 was amended by adding paragraph (e). However, there is already a paragraph (e).

Emission Limitations and Work Practice Standards

§ 63.7499 What are the subcategories of boilers and process heaters?

The subcategories of boilers and process heaters, as defined in § 63.7575 are:

(a) Pulverized coal/solid fossil fuel units.

(b) Stokers designed to burn coal/solid fossil fuel.

(c) Fluidized bed units designed to burn coal/solid fossil fuel.

(d) Stokers/sloped grate/other units designed to burn kiln dried biomass/bio-based solid.

(e) Fluidized bed units designed to burn biomass/bio-based solid.

(f) Suspension burners designed to burn biomass/bio-based solid.

(g) Fuel cells designed to burn biomass/bio-based solid.

(h) Hybrid suspension/grate burners designed to burn wet biomass/bio-based solid.

(i) Stokers/sloped grate/other units designed to burn wet biomass/bio-based solid.

(j) Dutch ovens/pile burners designed to burn biomass/bio-based solid.

(k) Units designed to burn liquid fuel that are non-continental units.

(l) Units designed to burn gas 1 fuels.

(m) Units designed to burn gas 2 (other) gases.

(n) Metal process furnaces.

(o) Limited-use boilers and process heaters.

(p) Units designed to burn solid fuel.

(q) Units designed to burn liquid fuel.

(r) Units designed to burn coal/solid fossil fuel.

(s) Fluidized bed units with an integrated fluidized bed heat exchanger designed to burn coal/solid fossil fuel.

(t) Units designed to burn heavy liquid fuel.

(u) Units designed to burn light liquid fuel.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7163, Jan. 31, 2013]

§ 63.7500 What emission limitations, work practice standards, and operating limits must I meet?

(a) You must meet the requirements in paragraphs (a)(1) through (3) of this section, except as provided in paragraphs (b), through (e) of this section. You must meet these requirements at all times the affected unit is operating, except as provided in paragraph (f) of this section.

(1) You must meet each emission limit and work practice standard in Tables 1 through 3, and 11 through 13 to this subpart that applies to your boiler or process heater, for each boiler or process heater at your source, except as provided under § 63.7522. The output-based emission limits, in units of pounds per million Btu of steam output, in Tables 1 or 2 to this subpart are an alternative applicable only to boilers and process heaters that generate steam. The output-based emission limits, in units of pounds per megawatt-hour, in Tables 1 or 2 to this subpart are an alternative applicable only to boilers that generate electricity. If you operate a new boiler or process heater, you can choose to comply with alternative limits as discussed in paragraphs (a)(1)(i) through (a)(1)(iii) of this section, but on or after January 31, 2016, you must comply with the emission limits in Table 1 to this subpart.

(i) If your boiler or process heater commenced construction or reconstruction after June 4, 2010 and before May 20, 2011, you may comply with the emission limits in Table 1 or 11 to this subpart until January 31, 2016.

(ii) If your boiler or process heater commenced construction or reconstruction after May 20, 2011 and before December 23, 2011, you may comply with the emission limits in Table 1 or 12 to this subpart until January 31, 2016.

(iii) If your boiler or process heater commenced construction or reconstruction after December 23, 2011 and before January 31, 2013, you may comply with the emission limits in Table 1 or 13 to this subpart until January 31, 2016.

(2) You must meet each operating limit in Table 4 to this subpart that applies to your boiler or process heater. If you use a control device or combination of control devices not covered in Table 4 to this subpart, or you wish to establish and monitor an alternative operating limit or an alternative monitoring parameter, you must apply to the EPA Administrator for approval of alternative monitoring under § 63.8(f).

(3) At all times, you must operate and maintain any affected source (as defined in § 63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(b) As provided in § 63.6(g), EPA may approve use of an alternative to the work practice standards in this section.

(c) Limited-use boilers and process heaters must complete a tune-up every 5 years as specified in § 63.7540. They are not subject to the emission limits in Tables 1 and 2 or 11 through 13 to this subpart, the annual tune-up, or the energy assessment requirements in Table 3 to this subpart, or the operating limits in Table 4 to this subpart.

(d) Boilers and process heaters with a heat input capacity of less than or equal to 5 million Btu per hour in the units designed to burn gas 2 (other) fuels subcategory or units designed to burn light liquid fuels subcategory must complete a tune-up every 5 years as specified in § 63.7540.

(e) Boilers and process heaters in the units designed to burn gas 1 fuels subcategory with a heat input capacity of less than or equal to 5 million Btu per hour must complete a tune-up every 5 years as specified in § 63.7540. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory with a heat input capacity greater than 5 million Btu per hour and less than 10 million Btu per hour must complete a tune-up every 2 years as specified in § 63.7540. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13 to this subpart, or the operating limits in Table 4 to this subpart.

(f) These standards apply at all times the affected unit is operating, except during periods of startup and shutdown during which time you must comply only with Table 3 to this subpart.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7163, Jan. 31, 2013]

§ 63.7501 Affirmative Defense for Violation of Emission Standards During Malfunction.

In response to an action to enforce the standards set forth in § 63.7500 you may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined at § 63.2. Appropriate penalties may be assessed if you fail to meet your burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(a) *Assertion of affirmative defense.* To establish the affirmative defense in any action to enforce such a standard, you must timely meet the reporting requirements in paragraph (b) of this section, and must prove by a preponderance of evidence that:

(1) The violation:

(i) Was caused by a sudden, infrequent, and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner; and

(ii) Could not have been prevented through careful planning, proper design, or better operation and maintenance practices; and

(iii) Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(iv) Was not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(2) Repairs were made as expeditiously as possible when a violation occurred; and

(3) The frequency, amount, and duration of the violation (including any bypass) were minimized to the maximum extent practicable; and

(4) If the violation resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(5) All possible steps were taken to minimize the impact of the violation on ambient air quality, the environment, and human health; and

(6) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(7) All of the actions in response to the violation were documented by properly signed, contemporaneous operating logs; and

(8) At all times, the affected source was operated in a manner consistent with good practices for minimizing emissions; and

(9) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the violation resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of any emissions that were the result of the malfunction.

(b) *Report.* The owner or operator seeking to assert an affirmative defense shall submit a written report to the Administrator with all necessary supporting documentation, that it has met the requirements set forth in § 63.7500 of this section. This affirmative defense report shall be included in the first periodic compliance, deviation report or excess emission report otherwise required after the initial occurrence of the violation of the relevant standard (which may be the end of any applicable averaging period). If such compliance, deviation report or excess emission report is due less than 45 days after the initial occurrence of the violation, the affirmative defense report may be included in the second compliance, deviation report or excess emission report due after the initial occurrence of the violation of the relevant standard.

[78 FR 7163, Jan. 31, 2013]

General Compliance Requirements

§ 63.7505 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limits, work practice standards, and operating limits in this subpart. These limits apply to you at all times the affected unit is operating except for the periods noted in § 63.7500(f).

(b) [Reserved]

(c) You must demonstrate compliance with all applicable emission limits using performance stack testing, fuel analysis, or continuous monitoring systems (CMS), including a continuous emission monitoring system (CEMS), continuous opacity monitoring system (COMS), continuous parameter monitoring system (CPMS), or particulate matter continuous parameter monitoring system (PM CPMS), where applicable. You may demonstrate compliance with the applicable emission limit for hydrogen chloride (HCl), mercury, or total selected metals (TSM) using fuel analysis if the emission rate calculated according to § 63.7530(c) is less than the applicable emission limit. (For gaseous fuels, you may not use fuel analyses to comply with the TSM alternative standard or the HCl standard.) Otherwise, you must demonstrate compliance for HCl, mercury, or TSM using performance testing, if subject to an applicable emission limit listed in Tables 1, 2, or 11 through 13 to this subpart.

(d) If you demonstrate compliance with any applicable emission limit through performance testing and subsequent compliance with operating limits (including the use of CPMS), or with a CEMS, or COMS, you must develop a site-specific monitoring plan according to the requirements in paragraphs (d)(1) through (4) of this section for the use of any CEMS, COMS, or CPMS. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under § 63.8(f).

(1) For each CMS required in this section (including CEMS, COMS, or CPMS), you must develop, and submit to the Administrator for approval upon request, a site-specific monitoring plan that addresses design, data collection, and the quality assurance and quality control elements outlined in § 63.8(d) and the elements described in paragraphs (d)(1)(i) through (iii) of this section. You must submit this site-specific monitoring plan, if requested, at least 60 days before your initial performance evaluation of your CMS. This requirement to develop and submit a site specific monitoring plan does not apply to affected sources with existing CEMS or COMS operated according to the performance specifications under appendix B to part 60 of this chapter and that meet the requirements of § 63.7525. Using the process described in § 63.8(f)(4), you may request approval of alternative monitoring system quality assurance and quality control procedures in place of those specified in this paragraph and, if approved, include the alternatives in your site-specific monitoring plan.

(i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device);

(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and

(iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations, accuracy audits, analytical drift).

(2) In your site-specific monitoring plan, you must also address paragraphs (d)(2)(i) through (iii) of this section.

(i) Ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1)(ii), (c)(3), and (c)(4)(ii);

(ii) Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d); and

(iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c) (as applicable in Table 10 to this subpart), (e)(1), and (e)(2)(i).

(3) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.

(4) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7164, Jan. 31, 2013]

Testing, Fuel Analyses, and Initial Compliance Requirements

§ 63.7510 What are my initial compliance requirements and by what date must I conduct them?

(a) For each boiler or process heater that is required or that you elect to demonstrate compliance with any of the applicable emission limits in Tables 1 or 2 or 11 through 13 of this subpart through performance testing, your initial compliance requirements include all the following:

(1) Conduct performance tests according to § 63.7520 and Table 5 to this subpart.

(2) Conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to § 63.7521 and Table 6 to this subpart, except as specified in paragraphs (a)(2)(i) through (iii) of this section.

(i) For each boiler or process heater that burns a single type of fuel, you are not required to conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to § 63.7521 and Table 6 to this subpart. For purposes of this subpart, units that use a supplemental fuel only for startup, unit shutdown, and transient flame stability purposes still qualify as units that burn a single type of fuel, and the supplemental fuel is not subject to the fuel analysis requirements under § 63.7521 and Table 6 to this subpart.

(ii) When natural gas, refinery gas, or other gas 1 fuels are co-fired with other fuels, you are not required to conduct a fuel analysis of those fuels according to § 63.7521 and Table 6 to this subpart. If gaseous fuels other than natural gas, refinery gas, or other gas 1 fuels are co-fired with other fuels and those gaseous fuels are subject to another subpart of this part, part 60, part 61, or part 65, you are not required to conduct a fuel analysis of those fuels according to § 63.7521 and Table 6 to this subpart.

(iii) You are not required to conduct a chlorine fuel analysis for any gaseous fuels. You must conduct a fuel analysis for mercury on gaseous fuels unless the fuel is exempted in paragraphs (a)(2)(i) and (ii) of this section.

(3) Establish operating limits according to § 63.7530 and Table 7 to this subpart.

(4) Conduct CMS performance evaluations according to § 63.7525.

(b) For each boiler or process heater that you elect to demonstrate compliance with the applicable emission limits in Tables 1 or 2 or 11 through 13 to this subpart for HCl, mercury, or TSM through fuel analysis, your initial compliance requirement is to conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to § 63.7521 and Table 6 to this subpart and establish operating limits according to § 63.7530 and Table 8 to this subpart. The fuels described in paragraph (a)(2)(i) and (ii) of this section are exempt from these fuel analysis and operating limit requirements. The fuels described in paragraph (a)(2)(ii) of this section are exempt from the chloride fuel analysis and operating limit requirements. Boilers and process heaters that use a CEMS for mercury or HCl are exempt from the performance testing and operating limit requirements specified in paragraph (a) of this section for the HAP for which CEMS are used.

(c) If your boiler or process heater is subject to a carbon monoxide (CO) limit, your initial compliance demonstration for CO is to conduct a performance test for CO according to Table 5 to this subpart or conduct a performance evaluation of your continuous CO monitor, if applicable, according to § 63.7525(a). Boilers and process heaters that use a CO CEMS to comply with the applicable alternative CO CEMS emission standard listed in Tables 12, or 11 through 13 to this subpart, as specified in § 63.7525(a), are exempt from the initial CO performance testing and oxygen concentration operating limit requirements specified in paragraph (a) of this section.

(d) If your boiler or process heater is subject to a PM limit, your initial compliance demonstration for PM is to conduct a performance test in accordance with § 63.7520 and Table 5 to this subpart.

(e) For existing affected sources (as defined in § 63.7490), you must complete the initial compliance demonstration, as specified in paragraphs (a) through (d) of this section, no later than 180 days after the compliance date that is specified for your source in § 63.7495 and according to the applicable provisions in § 63.7(a)(2) as cited in Table 10 to this subpart, except as specified in paragraph (j) of this section. You must complete an initial tune-up by following the procedures described in § 63.7540(a)(10)(i) through (vi) no later than the compliance date specified in § 63.7495, except as specified in paragraph (j) of this section. You must complete the one-time energy assessment specified in Table 3 to this subpart no later than the compliance date specified in § 63.7495, except as specified in paragraph (j) of this section.

(f) For new or reconstructed affected sources (as defined in § 63.7490), you must complete the initial compliance demonstration with the emission limits no later than July 30, 2013 or within 180 days after startup of the source, whichever is later. If you are demonstrating compliance with an emission limit in Tables 11 through 13 to this subpart that is less stringent (that is, higher) than the applicable emission limit in Table 1 to this subpart, you must demonstrate compliance with the applicable emission limit in Table 1 no later than July 29, 2016.

(g) For new or reconstructed affected sources (as defined in § 63.7490), you must demonstrate initial compliance with the applicable work practice standards in Table 3 to this subpart within the applicable annual, biennial, or 5-year schedule as specified in § 63.7540(a) following the initial compliance date specified in § 63.7495(a). Thereafter, you are required to complete the applicable annual, biennial, or 5-year tune-up as specified in § 63.7540(a).

(h) For affected sources (as defined in § 63.7490) that ceased burning solid waste consistent with § 63.7495(e) and for which the initial compliance date has passed, you must demonstrate compliance within 60 days of the effective date of the waste-to-fuel switch. If you have not conducted your compliance demonstration for this subpart within the previous 12 months, you must complete all compliance demonstrations for this subpart before you commence or recommence combustion of solid waste.

(i) For an existing EGU that becomes subject after January 31, 2013, you must demonstrate compliance within 180 days after becoming an affected source.

(j) For existing affected sources (as defined in § 63.7490) that have not operated between the effective date of the rule and the compliance date that is specified for your source in § 63.7495, you must complete the initial compliance demonstration, if subject to the emission limits in Table 2 to this subpart, as specified in paragraphs (a) through (d) of this section, no later than 180 days after the re-start of the affected source and according to the applicable provisions in § 63.7(a)(2) as cited in Table 10 to this subpart. You must complete an initial tune-up by following the procedures described in § 63.7540(a)(10)(i) through (vi) no later than 30 days after the re-start of the affected source and, if applicable, complete the one-time energy assessment specified in Table 3 to this subpart, no later than the compliance date specified in § 63.7495.

[78 FR 7164, Jan. 31, 2013]

§ 63.7515 When must I conduct subsequent performance tests, fuel analyses, or tune-ups?

(a) You must conduct all applicable performance tests according to § 63.7520 on an annual basis, except as specified in paragraphs (b) through (e), (g), and (h) of this section. Annual performance tests must be completed no more than 13 months after the previous performance test, except as specified in paragraphs (b) through (e), (g), and (h) of this section.

(b) If your performance tests for a given pollutant for at least 2 consecutive years show that your emissions are at or below 75 percent of the emission limit (or, in limited instances as specified in Tables 1 and 2 or 11 through 13 to this subpart, at or below the emission limit) for the pollutant, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, you may choose to conduct performance tests for the pollutant every third year. Each such performance test must be conducted no more than 37 months after the previous performance test. If you elect to demonstrate compliance using emission averaging under § 63.7522, you must continue to conduct performance tests annually. The requirement to test at maximum chloride input level is waived unless the stack test is conducted for HCl. The requirement to test at maximum mercury input level is waived unless the stack test is conducted for mercury. The requirement to test at maximum TSM input level is waived unless the stack test is conducted for TSM.

(c) If a performance test shows emissions exceeded the emission limit or 75 percent of the emission limit (as specified in Tables 1 and 2 or 11 through 13 to this subpart) for a pollutant, you must conduct annual performance tests for that pollutant until all performance tests over a consecutive 2-year period meet the required level (at or below 75 percent of the emission limit, as specified in Tables 1 and 2 or 11 through 13 to this subpart).

(d) If you are required to meet an applicable tune-up work practice standard, you must conduct an annual, biennial, or 5-year performance tune-up according to § 63.7540(a)(10), (11), or (12), respectively. Each annual tune-up specified in § 63.7540(a)(10) must be no more than 13 months after the previous tune-up. Each biennial tune-up specified in § 63.7540(a)(11) must be conducted no more than 25 months after the previous tune-up. Each 5-year tune-up specified in § 63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed affected source (as defined in § 63.7490), the first annual, biennial, or 5-year tune-up must be no later than 13 months, 25 months, or 61 months, respectively, after the initial startup of the new or reconstructed affected source.

(e) If you demonstrate compliance with the mercury, HCl, or TSM based on fuel analysis, you must conduct a monthly fuel analysis according to § 63.7521 for each type of fuel burned that is subject to an emission limit in Tables 1, 2, or 11 through 13 to this subpart. You may comply with this monthly requirement by completing the fuel analysis any time within the calendar month as long as the analysis is separated from the previous analysis by at least 14 calendar days. If you burn a new type of fuel, you must conduct a fuel analysis before burning the new type of fuel in your boiler or process heater. You must still meet all applicable continuous compliance requirements in § 63.7540. If each of 12 consecutive monthly fuel analyses demonstrates 75 percent or less of the compliance level, you may decrease the fuel analysis frequency to quarterly for that fuel. If any quarterly sample exceeds 75 percent of the compliance level or you begin burning a new type of fuel, you must return to monthly monitoring for that fuel, until 12 months of fuel analyses are again less than 75 percent of the compliance level.

(f) You must report the results of performance tests and the associated fuel analyses within 60 days after the completion of the performance tests. This report must also verify that the operating limits for each boiler or process

heater have not changed or provide documentation of revised operating limits established according to § 63.7530 and Table 7 to this subpart, as applicable. The reports for all subsequent performance tests must include all applicable information required in § 63.7550.

(g) For affected sources (as defined in § 63.7490) that have not operated since the previous compliance demonstration and more than one year has passed since the previous compliance demonstration, you must complete the subsequent compliance demonstration, if subject to the emission limits in Tables 1, 2, or 11 through 13 to this subpart, no later than 180 days after the re-start of the affected source and according to the applicable provisions in § 63.7(a)(2) as cited in Table 10 to this subpart. You must complete a subsequent tune-up by following the procedures described in § 63.7540(a)(10)(i) through (vi) and the schedule described in § 63.7540(a)(13) for units that are not operating at the time of their scheduled tune-up.

(h) If your affected boiler or process heater is in the unit designed to burn light liquid subcategory and you combust ultra low sulfur liquid fuel, you do not need to conduct further performance tests if the pollutants measured during the initial compliance performance tests meet the emission limits in Tables 1 or 2 of this subpart providing you demonstrate ongoing compliance with the emissions limits by monitoring and recording the type of fuel combusted on a monthly basis. If you intend to use a fuel other than ultra low sulfur liquid fuel, natural gas, refinery gas, or other gas 1 fuel, you must conduct new performance tests within 60 days of burning the new fuel type.

(i) If you operate a CO CEMS that meets the Performance Specifications outlined in § 63.7525(a)(3) of this subpart to demonstrate compliance with the applicable alternative CO CEMS emission standard listed in Tables 1, 2, or 11 through 13 to this subpart, you are not required to conduct CO performance tests and are not subject to the oxygen concentration operating limit requirement specified in § 63.7510(a).

[78 FR 7165, Jan. 31, 2013]

§ 63.7520 What stack tests and procedures must I use?

(a) You must conduct all performance tests according to § 63.7(c), (d), (f), and (h). You must also develop a site-specific stack test plan according to the requirements in § 63.7(c). You shall conduct all performance tests under such conditions as the Administrator specifies to you based on the representative performance of each boiler or process heater for the period being tested. Upon request, you shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests.

(b) You must conduct each performance test according to the requirements in Table 5 to this subpart.

(c) You must conduct each performance test under the specific conditions listed in Tables 5 and 7 to this subpart. You must conduct performance tests at representative operating load conditions while burning the type of fuel or mixture of fuels that has the highest content of chlorine and mercury, and TSM if you are opting to comply with the TSM alternative standard and you must demonstrate initial compliance and establish your operating limits based on these performance tests. These requirements could result in the need to conduct more than one performance test. Following each performance test and until the next performance test, you must comply with the operating limit for operating load conditions specified in Table 4 to this subpart.

(d) You must conduct a minimum of three separate test runs for each performance test required in this section, as specified in § 63.7(e)(3). Each test run must comply with the minimum applicable sampling times or volumes specified in Tables 1 and 2 or 11 through 13 to this subpart.

(e) To determine compliance with the emission limits, you must use the F-Factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 at 40 CFR part 60, appendix A-7 of this chapter to convert the measured particulate matter (PM) concentrations, the measured HCl concentrations, the measured mercury concentrations, and the measured TSM concentrations that result from the performance test to pounds per million Btu heat input emission rates.

(f) Except for a 30-day rolling average based on CEMS (or sorbent trap monitoring system) data, if measurement results for any pollutant are reported as below the method detection level (e.g., laboratory analytical results for one or more sample components are below the method defined analytical detection level), you must use the method detection level as the measured emissions level for that pollutant in calculating compliance. The measured result for

a multiple component analysis (e.g., analytical values for multiple Method 29 fractions both for individual HAP metals and for total HAP metals) may include a combination of method detection level data and analytical data reported above the method detection level.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7166, Jan. 31, 2013]

§ 63.7521 What fuel analyses, fuel specification, and procedures must I use?

(a) For solid and liquid fuels, you must conduct fuel analyses for chloride and mercury according to the procedures in paragraphs (b) through (e) of this section and Table 6 to this subpart, as applicable. For solid fuels and liquid fuels, you must also conduct fuel analyses for TSM if you are opting to comply with the TSM alternative standard. For gas 2 (other) fuels, you must conduct fuel analyses for mercury according to the procedures in paragraphs (b) through (e) of this section and Table 6 to this subpart, as applicable. (For gaseous fuels, you may not use fuel analyses to comply with the TSM alternative standard or the HCl standard.) For purposes of complying with this section, a fuel gas system that consists of multiple gaseous fuels collected and mixed with each other is considered a single fuel type and sampling and analysis is only required on the combined fuel gas system that will feed the boiler or process heater. Sampling and analysis of the individual gaseous streams prior to combining is not required. You are not required to conduct fuel analyses for fuels used for only startup, unit shutdown, and transient flame stability purposes. You are required to conduct fuel analyses only for fuels and units that are subject to emission limits for mercury, HCl, or TSM in Tables 1 and 2 or 11 through 13 to this subpart. Gaseous and liquid fuels are exempt from the sampling requirements in paragraphs (c) and (d) of this section and Table 6 to this subpart.

(b) You must develop a site-specific fuel monitoring plan according to the following procedures and requirements in paragraphs (b)(1) and (2) of this section, if you are required to conduct fuel analyses as specified in § 63.7510.

(1) If you intend to use an alternative analytical method other than those required by Table 6 to this subpart, you must submit the fuel analysis plan to the Administrator for review and approval no later than 60 days before the date that you intend to conduct the initial compliance demonstration described in § 63.7510.

(2) You must include the information contained in paragraphs (b)(2)(i) through (vi) of this section in your fuel analysis plan.

(i) The identification of all fuel types anticipated to be burned in each boiler or process heater.

(ii) For each anticipated fuel type, the notification of whether you or a fuel supplier will be conducting the fuel analysis.

(iii) For each anticipated fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the composite samples if your procedures are different from paragraph (c) or (d) of this section. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types.

(iv) For each anticipated fuel type, the analytical methods from Table 6, with the expected minimum detection levels, to be used for the measurement of chlorine or mercury.

(v) If you request to use an alternative analytical method other than those required by Table 6 to this subpart, you must also include a detailed description of the methods and procedures that you are proposing to use. Methods in Table 6 shall be used until the requested alternative is approved.

(vi) If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to this subpart.

(c) At a minimum, you must obtain three composite fuel samples for each fuel type according to the procedures in paragraph (c)(1) or (2) of this section, or the methods listed in Table 6 to this subpart, or use an automated sampling mechanism that provides representative composite fuel samples for each fuel type that includes both coarse and fine material.

(1) If sampling from a belt (or screw) feeder, collect fuel samples according to paragraphs (c)(1)(i) and (ii) of this section.

(i) Stop the belt and withdraw a 6-inch wide sample from the full cross-section of the stopped belt to obtain a minimum two pounds of sample. You must collect all the material (fines and coarse) in the full cross-section. You must transfer the sample to a clean plastic bag.

(ii) Each composite sample will consist of a minimum of three samples collected at approximately equal one-hour intervals during the testing period for sampling during performance stack testing. For monthly sampling, each composite sample shall be collected at approximately equal 10-day intervals during the month.

(2) If sampling from a fuel pile or truck, you must collect fuel samples according to paragraphs (c)(2)(i) through (iii) of this section.

(i) For each composite sample, you must select a minimum of five sampling locations uniformly spaced over the surface of the pile.

(ii) At each sampling site, you must dig into the pile to a uniform depth of approximately 18 inches. You must insert a clean shovel into the hole and withdraw a sample, making sure that large pieces do not fall off during sampling; use the same shovel to collect all samples.

(iii) You must transfer all samples to a clean plastic bag for further processing.

(d) You must prepare each composite sample according to the procedures in paragraphs (d)(1) through (7) of this section.

(1) You must thoroughly mix and pour the entire composite sample over a clean plastic sheet.

(2) You must break large sample pieces (e.g., larger than 3 inches) into smaller sizes.

(3) You must make a pie shape with the entire composite sample and subdivide it into four equal parts.

(4) You must separate one of the quarter samples as the first subset.

(5) If this subset is too large for grinding, you must repeat the procedure in paragraph (d)(3) of this section with the quarter sample and obtain a one-quarter subset from this sample.

(6) You must grind the sample in a mill.

(7) You must use the procedure in paragraph (d)(3) of this section to obtain a one-quarter subsample for analysis. If the quarter sample is too large, subdivide it further using the same procedure.

(e) You must determine the concentration of pollutants in the fuel (mercury and/or chlorine and/or TSM) in units of pounds per million Btu of each composite sample for each fuel type according to the procedures in Table 6 to this subpart, for use in Equations 7, 8, and 9 of this subpart.

(f) To demonstrate that a gaseous fuel other than natural gas or refinery gas qualifies as an other gas 1 fuel, as defined in § 63.7575, you must conduct a fuel specification analyses for mercury according to the procedures in paragraphs (g) through (i) of this section and Table 6 to this subpart, as applicable, except as specified in paragraph (f)(1) through (4) of this section.

(1) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section for natural gas or refinery gas.

(2) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section for gaseous fuels that are subject to another subpart of this part, part 60, part 61, or part 65.

(3) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section on gaseous fuels for units that are complying with the limits for units designed to burn gas 2 (other) fuels.

(4) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section for gas streams directly derived from natural gas at natural gas production sites or natural gas plants.

(g) You must develop and submit a site-specific fuel analysis plan for other gas 1 fuels to the EPA Administrator for review and approval according to the following procedures and requirements in paragraphs (g)(1) and (2) of this section.

(1) If you intend to use an alternative analytical method other than those required by Table 6 to this subpart, you must submit the fuel analysis plan to the Administrator for review and approval no later than 60 days before the date that you intend to conduct the initial compliance demonstration described in § 63.7510.

(2) You must include the information contained in paragraphs (g)(2)(i) through (vi) of this section in your fuel analysis plan.

(i) The identification of all gaseous fuel types other than those exempted from fuel specification analysis under (f)(1) through (3) of this section anticipated to be burned in each boiler or process heater.

(ii) For each anticipated fuel type, the notification of whether you or a fuel supplier will be conducting the fuel specification analysis.

(iii) For each anticipated fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the samples if your procedures are different from the sampling methods contained in Table 6 to this subpart. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types. If multiple boilers or process heaters are fueled by a common fuel stream it is permissible to conduct a single gas specification at the common point of gas distribution.

(iv) For each anticipated fuel type, the analytical methods from Table 6 to this subpart, with the expected minimum detection levels, to be used for the measurement of mercury.

(v) If you request to use an alternative analytical method other than those required by Table 6 to this subpart, you must also include a detailed description of the methods and procedures that you are proposing to use. Methods in Table 6 to this subpart shall be used until the requested alternative is approved.

(vi) If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to this subpart.

(h) You must obtain a single fuel sample for each fuel type according to the sampling procedures listed in Table 6 for fuel specification of gaseous fuels.

(i) You must determine the concentration in the fuel of mercury, in units of microgram per cubic meter, dry basis, of each sample for each other gas 1 fuel type according to the procedures in Table 6 to this subpart.

[78 FR 7167, Jan. 31, 2013]

§ 63.7522 Can I use emissions averaging to comply with this subpart?

(a) As an alternative to meeting the requirements of § 63.7500 for PM (or TSM), HCl, or mercury on a boiler or process heater-specific basis, if you have more than one existing boiler or process heater in any subcategories located at your facility, you may demonstrate compliance by emissions averaging, if your averaged emissions are not more than 90 percent of the applicable emission limit, according to the procedures in this section. You may not include new boilers or process heaters in an emissions average.

(b) For a group of two or more existing boilers or process heaters in the same subcategory that each vent to a separate stack, you may average PM (or TSM), HCl, or mercury emissions among existing units to demonstrate compliance with the limits in Table 2 to this subpart as specified in paragraph (b)(1) through (3) of this section, if you satisfy the requirements in paragraphs (c) through (g) of this section.

(1) You may average units using a CEMS or PM CPMS for demonstrating compliance.

(2) For mercury and HCl, averaging is allowed as follows:

(i) You may average among units in any of the solid fuel subcategories.

(ii) You may average among units in any of the liquid fuel subcategories.

(iii) You may average among units in a subcategory of units designed to burn gas 2 (other) fuels.

(iv) You may not average across the units designed to burn liquid, units designed to burn solid fuel, and units designed to burn gas 2 (other) subcategories.

(3) For PM (or TSM), averaging is only allowed between units within each of the following subcategories and you may not average across subcategories:

(i) Units designed to burn coal/solid fossil fuel.

(ii) Stokers/sloped grate/other units designed to burn kiln dried biomass/bio-based solids.

(iii) Stokers/sloped grate/other units designed to burn wet biomass/bio-based solids.

(iv) Fluidized bed units designed to burn biomass/bio-based solid.

(v) Suspension burners designed to burn biomass/bio-based solid.

(vi) Dutch ovens/pile burners designed to burn biomass/bio-based solid.

(vii) Fuel Cells designed to burn biomass/bio-based solid.

(viii) Hybrid suspension/grate burners designed to burn wet biomass/bio-based solid.

(ix) Units designed to burn heavy liquid fuel.

(x) Units designed to burn light liquid fuel.

(xi) Units designed to burn liquid fuel that are non-continental units.

(xii) Units designed to burn gas 2 (other) gases.

(c) For each existing boiler or process heater in the averaging group, the emission rate achieved during the initial compliance test for the HAP being averaged must not exceed the emission level that was being achieved on January 31, 2013 or the control technology employed during the initial compliance test must not be less effective for the HAP being averaged than the control technology employed on January 31, 2013.

(d) The averaged emissions rate from the existing boilers and process heaters participating in the emissions averaging option must not exceed 90 percent of the limits in Table 2 to this subpart at all times the affected units are operating following the compliance date specified in § 63.7495.

(e) You must demonstrate initial compliance according to paragraph (e)(1) or (2) of this section using the maximum rated heat input capacity or maximum steam generation capacity of each unit and the results of the initial performance tests or fuel analysis.

(1) You must use Equation 1a or 1b or 1c of this section to demonstrate that the PM (or TSM), HCl, or mercury emissions from all existing units participating in the emissions averaging option for that pollutant do not exceed the emission limits in Table 2 to this subpart. Use Equation 1a if you are complying with the emission limits on a heat input basis, use Equation 1b if you are complying with the emission limits on a steam generation (output) basis, and use Equation 1c if you are complying with the emission limits on a electric generation (output) basis.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^{n} (Er \times Hm) \div \sum_{i=1}^{n} Hm \qquad \text{(Eq.1a)}$$

Where:

AveWeightedEmissions = Average weighted emissions for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as determined during the initial compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of heat input. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM using the applicable equation in § 63.7530(c).

Hm = Maximum rated heat input capacity of unit, i, in units of million Btu per hour.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^{n} (Er \times So) \div \sum_{i=1}^{n} So \qquad \text{(Eq.1b)}$$

Where:

AveWeightedEmissions = Average weighted emissions for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of steam output.

Er = Emission rate (as determined during the initial compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of steam output. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM using the applicable equation in § 63.7530(c). If you are taking credit for energy conservation measures from a unit according to § 63.7533, use the adjusted emission level for that unit, Eadj, determined according to § 63.7533 for that unit.

So = Maximum steam output capacity of unit, i, in units of million Btu per hour, as defined in § 63.7575.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^{n} (Er \times Eo) \div \sum_{i=1}^{n} Eo \qquad \text{(Eq.1c)}$$

Where:

AveWeightedEmissions = Average weighted emissions for PM (or TSM), HCl, or mercury, in units of pounds per megawatt hour.

Er = Emission rate (as determined during the initial compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per megawatt hour. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM using the applicable equation in § 63.7530(c). If you are taking credit for energy conservation measures from a unit according to § 63.7533, use the adjusted emission level for that unit, Eadj, determined according to § 63.7533 for that unit.

Eo = Maximum electric generating output capacity of unit, i, in units of megawatt hour, as defined in § 63.7575.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

(2) If you are not capable of determining the maximum rated heat input capacity of one or more boilers that generate steam, you may use Equation 2 of this section as an alternative to using Equation 1a of this section to demonstrate that the PM (or TSM), HCl, or mercury emissions from all existing units participating in the emissions averaging option do not exceed the emission limits for that pollutant in Table 2 to this subpart that are in pounds per million Btu of heat input.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^{n} (Er \times Sm \times Cfi) \div \sum_{i=1}^{n} (Sm \times Cfi) \quad \text{(Eq. 2)}$$

Where:

AveWeightedEmissions = Average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as determined during the most recent compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of heat input. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM using the applicable equation in § 63.7530(c).

Sm = Maximum steam generation capacity by unit, i, in units of pounds per hour.

Cfi = Conversion factor, calculated from the most recent compliance test, in units of million Btu of heat input per pounds of steam generated for unit, i.

1.1 = Required discount factor.

(f) After the initial compliance demonstration described in paragraph (e) of this section, you must demonstrate compliance on a monthly basis determined at the end of every month (12 times per year) according to paragraphs (f)(1) through (3) of this section. The first monthly period begins on the compliance date specified in § 63.7495. If the affected source elects to collect monthly data for up the 11 months preceding the first monthly period, these additional data points can be used to compute the 12-month rolling average in paragraph (f)(3) of this section.

(1) For each calendar month, you must use Equation 3a or 3b or 3c of this section to calculate the average weighted emission rate for that month. Use Equation 3a and the actual heat input for the month for each existing unit participating in the emissions averaging option if you are complying with emission limits on a heat input basis. Use Equation 3b and the actual steam generation for the month if you are complying with the emission limits on a steam generation (output) basis. Use Equation 3c and the actual steam generation for the month if you are complying with the emission limits on a electrical generation (output) basis.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^{n} (Er \times Hb) \div \sum_{i=1}^{n} Hb \quad \text{(Eq. 3a)}$$

Where:

AveWeightedEmissions = Average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of heat input, for that calendar month.

Er = Emission rate (as determined during the most recent compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of heat input. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart.

Hb = The heat input for that calendar month to unit, i, in units of million Btu.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^{n} (Er \times So) \div \sum_{i=1}^{n} So \quad \text{(Eq. 3b)}$$

Where:

AveWeightedEmissions = Average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of steam output, for that calendar month.

Er = Emission rate (as determined during the most recent compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of steam output. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart. If you are taking credit for energy conservation measures from a unit according to § 63.7533, use the adjusted emission level for that unit, E_{adj} , determined according to § 63.7533 for that unit.

So = The steam output for that calendar month from unit, i, in units of million Btu, as defined in § 63.7575.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^{n} (Er \times Eo) \div \sum_{i=1}^{n} Eo \quad \text{(Eq. 3c)}$$

Where:

AveWeightedEmissions = Average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per megawatt hour, for that calendar month.

Er = Emission rate (as determined during the most recent compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per megawatt hour. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart. If you are taking credit for energy conservation measures from a unit according to § 63.7533, use the adjusted emission level for that unit, E_{adj} , determined according to § 63.7533 for that unit.

Eo = The electric generating output for that calendar month from unit, i, in units of megawatt hour, as defined in § 63.7575.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

(2) If you are not capable of monitoring heat input, you may use Equation 4 of this section as an alternative to using Equation 3a of this section to calculate the average weighted emission rate using the actual steam generation from the boilers participating in the emissions averaging option.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^{n} (Er \times Sa \times Cfi) \div \sum_{i=1}^{n} (Sa \times Cfi) \quad \text{(Eq. 4)}$$

Where:

AveWeightedEmissions = average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of heat input for that calendar month.

Er = Emission rate (as determined during the most recent compliance demonstration of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of heat input. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart.

Sa = Actual steam generation for that calendar month by boiler, i, in units of pounds.

Cfi = Conversion factor, as calculated during the most recent compliance test, in units of million Btu of heat input per pounds of steam generated for boiler, i.

1.1 = Required discount factor.

(3) Until 12 monthly weighted average emission rates have been accumulated, calculate and report only the average weighted emission rate determined under paragraph (f)(1) or (2) of this section for each calendar month. After 12 monthly weighted average emission rates have been accumulated, for each subsequent calendar month, use Equation 5 of this section to calculate the 12-month rolling average of the monthly weighted average emission rates for the current calendar month and the previous 11 calendar months.

$$Eavg = \sum_{i=1}^{n} ERi \div 12 \quad \text{(Eq. 5)}$$

Where:

Eavg = 12-month rolling average emission rate, (pounds per million Btu heat input)

ERi = Monthly weighted average, for calendar month “i” (pounds per million Btu heat input), as calculated by paragraph (f)(1) or (2) of this section.

(g) You must develop, and submit upon request to the applicable Administrator for review and approval, an implementation plan for emission averaging according to the following procedures and requirements in paragraphs (g)(1) through (4) of this section.

(1) You must submit the implementation plan no later than 180 days before the date that the facility intends to demonstrate compliance using the emission averaging option.

(2) You must include the information contained in paragraphs (g)(2)(i) through (vii) of this section in your implementation plan for all emission sources included in an emissions average:

(i) The identification of all existing boilers and process heaters in the averaging group, including for each either the applicable HAP emission level or the control technology installed as of January 31, 2013 and the date on which you are requesting emission averaging to commence;

(ii) The process parameter (heat input or steam generated) that will be monitored for each averaging group;

(iii) The specific control technology or pollution prevention measure to be used for each emission boiler or process heater in the averaging group and the date of its installation or application. If the pollution prevention measure reduces or eliminates emissions from multiple boilers or process heaters, the owner or operator must identify each boiler or process heater;

(iv) The test plan for the measurement of PM (or TSM), HCl, or mercury emissions in accordance with the requirements in § 63.7520;

(v) The operating parameters to be monitored for each control system or device consistent with § 63.7500 and Table 4, and a description of how the operating limits will be determined;

(vi) If you request to monitor an alternative operating parameter pursuant to § 63.7525, you must also include:

(A) A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

(B) A description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the control device; the frequency and content of monitoring, reporting, and recordkeeping requirements; and a demonstration, to the satisfaction of the Administrator, that the proposed monitoring frequency is sufficient to represent control device operating conditions; and

(vii) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating load conditions. Following each compliance demonstration and until the next compliance demonstration, you must comply with the operating limit for operating load conditions specified in Table 4 to this subpart.

(3) The Administrator shall review and approve or disapprove the plan according to the following criteria:

(i) Whether the content of the plan includes all of the information specified in paragraph (g)(2) of this section; and

(ii) Whether the plan presents sufficient information to determine that compliance will be achieved and maintained.

(4) The applicable Administrator shall not approve an emission averaging implementation plan containing any of the following provisions:

(i) Any averaging between emissions of differing pollutants or between differing sources; or

(ii) The inclusion of any emission source other than an existing unit in the same subcategories.

(h) For a group of two or more existing affected units, each of which vents through a single common stack, you may average PM (or TSM), HCl, or mercury emissions to demonstrate compliance with the limits for that pollutant in Table 2 to this subpart if you satisfy the requirements in paragraph (i) or (j) of this section.

(i) For a group of two or more existing units in the same subcategories, each of which vents through a common emissions control system to a common stack, that does not receive emissions from units in other subcategories or categories, you may treat such averaging group as a single existing unit for purposes of this subpart and comply with the requirements of this subpart as if the group were a single unit.

(j) For all other groups of units subject to the common stack requirements of paragraph (h) of this section, including situations where the exhaust of affected units are each individually controlled and then sent to a common stack, the owner or operator may elect to:

(1) Conduct performance tests according to procedures specified in § 63.7520 in the common stack if affected units from other subcategories vent to the common stack. The emission limits that the group must comply with are determined by the use of Equation 6 of this section.

$$En = \sum_{i=1}^{n} (ELi \times Hi) \div \sum_{i=1}^{n} Hi \qquad \text{(Eq. 6)}$$

Where:

En = HAP emission limit, pounds per million British thermal units (lb/MMBtu), parts per million (ppm), or nanograms per dry standard cubic meter (ng/dscm).

ELi = Appropriate emission limit from Table 2 to this subpart for unit i, in units of lb/MMBtu, ppm or ng/dscm.

Hi = Heat input from unit i, MMBtu.

(2) Conduct performance tests according to procedures specified in § 63.7520 in the common stack. If affected units and non-affected units vent to the common stack, the non-affected units must be shut down or vented to a different stack during the performance test unless the facility determines to demonstrate compliance with the non-affected units venting to the stack; and

(3) Meet the applicable operating limit specified in § 63.7540 and Table 8 to this subpart for each emissions control system (except that, if each unit venting to the common stack has an applicable opacity operating limit, then a single continuous opacity monitoring system may be located in the common stack instead of in each duct to the common stack).

(k) The common stack of a group of two or more existing boilers or process heaters in the same subcategories subject to paragraph (h) of this section may be treated as a separate stack for purposes of paragraph (b) of this section and included in an emissions averaging group subject to paragraph (b) of this section.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7168, Jan. 31, 2013]

§ 63.7525 What are my monitoring, installation, operation, and maintenance requirements?

(a) If your boiler or process heater is subject to a CO emission limit in Tables 1, 2, or 11 through 13 to this subpart, you must install, operate, and maintain an oxygen analyzer system, as defined in § 63.7575, or install, certify, operate and maintain continuous emission monitoring systems for CO and oxygen according to the procedures in paragraphs (a)(1) through (7) of this section.

(1) Install the CO CEMS and oxygen analyzer by the compliance date specified in § 63.7495. The CO and oxygen levels shall be monitored at the same location at the outlet of the boiler or process heater.

(2) To demonstrate compliance with the applicable alternative CO CEMS emission standard listed in Tables 1, 2, or 11 through 13 to this subpart, you must install, certify, operate, and maintain a CO CEMS and an oxygen analyzer according to the applicable procedures under Performance Specification 4, 4A, or 4B at 40 CFR part 60, appendix B, the site-specific monitoring plan developed according to § 63.7505(d), and the requirements in § 63.7540(a)(8) and paragraph (a) of this section. Any boiler or process heater that has a CO CEMS that is compliant with Performance Specification 4, 4A, or 4B at 40 CFR part 60, appendix B, a site-specific monitoring plan developed according to § 63.7505(d), and the requirements in § 63.7540(a)(8) and paragraph (a) of this section must use the CO CEMS to comply with the applicable alternative CO CEMS emission standard listed in Tables 1, 2, or 11 through 13 to this subpart.

(i) You must conduct a performance evaluation of each CO CEMS according to the requirements in § 63.8(e) and according to Performance Specification 4, 4A, or 4B at 40 CFR part 60, appendix B.

(ii) During each relative accuracy test run of the CO CEMS, you must be collect emission data for CO concurrently (or within a 30- to 60-minute period) by both the CO CEMS and by Method 10, 10A, or 10B at 40 CFR part 60, appendix A-4. The relative accuracy testing must be at representative operating conditions.

(iii) You must follow the quality assurance procedures (e.g., quarterly accuracy determinations and daily calibration drift tests) of Procedure 1 of appendix F to part 60. The measurement span value of the CO CEMS must be two times the applicable CO emission limit, expressed as a concentration.

(iv) Any CO CEMS that does not comply with § 63.7525(a) cannot be used to meet any requirement in this subpart to demonstrate compliance with a CO emission limit listed in Tables 1, 2, or 11 through 13 to this subpart.

(v) For a new unit, complete the initial performance evaluation no later than July 30, 2013, or 180 days after the date of initial startup, whichever is later. For an existing unit, complete the initial performance evaluation no later than July 29, 2016.

(3) Complete a minimum of one cycle of CO and oxygen CEMS operation (sampling, analyzing, and data recording) for each successive 15-minute period. Collect CO and oxygen data concurrently. Collect at least four CO and oxygen CEMS data values representing the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CEMS calibration, quality assurance, or maintenance activities are being performed.

(4) Reduce the CO CEMS data as specified in § 63.8(g)(2).

(5) Calculate one-hour arithmetic averages, corrected to 3 percent oxygen from each hour of CO CEMS data in parts per million CO concentration. The one-hour arithmetic averages required shall be used to calculate the 30-day or 10-day rolling average emissions. Use Equation 19-19 in section 12.4.1 of Method 19 of 40 CFR part 60, appendix A-7 for calculating the average CO concentration from the hourly values.

(6) For purposes of collecting CO data, operate the CO CEMS as specified in § 63.7535(b). You must use all the data collected during all periods in calculating data averages and assessing compliance, except that you must exclude certain data as specified in § 63.7535(c). Periods when CO data are unavailable may constitute monitoring deviations as specified in § 63.7535(d).

(7) Operate an oxygen trim system with the oxygen level set no lower than the lowest hourly average oxygen concentration measured during the most recent CO performance test as the operating limit for oxygen according to Table 7 to this subpart.

(b) If your boiler or process heater is in the unit designed to burn coal/solid fossil fuel subcategory or the unit designed to burn heavy liquid subcategory and has an average annual heat input rate greater than 250 MMBtu per hour from solid fossil fuel and/or heavy liquid, and you demonstrate compliance with the PM limit instead of the alternative TSM limit, you must install, certify, maintain, and operate a PM CPMS monitoring emissions discharged to the atmosphere and record the output of the system as specified in paragraphs (b)(1) through (4) of this section. As an alternative to use of a PM CPMS to demonstrate compliance with the PM limit, you may choose to use a PM CEMS. If you choose to use a PM CEMS to demonstrate compliance with the PM limit instead of the alternative TSM limit, you must install, certify, maintain, and operate a PM CEMS monitoring emissions discharged to the atmosphere and record the output of the system as specified in paragraph (b)(5) through (8) of this section. For other boilers or process heaters, you may elect to use a PM CPMS or PM CEMS operated in accordance with this section in lieu of using other CMS for monitoring PM compliance (e.g., bag leak detectors, ESP secondary power, PM scrubber pressure). Owners of boilers and process heaters who elect to comply with the alternative TSM limit are not required to install a PM CPMS.

(1) Install, certify, operate, and maintain your PM CPMS according to the procedures in your approved site-specific monitoring plan developed in accordance with § 63.7505(d), the requirements in § 63.7540(a)(9), and paragraphs (b)(1)(i) through (iii) of this section.

(i) The operating principle of the PM CPMS must be based on in-stack or extractive light scatter, light scintillation, beta attenuation, or mass accumulation detection of PM in the exhaust gas or representative exhaust gas sample. The reportable measurement output from the PM CPMS must be expressed as milliamps.

(ii) The PM CPMS must have a cycle time (i.e., period required to complete sampling, measurement, and reporting for each measurement) no longer than 60 minutes.

(iii) The PM CPMS must be capable of detecting and responding to PM concentrations of no greater than 0.5 milligram per actual cubic meter.

(2) For a new unit, complete the initial performance evaluation no later than July 30, 2013, or 180 days after the date of initial startup, whichever is later. For an existing unit, complete the initial performance evaluation no later than July 29, 2016.

(3) Collect PM CPMS hourly average output data for all boiler or process heater operating hours except as indicated in § 63.7535(a) through (d). Express the PM CPMS output as milliamps.

(4) Calculate the arithmetic 30-day rolling average of all of the hourly average PM CPMS output data collected during all boiler or process heater operating hours (milliamps).

(5) Install, certify, operate, and maintain your PM CEMS according to the procedures in your approved site-specific monitoring plan developed in accordance with § 63.7505(d), the requirements in § 63.7540(a)(9), and paragraphs (b)(5)(i) through (iv) of this section.

(i) You shall conduct a performance evaluation of the PM CEMS according to the applicable requirements of § 60.8(e), and Performance Specification 11 at 40 CFR part 60, appendix B of this chapter.

(ii) During each PM correlation testing run of the CEMS required by Performance Specification 11 at 40 CFR part 60, appendix B of this chapter, you shall collect PM and oxygen (or carbon dioxide) data concurrently (or within a 30-to 60-minute period) by both the CEMS and conducting performance tests using Method 5 at 40 CFR part 60, appendix A-3 or Method 17 at 40 CFR part 60, appendix A-6 of this chapter.

(iii) You shall perform quarterly accuracy determinations and daily calibration drift tests in accordance with Procedure 2 at 40 CFR part 60, appendix F of this chapter. You must perform Relative Response Audits annually and perform Response Correlation Audits every 3 years.

(iv) Within 60 days after the date of completing each CEMS relative accuracy test audit or performance test conducted to demonstrate compliance with this subpart, you must submit the relative accuracy test audit data and performance test data to the EPA by successfully submitting the data electronically into the EPA's Central Data Exchange by using the Electronic Reporting Tool (see *http://www.epa.gov/ttn/chief/ert/erttool.html/*).

(6) For a new unit, complete the initial performance evaluation no later than July 30, 2013, or 180 days after the date of initial startup, whichever is later. For an existing unit, complete the initial performance evaluation no later than July 29, 2016.

(7) Collect PM CEMS hourly average output data for all boiler or process heater operating hours except as indicated in § 63.7535(a) through (d).

(8) Calculate the arithmetic 30-day rolling average of all of the hourly average PM CEMS output data collected during all boiler or process heater operating hours.

(c) If you have an applicable opacity operating limit in this rule, and are not otherwise required or elect to install and operate a PM CPMS, PM CEMS, or a bag leak detection system, you must install, operate, certify and maintain each COMS according to the procedures in paragraphs (c)(1) through (7) of this section by the compliance date specified in § 63.7495.

(1) Each COMS must be installed, operated, and maintained according to Performance Specification 1 at appendix B to part 60 of this chapter.

(2) You must conduct a performance evaluation of each COMS according to the requirements in § 63.8(e) and according to Performance Specification 1 at appendix B to part 60 of this chapter.

(3) As specified in § 63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(4) The COMS data must be reduced as specified in § 63.8(g)(2).

(5) You must include in your site-specific monitoring plan procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in § 63.8(d). At a minimum, the monitoring plan must include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of each COMS.

(6) You must operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of § 63.8(e). You must identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit. Any 6-minute period for which the monitoring system is out of control and data are not available for a required calculation constitutes a deviation from the monitoring requirements.

(7) You must determine and record all the 6-minute averages (and daily block averages as applicable) collected for periods during which the COMS is not out of control.

(d) If you have an operating limit that requires the use of a CMS other than a PM CPMS or COMS, you must install, operate, and maintain each CMS according to the procedures in paragraphs (d)(1) through (5) of this section by the compliance date specified in § 63.7495.

(1) The CPMS must complete a minimum of one cycle of operation every 15-minutes. You must have a minimum of four successive cycles of operation, one representing each of the four 15-minute periods in an hour, to have a valid hour of data.

(2) You must operate the monitoring system as specified in § 63.7535(b), and comply with the data calculation requirements specified in § 63.7535(c).

(3) Any 15-minute period for which the monitoring system is out-of-control and data are not available for a required calculation constitutes a deviation from the monitoring requirements. Other situations that constitute a monitoring deviation are specified in § 63.7535(d).

(4) You must determine the 30-day rolling average of all recorded readings, except as provided in § 63.7535(c).

(5) You must record the results of each inspection, calibration, and validation check.

(e) If you have an operating limit that requires the use of a flow monitoring system, you must meet the requirements in paragraphs (d) and (e)(1) through (4) of this section.

(1) You must install the flow sensor and other necessary equipment in a position that provides a representative flow.

(2) You must use a flow sensor with a measurement sensitivity of no greater than 2 percent of the design flow rate.

(3) You must minimize, consistent with good engineering practices, the effects of swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(4) You must conduct a flow monitoring system performance evaluation in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(f) If you have an operating limit that requires the use of a pressure monitoring system, you must meet the requirements in paragraphs (d) and (f)(1) through (6) of this section.

(1) Install the pressure sensor(s) in a position that provides a representative measurement of the pressure (*e.g.* , PM scrubber pressure drop).

(2) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion consistent with good engineering practices.

(3) Use a pressure sensor with a minimum tolerance of 1.27 centimeters of water or a minimum tolerance of 1 percent of the pressure monitoring system operating range, whichever is less.

(4) Perform checks at least once each process operating day to ensure pressure measurements are not obstructed (*e.g.* , check for pressure tap pluggage daily).

(5) Conduct a performance evaluation of the pressure monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(6) If at any time the measured pressure exceeds the manufacturer's specified maximum operating pressure range, conduct a performance evaluation of the pressure monitoring system in accordance with your monitoring plan and confirm that the pressure monitoring system continues to meet the performance requirements in you monitoring plan. Alternatively, install and verify the operation of a new pressure sensor.

(g) If you have an operating limit that requires a pH monitoring system, you must meet the requirements in paragraphs (d) and (g)(1) through (4) of this section.

(1) Install the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

(2) Ensure the sample is properly mixed and representative of the fluid to be measured.

(3) Conduct a performance evaluation of the pH monitoring system in accordance with your monitoring plan at least once each process operating day.

(4) Conduct a performance evaluation (including a two-point calibration with one of the two buffer solutions having a pH within 1 of the pH of the operating limit) of the pH monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than quarterly.

(h) If you have an operating limit that requires a secondary electric power monitoring system for an electrostatic precipitator (ESP) operated with a wet scrubber, you must meet the requirements in paragraphs (h)(1) and (2) of this section.

(1) Install sensors to measure (secondary) voltage and current to the precipitator collection plates.

(2) Conduct a performance evaluation of the electric power monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(i) If you have an operating limit that requires the use of a monitoring system to measure sorbent injection rate (e.g., weigh belt, weigh hopper, or hopper flow measurement device), you must meet the requirements in paragraphs (d) and (i)(1) through (2) of this section.

(1) Install the system in a position(s) that provides a representative measurement of the total sorbent injection rate.

(2) Conduct a performance evaluation of the sorbent injection rate monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(j) If you are not required to use a PM CPMS and elect to use a fabric filter bag leak detection system to comply with the requirements of this subpart, you must install, calibrate, maintain, and continuously operate the bag leak detection system as specified in paragraphs (j)(1) through (6) of this section.

(1) You must install a bag leak detection sensor(s) in a position(s) that will be representative of the relative or absolute PM loadings for each exhaust stack, roof vent, or compartment (e.g., for a positive pressure fabric filter) of the fabric filter.

(2) Conduct a performance evaluation of the bag leak detection system in accordance with your monitoring plan and consistent with the guidance provided in EPA-454/R-98-015 (incorporated by reference, see § 63.14).

(3) Use a bag leak detection system certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter or less.

(4) Use a bag leak detection system equipped with a device to record continuously the output signal from the sensor.

(5) Use a bag leak detection system equipped with a system that will alert plant operating personnel when an increase in relative PM emissions over a preset level is detected. The alert must easily recognizable (e.g., heard or seen) by plant operating personnel.

(6) Where multiple bag leak detectors are required, the system's instrumentation and alert may be shared among detectors.

(k) For each unit that meets the definition of limited-use boiler or process heater, you must keep fuel use records for the days the boiler or process heater was operating.

(l) For each unit for which you decide to demonstrate compliance with the mercury or HCl emissions limits in Tables 1 or 2 or 11 through 13 of this subpart by use of a CEMS for mercury or HCl, you must install, certify, maintain, and operate a CEMS measuring emissions discharged to the atmosphere and record the output of the system as specified in paragraphs (l)(1) through (8) of this section. For HCl, this option for an affected unit takes effect on the date a final performance specification for a HCl CEMS is published in the FEDERAL REGISTER or the date of approval of a site-specific monitoring plan.

(1) Notify the Administrator one month before starting use of the CEMS, and notify the Administrator one month before stopping use of the CEMS.

(2) Each CEMS shall be installed, certified, operated, and maintained according to the requirements in § 63.7540(a)(14) for a mercury CEMS and § 63.7540(a)(15) for a HCl CEMS.

(3) For a new unit, you must complete the initial performance evaluation of the CEMS by the latest of the dates specified in paragraph (l)(3)(i) through (iii) of this section.

(i) No later than July 30, 2013.

(ii) No later 180 days after the date of initial startup.

(iii) No later 180 days after notifying the Administrator before starting to use the CEMS in place of performance testing or fuel analysis to demonstrate compliance.

(4) For an existing unit, you must complete the initial performance evaluation by the latter of the two dates specified in paragraph (l)(4)(i) and (ii) of this section.

(i) No later than July 29, 2016.

(ii) No later 180 days after notifying the Administrator before starting to use the CEMS in place of performance testing or fuel analysis to demonstrate compliance.

(5) Compliance with the applicable emissions limit shall be determined based on the 30-day rolling average of the hourly arithmetic average emissions rates using the continuous monitoring system outlet data. The 30-day rolling arithmetic average emission rate (lb/MMBtu) shall be calculated using the equations in EPA Reference Method 19 at 40 CFR part 60, appendix A-7, but substituting the mercury or HCl concentration for the pollutant concentrations normally used in Method 19.

(6) Collect CEMS hourly averages for all operating hours on a 30-day rolling average basis. Collect at least four CMS data values representing the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CMS calibration, quality assurance, or maintenance activities are being performed.

(7) The one-hour arithmetic averages required shall be expressed in lb/MMBtu and shall be used to calculate the boiler 30-day and 10-day rolling average emissions.

(8) You are allowed to substitute the use of the PM, mercury or HCl CEMS for the applicable fuel analysis, annual performance test, and operating limits specified in Table 4 to this subpart to demonstrate compliance with the PM, mercury or HCl emissions limit, and if you are using an acid gas wet scrubber or dry sorbent injection control technology to comply with the HCl emission limit, you are allowed to substitute the use of a sulfur dioxide (SO_2) CEMS for the applicable fuel analysis, annual performance test, and operating limits specified in Table 4 to this subpart to demonstrate compliance with HCl emissions limit.

(m) If your unit is subject to a HCl emission limit in Tables 1, 2, or 11 through 13 of this subpart and you have an acid gas wet scrubber or dry sorbent injection control technology and you use an SO_2 CEMS, you must install the monitor at the outlet of the boiler or process heater, downstream of all emission control devices, and you must install, certify, operate, and maintain the CEMS according to part 75 of this chapter.

(1) The SO_2 CEMS must be installed by the compliance date specified in § 63.7495.

(2) For on-going quality assurance (QA), the SO_2 CEMS must meet the applicable daily, quarterly, and semiannual or annual requirements in sections 2.1 through 2.3 of appendix B to part 75 of this chapter, with the following addition: You must perform the linearity checks required in section 2.2 of appendix B to part 75 of this chapter if the SO_2 CEMS has a span value of 30 ppm or less.

(3) For a new unit, the initial performance evaluation shall be completed no later than July 30, 2013, or 180 days after the date of initial startup, whichever is later. For an existing unit, the initial performance evaluation shall be completed no later than July 29, 2016.

(4) For purposes of collecting SO_2 data, you must operate the SO_2 CEMS as specified in § 63.7535(b). You must use all the data collected during all periods in calculating data averages and assessing compliance, except that you must exclude certain data as specified in § 63.7535(c). Periods when SO_2 data are unavailable may constitute monitoring deviations as specified in § 63.7535(d).

(5) Collect CEMS hourly averages for all operating hours on a 30-day rolling average basis.

(6) Use only unadjusted, quality-assured SO_2 concentration values in the emissions calculations; do not apply bias adjustment factors to the part 75 SO_2 data and do not use part 75 substitute data values.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7171, Jan. 31, 2013]

§ 63.7530 How do I demonstrate initial compliance with the emission limitations, fuel specifications and work practice standards?

(a) You must demonstrate initial compliance with each emission limit that applies to you by conducting initial performance tests and fuel analyses and establishing operating limits, as applicable, according to § 63.7520, paragraphs (b) and (c) of this section, and Tables 5 and 7 to this subpart. The requirement to conduct a fuel analysis is not applicable for units that burn a single type of fuel, as specified by § 63.7510(a)(2)(i). If applicable, you must also install, operate, and maintain all applicable CMS (including CEMS, COMS, and CPMS) according to § 63.7525.

(b) If you demonstrate compliance through performance testing, you must establish each site-specific operating limit in Table 4 to this subpart that applies to you according to the requirements in § 63.7520, Table 7 to this subpart, and paragraph (b)(4) of this section, as applicable. You must also conduct fuel analyses according to § 63.7521 and establish maximum fuel pollutant input levels according to paragraphs (b)(1) through (3) of this section, as applicable, and as specified in § 63.7510(a)(2). (Note that § 63.7510(a)(2) exempts certain fuels from the fuel analysis requirements.) However, if you switch fuel(s) and cannot show that the new fuel(s) does (do) not increase the

chlorine, mercury, or TSM input into the unit through the results of fuel analysis, then you must repeat the performance test to demonstrate compliance while burning the new fuel(s).

(1) You must establish the maximum chlorine fuel input (Clinput) during the initial fuel analysis according to the procedures in paragraphs (b)(1)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of chlorine.

(ii) During the fuel analysis for hydrogen chloride, you must determine the fraction of the total heat input for each fuel type burned (Qi) based on the fuel mixture that has the highest content of chlorine, and the average chlorine concentration of each fuel type burned (Ci).

(iii) You must establish a maximum chlorine input level using Equation 7 of this section.

$$Clinput = \sum_{i=1}^{n} (Ci \times Qi) \quad \text{(Eq. 7)}$$

Where:

Clinput = Maximum amount of chlorine entering the boiler or process heater through fuels burned in units of pounds per million Btu.

Ci = Arithmetic average concentration of chlorine in fuel type, i, analyzed according to § 63.7521, in units of pounds per million Btu.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types during the performance testing, it is not necessary to determine the value of this term. Insert a value of “1” for Qi.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

(2) You must establish the maximum mercury fuel input level (Mercuryinput) during the initial fuel analysis using the procedures in paragraphs (b)(2)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of mercury.

(ii) During the compliance demonstration for mercury, you must determine the fraction of total heat input for each fuel burned (Qi) based on the fuel mixture that has the highest content of mercury, and the average mercury concentration of each fuel type burned (HGi).

(iii) You must establish a maximum mercury input level using Equation 8 of this section.

$$Mercuryinput = \sum_{i=1}^{n} (HGi \times Qi) \quad \text{(Eq. 8)}$$

Where:

Mercuryinput = Maximum amount of mercury entering the boiler or process heater through fuels burned in units of pounds per million Btu.

HGi = Arithmetic average concentration of mercury in fuel type, i, analyzed according to § 63.7521, in units of pounds per million Btu.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of “1” for Qi.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of mercury.

(3) If you opt to comply with the alternative TSM limit, you must establish the maximum TSM fuel input (TSMinput) for solid or liquid fuels during the initial fuel analysis according to the procedures in paragraphs (b)(3)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of TSM.

(ii) During the fuel analysis for TSM, you must determine the fraction of the total heat input for each fuel type burned (Qi) based on the fuel mixture that has the highest content of TSM, and the average TSM concentration of each fuel type burned (TSMi).

(iii) You must establish a maximum TSM input level using Equation 9 of this section.

$$TSMinput = \sum_{i=1}^{n} (TSMi \times Qi) \qquad \text{(Eq. 9)}$$

Where:

TSMinput = Maximum amount of TSM entering the boiler or process heater through fuels burned in units of pounds per million Btu.

TSMi = Arithmetic average concentration of TSM in fuel type, i, analyzed according to § 63.7521, in units of pounds per million Btu.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of TSM. If you do not burn multiple fuel types during the performance testing, it is not necessary to determine the value of this term. Insert a value of “1” for Qi.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of TSM.

(4) You must establish parameter operating limits according to paragraphs (b)(4)(i) through (ix) of this section. As indicated in Table 4 to this subpart, you are not required to establish and comply with the operating parameter limits when you are using a CEMS to monitor and demonstrate compliance with the applicable emission limit for that control device parameter.

(i) For a wet acid gas scrubber, you must establish the minimum scrubber effluent pH and liquid flow rate as defined in § 63.7575, as your operating limits during the performance test during which you demonstrate compliance with your applicable limit. If you use a wet scrubber and you conduct separate performance tests for HCl and mercury emissions, you must establish one set of minimum scrubber effluent pH, liquid flow rate, and pressure drop operating limits. The minimum scrubber effluent pH operating limit must be established during the HCl performance test. If you conduct multiple performance tests, you must set the minimum liquid flow rate operating limit at the higher of the minimum values established during the performance tests.

(ii) For any particulate control device (e.g., ESP, particulate wet scrubber, fabric filter) for which you use a PM CPMS, you must establish your PM CPMS operating limit and determine compliance with it according to paragraphs (b)(4)(ii)(A) through (F) of this section.

(A) Determine your operating limit as the average PM CPMS output value recorded during the most recent performance test run demonstrating compliance with the filterable PM emission limit or at the PM CPMS output value

corresponding to 75 percent of the emission limit if your PM performance test demonstrates compliance below 75 percent of the emission limit. You must verify an existing or establish a new operating limit after each repeated performance test. You must repeat the performance test annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test.

(*1*) Your PM CPMS must provide a 4-20 milliamp output and the establishment of its relationship to manual reference method measurements must be determined in units of milliamps.

(*2*) Your PM CPMS operating range must be capable of reading PM concentrations from zero to a level equivalent to at least two times your allowable emission limit. If your PM CPMS is an auto-ranging instrument capable of multiple scales, the primary range of the instrument must be capable of reading PM concentration from zero to a level equivalent to two times your allowable emission limit.

(*3*) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, record and average all milliamp output values from the PM CPMS for the periods corresponding to the compliance test runs (e.g., average all your PM CPMS output values for three corresponding 2-hour Method 5I test runs).

(B) If the average of your three PM performance test runs are below 75 percent of your PM emission limit, you must calculate an operating limit by establishing a relationship of PM CPMS signal to PM concentration using the PM CPMS instrument zero, the average PM CPMS values corresponding to the three compliance test runs, and the average PM concentration from the Method 5 or performance test with the procedures in paragraphs (b)(4)(ii)(B)(*1*) through (*4*) of this section.

(*1*) Determine your instrument zero output with one of the following procedures:

(*i*) Zero point data for *in-situ* instruments should be obtained by removing the instrument from the stack and monitoring ambient air on a test bench.

(*ii*) Zero point data for *extractive* instruments should be obtained by removing the extractive probe from the stack and drawing in clean ambient air.

(*iii*) The zero point may also be established by performing manual reference method measurements when the flue gas is free of PM emissions or contains very low PM concentrations (e.g., when your process is not operating, but the fans are operating or your source is combusting only natural gas) and plotting these with the compliance data to find the zero intercept.

(*iv*) If none of the steps in paragraphs (b)(4)(ii)(B)(*1*)(*i*) through (*iii*) of this section are possible, you must use a zero output value provided by the manufacturer.

(*2*) Determine your PM CPMS instrument average in milliamps, and the average of your corresponding three PM compliance test runs, using equation 10.

$$\bar{x} = \frac{1}{n}\sum_{i=1}^{n} X_{1,i} \bar{y} = \frac{1}{n}\sum_{i=1}^{n} Y_1 \qquad \text{(Eq. 10)}$$

Where:

X_1 = the PM CPMS data points for the three runs constituting the performance test,

Y_1 = the PM concentration value for the three runs constituting the performance test, and

n = the number of data points.

(*3*) With your instrument zero expressed in milliamps, your three run average PM CPMS milliamp value, and your three run average PM concentration from your three compliance tests, determine a relationship of lb/MMBtu per milliamp with equation 11.

$$R = \frac{Y_1}{(X_1 - z)} \qquad \text{(Eq. 11)}$$

Where:

R = the relative lb/MMBtu per milliamp for your PM CPMS,

Y_1 = the three run average lb/MMBtu PM concentration,

X_1 = the three run average milliamp output from you PM CPMS, and

z = the milliamp equivalent of your instrument zero determined from (B)(i).

(*4*) Determine your source specific 30-day rolling average operating limit using the lb/MMBtu per milliamp value from Equation 11 in equation 12, below. This sets your operating limit at the PM CPMS output value corresponding to 75 percent of your emission limit.

$$O_l = z + \frac{0.75(L)}{R} \qquad \text{(Eq. 12)}$$

Where:

O_l = the operating limit for your PM CPMS on a 30-day rolling average, in milliamps.

L = your source emission limit expressed in lb/MMBtu,

z = your instrument zero in milliamps, determined from (B)(i), and

R = the relative lb/MMBtu per milliamp for your PM CPMS, from Equation 11.

(C) If the average of your three PM compliance test runs is at or above 75 percent of your PM emission limit you must determine your 30-day rolling average operating limit by averaging the PM CPMS milliamp output corresponding to your three PM performance test runs that demonstrate compliance with the emission limit using equation 13 and you must submit all compliance test and PM CPMS data according to the reporting requirements in paragraph (b)(4)(ii)(F) of this section.

$$O_h = \frac{1}{n}\sum_{i=1}^{n} X_1 \qquad \text{(Eq. 13)}$$

Where:

X_1 = the PM CPMS data points for all runs i,

n = the number of data points, and

O_h = your site specific operating limit, in milliamps.

(D) To determine continuous compliance, you must record the PM CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. You must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic

average operating parameter in units of the operating limit (milliamps) on a 30-day rolling average basis, updated at the end of each new operating hour. Use Equation 14 to determine the 30-day rolling average.

$$30-\text{day} = \frac{\sum_{i=1}^{n} Hpvi}{n} \qquad \text{(Eq. 14)}$$

Where:

30-day = 30-day average.

Hpvi = is the hourly parameter value for hour i

n = is the number of valid hourly parameter values collected over the previous 720 operating hours.

(E) Use EPA Method 5 of appendix A to part 60 of this chapter to determine PM emissions. For each performance test, conduct three separate runs under the conditions that exist when the affected source is operating at the highest load or capacity level reasonably expected to occur. Conduct each test run to collect a minimum sample volume specified in Tables 1, 2, or 11 through 13 to this subpart, as applicable, for determining compliance with a new source limit or an existing source limit. Calculate the average of the results from three runs to determine compliance. You need not determine the PM collected in the impingers (“back half”) of the Method 5 particulate sampling train to demonstrate compliance with the PM standards of this subpart. This shall not preclude the permitting authority from requiring a determination of the “back half” for other purposes.

(F) For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report must also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (e.g. beta attenuation), span of the instruments primary analytical range, milliamp value equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp signals corresponding to each PM compliance test run. (iii) For a particulate wet scrubber, you must establish the minimum pressure drop and liquid flow rate as defined in § 63.7575, as your operating limits during the three-run performance test during which you demonstrate compliance with your applicable limit. If you use a wet scrubber and you conduct separate performance tests for PM and TSM emissions, you must establish one set of minimum scrubber liquid flow rate and pressure drop operating limits. The minimum scrubber effluent pH operating limit must be established during the HCl performance test. If you conduct multiple performance tests, you must set the minimum liquid flow rate and pressure drop operating limits at the higher of the minimum values established during the performance tests.

(iii) For an electrostatic precipitator (ESP) operated with a wet scrubber, you must establish the minimum total secondary electric power input, as defined in § 63.7575, as your operating limit during the three-run performance test during which you demonstrate compliance with your applicable limit. (These operating limits do not apply to ESP that are operated as dry controls without a wet scrubber.)

(iv) For a dry scrubber, you must establish the minimum sorbent injection rate for each sorbent, as defined in § 63.7575, as your operating limit during the three-run performance test during which you demonstrate compliance with your applicable limit.

(v) For activated carbon injection, you must establish the minimum activated carbon injection rate, as defined in § 63.7575, as your operating limit during the three-run performance test during which you demonstrate compliance with your applicable limit.

(vi) The operating limit for boilers or process heaters with fabric filters that demonstrate continuous compliance through bag leak detection systems is that a bag leak detection system be installed according to the requirements in § 63.7525, and that each fabric filter must be operated such that the bag leak detection system alert is not activated more than 5 percent of the operating time during a 6-month period.

(vii) For a minimum oxygen level, if you conduct multiple performance tests, you must set the minimum oxygen level at the lower of the minimum values established during the performance tests.

(viii) The operating limit for boilers or process heaters that demonstrate continuous compliance with the HCl emission limit using a SO_2 CEMS is to install and operate the SO_2 according to the requirements in § 63.7525(m) establish a maximum SO_2 emission rate equal to the highest hourly average SO_2 measurement during the most recent three-run performance test for HCl.

(c) If you elect to demonstrate compliance with an applicable emission limit through fuel analysis, you must conduct fuel analyses according to § 63.7521 and follow the procedures in paragraphs (c)(1) through (5) of this section.

(1) If you burn more than one fuel type, you must determine the fuel mixture you could burn in your boiler or process heater that would result in the maximum emission rates of the pollutants that you elect to demonstrate compliance through fuel analysis.

(2) You must determine the 90th percentile confidence level fuel pollutant concentration of the composite samples analyzed for each fuel type using the one-sided t-statistic test described in Equation 15 of this section.

$$P90 = mean + (SD \times t) \quad \text{(Eq. 15)}$$

Where:

P90 = 90th percentile confidence level pollutant concentration, in pounds per million Btu.

Mean = Arithmetic average of the fuel pollutant concentration in the fuel samples analyzed according to § 63.7521, in units of pounds per million Btu.

SD = Standard deviation of the mean of pollutant concentration in the fuel samples analyzed according to § 63.7521, in units of pounds per million Btu. SD is calculated as the sample standard deviation divided by the square root of the number of samples.

t = t distribution critical value for 90th percentile ($t_{0.1}$) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a t-Distribution Critical Value Table.

(3) To demonstrate compliance with the applicable emission limit for HCl, the HCl emission rate that you calculate for your boiler or process heater using Equation 16 of this section must not exceed the applicable emission limit for HCl.

$$HCl = \sum_{i=1}^{n} (Ci90 \times Qi \times 1.028) \quad \text{(Eq. 16)}$$

Where:

HCl = HCl emission rate from the boiler or process heater in units of pounds per million Btu.

Ci90 = 90th percentile confidence level concentration of chlorine in fuel type, i, in units of pounds per million Btu as calculated according to Equation 11 of this section.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of “1” for Qi.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

1.028 = Molecular weight ratio of HCl to chlorine.

(4) To demonstrate compliance with the applicable emission limit for mercury, the mercury emission rate that you calculate for your boiler or process heater using Equation 17 of this section must not exceed the applicable emission limit for mercury.

$$Mercury = \sum_{i=1}^{n} \left(Hgi90 \times Qi \right) \quad \text{(Eq. 17)}$$

Where:

Mercury = Mercury emission rate from the boiler or process heater in units of pounds per million Btu.

Hgi90 = 90th percentile confidence level concentration of mercury in fuel, i, in units of pounds per million Btu as calculated according to Equation 11 of this section.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of “1” for Qi.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest mercury content.

(5) To demonstrate compliance with the applicable emission limit for TSM for solid or liquid fuels, the TSM emission rate that you calculate for your boiler or process heater from solid fuels using Equation 18 of this section must not exceed the applicable emission limit for TSM.

$$Metals = \sum_{i=1}^{n} \left(TSM90i \times Qi \right) \quad \text{(Eq. 18)}$$

Where:

Metals = TSM emission rate from the boiler or process heater in units of pounds per million Btu.

TSMi90 = 90th percentile confidence level concentration of TSM in fuel, i, in units of pounds per million Btu as calculated according to Equation 11 of this section.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest TSM content. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of “1” for Qi.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest TSM content.

(d) If you own or operate an existing unit with a heat input capacity of less than 10 million Btu per hour or a unit in the unit designed to burn gas 1 subcategory, you must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted a tune-up of the unit.

(e) You must include with the Notification of Compliance Status a signed certification that the energy assessment was completed according to Table 3 to this subpart and is an accurate depiction of your facility at the time of the assessment.

(f) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.7545(e).

(g) If you elect to demonstrate that a gaseous fuel meets the specifications of another gas 1 fuel as defined in § 63.7575, you must conduct an initial fuel specification analyses according to § 63.7521(f) through (i) and according to the frequency listed in § 63.7540(c) and maintain records of the results of the testing as outlined in § 63.7555(g). For samples where the initial mercury specification has not been exceeded, you will include a signed certification with the Notification of Compliance Status that the initial fuel specification test meets the gas specification outlined in the definition of other gas 1 fuels.

(h) If you own or operate a unit subject to emission limits in Tables 1 or 2 or 11 through 13 to this subpart, you must meet the work practice standard according to Table 3 of this subpart. During startup and shutdown, you must only follow the work practice standards according to item 5 of Table 3 of this subpart.

(i) If you opt to comply with the alternative SO_2 CEMS operating limit in Tables 4 and 8 to this subpart, you may do so only if your affected boiler or process heater:

(1) Has a system using wet scrubber or dry sorbent injection and SO_2 CEMS installed on the unit; and

(2) At all times, you operate the wet scrubber or dry sorbent injection for acid gas control on the unit consistent with § 63.7500(a)(3); and

(3) You establish a unit-specific maximum SO_2 operating limit by collecting the minimum hourly SO_2 emission rate on the SO_2 CEMS during the paired 3-run test for HCl. The maximum SO_2 operating limit is equal to the highest hourly average SO_2 concentration measured during the most recent HCl performance test.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7174, Jan. 31, 2013]

§ 63.7533 Can I use efficiency credits earned from implementation of energy conservation measures to comply with this subpart?

(a) If you elect to comply with the alternative equivalent output-based emission limits, instead of the heat input-based limits listed in Table 2 to this subpart, and you want to take credit for implementing energy conservation measures identified in an energy assessment, you may demonstrate compliance using efficiency credits according to the procedures in this section. You may use this compliance approach for an existing affected boiler for demonstrating initial compliance according to § 63.7522(e) and for demonstrating monthly compliance according to § 63.7522(f). Owners or operators using this compliance approach must establish an emissions benchmark, calculate and document the efficiency credits, develop an Implementation Plan, comply with the general reporting requirements, and apply the efficiency credit according to the procedures in paragraphs (b) through (f) of this section. You cannot use this compliance approach for a new or reconstructed affected boiler. Additional guidance from the Department of Energy on efficiency credits is available at: *http://www.epa.gov/ttn/atw/boiler/boilerpg.html* .

(b) For each existing affected boiler for which you intend to apply emissions credits, establish a benchmark from which emission reduction credits may be generated by determining the actual annual fuel heat input to the affected boiler before initiation of an energy conservation activity to reduce energy demand (*i.e.,* fuel usage) according to paragraphs (b)(1) through (4) of this section. The benchmark shall be expressed in trillion Btu per year heat input.

(1) The benchmark from which efficiency credits may be generated shall be determined by using the most representative, accurate, and reliable process available for the source. The benchmark shall be established for a one-year period before the date that an energy demand reduction occurs, unless it can be demonstrated that a different time period is more representative of historical operations.

(2) Determine the starting point from which to measure progress. Inventory all fuel purchased and generated on-site (off-gases, residues) in physical units (MMBtu, million cubic feet, etc.).

(3) Document all uses of energy from the affected boiler. Use the most recent data available.

(4) Collect non-energy related facility and operational data to normalize, if necessary, the benchmark to current operations, such as building size, operating hours, etc. If possible, use actual data that are current and timely rather than estimated data.

(c) Efficiency credits can be generated if the energy conservation measures were implemented after January 1, 2008 and if sufficient information is available to determine the appropriate value of credits.

(1) The following emission points cannot be used to generate efficiency credits:

(i) Energy conservation measures implemented on or before January 1, 2008, unless the level of energy demand reduction is increased after January 1, 2008, in which case credit will be allowed only for change in demand reduction achieved after January 1, 2008.

(ii) Efficiency credits on shut-down boilers. Boilers that are shut down cannot be used to generate credits unless the facility provides documentation linking the permanent shutdown to energy conservation measures identified in the energy assessment. In this case, the bench established for the affected boiler to which the credits from the shutdown will be applied must be revised to include the benchmark established for the shutdown boiler.

(2) For all points included in calculating emissions credits, the owner or operator shall:

(i) Calculate annual credits for all energy demand points. Use Equation 19 to calculate credits. Energy conservation measures that meet the criteria of paragraph (c)(1) of this section shall not be included, except as specified in paragraph (c)(1)(i) of this section.

(3) Credits are generated by the difference between the benchmark that is established for each affected boiler, and the actual energy demand reductions from energy conservation measures implemented after January 1, 2008. Credits shall be calculated using Equation 19 of this section as follows:

(i) The overall equation for calculating credits is:

$$ECredits = \left(\sum_{i=1}^{n} EIS_{iactual} \right) \div EI_{baseline} \quad \text{(Eq. 19)}$$

Where:

ECredits = Energy Input Savings for all energy conservation measures implemented for an affected boiler, expressed as a decimal fraction of the baseline energy input.

$EIS_{iactual}$ = Energy Input Savings for each energy conservation measure, i, implemented for an affected boiler, million Btu per year.

$EI_{baseline}$ = Energy Input baseline for the affected boiler, million Btu per year.

n = Number of energy conservation measures included in the efficiency credit for the affected boiler.

(ii) [Reserved]

(d) The owner or operator shall develop, and submit for approval upon request by the Administrator, an Implementation Plan containing all of the information required in this paragraph for all boilers to be included in an efficiency credit approach. The Implementation Plan shall identify all existing affected boilers to be included in applying the efficiency credits. The Implementation Plan shall include a description of the energy conservation measures implemented and the energy savings generated from each measure and an explanation of the criteria used for determining that savings. If requested, you must submit the implementation plan for efficiency credits to the Administrator for review and approval no later than 180 days before the date on which the facility intends to demonstrate compliance using the efficiency credit approach.

(e) The emissions rate as calculated using Equation 20 of this section from each existing boiler participating in the efficiency credit option must be in compliance with the limits in Table 2 to this subpart at all times the affected unit is operating, following the compliance date specified in § 63.7495.

(f) You must use Equation 20 of this section to demonstrate initial compliance by demonstrating that the emissions from the affected boiler participating in the efficiency credit compliance approach do not exceed the emission limits in Table 2 to this subpart.

$$E_{adj} = E_{m} \times (1 - ECredits) \quad \text{(Eq. 20)}$$

Where:

E_{adj} = Emission level adjusted by applying the efficiency credits earned, lb per million Btu steam output (or lb per MWh) for the affected boiler.

E_m = Emissions measured during the performance test, lb per million Btu steam output (or lb per MWh) for the affected boiler.

ECredits = Efficiency credits from Equation 19 for the affected boiler.

(g) As part of each compliance report submitted as required under § 63.7550, you must include documentation that the energy conservation measures implemented continue to generate the credit for use in demonstrating compliance with the emission limits.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7178, Jan. 31, 2013]

Continuous Compliance Requirements

§ 63.7535 Is there a minimum amount of monitoring data I must obtain?

(a) You must monitor and collect data according to this section and the site-specific monitoring plan required by § 63.7505(d).

(b) You must operate the monitoring system and collect data at all required intervals at all times that each boiler or process heater is operating and compliance is required, except for periods of monitoring system malfunctions or out of control periods (see § 63.8(c)(7) of this part), and required monitoring system quality assurance or control activities, including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in your site-specific monitoring plan. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You are required to complete monitoring system repairs in response to monitoring system malfunctions or out-of-control periods and to return the monitoring system to operation as expeditiously as practicable.

(c) You may not use data recorded during monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or control activities in data averages and calculations used to report emissions or operating levels. You must record and make available upon request results of CMS performance audits and dates and duration of periods when the CMS is out of control to completion of the corrective actions necessary to return the CMS to operation consistent with your site-specific monitoring plan. You must use all the data collected during all other periods in assessing compliance and the operation of the control device and associated control system.

(d) Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, system accuracy audits, calibration checks, and required zero and span adjustments), failure to collect required data is a deviation of the monitoring requirements. In calculating monitoring results, do not use any data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality control activities. You must calculate monitoring results using all other monitoring data collected while the process is operating. You must report all periods when the monitoring system is out of control in your annual report.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7179, Jan. 31, 2013]

§ 63.7540 How do I demonstrate continuous compliance with the emission limitations, fuel specifications and work practice standards?

(a) You must demonstrate continuous compliance with each emission limit in Tables 1 and 2 or 11 through 13 to this subpart, the work practice standards in Table 3 to this subpart, and the operating limits in Table 4 to this subpart that applies to you according to the methods specified in Table 8 to this subpart and paragraphs (a)(1) through (19) of this section.

(1) Following the date on which the initial compliance demonstration is completed or is required to be completed under §§ 63.7 and 63.7510, whichever date comes first, operation above the established maximum or below the established minimum operating limits shall constitute a deviation of established operating limits listed in Table 4 of this subpart except during performance tests conducted to determine compliance with the emission limits or to establish new operating limits. Operating limits must be confirmed or reestablished during performance tests.

(2) As specified in § 63.7550(c), you must keep records of the type and amount of all fuels burned in each boiler or process heater during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would result in either of the following:

(i) Lower emissions of HCl, mercury, and TSM than the applicable emission limit for each pollutant, if you demonstrate compliance through fuel analysis.

(ii) Lower fuel input of chlorine, mercury, and TSM than the maximum values calculated during the last performance test, if you demonstrate compliance through performance testing.

(3) If you demonstrate compliance with an applicable HCl emission limit through fuel analysis for a solid or liquid fuel and you plan to burn a new type of solid or liquid fuel, you must recalculate the HCl emission rate using Equation 12 of § 63.7530 according to paragraphs (a)(3)(i) through (iii) of this section. You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the HCl emission rate.

(i) You must determine the chlorine concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of chlorine.

(iii) Recalculate the HCl emission rate from your boiler or process heater under these new conditions using Equation 12 of § 63.7530. The recalculated HCl emission rate must be less than the applicable emission limit.

(4) If you demonstrate compliance with an applicable HCl emission limit through performance testing and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum chlorine input using Equation 7 of § 63.7530. If the results of recalculating the maximum chlorine input using Equation 7 of § 63.7530 are greater than the maximum chlorine input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the HCl emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(b). In recalculating the maximum chlorine input and establishing the new operating limits, you are not required to conduct fuel analyses for and include the fuels described in § 63.7510(a)(2)(i) through (iii).

(5) If you demonstrate compliance with an applicable mercury emission limit through fuel analysis, and you plan to burn a new type of fuel, you must recalculate the mercury emission rate using Equation 13 of § 63.7530 according to the procedures specified in paragraphs (a)(5)(i) through (iii) of this section. You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the mercury emission rate.

(i) You must determine the mercury concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of mercury.

(iii) Recalculate the mercury emission rate from your boiler or process heater under these new conditions using Equation 13 of § 63.7530. The recalculated mercury emission rate must be less than the applicable emission limit.

(6) If you demonstrate compliance with an applicable mercury emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum mercury input using Equation 8 of § 63.7530. If the results of recalculating the maximum mercury input using Equation 8 of § 63.7530 are higher than the maximum mercury input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the mercury emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(b). You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the mercury emission rate.

(7) If your unit is controlled with a fabric filter, and you demonstrate continuous compliance using a bag leak detection system, you must initiate corrective action within 1 hour of a bag leak detection system alert and complete corrective actions as soon as practical, and operate and maintain the fabric filter system such that the periods which would cause an alert are no more than 5 percent of the operating time during a 6-month period. You must also keep records of the date, time, and duration of each alert, the time corrective action was initiated and completed, and a brief description of the cause of the alert and the corrective action taken. You must also record the percent of the operating time during each 6-month period that the conditions exist for an alert. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alert time is counted. If corrective action is required, each alert shall be counted as a minimum of 1 hour. If you take longer than 1 hour to initiate corrective action, the alert time shall be counted as the actual amount of time taken to initiate corrective action.

(8) To demonstrate compliance with the applicable alternative CO CEMS emission limit listed in Tables 1, 2, or 11 through 13 to this subpart, you must meet the requirements in paragraphs (a)(8)(i) through (iv) of this section.

(i) Continuously monitor CO according to §§ 63.7525(a) and 63.7535.

(ii) Maintain a CO emission level below or at your applicable alternative CO CEMS-based standard in Tables 1 or 2 or 11 through 13 to this subpart at all times the affected unit is operating.

(iii) Keep records of CO levels according to § 63.7555(b).

(iv) You must record and make available upon request results of CO CEMS performance audits, dates and duration of periods when the CO CEMS is out of control to completion of the corrective actions necessary to return the CO CEMS to operation consistent with your site-specific monitoring plan.

(9) The owner or operator of a boiler or process heater using a PM CPMS or a PM CEMS to meet requirements of this subpart shall install, certify, operate, and maintain the PM CPMS or PM CEMS in accordance with your site-specific monitoring plan as required in § 63.7505(d).

(10) If your boiler or process heater has a heat input capacity of 10 million Btu per hour or greater, you must conduct an annual tune-up of the boiler or process heater to demonstrate continuous compliance as specified in paragraphs (a)(10)(i) through (vi) of this section. This frequency does not apply to limited-use boilers and process heaters, as defined in § 63.7575, or units with continuous oxygen trim systems that maintain an optimum air to fuel ratio.

(i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;

(ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

(iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;

(iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject;

(v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and

(vi) Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (a)(10)(vi)(A) through (C) of this section,

(A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;

(B) A description of any corrective actions taken as a part of the tune-up; and

(C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

(11) If your boiler or process heater has a heat input capacity of less than 10 million Btu per hour (except as specified in paragraph (a)(12) of this section), you must conduct a biennial tune-up of the boiler or process heater as specified in paragraphs (a)(10)(i) through (vi) of this section to demonstrate continuous compliance.

(12) If your boiler or process heater has a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour and the unit is in the units designed to burn gas 1; units designed to burn gas 2 (other); or units designed to burn light liquid subcategories, or meets the definition of limited-use boiler or process heater in § 63.7575, you must conduct a tune-up of the boiler or process heater every 5 years as specified in paragraphs (a)(10)(i) through (vi) of this section to demonstrate continuous compliance. You may delay the burner inspection specified in paragraph (a)(10)(i) of this section until the next scheduled or unscheduled unit shutdown, but you must inspect each burner at least once every 72 months.

(13) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.

(14) If you are using a CEMS measuring mercury emissions to meet requirements of this subpart you must install, certify, operate, and maintain the mercury CEMS as specified in paragraphs (a)(14)(i) and (ii) of this section.

(i) Operate the mercury CEMS in accordance with performance specification 12A of 40 CFR part 60, appendix B or operate a sorbent trap based integrated monitor in accordance with performance specification 12B of 40 CFR part 60, appendix B. The duration of the performance test must be the maximum of 30 unit operating days or 720 hours. For each day in which the unit operates, you must obtain hourly mercury concentration data, and stack gas volumetric flow rate data.

(ii) If you are using a mercury CEMS, you must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the mercury mass emissions rate to the atmosphere according to the requirements of performance specifications 6 and 12A of 40 CFR part 60, appendix B, and quality assurance procedure 6 of 40 CFR part 60, appendix F.

(15) If you are using a CEMS to measure HCl emissions to meet requirements of this subpart, you must install, certify, operate, and maintain the HCl CEMS as specified in paragraphs (a)(15)(i) and (ii) of this section. This option for an affected unit takes effect on the date a final performance specification for an HCl CEMS is published in the FEDERAL REGISTER or the date of approval of a site-specific monitoring plan.

(i) Operate the continuous emissions monitoring system in accordance with the applicable performance specification in 40 CFR part 60, appendix B. The duration of the performance test must be the maximum of 30 unit operating days or 720 hours. For each day in which the unit operates, you must obtain hourly HCl concentration data, and stack gas volumetric flow rate data.

(ii) If you are using a HCl CEMS, you must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the HCl mass emissions rate to the atmosphere according to the requirements of the applicable performance specification of 40 CFR part 60, appendix B, and the quality assurance procedures of 40 CFR part 60, appendix F.

(16) If you demonstrate compliance with an applicable TSM emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum TSM input using Equation 9 of § 63.7530. If the results of recalculating the maximum TSM input using Equation 9 of § 63.7530 are higher than the maximum total selected input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the TSM emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(b). You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the TSM emission rate.

(17) If you demonstrate compliance with an applicable TSM emission limit through fuel analysis for solid or liquid fuels, and you plan to burn a new type of fuel, you must recalculate the TSM emission rate using Equation 14 of § 63.7530 according to the procedures specified in paragraphs (a)(5)(i) through (iii) of this section. You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the TSM emission rate.

(i) You must determine the TSM concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of TSM.

(iii) Recalculate the TSM emission rate from your boiler or process heater under these new conditions using Equation 14 of § 63.7530. The recalculated TSM emission rate must be less than the applicable emission limit.

(18) If you demonstrate continuous PM emissions compliance with a PM CPMS you will use a PM CPMS to establish a site-specific operating limit corresponding to the results of the performance test demonstrating compliance with the PM limit. You will conduct your performance test using the test method criteria in Table 5 of this subpart. You will use the PM CPMS to demonstrate continuous compliance with this operating limit. You must repeat the performance test annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test.

(i) To determine continuous compliance, you must record the PM CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. You must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (milliamps) on a 30-day rolling average basis, updated at the end of each new boiler or process heater operating hour.

(ii) For any deviation of the 30-day rolling PM CPMS average value from the established operating parameter limit, you must:

(A) Within 48 hours of the deviation, visually inspect the air pollution control device (APCD);

(B) If inspection of the APCD identifies the cause of the deviation, take corrective action as soon as possible and return the PM CPMS measurement to within the established value; and

(C) Within 30 days of the deviation or at the time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify or re-establish the

CPMS operating limit. You are not required to conduct additional testing for any deviations that occur between the time of the original deviation and the PM emissions compliance test required under this paragraph.

(iii) PM CPMS deviations from the operating limit leading to more than four required performance tests in a 12-month operating period constitute a separate violation of this subpart.

(19) If you choose to comply with the PM filterable emissions limit by using PM CEMS you must install, certify, operate, and maintain a PM CEMS and record the output of the PM CEMS as specified in paragraphs (a)(19)(i) through (vii) of this section. The compliance limit will be expressed as a 30-day rolling average of the numerical emissions limit value applicable for your unit in Tables 1 or 2 or 11 through 13 of this subpart.

(i) Install and certify your PM CEMS according to the procedures and requirements in Performance Specification 11— Specifications and Test Procedures for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix B to part 60 of this chapter, using test criteria outlined in Table V of this rule. The reportable measurement output from the PM CEMS must be expressed in units of the applicable emissions limit (e.g., lb/MMBtu, lb/MWh).

(ii) Operate and maintain your PM CEMS according to the procedures and requirements in Procedure 2— Quality Assurance Requirements for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix F to part 60 of this chapter.

(A) You must conduct the relative response audit (RRA) for your PM CEMS at least once annually.

(B) You must conduct the relative correlation audit (RCA) for your PM CEMS at least once every 3 years.

(iii) Collect PM CEMS hourly average output data for all boiler operating hours except as indicated in paragraph (i) of this section.

(iv) Calculate the arithmetic 30-day rolling average of all of the hourly average PM CEMS output data collected during all nonexempt boiler or process heater operating hours.

(v) You must collect data using the PM CEMS at all times the unit is operating and at the intervals specified this paragraph (a), except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities.

(vi) You must use all the data collected during all boiler or process heater operating hours in assessing the compliance with your operating limit except:

(A) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities conducted during monitoring system malfunctions in calculations and report any such periods in your annual deviation report;

(B) Any data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or control activities conducted during out of control periods in calculations used to report emissions or operating levels and report any such periods in your annual deviation report;

(C) Any data recorded during periods of startup or shutdown.

(vii) You must record and make available upon request results of PM CEMS system performance audits, dates and duration of periods when the PM CEMS is out of control to completion of the corrective actions necessary to return the PM CEMS to operation consistent with your site-specific monitoring plan.

(b) You must report each instance in which you did not meet each emission limit and operating limit in Tables 1 through 4 or 11 through 13 to this subpart that apply to you. These instances are deviations from the emission limits or operating limits, respectively, in this subpart. These deviations must be reported according to the requirements in § 63.7550.

(c) If you elected to demonstrate that the unit meets the specification for mercury for the unit designed to burn gas 1 subcategory, you must follow the sampling frequency specified in paragraphs (c)(1) through (4) of this section and conduct this sampling according to the procedures in § 63.7521(f) through (i).

(1) If the initial mercury constituents in the gaseous fuels are measured to be equal to or less than half of the mercury specification as defined in § 63.7575, you do not need to conduct further sampling.

(2) If the initial mercury constituents are greater than half but equal to or less than 75 percent of the mercury specification as defined in § 63.7575, you will conduct semi-annual sampling. If 6 consecutive semi-annual fuel analyses demonstrate 50 percent or less of the mercury specification, you do not need to conduct further sampling. If any semi-annual sample exceeds 75 percent of the mercury specification, you must return to monthly sampling for that fuel, until 12 months of fuel analyses again are less than 75 percent of the compliance level.

(3) If the initial mercury constituents are greater than 75 percent of the mercury specification as defined in § 63.7575, you will conduct monthly sampling. If 12 consecutive monthly fuel analyses demonstrate 75 percent or less of the mercury specification, you may decrease the fuel analysis frequency to semi-annual for that fuel.

(4) If the initial sample exceeds the mercury specification as defined in § 63.7575, each affected boiler or process heater combusting this fuel is not part of the unit designed to burn gas 1 subcategory and must be in compliance with the emission and operating limits for the appropriate subcategory. You may elect to conduct additional monthly sampling while complying with these emissions and operating limits to demonstrate that the fuel qualifies as another gas 1 fuel. If 12 consecutive monthly fuel analyses samples are at or below the mercury specification as defined in § 63.7575, each affected boiler or process heater combusting the fuel can elect to switch back into the unit designed to burn gas 1 subcategory until the mercury specification is exceeded.

(d) For startup and shutdown, you must meet the work practice standards according to item 5 of Table 3 of this subpart.

[78 FR 7179, Jan. 31, 2013]

§ 63.7541 How do I demonstrate continuous compliance under the emissions averaging provision?

(a) Following the compliance date, the owner or operator must demonstrate compliance with this subpart on a continuous basis by meeting the requirements of paragraphs (a)(1) through (5) of this section.

(1) For each calendar month, demonstrate compliance with the average weighted emissions limit for the existing units participating in the emissions averaging option as determined in § 63.7522(f) and (g).

(2) You must maintain the applicable opacity limit according to paragraphs (a)(2)(i) and (ii) of this section.

(i) For each existing unit participating in the emissions averaging option that is equipped with a dry control system and not vented to a common stack, maintain opacity at or below the applicable limit.

(ii) For each group of units participating in the emissions averaging option where each unit in the group is equipped with a dry control system and vented to a common stack that does not receive emissions from non-affected units, maintain opacity at or below the applicable limit at the common stack.

(3) For each existing unit participating in the emissions averaging option that is equipped with a wet scrubber, maintain the 30-day rolling average parameter values at or above the operating limits established during the most recent performance test.

(4) For each existing unit participating in the emissions averaging option that has an approved alternative operating parameter, maintain the 30-day rolling average parameter values consistent with the approved monitoring plan.

(5) For each existing unit participating in the emissions averaging option venting to a common stack configuration containing affected units from other subcategories, maintain the appropriate operating limit for each unit as specified in Table 4 to this subpart that applies.

(b) Any instance where the owner or operator fails to comply with the continuous monitoring requirements in paragraphs (a)(1) through (5) of this section is a deviation.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7182, Jan. 31, 2013]

Notification, Reports, and Records

§ 63.7545 What notifications must I submit and when?

(a) You must submit to the Administrator all of the notifications in §§ 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.

(b) As specified in § 63.9(b)(2), if you startup your affected source before January 31, 2013, you must submit an Initial Notification not later than 120 days after January 31, 2013.

(c) As specified in § 63.9(b)(4) and (5), if you startup your new or reconstructed affected source on or after January 31, 2013, you must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source.

(d) If you are required to conduct a performance test you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin.

(e) If you are required to conduct an initial compliance demonstration as specified in § 63.7530, you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii). For the initial compliance demonstration for each boiler or process heater, you must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of all performance test and/or other initial compliance demonstrations for all boiler or process heaters at the facility according to § 63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (8), as applicable. If you are not required to conduct an initial compliance demonstration as specified in § 63.7530(a), the Notification of Compliance Status must only contain the information specified in paragraphs (e)(1) and (8).

(1) A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with this subpart, description of the fuel(s) burned, including whether the fuel(s) were a secondary material determined by you or the EPA through a petition process to be a non-waste under § 241.3 of this chapter, whether the fuel(s) were a secondary material processed from discarded non-hazardous secondary materials within the meaning of § 241.3 of this chapter, and justification for the selection of fuel(s) burned during the compliance demonstration.

(2) Summary of the results of all performance tests and fuel analyses, and calculations conducted to demonstrate initial compliance including all established operating limits, and including:

(i) Identification of whether you are complying with the PM emission limit or the alternative TSM emission limit.

(ii) Identification of whether you are complying with the output-based emission limits or the heat input-based (i.e., lb/MMBtu or ppm) emission limits,

(3) A summary of the maximum CO emission levels recorded during the performance test to show that you have met any applicable emission standard in Tables 1, 2, or 11 through 13 to this subpart, if you are not using a CO CEMS to demonstrate compliance.

(4) Identification of whether you plan to demonstrate compliance with each applicable emission limit through performance testing, a CEMS, or fuel analysis.

(5) Identification of whether you plan to demonstrate compliance by emissions averaging and identification of whether you plan to demonstrate compliance by using efficiency credits through energy conservation:

(i) If you plan to demonstrate compliance by emission averaging, report the emission level that was being achieved or the control technology employed on January 31, 2013.

(ii) [Reserved]

(6) A signed certification that you have met all applicable emission limits and work practice standards.

(7) If you had a deviation from any emission limit, work practice standard, or operating limit, you must also submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report.

(8) In addition to the information required in § 63.9(h)(2), your notification of compliance status must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

(i) “This facility complies with the required initial tune-up according to the procedures in § 63.7540(a)(10)(i) through (vi).”

(ii) “This facility has had an energy assessment performed according to § 63.7530(e).”

(iii) Except for units that burn only natural gas, refinery gas, or other gas 1 fuel, or units that qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act, include the following: “No secondary materials that are solid waste were combusted in any affected unit.”

(f) If you operate a unit designed to burn natural gas, refinery gas, or other gas 1 fuels that is subject to this subpart, and you intend to use a fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart of this part, part 60, 61, or 65, or other gas 1 fuel to fire the affected unit during a period of natural gas curtailment or supply interruption, as defined in § 63.7575, you must submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in § 63.7575. The notification must include the information specified in paragraphs (f)(1) through (5) of this section.

(1) Company name and address.

(2) Identification of the affected unit.

(3) Reason you are unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began.

(4) Type of alternative fuel that you intend to use.

(5) Dates when the alternative fuel use is expected to begin and end.

(g) If you intend to commence or recommence combustion of solid waste, you must provide 30 days prior notice of the date upon which you will commence or recommence combustion of solid waste. The notification must identify:

(1) The name of the owner or operator of the affected source, as defined in § 63.7490, the location of the source, the boiler(s) or process heater(s) that will commence burning solid waste, and the date of the notice.

(2) The currently applicable subcategories under this subpart.

(3) The date on which you became subject to the currently applicable emission limits.

(4) The date upon which you will commence combusting solid waste.

(h) If you have switched fuels or made a physical change to the boiler and the fuel switch or physical change resulted in the applicability of a different subcategory, you must provide notice of the date upon which you switched fuels or made the physical change within 30 days of the switch/change. The notification must identify:

(1) The name of the owner or operator of the affected source, as defined in § 63.7490, the location of the source, the boiler(s) and process heater(s) that have switched fuels, were physically changed, and the date of the notice.

(2) The currently applicable subcategory under this subpart.

(3) The date upon which the fuel switch or physical change occurred.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7183, Jan. 31, 2013]

§ 63.7550 What reports must I submit and when?

(a) You must submit each report in Table 9 to this subpart that applies to you.

(b) Unless the EPA Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report, according to paragraph (h) of this section, by the date in Table 9 to this subpart and according to the requirements in paragraphs (b)(1) through (4) of this section. For units that are subject only to a requirement to conduct an annual, biennial, or 5-year tune-up according to § 63.7540(a)(10), (11), or (12), respectively, and not subject to emission limits or operating limits, you may submit only an annual, biennial, or 5-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of this section, instead of a semi-annual compliance report.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in § 63.7495 and ending on July 31 or January 31, whichever date is the first date that occurs at least 180 days (or 1, 2, or 5 years, as applicable, if submitting an annual, biennial, or 5-year compliance report) after the compliance date that is specified for your source in § 63.7495.

(2) The first compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for each boiler or process heater in § 63.7495. The first annual, biennial, or 5-year compliance report must be postmarked or submitted no later than January 31.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual, biennial, and 5-year compliance reports must cover the applicable 1-, 2-, or 5-year periods from January 1 to December 31.

(4) Each subsequent compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. Annual, biennial, and 5-year compliance reports must be postmarked or submitted no later than January 31.

(c) A compliance report must contain the following information depending on how the facility chooses to comply with the limits set in this rule.

(1) If the facility is subject to a the requirements of a tune up they must submit a compliance report with the information in paragraphs (c)(5)(i) through (iv) and (xiv) of this section.

(2) If a facility is complying with the fuel analysis they must submit a compliance report with the information in paragraphs (c)(5)(i) through (iv), (vi), (x), (xi), (xiii), (xv) and paragraph (d) of this section.

(3) If a facility is complying with the applicable emissions limit with performance testing they must submit a compliance report with the information in (c)(5)(i) through (iv), (vi), (vii), (ix), (xi), (xiii), (xv) and paragraph (d) of this section.

(4) If a facility is complying with an emissions limit using a CMS the compliance report must contain the information required in paragraphs (c)(5)(i) through (vi), (xi), (xiii), (xv) through (xvii), and paragraph (e) of this section.

(5)(i) Company and Facility name and address.

(ii) Process unit information, emissions limitations, and operating parameter limitations.

(iii) Date of report and beginning and ending dates of the reporting period.

(iv) The total operating time during the reporting period.

(v) If you use a CMS, including CEMS, COMS, or CPMS, you must include the monitoring equipment manufacturer(s) and model numbers and the date of the last CMS certification or audit.

(vi) The total fuel use by each individual boiler or process heater subject to an emission limit within the reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by the EPA or your basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure.

(vii) If you are conducting performance tests once every 3 years consistent with § 63.7515(b) or (c), the date of the last 2 performance tests and a statement as to whether there have been any operational changes since the last performance test that could increase emissions.

(viii) A statement indicating that you burned no new types of fuel in an individual boiler or process heater subject to an emission limit. Or, if you did burn a new type of fuel and are subject to a HCl emission limit, you must submit the calculation of chlorine input, using Equation 7 of § 63.7530, that demonstrates that your source is still within its maximum chlorine input level established during the previous performance testing (for sources that demonstrate compliance through performance testing) or you must submit the calculation of HCl emission rate using Equation 12 of § 63.7530 that demonstrates that your source is still meeting the emission limit for HCl emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel and are subject to a mercury emission limit, you must submit the calculation of mercury input, using Equation 8 of § 63.7530, that demonstrates that your source is still within its maximum mercury input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of mercury emission rate using Equation 13 of § 63.7530 that demonstrates that your source is still meeting the emission limit for mercury emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel and are subject to a TSM emission limit, you must submit the calculation of TSM input, using Equation 9 of § 63.7530, that demonstrates that your source is still within its maximum TSM input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of TSM emission rate, using Equation 14 of § 63.7530, that demonstrates that your source is still meeting the emission limit for TSM emissions (for boilers or process heaters that demonstrate compliance through fuel analysis).

(ix) If you wish to burn a new type of fuel in an individual boiler or process heater subject to an emission limit and you cannot demonstrate compliance with the maximum chlorine input operating limit using Equation 7 of § 63.7530 or the maximum mercury input operating limit using Equation 8 of § 63.7530, or the maximum TSM input operating limit using Equation 9 of § 63.7530 you must include in the compliance report a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel.

(x) A summary of any monthly fuel analyses conducted to demonstrate compliance according to §§ 63.7521 and 63.7530 for individual boilers or process heaters subject to emission limits, and any fuel specification analyses conducted according to §§ 63.7521(f) and 63.7530(g).

(xi) If there are no deviations from any emission limits or operating limits in this subpart that apply to you, a statement that there were no deviations from the emission limits or operating limits during the reporting period.

(xii) If there were no deviations from the monitoring requirements including no periods during which the CMSs, including CEMS, COMS, and CPMS, were out of control as specified in § 63.8(c)(7), a statement that there were no deviations and no periods during which the CMS were out of control during the reporting period.

(xiii) If a malfunction occurred during the reporting period, the report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by you during a malfunction of a boiler, process heater, or associated air pollution control device or CMS to minimize emissions in accordance with § 63.7500(a)(3), including actions taken to correct the malfunction.

(xiv) Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual, biennial, or 5-year tune-up according to § 63.7540(a)(10), (11), or (12) respectively. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.

(xv) If you plan to demonstrate compliance by emission averaging, certify the emission level achieved or the control technology employed is no less stringent than the level or control technology contained in the notification of compliance status in § 63.7545(e)(5)(i).

(xvi) For each reporting period, the compliance reports must include all of the calculated 30 day rolling average values based on the daily CEMS (CO and mercury) and CPMS (PM CPMS output, scrubber pH, scrubber liquid flow rate, scrubber pressure drop) data.

(xvii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(d) For each deviation from an emission limit or operating limit in this subpart that occurs at an individual boiler or process heater where you are not using a CMS to comply with that emission limit or operating limit, the compliance report must additionally contain the information required in paragraphs (d)(1) through (3) of this section.

(1) A description of the deviation and which emission limit or operating limit from which you deviated.

(2) Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken.

(3) If the deviation occurred during an annual performance test, provide the date the annual performance test was completed.

(e) For each deviation from an emission limit, operating limit, and monitoring requirement in this subpart occurring at an individual boiler or process heater where you are using a CMS to comply with that emission limit or operating limit, the compliance report must additionally contain the information required in paragraphs (e)(1) through (9) of this section. This includes any deviations from your site-specific monitoring plan as required in § 63.7505(d).

(1) The date and time that each deviation started and stopped and description of the nature of the deviation (i.e., what you deviated from).

(2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each CMS was out of control, including the information in § 63.8(c)(8).

(4) The date and time that each deviation started and stopped.

(5) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(6) A characterization of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMS's downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.

(8) A brief description of the source for which there was a deviation.

(9) A description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation.

(f)-(g) [Reserved]

(h) You must submit the reports according to the procedures specified in paragraphs (h)(1) through (3) of this section.

(1) Within 60 days after the date of completing each performance test (defined in § 63.2) as required by this subpart you must submit the results of the performance tests, including any associated fuel analyses, required by this subpart and the compliance reports required in § 63.7550(b) to the EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). Performance test data must be submitted in the file format generated through use of the EPA's Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/index.html*). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to the EPA via CDX as described earlier in this paragraph. At the discretion of the Administrator, you must also submit these reports, including the confidential business information, to the Administrator in the format specified by the Administrator. For any performance test conducted using test methods that are not listed on the ERT Web site, the owner or operator shall submit the results of the performance test in paper submissions to the Administrator.

(2) Within 60 days after the date of completing each CEMS performance evaluation test (defined in 63.2) you must submit the relative accuracy test audit (RATA) data to the EPA's Central Data Exchange by using CEDRI as mentioned in paragraph (h)(1) of this section. Only RATA pollutants that can be documented with the ERT (as listed on the ERT Web site) are subject to this requirement. For any performance evaluations with no corresponding RATA pollutants listed on the ERT Web site, the owner or operator shall submit the results of the performance evaluation in paper submissions to the Administrator.

(3) You must submit all reports required by Table 9 of this subpart electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due the report you must submit the report to the Administrator at the appropriate address listed in § 63.13. At the discretion of the Administrator, you must also submit these reports, to the Administrator in the format specified by the Administrator.

[78 FR 7183, Jan. 31, 2013]

§ 63.7555 What records must I keep?

(a) You must keep records according to paragraphs (a)(1) and (2) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in § 63.10(b)(2)(xiv).

(2) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in § 63.10(b)(2)(viii).

(b) For each CEMS, COMS, and continuous monitoring system you must keep records according to paragraphs (b)(1) through (5) of this section.

(1) Records described in § 63.10(b)(2)(vii) through (xi).

(2) Monitoring data for continuous opacity monitoring system during a performance evaluation as required in § 63.6(h)(7)(i) and (ii).

(3) Previous (*i.e.,* superseded) versions of the performance evaluation plan as required in § 63.8(d)(3).

(4) Request for alternatives to relative accuracy test for CEMS as required in § 63.8(f)(6)(i).

(5) Records of the date and time that each deviation started and stopped.

(c) You must keep the records required in Table 8 to this subpart including records of all monitoring data and calculated averages for applicable operating limits, such as opacity, pressure drop, pH, and operating load, to show continuous compliance with each emission limit and operating limit that applies to you.

(d) For each boiler or process heater subject to an emission limit in Tables 1, 2, or 11 through 13 to this subpart, you must also keep the applicable records in paragraphs (d)(1) through (11) of this section.

(1) You must keep records of monthly fuel use by each boiler or process heater, including the type(s) of fuel and amount(s) used.

(2) If you combust non-hazardous secondary materials that have been determined not to be solid waste pursuant to § 241.3(b)(1) and (2) of this chapter, you must keep a record that documents how the secondary material meets each of the legitimacy criteria under § 241.3(d)(1) of this chapter. If you combust a fuel that has been processed from a discarded non-hazardous secondary material pursuant to § 241.3(b)(4) of this chapter, you must keep records as to how the operations that produced the fuel satisfy the definition of processing in § 241.2 of this chapter. If the fuel received a non-waste determination pursuant to the petition process submitted under § 241.3(c) of this chapter, you must keep a record that documents how the fuel satisfies the requirements of the petition process. For operating units that combust non-hazardous secondary materials as fuel per § 241.4 of this chapter, you must keep records documenting that the material is listed as a non-waste under § 241.4(a) of this chapter. Units exempt from the incinerator standards under section 129(g)(1) of the Clean Air Act because they are qualifying facilities burning a homogeneous waste stream do not need to maintain the records described in this paragraph (d)(2).

(3) For units in the limited use subcategory, you must keep a copy of the federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent and fuel use records for the days the boiler or process heater was operating.

(4) A copy of all calculations and supporting documentation of maximum chlorine fuel input, using Equation 7 of § 63.7530, that were done to demonstrate continuous compliance with the HCl emission limit, for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of HCl emission rates, using Equation 12 of § 63.7530, that were done to demonstrate compliance with the HCl emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum chlorine fuel input or HCl emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate chlorine fuel input, or HCl emission rate, for each boiler and process heater.

(5) A copy of all calculations and supporting documentation of maximum mercury fuel input, using Equation 8 of § 63.7530, that were done to demonstrate continuous compliance with the mercury emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of mercury emission rates, using Equation 13 of § 63.7530, that were done to demonstrate compliance with the mercury emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum mercury fuel input or mercury emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate mercury fuel input, or mercury emission rates, for each boiler and process heater.

(6) If, consistent with § 63.7515(b), you choose to stack test less frequently than annually, you must keep a record that documents that your emissions in the previous stack test(s) were less than 75 percent of the applicable emission limit (or, in specific instances noted in Tables 1 and 2 or 11 through 13 to this subpart, less than the applicable

emission limit), and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past year.

(7) Records of the occurrence and duration of each malfunction of the boiler or process heater, or of the associated air pollution control and monitoring equipment.

(8) Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in § 63.7500(a)(3), including corrective actions to restore the malfunctioning boiler or process heater, air pollution control, or monitoring equipment to its normal or usual manner of operation.

(9) A copy of all calculations and supporting documentation of maximum TSM fuel input, using Equation 9 of § 63.7530, that were done to demonstrate continuous compliance with the TSM emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of TSM emission rates, using Equation 14 of § 63.7530, that were done to demonstrate compliance with the TSM emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum TSM fuel input or TSM emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate TSM fuel input, or TSM emission rates, for each boiler and process heater.

(10) You must maintain records of the calendar date, time, occurrence and duration of each startup and shutdown.

(11) You must maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown.

(e) If you elect to average emissions consistent with § 63.7522, you must additionally keep a copy of the emission averaging implementation plan required in § 63.7522(g), all calculations required under § 63.7522, including monthly records of heat input or steam generation, as applicable, and monitoring records consistent with § 63.7541.

(f) If you elect to use efficiency credits from energy conservation measures to demonstrate compliance according to § 63.7533, you must keep a copy of the Implementation Plan required in § 63.7533(d) and copies of all data and calculations used to establish credits according to § 63.7533(b), (c), and (f).

(g) If you elected to demonstrate that the unit meets the specification for mercury for the unit designed to burn gas 1 subcategory, you must maintain monthly records (or at the frequency required by § 63.7540(c)) of the calculations and results of the fuel specification for mercury in Table 6.

(h) If you operate a unit in the unit designed to burn gas 1 subcategory that is subject to this subpart, and you use an alternative fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart under this part, other gas 1 fuel, or gaseous fuel subject to another subpart of this part or part 60, 61, or 65, you must keep records of the total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies.

(i) You must maintain records of the calendar date, time, occurrence and duration of each startup and shutdown.

(j) You must maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7185, Jan. 31, 2013]

§ 63.7560 In what form and how long must I keep my records?

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

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You can keep the records off site for the remaining 3 years.

Other Requirements and Information

§ 63.7565 What parts of the General Provisions apply to me?

Table 10 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

§ 63.7570 Who implements and enforces this subpart?

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

(b) In delegating implementation and enforcement authority of this subpart to a state, local, or tribal agency under 40 CFR part 63, subpart E, the authorities listed in paragraphs (b)(1) through (5) of this section are retained by the EPA Administrator and are not transferred to the state, local, or tribal agency, however, the EPA retains oversight of this subpart and can take enforcement actions, as appropriate.

(1) Approval of alternatives to the non-opacity emission limits and work practice standards in § 63.7500(a) and (b) under § 63.6(g).

(2) Approval of alternative opacity emission limits in § 63.7500(a) under § 63.6(h)(9).

(3) Approval of major change to test methods in Table 5 to this subpart under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90, and alternative analytical methods requested under § 63.7521(b)(2).

(4) Approval of major change to monitoring under § 63.8(f) and as defined in § 63.90, and approval of alternative operating parameters under § 63.7500(a)(2) and § 63.7522(g)(2).

(5) Approval of major change to recordkeeping and reporting under § 63.10(e) and as defined in § 63.90.

[76 FR 15664, Mar. 21, 2011 as amended at 78 FR 7186, Jan. 31, 2013]

§ 63.7575 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, in § 63.2 (the General Provisions), and in this section as follows:

10-day rolling average means the arithmetic mean of the previous 240 hours of valid operating data. Valid data excludes hours during startup and shutdown, data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality control activities, and periods when this unit is not operating. The 240 hours should be consecutive, but not necessarily continuous if operations were intermittent.

30-day rolling average means the arithmetic mean of the previous 720 hours of valid operating data. Valid data excludes hours during startup and shutdown, data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality control activities, and periods when this unit is not operating. The 720 hours should be consecutive, but not necessarily continuous if operations were intermittent.

Affirmative defense means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

Annual capacity factor means the ratio between the actual heat input to a boiler or process heater from the fuels burned during a calendar year and the potential heat input to the boiler or process heater had it been operated for 8,760 hours during a year at the maximum steady state design heat input capacity.

Annual heat input means the heat input for the 12 months preceding the compliance demonstration.

Average annual heat input rate means total heat input divided by the hours of operation for the 12 months preceding the compliance demonstration.

Bag leak detection system means a group of instruments that are capable of monitoring particulate matter loadings in the exhaust of a fabric filter (*i.e.,* baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on electrodynamic, triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.

Benchmark means the fuel heat input for a boiler or process heater for the one-year period before the date that an energy demand reduction occurs, unless it can be demonstrated that a different time period is more representative of historical operations.

Biodiesel means a mono-alkyl ester derived from biomass and conforming to ASTM D6751-11b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels (incorporated by reference, see § 63.14).

Biomass or bio-based solid fuel means any biomass-based solid fuel that is not a solid waste. This includes, but is not limited to, wood residue; wood products (*e.g.,* trees, tree stumps, tree limbs, bark, lumber, sawdust, sander dust, chips, scraps, slabs, millings, and shavings); animal manure, including litter and other bedding materials; vegetative agricultural and silvicultural materials, such as logging residues (slash), nut and grain hulls and chaff (*e.g.,* almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds. This definition of biomass is not intended to suggest that these materials are or are not solid waste.

Blast furnace gas fuel-fired boiler or process heater means an industrial/commercial/institutional boiler or process heater that receives 90 percent or more of its total annual gas volume from blast furnace gas.

Boiler means an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water. Controlled flame combustion refers to a steady-state, or near steady-state, process wherein fuel and/or oxidizer feed rates are controlled. A device combusting solid waste, as defined in § 241.3 of this chapter, is not a boiler unless the device is exempt from the definition of a solid waste incineration unit as provided in section 129(g)(1) of the Clean Air Act. Waste heat boilers are excluded from this definition.

Boiler system means the boiler and associated components, such as, the feed water system, the combustion air system, the fuel system (including burners), blowdown system, combustion control systems, steam systems, and condensate return systems.

Calendar year means the period between January 1 and December 31, inclusive, for a given year.

Coal means all solid fuels classifiable as anthracite, bituminous, sub-bituminous, or lignite by ASTM D388 (incorporated by reference, see § 63.14), coal refuse, and petroleum coke. For the purposes of this subpart, this definition of “coal” includes synthetic fuels derived from coal, including but not limited to, solvent-refined coal, coal-oil mixtures, and coal-water mixtures. Coal derived gases are excluded from this definition.

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

Commercial/institutional boiler means a boiler used in commercial establishments or institutional establishments such as medical centers, nursing homes, research centers, institutions of higher education, elementary and secondary schools, libraries, religious establishments, governmental buildings, hotels, restaurants, and laundries to provide electricity, steam, and/or hot water.

Common stack means the exhaust of emissions from two or more affected units through a single flue. Affected units with a common stack may each have separate air pollution control systems located before the common stack, or may have a single air pollution control system located after the exhausts come together in a single flue.

Cost-effective energy conservation measure means a measure that is implemented to improve the energy efficiency of the boiler or facility that has a payback (return of investment) period of 2 years or less.

Daily block average means the arithmetic mean of all valid emission concentrations or parameter levels recorded when a unit is operating measured over the 24-hour period from 12 a.m. (midnight) to 12 a.m. (midnight), except for periods of startup and shutdown or downtime.

Deviation. (1) *Deviation* means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(i) Fails to meet any applicable requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard; or

(ii) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit.

(2) A deviation is not always a violation.

Dioxins/furans means tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans.

Distillate oil means fuel oils that contain 0.05 weight percent nitrogen or less and comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society of Testing and Materials in ASTM D396 (incorporated by reference, see § 63.14) or diesel fuel oil numbers 1 and 2, as defined by the American Society for Testing and Materials in ASTM D975 (incorporated by reference, see § 63.14), kerosene, and biodiesel as defined by the American Society of Testing and Materials in ASTM D6751-11b (incorporated by reference, see § 60.14).

Dry scrubber means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gas in the exhaust stream forming a dry powder material. Sorbent injection systems used as control devices in fluidized bed boilers and process heaters are included in this definition. A dry scrubber is a dry control system.

Dutch oven means a unit having a refractory-walled cell connected to a conventional boiler setting. Fuel materials are introduced through an opening in the roof of the dutch oven and burn in a pile on its floor. Fluidized bed boilers are not part of the dutch oven design category.

Efficiency credit means emission reductions above those required by this subpart. Efficiency credits generated may be used to comply with the emissions limits. Credits may come from pollution prevention projects that result in reduced fuel use by affected units. Boilers that are shut down cannot be used to generate credits unless the facility provides documentation linking the permanent shutdown to implementation of the energy conservation measures identified in the energy assessment.

Electric utility steam generating unit (EGU) means a fossil fuel-fired combustion unit of more than 25 megawatts electric (MWe) that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 MWe output to any utility power distribution system for sale is considered an electric utility steam generating unit. To be “capable of combusting” fossil fuels, an EGU would need to have these fuels allowed in their operating permits and have the appropriate fuel handling facilities on-site or otherwise available (e.g., coal handling equipment, including coal storage area, belts and conveyers, pulverizers, etc.; oil storage facilities). In addition, fossil fuel-fired EGU means any EGU

that fired fossil fuel for more than 10.0 percent of the average annual heat input in any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year after April 16, 2012.

Electrostatic precipitator (ESP) means an add-on air pollution control device used to capture particulate matter by charging the particles using an electrostatic field, collecting the particles using a grounded collecting surface, and transporting the particles into a hopper. An electrostatic precipitator is usually a dry control system.

Energy assessment means the following for the emission units covered by this subpart:

(1) The energy assessment for facilities with affected boilers and process heaters with a combined heat input capacity of less than 0.3 trillion Btu (TBtu) per year will be 8 on-site technical labor hours in length maximum, but may be longer at the discretion of the owner or operator of the affected source. The boiler system(s) and any on-site energy use system(s) accounting for at least 50 percent of the affected boiler(s) energy (e.g., steam, hot water, process heat, or electricity) production, as applicable, will be evaluated to identify energy savings opportunities, within the limit of performing an 8-hour on-site energy assessment.

(2) The energy assessment for facilities with affected boilers and process heaters with a combined heat input capacity of 0.3 to 1.0 TBtu/year will be 24 on-site technical labor hours in length maximum, but may be longer at the discretion of the owner or operator of the affected source. The boiler system(s) and any on-site energy use system(s) accounting for at least 33 percent of the energy (e.g., steam, hot water, process heat, or electricity) production, as applicable, will be evaluated to identify energy savings opportunities, within the limit of performing a 24-hour on-site energy assessment.

(3) The energy assessment for facilities with affected boilers and process heaters with a combined heat input capacity greater than 1.0 TBtu/year will be up to 24 on-site technical labor hours in length for the first TBtu/yr plus 8 on-site technical labor hours for every additional 1.0 TBtu/yr not to exceed 160 on-site technical hours, but may be longer at the discretion of the owner or operator of the affected source. The boiler system(s), process heater(s), and any on-site energy use system(s) accounting for at least 20 percent of the energy (e.g., steam, process heat, hot water, or electricity) production, as applicable, will be evaluated to identify energy savings opportunities.

(4) The on-site energy use systems serving as the basis for the percent of affected boiler(s) and process heater(s) energy production in paragraphs (1), (2), and (3) of this definition may be segmented by production area or energy use area as most logical and applicable to the specific facility being assessed (e.g., product X manufacturing area; product Y drying area; Building Z).

Energy management practices means the set of practices and procedures designed to manage energy use that are demonstrated by the facility's energy policies, a facility energy manager and other staffing responsibilities, energy performance measurement and tracking methods, an energy saving goal, action plans, operating procedures, internal reporting requirements, and periodic review intervals used at the facility.

Energy management program means a program that includes a set of practices and procedures designed to manage energy use that are demonstrated by the facility's energy policies, a facility energy manager and other staffing responsibilities, energy performance measurement and tracking methods, an energy saving goal, action plans, operating procedures, internal reporting requirements, and periodic review intervals used at the facility. Facilities may establish their program through energy management systems compatible with ISO 50001.

Energy use system includes the following systems located on-site that use energy (steam, hot water, or electricity) provided by the affected boiler or process heater: process heating; compressed air systems; machine drive (motors, pumps, fans); process cooling; facility heating, ventilation, and air-conditioning systems; hot water systems; building envelop; and lighting; or other systems that use steam, hot water, process heat, or electricity provided by the affected boiler or process heater. Energy use systems are only those systems using energy clearly produced by affected boilers and process heaters.

Equivalent means the following only as this term is used in Table 6 to this subpart:

(1) An equivalent sample collection procedure means a published voluntary consensus standard or practice (VCS) or EPA method that includes collection of a minimum of three composite fuel samples, with each composite consisting of a minimum of three increments collected at approximately equal intervals over the test period.

(2) An equivalent sample compositing procedure means a published VCS or EPA method to systematically mix and obtain a representative subsample (part) of the composite sample.

(3) An equivalent sample preparation procedure means a published VCS or EPA method that: Clearly states that the standard, practice or method is appropriate for the pollutant and the fuel matrix; or is cited as an appropriate sample preparation standard, practice or method for the pollutant in the chosen VCS or EPA determinative or analytical method.

(4) An equivalent procedure for determining heat content means a published VCS or EPA method to obtain gross calorific (or higher heating) value.

(5) An equivalent procedure for determining fuel moisture content means a published VCS or EPA method to obtain moisture content. If the sample analysis plan calls for determining metals (especially the mercury, selenium, or arsenic) using an aliquot of the dried sample, then the drying temperature must be modified to prevent vaporizing these metals. On the other hand, if metals analysis is done on an “as received” basis, a separate aliquot can be dried to determine moisture content and the metals concentration mathematically adjusted to a dry basis.

(6) An equivalent pollutant (mercury, HCl) determinative or analytical procedure means a published VCS or EPA method that clearly states that the standard, practice, or method is appropriate for the pollutant and the fuel matrix and has a published detection limit equal or lower than the methods listed in Table 6 to this subpart for the same purpose.

Fabric filter means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse. A fabric filter is a dry control system.

Federally enforceable means all limitations and conditions that are enforceable by the EPA Administrator, including, but not limited to, the requirements of 40 CFR parts 60, 61, 63, and 65, requirements within any applicable state implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

Fluidized bed boiler means a boiler utilizing a fluidized bed combustion process that is not a pulverized coal boiler.

Fluidized bed boiler with an integrated fluidized bed heat exchanger means a boiler utilizing a fluidized bed combustion where the entire tube surface area is located outside of the furnace section at the exit of the cyclone section and exposed to the flue gas stream for conductive heat transfer. This design applies only to boilers in the unit designed to burn coal/solid fossil fuel subcategory that fire coal refuse.

Fluidized bed combustion means a process where a fuel is burned in a bed of granulated particles, which are maintained in a mobile suspension by the forward flow of air and combustion products.

Fuel cell means a boiler type in which the fuel is dropped onto suspended fixed grates and is fired in a pile. The refractory-lined fuel cell uses combustion air preheating and positioning of secondary and tertiary air injection ports to improve boiler efficiency. Fluidized bed, dutch oven, pile burner, hybrid suspension grate, and suspension burners are not part of the fuel cell subcategory.

Fuel type means each category of fuels that share a common name or classification. Examples include, but are not limited to, bituminous coal, sub-bituminous coal, lignite, anthracite, biomass, distillate oil, residual oil. Individual fuel types received from different suppliers are not considered new fuel types.

Gaseous fuel includes, but is not limited to, natural gas, process gas, landfill gas, coal derived gas, refinery gas, and biogas. Blast furnace gas and process gases that are regulated under another subpart of this part, or part 60, part 61, or part 65 of this chapter, are exempted from this definition.

Heat input means heat derived from combustion of fuel in a boiler or process heater and does not include the heat input from preheated combustion air, recirculated flue gases, returned condensate, or exhaust gases from other sources such as gas turbines, internal combustion engines, kilns, etc.

Heavy liquid includes residual oil and any other liquid fuel not classified as a light liquid.

Hourly average means the arithmetic average of at least four CMS data values representing the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CMS calibration, quality assurance, or maintenance activities are being performed.

Hot water heater means a closed vessel with a capacity of no more than 120 U.S. gallons in which water is heated by combustion of gaseous, liquid, or biomass/bio-based solid fuel and is withdrawn for use external to the vessel. Hot water boilers (i.e., not generating steam) combusting gaseous, liquid, or biomass fuel with a heat input capacity of less than 1.6 million Btu per hour are included in this definition. The 120 U.S. gallon capacity threshold to be considered a hot water heater is independent of the 1.6 MMBtu/hr heat input capacity threshold for hot water boilers. Hot water heater also means a tankless unit that provides on demand hot water.

Hybrid suspension grate boiler means a boiler designed with air distributors to spread the fuel material over the entire width and depth of the boiler combustion zone. The biomass fuel combusted in these units exceeds a moisture content of 40 percent on an as-fired annual heat input basis. The drying and much of the combustion of the fuel takes place in suspension, and the combustion is completed on the grate or floor of the boiler. Fluidized bed, dutch oven, and pile burner designs are not part of the hybrid suspension grate boiler design category.

Industrial boiler means a boiler used in manufacturing, processing, mining, and refining or any other industry to provide steam, hot water, and/or electricity.

Light liquid includes distillate oil, biodiesel, or vegetable oil.

Limited-use boiler or process heater means any boiler or process heater that burns any amount of solid, liquid, or gaseous fuels and has a federally enforceable average annual capacity factor of no more than 10 percent.

Liquid fuel includes, but is not limited to, light liquid, heavy liquid, any form of liquid fuel derived from petroleum, used oil, liquid biofuels, biodiesel, vegetable oil, and comparable fuels as defined under 40 CFR 261.38.

Load fraction means the actual heat input of a boiler or process heater divided by heat input during the performance test that established the minimum sorbent injection rate or minimum activated carbon injection rate, expressed as a fraction (e.g., for 50 percent load the load fraction is 0.5).

Major source for oil and natural gas production facilities, as used in this subpart, shall have the same meaning as in § 63.2, except that:

(1) Emissions from any oil or gas exploration or production well (with its associated equipment, as defined in this section), and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;

(2) Emissions from processes, operations, or equipment that are not part of the same facility, as defined in this section, shall not be aggregated; and

(3) For facilities that are production field facilities, only HAP emissions from glycol dehydration units and storage vessels with the potential for flash emissions shall be aggregated for a major source determination. For facilities that are not production field facilities, HAP emissions from all HAP emission units shall be aggregated for a major source determination.

Metal process furnaces are a subcategory of process heaters, as defined in this subpart, which include natural gas-fired annealing furnaces, preheat furnaces, reheat furnaces, aging furnaces, heat treat furnaces, and homogenizing furnaces.

Million Btu (MMBtu) means one million British thermal units.

Minimum activated carbon injection rate means load fraction multiplied by the lowest hourly average activated carbon injection rate measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum oxygen level means the lowest hourly average oxygen level measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum pressure drop means the lowest hourly average pressure drop measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum scrubber effluent pH means the lowest hourly average sorbent liquid pH measured at the inlet to the wet scrubber according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable hydrogen chloride emission limit.

Minimum scrubber liquid flow rate means the lowest hourly average liquid flow rate (e.g., to the PM scrubber or to the acid gas scrubber) measured according to Table 7 to this subpart during the most recent performance stack test demonstrating compliance with the applicable emission limit.

Minimum scrubber pressure drop means the lowest hourly average scrubber pressure drop measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum sorbent injection rate means:

(1) The load fraction multiplied by the lowest hourly average sorbent injection rate for each sorbent measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits; or

(2) For fluidized bed combustion, the lowest average ratio of sorbent to sulfur measured during the most recent performance test.

Minimum total secondary electric power means the lowest hourly average total secondary electric power determined from the values of secondary voltage and secondary current to the electrostatic precipitator measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits.

Natural gas means:

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

(2) Liquefied petroleum gas, as defined in ASTM D1835 (incorporated by reference, see § 63.14); 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 35 and 41 megajoules (MJ) per dry standard cubic meter (950 and 1,100 Btu per dry standard cubic foot); or

(4) Propane or propane derived synthetic natural gas. Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure C_3H_8 .

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

Operating day means a 24-hour period between 12 midnight and the following midnight during which any fuel is combusted at any time in the boiler or process heater unit. It is not necessary for fuel to be combusted for the entire 24-hour period.

Other combustor means a unit designed to burn solid fuel that is not classified as a dutch oven, fluidized bed, fuel cell, hybrid suspension grate boiler, pulverized coal boiler, stoker, sloped grate, or suspension boiler as defined in this subpart.

Other gas 1 fuel means a gaseous fuel that is not natural gas or refinery gas and does not exceed a maximum concentration of 40 micrograms/cubic meters of mercury.

Oxygen analyzer system means all equipment required to determine the oxygen content of a gas stream and used to monitor oxygen in the boiler or process heater flue gas, boiler or process heater, firebox, or other appropriate location. This definition includes oxygen trim systems. The source owner or operator must install, calibrate, maintain, and operate the oxygen analyzer system in accordance with the manufacturer's recommendations.

Oxygen trim system means a system of monitors that is used to maintain excess air at the desired level in a combustion device. A typical system consists of a flue gas oxygen and/or CO monitor that automatically provides a feedback signal to the combustion air controller.

Particulate matter (PM) means any finely divided solid or liquid material, other than uncombined water, as measured by the test methods specified under this subpart, or an approved alternative method.

Period of gas curtailment or supply interruption means a period of time during which the supply of gaseous fuel to an affected boiler or process heater is restricted or halted for reasons beyond the control of the facility. The act of entering into a contractual agreement with a supplier of natural gas established for curtailment purposes does not constitute a reason that is under the control of a facility for the purposes of this definition. An increase in the cost or unit price of natural gas due to normal market fluctuations not during periods of supplier delivery restriction does not constitute a period of natural gas curtailment or supply interruption. On-site gaseous fuel system emergencies or equipment failures qualify as periods of supply interruption when the emergency or failure is beyond the control of the facility.

Pile burner means a boiler design incorporating a design where the anticipated biomass fuel has a high relative moisture content. Grates serve to support the fuel, and underfire air flowing up through the grates provides oxygen for combustion, cools the grates, promotes turbulence in the fuel bed, and fires the fuel. The most common form of pile burning is the dutch oven.

Process heater means an enclosed device using controlled flame, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to a heat transfer material (e.g., glycol or a mixture of glycol and water) for use in a process unit, instead of generating steam. Process heaters are devices in which the combustion gases do not come into direct contact with process materials. A device combusting solid waste, as defined in § 241.3 of this chapter, is not a process heater unless the device is exempt from the definition of a solid waste incineration unit as provided in section 129(g)(1) of the Clean Air Act. Process heaters do not include units used for comfort heat or space heat, food preparation for on-site consumption, or autoclaves. Waste heat process heaters are excluded from this definition.

Pulverized coal boiler means a boiler in which pulverized coal or other solid fossil fuel is introduced into an air stream that carries the coal to the combustion chamber of the boiler where it is fired in suspension.

Qualified energy assessor means:

(1) Someone who has demonstrated capabilities to evaluate energy savings opportunities for steam generation and major energy using systems, including, but not limited to:

(i) Boiler combustion management.

(ii) Boiler thermal energy recovery, including

(A) Conventional feed water economizer,

(B) Conventional combustion air preheater, and

(C) Condensing economizer.

(iii) Boiler blowdown thermal energy recovery.

(iv) Primary energy resource selection, including

(A) Fuel (primary energy source) switching, and

(B) Applied steam energy versus direct-fired energy versus electricity.

(v) Insulation issues.

(vi) Steam trap and steam leak management.

(vi) Condensate recovery.

(viii) Steam end-use management.

(2) Capabilities and knowledge includes, but is not limited to:

(i) Background, experience, and recognized abilities to perform the assessment activities, data analysis, and report preparation.

(ii) Familiarity with operating and maintenance practices for steam or process heating systems.

(iii) Additional potential steam system improvement opportunities including improving steam turbine operations and reducing steam demand.

(iv) Additional process heating system opportunities including effective utilization of waste heat and use of proper process heating methods.

(v) Boiler-steam turbine cogeneration systems.

(vi) Industry specific steam end-use systems.

Refinery gas means any gas that is generated at a petroleum refinery and is combusted. Refinery gas includes natural gas when the natural gas is combined and combusted in any proportion with a gas generated at a refinery. Refinery gas includes gases generated from other facilities when that gas is combined and combusted in any proportion with gas generated at a refinery.

Regulated gas stream means an offgas stream that is routed to a boiler or process heater for the purpose of achieving compliance with a standard under another subpart of this part or part 60, part 61, or part 65 of this chapter.

Residential boiler means a boiler used to provide heat and/or hot water and/or as part of a residential combined heat and power system. This definition includes boilers located at an institutional facility (e.g., university campus, military base, church grounds) or commercial/industrial facility (e.g., farm) used primarily to provide heat and/or hot water for:

(1) A dwelling containing four or fewer families; or

(2) A single unit residence dwelling that has since been converted or subdivided into condominiums or apartments.

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 of Testing and Materials in ASTM D396-10 (incorporated by reference, *see* § 63.14(b)).

Responsible official means responsible official as defined in § 70.2.

Secondary material means the material as defined in § 241.2 of this chapter.

Shutdown means the cessation of operation of a boiler or process heater for any purpose. Shutdown begins either when none of the steam from the boiler is supplied for heating and/or producing electricity, or for any other purpose, or at the point of no fuel being fired in the boiler or process heater, whichever is earlier. Shutdown ends when there is no steam and no heat being supplied and no fuel being fired in the boiler or process heater.

Sloped grate means a unit where the solid fuel is fed to the top of the grate from where it slides downwards; while sliding the fuel first dries and then ignites and burns. The ash is deposited at the bottom of the grate. Fluidized bed, dutch oven, pile burner, hybrid suspension grate, suspension burners, and fuel cells are not considered to be a sloped grate design.

Solid fossil fuel includes, but is not limited to, coal, coke, petroleum coke, and tire derived fuel.

Solid fuel means any solid fossil fuel or biomass or bio-based solid fuel.

Startup means either the first-ever firing of fuel in a boiler or process heater for the purpose of supplying steam or heat for heating and/or producing electricity, or for any other purpose, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam or heat from the boiler or process heater is supplied for heating, and/or producing electricity, or for any other purpose.

Steam output means:

(1) For a boiler that produces steam for process or heating only (no power generation), the energy content in terms of MMBtu of the boiler steam output,

(2) For a boiler that cogenerates process steam and electricity (also known as combined heat and power), the total energy output, which is the sum of the energy content of the steam exiting the turbine and sent to process in MMBtu and the energy of the electricity generated converted to MMBtu at a rate of 10,000 Btu per kilowatt-hour generated (10 MMBtu per megawatt-hour), and

(3) For a boiler that generates only electricity, the alternate output-based emission limits would be calculated using Equations 21 through 25 of this section, as appropriate:

(i) For emission limits for boilers in the unit designed to burn solid fuel subcategory use Equation 21 of this section:

$$EL_{OBE} = EL_T \times 12.7 \text{ MMBtu/Mwh} \quad \text{(Eq. 21)}$$

Where:

EL_{OBE} = Emission limit in units of pounds per megawatt-hour.

EL_T = Appropriate emission limit from Table 1 or 2 of this subpart in units of pounds per million Btu heat input.

(ii) For PM and CO emission limits for boilers in one of the subcategories of units designed to burn coal use Equation 22 of this section:

$$EL_{OBE} = EL_T \times 12.2 \text{ MMBtu/Mwh} \quad \text{(Eq. 22)}$$

Where:

EL_{OBE} = Emission limit in units of pounds per megawatt-hour.

EL_T = Appropriate emission limit from Table 1 or 2 of this subpart in units of pounds per million Btu heat input.

(iii) For PM and CO emission limits for boilers in one of the subcategories of units designed to burn biomass use Equation 23 of this section:

$$EL_{OBE} = EL_T \times 13.9 \text{ MMBtu/Mwh} \quad \text{(Eq. 23)}$$

Where:

EL_{OBE} = Emission limit in units of pounds per megawatt-hour.

EL_T = Appropriate emission limit from Table 1 or 2 of this subpart in units of pounds per million Btu heat input.

(iv) For emission limits for boilers in one of the subcategories of units designed to burn liquid fuels use Equation 24 of this section:

$$EL_{OBE} = EL_T \times 13.8 \text{ MMBtu/Mwh} \quad \text{(Eq. 24)}$$

Where:

EL_{OBE} = Emission limit in units of pounds per megawatt-hour.

EL_T = Appropriate emission limit from Table 1 or 2 of this subpart in units of pounds per million Btu heat input.

(v) For emission limits for boilers in the unit designed to burn gas 2 (other) subcategory, use Equation 25 of this section:

$$EL_{OBE} = EL_T \times 10.4 \text{ MMBtu/Mwh} \quad \text{(Eq. 25)}$$

Where:

EL_{OBE} = Emission limit in units of pounds per megawatt-hour.

EL_T = Appropriate emission limit from Table 1 or 2 of this subpart in units of pounds per million Btu heat input.

Stoker means a unit consisting of a mechanically operated fuel feeding mechanism, a stationary or moving grate to support the burning of fuel and admit under-grate air to the fuel, an overfire air system to complete combustion, and an ash discharge system. This definition of stoker includes air swept stokers. There are two general types of stokers: Underfeed and overfeed. Overfeed stokers include mass feed and spreader stokers. Fluidized bed, dutch oven, pile burner, hybrid suspension grate, suspension burners, and fuel cells are not considered to be a stoker design.

Stoker/sloped grate/other unit designed to burn kiln dried biomass means the unit is in the units designed to burn biomass/bio-based solid subcategory that is either a stoker, sloped grate, or other combustor design and is not in the stoker/sloped grate/other units designed to burn wet biomass subcategory.

Stoker/sloped grate/other unit designed to burn wet biomass means the unit is in the units designed to burn biomass/bio-based solid subcategory that is either a stoker, sloped grate, or other combustor design and any of the biomass/bio-based solid fuel combusted in the unit exceeds 20 percent moisture on an annual heat input basis.

Suspension burner means a unit designed to fire dry biomass/biobased solid particles in suspension that are conveyed in an airstream to the furnace like pulverized coal. The combustion of the fuel material is completed on a grate or floor below. The biomass/biobased fuel combusted in the unit shall not exceed 20 percent moisture on an annual heat input basis. Fluidized bed, dutch oven, pile burner, and hybrid suspension grate units are not part of the suspension burner subcategory.

Temporary boiler means any gaseous or liquid fuel boiler that is designed to, and is capable of, being carried or moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers, or platforms. A boiler is not a temporary boiler if any one of the following conditions exists:

(1) The equipment is attached to a foundation.

(2) The boiler or a replacement remains at a location within the facility and performs the same or similar function for more than 12 consecutive months, unless the regulatory agency approves an extension. An extension may be granted by the regulating agency upon petition by the owner or operator of a unit specifying the basis for such a request. Any temporary boiler that replaces a temporary boiler at a location and performs the same or similar function will be included in calculating the consecutive time period.

(3) The equipment is located at a seasonal facility and operates during the full annual operating period of the seasonal facility, remains at the facility for at least 2 years, and operates at that facility for at least 3 months each year.

(4) The equipment is moved from one location to another within the facility but continues to perform the same or similar function and serve the same electricity, steam, and/or hot water system in an attempt to circumvent the residence time requirements of this definition.

Total selected metals (TSM) means the sum of the following metallic hazardous air pollutants: arsenic, beryllium, cadmium, chromium, lead, manganese, nickel and selenium.

Traditional fuel means the fuel as defined in § 241.2 of this chapter.

Tune-up means adjustments made to a boiler or process heater in accordance with the procedures outlined in § 63.7540(a)(10).

Ultra low sulfur liquid fuel means a distillate oil that has less than or equal to 15 ppm sulfur.

Unit designed to burn biomass/bio-based solid subcategory includes any boiler or process heater that burns at least 10 percent biomass or bio-based solids on an annual heat input basis in combination with solid fossil fuels, liquid fuels, or gaseous fuels.

Unit designed to burn coal/solid fossil fuel subcategory includes any boiler or process heater that burns any coal or other solid fossil fuel alone or at least 10 percent coal or other solid fossil fuel on an annual heat input basis in combination with liquid fuels, gaseous fuels, or less than 10 percent biomass and bio-based solids on an annual heat input basis.

Unit designed to burn gas 1 subcategory includes any boiler or process heater that burns only natural gas, refinery gas, and/or other gas 1 fuels. Gaseous fuel boilers and process heaters that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year, are included in this definition. Gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply interruptions of any duration are also included in this definition.

Unit designed to burn gas 2 (other) subcategory includes any boiler or process heater that is not in the unit designed to burn gas 1 subcategory and burns any gaseous fuels either alone or in combination with less than 10 percent coal/solid fossil fuel, and less than 10 percent biomass/bio-based solid fuel on an annual heat input basis, and no liquid fuels. Gaseous fuel boilers and process heaters that are not in the unit designed to burn gas 1 subcategory and that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year, are included in this definition. Gaseous fuel boilers and process heaters that are not in the unit designed to burn gas 1 subcategory and that burn liquid fuel during periods of gas curtailment or gas supply interruption of any duration are also included in this definition.

Unit designed to burn heavy liquid subcategory means a unit in the unit designed to burn liquid subcategory where at least 10 percent of the heat input from liquid fuels on an annual heat input basis comes from heavy liquids.

Unit designed to burn light liquid subcategory means a unit in the unit designed to burn liquid subcategory that is not part of the unit designed to burn heavy liquid subcategory.

Unit designed to burn liquid subcategory includes any boiler or process heater that burns any liquid fuel, but less than 10 percent coal/solid fossil fuel and less than 10 percent biomass/bio-based solid fuel on an annual heat input basis, either alone or in combination with gaseous fuels. Units in the unit design to burn gas 1 or unit designed to burn gas 2 (other) subcategories that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year are not included in this definition. Units in the unit design to burn gas 1 or unit designed to burn gas 2 (other) subcategories during periods of gas curtailment or gas supply interruption of any duration are also not included in this definition.

Unit designed to burn liquid fuel that is a non-continental unit means an industrial, commercial, or institutional boiler or process heater meeting the definition of the unit designed to burn liquid subcategory located in the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Unit designed to burn solid fuel subcategory means any boiler or process heater that burns only solid fuels or at least 10 percent solid fuel on an annual heat input basis in combination with liquid fuels or gaseous fuels.

Vegetable oil means oils extracted from vegetation.

Voluntary Consensus Standards or VCS mean technical standards (*e.g.,* materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. EPA/Office of Air Quality Planning and Standards, by precedent, has only used VCS that are written in English. Examples of VCS bodies are: American Society of Testing and Materials (ASTM 100 Barr Harbor Drive, P.O. Box CB700, West Conshohocken, Pennsylvania 19428-B2959, (800) 262-1373, *http://www.astm.org*), American Society of Mechanical Engineers (ASME ASME, Three Park Avenue, New York, NY 10016-5990, (800) 843-2763, *http://www.asme.org*), International Standards Organization (ISO 1, ch. de la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland, +41 22 749 01 11, *http://www.iso.org/iso/home.htm*), Standards Australia (AS Level 10, The Exchange Centre, 20 Bridge Street, Sydney, GPO Box 476, Sydney NSW 2001, + 61 2 9237 6171 *http://www.stadards.org.au*), British Standards Institution (BSI, 389 Chiswick High Road, London, W4 4AL, United Kingdom, +44 (0)20 8996 9001, *http://www.bsigroup.com*), Canadian Standards Association (CSA 5060 Spectrum Way, Suite 100, Mississauga, Ontario L4W 5N6, Canada, 800-463-6727, *http://www.csa.ca*), European Committee for Standardization (CEN CENELEC Management Centre Avenue Marnix 17 B-1000 Brussels, Belgium +32 2 550 08 11, *http://www.cen.eu/cen*), and German Engineering Standards (VDI VDI Guidelines Department, P.O. Box 10 11 39 40002, Duesseldorf, Germany, +49 211 6214-230, *http://www.vdi.eu*). The types of standards that are not considered VCS are standards developed by: The United States, *e.g.,* California (CARB) and Texas (TCEQ); industry groups, such as American Petroleum Institute (API), Gas Processors Association (GPA), and Gas Research Institute (GRI); and other branches of the U.S. government, *e.g.,* Department of Defense (DOD) and Department of Transportation (DOT). This does not preclude EPA from using standards developed by groups that are not VCS bodies within their rule. When this occurs, EPA has done searches and reviews for VCS equivalent to these non-EPA methods.

Waste heat boiler means a device that recovers normally unused energy (i.e., hot exhaust gas) and converts it to usable heat. Waste heat boilers are also referred to as heat recovery steam generators. Waste heat boilers are heat exchangers generating steam from incoming hot exhaust gas from an industrial (e.g., thermal oxidizer, kiln, furnace) or power (e.g., combustion turbine, engine) equipment. Duct burners are sometimes used to increase the temperature of the incoming hot exhaust gas.

Waste heat process heater means an enclosed device that recovers normally unused energy (i.e., hot exhaust gas) and converts it to usable heat. Waste heat process heaters are also referred to as recuperative process heaters. This definition includes both fired and unfired waste heat process heaters.

Wet scrubber means any add-on air pollution control device that mixes an aqueous stream or slurry with the exhaust gases from a boiler or process heater to control emissions of particulate matter or to absorb and neutralize acid gases, such as hydrogen chloride. A wet scrubber creates an aqueous stream or slurry as a byproduct of the emissions control process.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the Clean Air Act.

[78 FR 15664, Mar. 21, 2011, as amended at 78 FR 7163, Jan. 31, 2013]

Table 1 to Subpart DDDDD of Part 63—Emission Limits for New or Reconstructed Boilers and Process Heaters

As stated in § 63.7500, you must comply with the following applicable emission limits:

[Units with heat input capacity of 10 million Btu per hour or greater]

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
1. Units in all subcategories designed to burn solid fuel.	a. HCl	2.2E-02 lb per MMBtu of heat input	2.5E-02 lb per MMBtu of steam output or 0.28 lb per MWh	For M26A, collect a minimum of 1 dscm per run; for M26 collect a minimum of 120 liters per run.
	b. Mercury	8.0E-07 [a]lb per MMBtu of heat input	8.7E-07 [a]lb per MMBtu of steam output or 1.1E-05 [a]lb per MWh	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b]collect a minimum of 4 dscm.
2. Units designed to burn coal/solid fossil fuel	a. Filterable PM (or TSM)	1.1E-03 lb per MMBtu of heat input; or (2.3E-05 lb per MMBtu of heat input)	1.1E-03 lb per MMBtu of steam output or 1.4E-02 lb per MWh; or (2.7E-05 lb per MMBtu of steam output or 2.9E-04 lb per MWh)	Collect a minimum of 3 dscm per run.
3. Pulverized coal boilers designed to burn coal/solid fossil fuel	a. Carbon monoxide (CO) (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (320 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	0.11 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
4. Stokers designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (340 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	0.12 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
5. Fluidized bed units designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (230 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	0.11 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
6. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel	a. CO (or CEMS)	140 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (150 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1.2E-01 lb per MMBtu of steam output or 1.5 lb per MWh; 3-run average	1 hr minimum sampling time.
7. Stokers/sloped grate/others designed to burn wet biomass fuel	a. CO (or CEMS)	620 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (390 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	5.8E-01 lb per MMBtu of steam output or 6.8 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.0E-02 lb per MMBtu of heat input; or (2.6E-05 lb per MMBtu of heat input)	3.5E-02 lb per MMBtu of steam output or 4.2E-01 lb per MWh; or (2.7E-05 lb per MMBtu of steam output or 3.7E-04 lb per MWh)	Collect a minimum of 2 dscm per run.
8. Stokers/sloped grate/others designed to burn kiln-dried biomass fuel	a. CO	460 ppm by volume on a dry basis corrected to 3 percent oxygen	4.2E-01 lb per MMBtu of steam output or 5.1 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.0E-02 lb per MMBtu of heat input; or (4.0E-03 lb per MMBtu of heat input)	3.5E-02 lb per MMBtu of steam output or 4.2E-01 lb per MWh; or (4.2E-03 lb per MMBtu of steam output or 5.6E-02 lb per MWh)	Collect a minimum of 2 dscm per run.
9. Fluidized bed units designed to burn biomass/bio-based solids	a. CO (or CEMS)	230 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (310 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	2.2E-01 lb per MMBtu of steam output or 2.6 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	9.8E-03 lb per MMBtu of heat input; or (8.3E-05 [a]lb per MMBtu of heat input)	1.2E-02 lb per MMBtu of steam output or 0.14 lb per MWh; or (1.1E-04 [a]lb per MMBtu of steam output or 1.2E-03 [a]lb per MWh)	Collect a minimum of 3 dscm per run.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
10. Suspension burners designed to burn biomass/bio-based solids	a. CO (or CEMS)	2,400 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (2,000 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	1.9 lb per MMBtu of steam output or 27 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.0E-02 lb per MMBtu of heat input; or (6.5E-03 lb per MMBtu of heat input)	3.1E-02 lb per MMBtu of steam output or 4.2E-01 lb per MWh; or (6.6E-03 lb per MMBtu of steam output or 9.1E-02 lb per MWh)	Collect a minimum of 2 dscm per run.
11. Dutch Ovens/Pile burners designed to burn biomass/bio-based solids	a. CO (or CEMS)	330 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (520 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	3.5E-01 lb per MMBtu of steam output or 3.6 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.2E-03 lb per MMBtu of heat input; or (3.9E-05 lb per MMBtu of heat input)	4.3E-03 lb per MMBtu of steam output or 4.5E-02 lb per MWh; or (5.2E-05 lb per MMBtu of steam output or 5.5E-04 lb per MWh)	Collect a minimum of 3 dscm per run.
12. Fuel cell units designed to burn biomass/bio-based solids	a. CO	910 ppm by volume on a dry basis corrected to 3 percent oxygen	1.1 lb per MMBtu of steam output or 1.0E+01 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.0E-02 lb per MMBtu of heat input; or (2.9E-05 [a]lb per MMBtu of heat input)	3.0E-02 lb per MMBtu of steam output or 2.8E-01 lb per MWh; or (5.1E-05 lb per MMBtu of steam output or 4.1E-04 lb per MWh)	Collect a minimum of 2 dscm per run.
13. Hybrid suspension grate boiler designed to burn biomass/bio-based solids	a. CO (or CEMS)	1,100 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (900 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1.4 lb per MMBtu of steam output or 12 lb per MWh; 3-run average	1 hr minimum sampling time.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
	b. Filterable PM (or TSM)	2.6E-02 lb per MMBtu of heat input; or (4.4E-04 lb per MMBtu of heat input)	3.3E-02 lb per MMBtu of steam output or 3.7E-01 lb per MWh; or (5.5E-04 lb per MMBtu of steam output or 6.2E-03 lb per MWh)	Collect a minimum of 3 dscm per run.
14. Units designed to burn liquid fuel	a. HCl	4.4E-04 lb per MMBtu of heat input	4.8E-04 lb per MMBtu of steam output or 6.1E-03 lb per MWh	For M26A: Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	b. Mercury	4.8E-07 [a]lb per MMBtu of heat input	5.3E-07 [a]lb per MMBtu of steam output or 6.7E-06 [a]lb per MWh	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b]collect a minimum of 4 dscm.
15. Units designed to burn heavy liquid fuel	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average	0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.3E-02 lb per MMBtu of heat input; or (7.5E-05 lb per MMBtu of heat input)	1.5E-02 lb per MMBtu of steam output or 1.8E-01 lb per MWh; or (8.2E-05 lb per MMBtu of steam output or 1.1E-03 lb per MWh)	Collect a minimum of 3 dscm per run.
16. Units designed to burn light liquid fuel	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen	0.13 lb per MMBtu of steam output or 1.4 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-03 [a]lb per MMBtu of heat input; or (2.9E-05 lb per MMBtu of heat input)	1.2E-03 [a]lb per MMBtu of steam output or 1.6E-02 [a]lb per MWh; or (3.2E-05 lb per MMBtu of steam output or 4.0E-04 lb per MWh)	Collect a minimum of 3 dscm per run.
17. Units designed to burn liquid fuel that are non-continental units	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average based on stack test	0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.3E-02 lb per MMBtu of heat input; or (8.6E-04 lb per MMBtu of heat input)	2.5E-02 lb per MMBtu of steam output or 3.2E-01 lb per MWh; or (9.4E-04 lb per MMBtu of steam output or 1.2E-02 lb per MWh)	Collect a minimum of 4 dscm per run.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
18. Units designed to burn gas 2 (other) gases	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen	0.16 lb per MMBtu of steam output or 1.0 lb per MWh	1 hr minimum sampling time.
	b. HCl	1.7E-03 lb per MMBtu of heat input	2.9E-03 lb per MMBtu of steam output or 1.8E-02 lb per MWh	For M26A, Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	c. Mercury	7.9E-06 lb per MMBtu of heat input	1.4E-05 lb per MMBtu of steam output or 8.3E-05 lb per MWh	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b]collect a minimum of 3 dscm.
	d. Filterable PM (or TSM)	6.7E-03 lb per MMBtu of heat input; or (2.1E-04 lb per MMBtu of heat input)	1.2E-02 lb per MMBtu of steam output or 7.0E-02 lb per MWh; or (3.5E-04 lb per MMBtu of steam output or 2.2E-03 lb per MWh)	Collect a minimum of 3 dscm per run.

[a] If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit, you can skip testing according to § 63.7515 if all of the other provisions of § 63.7515 are met. For all other pollutants that do not contain a footnote “a”, your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.

[b] Incorporated by reference, see § 63.14.

[c] If your affected source is a new or reconstructed affected source that commenced construction or reconstruction after June 4, 2010, and before January 31, 2013, you may comply with the emission limits in Tables 11, 12 or 13 to this subpart until January 31, 2016. On and after January 31, 2016, you must comply with the emission limits in Table 1 to this subpart.

[78 FR 7193, Jan. 31, 2013]

Table 2 to Subpart DDDDD of Part 63—Emission Limits for Existing Boilers and Process Heaters

As stated in § 63.7500, you must comply with the following applicable emission limits:

[Units with heat input capacity of 10 million Btu per hour or greater]

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
1. Units in all subcategories designed to burn solid fuel	a. HCl	2.2E-02 lb per MMBtu of heat input	2.5E-02 lb per MMBtu of steam output or 0.27 lb per MWh	For M26A, Collect a minimum of 1 dscm per run; for M26, collect a minimum of 120 liters per run.
	b. Mercury	5.7E-06 lb per MMBtu of heat input	6.4E-06 lb per MMBtu of steam output or 7.3E-05 lb per MWh	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b]collect a minimum of 3 dscm.
2. Units design to burn coal/solid fossil fuel	a. Filterable PM (or TSM)	4.0E-02 lb per MMBtu of heat input; or (5.3E-05 lb per MMBtu of heat input)	4.2E-02 lb per MMBtu of steam output or 4.9E-01 lb per MWh; or (5.6E-05 lb per MMBtu of steam output or 6.5E-04 lb per MWh)	Collect a minimum of 2 dscm per run.
3. Pulverized coal boilers designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (320 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	0.11 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
4. Stokers designed to burn coal/solid fossil fuel	a. CO (or CEMS)	160 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (340 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	0.14 lb per MMBtu of steam output or 1.7 lb per MWh; 3-run average	1 hr minimum sampling time.
5. Fluidized bed units designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (230 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	0.12 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
6. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel	a. CO (or CEMS)	140 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (150 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1.3E-01 lb per MMBtu of steam output or 1.5 lb per MWh; 3-run average	1 hr minimum sampling time.
7. Stokers/sloped grate/others designed to burn wet biomass fuel	a. CO (or CEMS)	1,500 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (720 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1.4 lb per MMBtu of steam output or 17 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.7E-02 lb per MMBtu of heat input; or (2.4E-04 lb per MMBtu of heat input)	4.3E-02 lb per MMBtu of steam output or 5.2E-01 lb per MWh; or (2.8E-04 lb per MMBtu of steam output or 3.4E-04 lb per MWh)	Collect a minimum of 2 dscm per run.
8. Stokers/sloped grate/others designed to burn kiln-dried biomass fuel	a. CO	460 ppm by volume on a dry basis corrected to 3 percent oxygen	4.2E-01 lb per MMBtu of steam output or 5.1 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.2E-01 lb per MMBtu of heat input; or (4.0E-03 lb per MMBtu of heat input)	3.7E-01 lb per MMBtu of steam output or 4.5 lb per MWh; or (4.6E-03 lb per MMBtu of steam output or 5.6E-02 lb per MWh)	Collect a minimum of 1 dscm per run.
9. Fluidized bed units designed to burn biomass/bio-based solid	a. CO (or CEMS)	470 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (310 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	4.6E-01 lb per MMBtu of steam output or 5.2 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-01 lb per MMBtu of heat input; or (1.2E-03 lb per MMBtu of heat input)	1.4E-01 lb per MMBtu of steam output or 1.6 lb per MWh; or (1.5E-03 lb per MMBtu of steam output or 1.7E-02 lb per MWh)	Collect a minimum of 1 dscm per run.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
10. Suspension burners designed to burn biomass/bio-based solid	a. CO (or CEMS)	2,400 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (2,000 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	1.9 lb per MMBtu of steam output or 27 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	5.1E-02 lb per MMBtu of heat input; or (6.5E-03 lb per MMBtu of heat input)	5.2E-02 lb per MMBtu of steam output or 7.1E-01 lb per MWh; or (6.6E-03 lb per MMBtu of steam output or 9.1E-02 lb per MWh)	Collect a minimum of 2 dscm per run.
11. Dutch Ovens/Pile burners designed to burn biomass/bio-based solid	a. CO (or CEMS)	770 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (520 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	8.4E-01 lb per MMBtu of steam output or 8.4 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.8E-01 lb per MMBtu of heat input; or (2.0E-03 lb per MMBtu of heat input)	3.9E-01 lb per MMBtu of steam output or 3.9 lb per MWh; or (2.8E-03 lb per MMBtu of steam output or 2.8E-02 lb per MWh)	Collect a minimum of 1 dscm per run.
12. Fuel cell units designed to burn biomass/bio-based solid	a. CO	1,100 ppm by volume on a dry basis corrected to 3 percent oxygen	2.4 lb per MMBtu of steam output or 12 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.0E-02 lb per MMBtu of heat input; or (5.8E-03 lb per MMBtu of heat input)	5.5E-02 lb per MMBtu of steam output or 2.8E-01 lb per MWh; or (1.6E-02 lb per MMBtu of steam output or 8.1E-02 lb per MWh)	Collect a minimum of 2 dscm per run.
13. Hybrid suspension grate units designed to burn biomass/bio-based solid	a. CO (or CEMS)	2,800 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (900 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	2.8 lb per MMBtu of steam output or 31 lb per MWh; 3-run average	1 hr minimum sampling time.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
	b. Filterable PM (or TSM)	4.4E-01 lb per MMBtu of heat input; or (4.5E-04 lb per MMBtu of heat input)	5.5E-01 lb per MMBtu of steam output or 6.2 lb per MWh; or (5.7E-04 lb per MMBtu of steam output or 6.3E-03 lb per MWh)	Collect a minimum of 1 dscm per run.
14. Units designed to burn liquid fuel	a. HCl	1.1E-03 lb per MMBtu of heat input	1.4E-03 lb per MMBtu of steam output or 1.6E-02 lb per MWh	For M26A, collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	b. Mercury	2.0E-06 lb per MMBtu of heat input	2.5E-06 lb per MMBtu of steam output or 2.8E-05 lb per MWh	For M29, collect a minimum of 3 dscm per run; for M30A or M30B collect a minimum sample as specified in the method, for ASTM D6784 [b]collect a minimum of 2 dscm.
15. Units designed to burn heavy liquid fuel	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average	0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	6.2E-02 lb per MMBtu of heat input; or (2.0E-04 lb per MMBtu of heat input)	7.5E-02 lb per MMBtu of steam output or 8.6E-01 lb per MWh; or (2.5E-04 lb per MMBtu of steam output or 2.8E-03 lb per MWh)	Collect a minimum of 1 dscm per run.
16. Units designed to burn light liquid fuel	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen	0.13 lb per MMBtu of steam output or 1.4 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	7.9E-03 lb per MMBtu of heat input; or (6.2E-05 lb per MMBtu of heat input)	9.6E-03 lb per MMBtu of steam output or 1.1E-01 lb per MWh; or (7.5E-05 lb per MMBtu of steam output or 8.6E-04 lb per MWh)	Collect a minimum of 3 dscm per run.
17. Units designed to burn liquid fuel that are non-continental units	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average based on stack test	0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.7E-01 lb per MMBtu of heat input; or (8.6E-04 lb per MMBtu of heat input)	3.3E-01 lb per MMBtu of steam output or 3.8 lb per MWh; or (1.1E-03 lb per MMBtu of steam output or 1.2E-02 lb per MWh)	Collect a minimum of 2 dscm per run.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
18. Units designed to burn gas 2 (other) gases	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen	0.16 lb per MMBtu of steam output or 1.0 lb per MWh	1 hr minimum sampling time.
	b. HCl	1.7E-03 lb per MMBtu of heat input	2.9E-03 lb per MMBtu of steam output or 1.8E-02 lb per MWh	For M26A, collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	c. Mercury	7.9E-06 lb per MMBtu of heat input	1.4E-05 lb per MMBtu of steam output or 8.3E-05 lb per MWh	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b]collect a minimum of 2 dscm.
	d. Filterable PM (or TSM)	6.7E-03 lb per MMBtu of heat input or (2.1E-04 lb per MMBtu of heat input)	1.2E-02 lb per MMBtu of steam output or 7.0E-02 lb per MWh; or (3.5E-04 lb per MMBtu of steam output or 2.2E-03 lb per MWh)	Collect a minimum of 3 dscm per run.

[a] If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit, you can skip testing according to § 63.7515 if all of the other provisions of § 63.7515 are met. For all other pollutants that do not contain a footnote a, your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.

[b] Incorporated by reference, see § 63.14.

[78 FR 7195, Jan. 31, 2013]

Table 3 to Subpart DDDDD of Part 63—Work Practice Standards

As stated in § 63.7500, you must comply with the following applicable work practice standards:

If your unit is . . .	You must meet the following . . .
1. A new or existing boiler or process heater with a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour in any of the following subcategories: unit designed to burn gas 1; unit designed to burn gas 2 (other); or unit designed to burn light liquid, or a limited use boiler or process heater	Conduct a tune-up of the boiler or process heater every 5 years as specified in § 63.7540.

2. A new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of less than 10 million Btu per hour in the unit designed to burn heavy liquid or unit designed to burn solid fuel subcategories; or a new or existing boiler or process heater with heat input capacity of less than 10 million Btu per hour, but greater than 5 million Btu per hour, in any of the following subcategories: unit designed to burn gas 1; unit designed to burn gas 2 (other); or unit designed to burn light liquid	Conduct a tune-up of the boiler or process heater biennially as specified in § 63.7540.
3. A new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of 10 million Btu per hour or greater	Conduct a tune-up of the boiler or process heater annually as specified in § 63.7540. Units in either the Gas 1 or Metal Process Furnace subcategories will conduct this tune-up as a work practice for all regulated emissions under this subpart. Units in all other subcategories will conduct this tune-up as a work practice for dioxins/furans.
4. An existing boiler or process heater located at a major source facility, not including limited use units	Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. A facility that operates under an energy management program compatible with ISO 50001 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items a. to e. appropriate for the on-site technical hours listed in § 63.7575:
	a. A visual inspection of the boiler or process heater system.
	b. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints.
	c. An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator.
	d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.
	e. A review of the facility's energy management practices and provide recommendations for improvements consistent with the definition of energy management practices, if identified.
	f. A list of cost-effective energy conservation measures that are within the facility's control.
	g. A list of the energy savings potential of the energy conservation measures identified.
	h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

5. An existing or new boiler or process heater subject to emission limits in Table 1 or 2 or 11 through 13 to this subpart during startup	You must operate all CMS during startup. For startup of a boiler or process heater, you must use one or a combination of the following clean fuels: natural gas, synthetic natural gas, propane, distillate oil, syngas, ultra-low sulfur diesel, fuel oil-soaked rags, kerosene, hydrogen, paper, cardboard, refinery gas, and liquefied petroleum gas.
	If you start firing coal/solid fossil fuel, biomass/bio-based solids, heavy liquid fuel, or gas 2 (other) gases, you must vent emissions to the main stack(s) and engage all of the applicable control devices except limestone injection in fluidized bed combustion (FBC) boilers, dry scrubber, fabric filter, selective non-catalytic reduction (SNCR), and selective catalytic reduction (SCR). You must start your limestone injection in FBC boilers, dry scrubber, fabric filter, SNCR, and SCR systems as expeditiously as possible. Startup ends when steam or heat is supplied for any purpose.
	You must comply with all applicable emission limits at all times except for startup or shutdown periods conforming with this work practice. You must collect monitoring data during periods of startup, as specified in § 63.7535(b). You must keep records during periods of startup. You must provide reports concerning activities and periods of startup, as specified in § 63.7555.
6. An existing or new boiler or process heater subject to emission limits in Tables 1 or 2 or 11 through 13 to this subpart during shutdown	You must operate all CMS during shutdown. While firing coal/solid fossil fuel, biomass/bio-based solids, heavy liquid fuel, or gas 2 (other) gases during shutdown, you must vent emissions to the main stack(s) and operate all applicable control devices, except limestone injection in FBC boilers, dry scrubber, fabric filter, SNCR, and SCR.
	You must comply with all applicable emissions limits at all times except for startup or shutdown periods conforming with this work practice. You must collect monitoring data during periods of shutdown, as specified in § 63.7535(b). You must keep records during periods of shutdown. You must provide reports concerning activities and periods of shutdown, as specified in § 63.7555.

[78 FR 7198, Jan. 31, 2013]

Table 4 to Subpart DDDDD of Part 63—Operating Limits for Boilers and Process Heaters

As stated in § 63.7500, you must comply with the applicable operating limits:

When complying with a Table 1, 2, 11, 12, or 13 numerical emission limit using . . .	You must meet these operating limits . . .
1. Wet PM scrubber control on a boiler not using a PM CPMS	Maintain the 30-day rolling average pressure drop and the 30-day rolling average liquid flow rate at or above the lowest one-hour average pressure drop and the lowest one-hour average liquid flow rate, respectively, measured during the most recent performance test demonstrating compliance with the PM emission limitation according to § 63.7530(b) and Table 7 to this subpart.

When complying with a Table 1, 2, 11, 12, or 13 numerical emission limit using . . .	You must meet these operating limits . . .
2. Wet acid gas (HCl) scrubber control on a boiler not using a HCl CEMS	Maintain the 30-day rolling average effluent pH at or above the lowest one-hour average pH and the 30-day rolling average liquid flow rate at or above the lowest one-hour average liquid flow rate measured during the most recent performance test demonstrating compliance with the HCl emission limitation according to § 63.7530(b) and Table 7 to this subpart.
3. Fabric filter control on units not using a PM CPMS	a. Maintain opacity to less than or equal to 10 percent opacity (daily block average); or
	b. Install and operate a bag leak detection system according to § 63.7525 and operate the fabric filter such that the bag leak detection system alert is not activated more than 5 percent of the operating time during each 6-month period.
4. Electrostatic precipitator control on units not using a PM CPMS	a. This option is for boilers and process heaters that operate dry control systems (i.e., an ESP without a wet scrubber). Existing and new boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (daily block average); or
	b. This option is only for boilers and process heaters not subject to PM CPMS or continuous compliance with an opacity limit (i.e., COMS). Maintain the 30-day rolling average total secondary electric power input of the electrostatic precipitator at or above the operating limits established during the performance test according to § 63.7530(b) and Table 7 to this subpart.
5. Dry scrubber or carbon injection control on a boiler not using a mercury CEMS	Maintain the minimum sorbent or carbon injection rate as defined in § 63.7575 of this subpart.
6. Any other add-on air pollution control type on units not using a PM CPMS	This option is for boilers and process heaters that operate dry control systems. Existing and new boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (daily block average).
7. Fuel analysis	Maintain the fuel type or fuel mixture such that the applicable emission rates calculated according to § 63.7530(c)(1), (2) and/or (3) is less than the applicable emission limits.
8. Performance testing	For boilers and process heaters that demonstrate compliance with a performance test, maintain the operating load of each unit such that it does not exceed 110 percent of the highest hourly average operating load recorded during the most recent performance test.
9. Oxygen analyzer system	For boilers and process heaters subject to a CO emission limit that demonstrate compliance with an O_2analyzer system as specified in § 63.7525(a), maintain the 30-day rolling average oxygen content at or above the lowest hourly average oxygen concentration measured during the most recent CO performance test, as specified in Table 8. This requirement does not apply to units that install an oxygen trim system since these units will set the trim system to the level specified in § 63.7525(a).
10. SO_2CEMS	For boilers or process heaters subject to an HCl emission limit that demonstrate compliance with an SO_2CEMS, maintain the 30-day rolling average SO_2emission rate at or below the highest hourly average SO_2concentration measured during the most recent HCl performance test, as specified in Table 8.

[78 FR 7199, Jan. 31, 2013]

Table 5 to Subpart DDDDD of Part 63—Performance Testing Requirements

As stated in § 63.7520, you must comply with the following requirements for performance testing for existing, new or reconstructed affected sources:

To conduct a performance test for the following pollutant...	You must...	Using...
1. Filterable PM	a. Select sampling ports location and the number of traverse points	Method 1 at 40 CFR part 60, appendix A-1 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G at 40 CFR part 60, appendix A-1 or A-2 to part 60 of this chapter.
	c. Determine oxygen or carbon dioxide concentration of the stack gas	Method 3A or 3B at 40 CFR part 60, appendix A-2 to part 60 of this chapter, or ANSI/ASME PTC 19.10-1981.[a]
	d. Measure the moisture content of the stack gas	Method 4 at 40 CFR part 60, appendix A-3 of this chapter.
	e. Measure the PM emission concentration	Method 5 or 17 (positive pressure fabric filters must use Method 5D) at 40 CFR part 60, appendix A-3 or A-6 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates	Method 19 F-factor methodology at 40 CFR part 60, appendix A-7 of this chapter.
2. TSM	a. Select sampling ports location and the number of traverse points	Method 1 at 40 CFR part 60, appendix A-1 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G at 40 CFR part 60, appendix A-1 or A-2 of this chapter.
	c. Determine oxygen or carbon dioxide concentration of the stack gas	Method 3A or 3B at 40 CFR part 60, appendix A-1 of this chapter, or ANSI/ASME PTC 19.10-1981.[a]
	d. Measure the moisture content of the stack gas	Method 4 at 40 CFR part 60, appendix A-3 of this chapter.
	e. Measure the TSM emission concentration	Method 29 at 40 CFR part 60, appendix A-8 of this chapter
	f. Convert emissions concentration to lb per MMBtu emission rates	Method 19 F-factor methodology at 40 CFR part 60, appendix A-7 of this chapter.
3. Hydrogen chloride	a. Select sampling ports location and the number of traverse points	Method 1 at 40 CFR part 60, appendix A-1 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G at 40 CFR part 60, appendix A-2 of this chapter.
	c. Determine oxygen or carbon dioxide concentration of the stack gas	Method 3A or 3B at 40 CFR part 60, appendix A-2 of this chapter, or ANSI/ASME PTC 19.10-1981.[a]
	d. Measure the moisture content of the stack gas	Method 4 at 40 CFR part 60, appendix A-3 of this chapter.
	e. Measure the hydrogen chloride emission concentration	Method 26 or 26A (M26 or M26A) at 40 CFR part 60, appendix A-8 of this chapter.

To conduct a performance test for the following pollutant...	You must...	Using...
	f. Convert emissions concentration to lb per MMBtu emission rates	Method 19 F-factor methodology at 40 CFR part 60, appendix A-7 of this chapter.
4. Mercury	a. Select sampling ports location and the number of traverse points	Method 1 at 40 CFR part 60, appendix A-1 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G at 40 CFR part 60, appendix A-1 or A-2 of this chapter.
	c. Determine oxygen or carbon dioxide concentration of the stack gas	Method 3A or 3B at 40 CFR part 60, appendix A-1 of this chapter, or ANSI/ASME PTC 19.10-1981.[a]
	d. Measure the moisture content of the stack gas	Method 4 at 40 CFR part 60, appendix A-3 of this chapter.
	e. Measure the mercury emission concentration	Method 29, 30A, or 30B (M29, M30A, or M30B) at 40 CFR part 60, appendix A-8 of this chapter or Method 101A at 40 CFR part 61, appendix B of this chapter, or ASTM Method D6784.[a]
	f. Convert emissions concentration to lb per MMBtu emission rates	Method 19 F-factor methodology at 40 CFR part 60, appendix A-7 of this chapter.
5. CO	a. Select the sampling ports location and the number of traverse points	Method 1 at 40 CFR part 60, appendix A-1 of this chapter.
	b. Determine oxygen concentration of the stack gas	Method 3A or 3B at 40 CFR part 60, appendix A-3 of this chapter, or ASTM D6522-00 (Reapproved 2005), or ANSI/ASME PTC 19.10-1981.[a]
	c. Measure the moisture content of the stack gas	Method 4 at 40 CFR part 60, appendix A-3 of this chapter.
	d. Measure the CO emission concentration	Method 10 at 40 CFR part 60, appendix A-4 of this chapter. Use a measurement span value of 2 times the concentration of the applicable emission limit.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7200, Jan. 31, 2013]

Table 6 to Subpart DDDDD of Part 63—Fuel Analysis Requirements

As stated in § 63.7521, you must comply with the following requirements for fuel analysis testing for existing, new or reconstructed affected sources. However, equivalent methods (as defined in § 63.7575) may be used in lieu of the prescribed methods at the discretion of the source owner or operator:

To conduct a fuel analysis for the following pollutant . . .	You must . . .	Using . . .
1. Mercury	a. Collect fuel samples	Procedure in § 63.7521(c) or ASTM D5192 [a], or ASTM D7430 [a], or ASTM D6883 [a], or ASTM D2234/D2234M [a](for coal) or EPA 1631 or EPA 1631E or ASTM D6323 [a](for solid), or EPA 821-R-01-013 (for liquid or solid), or ASTM D4177 [a](for liquid), or ASTM D4057 [a](for liquid), or equivalent.
	b. Composite fuel samples	Procedure in § 63.7521(d) or equivalent.

To conduct a fuel analysis for the following pollutant . . .	You must . . .	Using . . .
	c. Prepare composited fuel samples	EPA SW-846-3050B [a](for solid samples), EPA SW-846-3020A [a](for liquid samples), ASTM D2013/D2013M [a](for coal), ASTM D5198 [a](for biomass), or EPA 3050 [a](for solid fuel), or EPA 821-R-01-013 [a](for liquid or solid), or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865 [a](for coal) or ASTM E711 [a](for biomass), or ASTM D5864 [a]for liquids and other solids, or ASTM D240 [a]or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173 [a], ASTM E871 [a], or ASTM D5864 [a], or ASTM D240, or ASTM D95 [a](for liquid fuels), or ASTM D4006 [a](for liquid fuels), or ASTM D4177 [a](for liquid fuels) or ASTM D4057 [a](for liquid fuels), or equivalent.
	f. Measure mercury concentration in fuel sample	ASTM D6722 [a](for coal), EPA SW-846-7471B [a](for solid samples), or EPA SW-846-7470A [a](for liquid samples), or equivalent.
	g. Convert concentration into units of pounds of mercury per MMBtu of heat content	Equation 8 in § 63.7530.
	h. Calculate the mercury emission rate from the boiler or process heater in units of pounds per million Btu	Equations 10 and 12 in § 63.7530.
2. HCl	a. Collect fuel samples	Procedure in § 63.7521(c) or ASTM D5192 [a], or ASTM D7430 [a], or ASTM D6883 [a], or ASTM D2234/D2234M [a](for coal) or ASTM D6323 [a](for coal or biomass), ASTM D4177 [a](for liquid fuels) or ASTM D4057 [a](for liquid fuels), or equivalent.
	b. Composite fuel samples	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples	EPA SW-846-3050B [a](for solid samples), EPA SW-846-3020A [a](for liquid samples), ASTM D2013/D2013M§[a](for coal), or ASTM D5198§[a](for biomass), or EPA 3050 [a]or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865 [a](for coal) or ASTM E711 [a](for biomass), ASTM D5864, ASTM D240 [a]or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173 [a]or ASTM E871 [a], or D5864 [a], or ASTM D240 [a], or ASTM D95[a](for liquid fuels), or ASTM D4006 [a](for liquid fuels), or ASTM D4177 [a](for liquid fuels) or ASTM D4057 [a](for liquid fuels) or equivalent.
	f. Measure chlorine concentration in fuel sample	EPA SW-846-9250 [a], ASTM D6721 [a], ASTM D4208 [a](for coal), or EPA SW-846-5050 [a]or ASTM E776 [a](for solid fuel), or EPA SW-846-9056 [a]or SW-846-9076 [a](for solids or liquids) or equivalent.
	g. Convert concentrations into units of pounds of HCl per MMBtu of heat content	Equation 7 in § 63.7530.
	h. Calculate the HCl emission rate from the boiler or process heater in units of pounds per million Btu	Equations 10 and 11 in § 63.7530.
3. Mercury Fuel Specification for other gas 1 fuels	a. Measure mercury concentration in the fuel sample and convert to units of micrograms per cubic meter	Method 30B (M30B) at 40 CFR part 60, appendix A-8 of this chapter or ASTM D5954 [a], ASTM D6350 [a], ISO 6978-1:2003(E) [a], or ISO 6978-2:2003(E) [a], or EPA-1631 [a]or equivalent.

To conduct a fuel analysis for the following pollutant . . .	You must . . .	Using . . .
	b. Measure mercury concentration in the exhaust gas when firing only the other gas 1 fuel is fired in the boiler or process heater	Method 29, 30A, or 30B (M29, M30A, or M30B) at 40 CFR part 60, appendix A-8 of this chapter or Method 101A or Method 102 at 40 CFR part 61, appendix B of this chapter, or ASTM Method D6784 [a]or equivalent.
4. TSM for solid fuels	a. Collect fuel samples	Procedure in § 63.7521(c) or ASTM D5192 [a], or ASTM D7430 [a], or ASTM D6883 [a], or ASTM D2234/D2234M [a](for coal) or ASTM D6323 [a](for coal or biomass), or ASTM D4177 [a],(for liquid fuels)or ASTM D4057 [a](for liquid fuels),or equivalent.
	b. Composite fuel samples	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples	EPA SW-846-3050B [a](for solid samples), EPA SW-846-3020A [a](for liquid samples), ASTM D2013/D2013M [a](for coal), ASTM D5198 [a]or TAPPI T266 [a](for biomass), or EPA 3050 [a]or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865 [a](for coal) or ASTM E711 [a](for biomass), or ASTM D5864 [a]for liquids and other solids, or ASTM D240 [a]or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173 [a]or ASTM E871 [a], or D5864, or ASTM D240 [a], or ASTM D95 [a](for liquid fuels), or ASTM D4006[a](for liquid fuels), or ASTM D4177 [a](for liquid fuels) or ASTM D4057 [a](for liquid fuels), or equivalent.
	f. Measure TSM concentration in fuel sample	ASTM D3683 [a], or ASTM D4606 [a], or ASTM D6357 [a]or EPA 200.8 [a]or EPA SW-846-6020 [a], or EPA SW-846-6020A [a], or EPA SW-846-6010C [a], EPA 7060 [a]or EPA 7060A [a](for arsenic only), or EPA SW-846-7740 [a](for selenium only).
	g. Convert concentrations into units of pounds of TSM per MMBtu of heat content	Equation 9 in § 63.7530.
	h. Calculate the TSM emission rate from the boiler or process heater in units of pounds per million Btu	Equations 10 and 13 in § 63.7530.

[a] Incorporated by reference, see § 63.14.

[78 FR 7201, Jan. 31, 2013]

Table 7 to Subpart DDDDD of Part 63—Establishing Operating Limits

As stated in § 63.7520, you must comply with the following requirements for establishing operating limits:

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
1. PM, TSM, or mercury	a. Wet scrubber operating parameters	i. Establish a site-specific minimum scrubber pressure drop and minimum flow rate operating limit according to § 63.7530(b)	(1) Data from the scrubber pressure drop and liquid flow rate monitors and the PM or mercury performance test	(a) You must collect scrubber pressure drop and liquid flow rate data every 15 minutes during the entire period of the performance tests.
				(b) Determine the lowest hourly average scrubber pressure drop and liquid flow rate by computing the hourly averages using all of the 15-minute readings taken during each performance test.
	b. Electrostatic precipitator operating parameters (option only for units that operate wet scrubbers)	i. Establish a site-specific minimum total secondary electric power input according to § 63.7530(b)	(1) Data from the voltage and secondary amperage monitors during the PM or mercury performance test	(a) You must collect secondary voltage and secondary amperage for each ESP cell and calculate total secondary electric power input data every 15 minutes during the entire period of the performance tests.
				(b) Determine the average total secondary electric power input by computing the hourly averages using all of the 15-minute readings taken during each performance test.
2. HCl	a. Wet scrubber operating parameters	i. Establish site-specific minimum pressure drop, effluent pH, and flow rate operating limits according to § 63.7530(b)	(1) Data from the pressure drop, pH, and liquid flow-rate monitors and the HCl performance test	(a) You must collect pH and liquid flow-rate data every 15 minutes during the entire period of the performance tests.
				(b) Determine the hourly average pH and liquid flow rate by computing the hourly averages using all of the 15-minute readings taken during each performance test.

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
	b. Dry scrubber operating parameters	i. Establish a site-specific minimum sorbent injection rate operating limit according to § 63.7530(b). If different acid gas sorbents are used during the HCl performance test, the average value for each sorbent becomes the site-specific operating limit for that sorbent	(1) Data from the sorbent injection rate monitors and HCl or mercury performance test	(a) You must collect sorbent injection rate data every 15 minutes during the entire period of the performance tests.
				(b) Determine the hourly average sorbent injection rate by computing the hourly averages using all of the 15-minute readings taken during each performance test.
				(c) Determine the lowest hourly average of the three test run averages established during the performance test as your operating limit. When your unit operates at lower loads, multiply your sorbent injection rate by the load fraction (e.g., for 50 percent load, multiply the injection rate operating limit by 0.5) to determine the required injection rate.
	c. Alternative Maximum SO_2 emission rate	i. Establish a site-specific maximum SO_2 emission rate operating limit according to § 63.7530(b)	(1) Data from SO_2 CEMS and the HCl performance test	(a) You must collect the SO_2 emissions data according to § 63.7525(m) during the most recent HCl performance tests.
				(b) The maximum SO_2 emission rate is equal to the lowest hourly average SO_2 emission rate measured during the most recent HCl performance tests.
3. Mercury	a. Activated carbon injection	i. Establish a site-specific minimum activated carbon injection rate operating limit according to § 63.7530(b)	(1) Data from the activated carbon rate monitors and mercury performance test	(a) You must collect activated carbon injection rate data every 15 minutes during the entire period of the performance tests.
				(b) Determine the hourly average activated carbon injection rate by computing the hourly averages using all of the 15-minute readings taken during each performance test.

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
				(c) Determine the lowest hourly average established during the performance test as your operating limit. When your unit operates at lower loads, multiply your activated carbon injection rate by the load fraction (e.g., actual heat input divided by heat input during performance test, for 50 percent load, multiply the injection rate operating limit by 0.5) to determine the required injection rate.
4. Carbon monoxide	a. Oxygen	i. Establish a unit-specific limit for minimum oxygen level according to § 63.7520	(1) Data from the oxygen analyzer system specified in § 63.7525(a)	(a) You must collect oxygen data every 15 minutes during the entire period of the performance tests.
				(b) Determine the hourly average oxygen concentration by computing the hourly averages using all of the 15-minute readings taken during each performance test.
				(c) Determine the lowest hourly average established during the performance test as your minimum operating limit.
5. Any pollutant for which compliance is demonstrated by a performance test	a. Boiler or process heater operating load	i. Establish a unit specific limit for maximum operating load according to § 63.7520(c)	(1) Data from the operating load monitors or from steam generation monitors	(a) You must collect operating load or steam generation data every 15 minutes during the entire period of the performance test.
				(b) Determine the average operating load by computing the hourly averages using all of the 15-minute readings taken during each performance test.
				(c) Determine the average of the three test run averages during the performance test, and multiply this by 1.1 (110 percent) as your operating limit.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7203, Jan. 31, 2013]

Table 8 to Subpart DDDDD of Part 63—Demonstrating Continuous Compliance

As stated in § 63.7540, you must show continuous compliance with the emission limitations for each boiler or process heater according to the following:

If you must meet the following operating limits or work practice standards . . .	You must demonstrate continuous compliance by . . .
1. Opacity	a. Collecting the opacity monitoring system data according to § 63.7525(c) and § 63.7535; and
	b. Reducing the opacity monitoring data to 6-minute averages; and
	c. Maintaining opacity to less than or equal to 10 percent (daily block average).
2. PM CPMS	a. Collecting the PM CPMS output data according to § 63.7525;
	b. Reducing the data to 30-day rolling averages; and
	c. Maintaining the 30-day rolling average PM CPMS output data to less than the operating limit established during the performance test according to § 63.7530(b)(4).
3. Fabric Filter Bag Leak Detection Operation	Installing and operating a bag leak detection system according to § 63.7525 and operating the fabric filter such that the requirements in § 63.7540(a)(9) are met.
4. Wet Scrubber Pressure Drop and Liquid Flow-rate	a. Collecting the pressure drop and liquid flow rate monitoring system data according to §§ 63.7525 and 63.7535; and
	b. Reducing the data to 30-day rolling averages; and
	c. Maintaining the 30-day rolling average pressure drop and liquid flow-rate at or above the operating limits established during the performance test according to § 63.7530(b).
5. Wet Scrubber pH	a. Collecting the pH monitoring system data according to §§ 63.7525 and 63.7535; and
	b. Reducing the data to 30-day rolling averages; and
	c. Maintaining the 30-day rolling average pH at or above the operating limit established during the performance test according to § 63.7530(b).
6. Dry Scrubber Sorbent or Carbon Injection Rate	a. Collecting the sorbent or carbon injection rate monitoring system data for the dry scrubber according to §§ 63.7525 and 63.7535; and
	b. Reducing the data to 30-day rolling averages; and
	c. Maintaining the 30-day rolling average sorbent or carbon injection rate at or above the minimum sorbent or carbon injection rate as defined in § 63.7575.
7. Electrostatic Precipitator Total Secondary Electric Power Input	a. Collecting the total secondary electric power input monitoring system data for the electrostatic precipitator according to §§ 63.7525 and 63.7535; and
	b. Reducing the data to 30-day rolling averages; and
	c. Maintaining the 30-day rolling average total secondary electric power input at or above the operating limits established during the performance test according to § 63.7530(b).
8. Emission limits using fuel analysis	a. Conduct monthly fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart; and
	b. Reduce the data to 12-month rolling averages; and
	c. Maintain the 12-month rolling average at or below the applicable emission limit for HCl or mercury or TSM in Tables 1 and 2 or 11 through 13 to this subpart.
9. Oxygen content	a. Continuously monitor the oxygen content using an oxygen analyzer system according to § 63.7525(a). This requirement does not apply to units that install an oxygen trim system since these units will set the trim system to the level specified in § 63.7525(a)(2).
	b. Reducing the data to 30-day rolling averages; and

If you must meet the following operating limits or work practice standards . . .	You must demonstrate continuous compliance by . . .
	c. Maintain the 30-day rolling average oxygen content at or above the lowest hourly average oxygen level measured during the most recent CO performance test.
10. Boiler or process heater operating load	a. Collecting operating load data or steam generation data every 15 minutes.
	b. Maintaining the operating load such that it does not exceed 110 percent of the highest hourly average operating load recorded during the most recent performance test according to § 63.7520(c).
11. SO_2emissions using SO_2CEMS	a. Collecting the SO_2CEMS output data according to § 63.7525;
	b. Reducing the data to 30-day rolling averages; and
	c. Maintaining the 30-day rolling average SO_2CEMS emission rate to a level at or below the minimum hourly SO_2rate measured during the most recent HCl performance test according to § 63.7530.

[78 FR 7204, Jan. 31, 2013]

Table 9 to Subpart DDDDD of Part 63—Reporting Requirements

As stated in § 63.7550, you must comply with the following requirements for reports:

You must submit a(n)	The report must contain . . .	You must submit the report . . .
1. Compliance report	a. Information required in § 63.7550(c)(1) through (5); and	Semiannually, annually, biennially, or every 5 years according to the requirements in § 63.7550(b).
	b. If there are no deviations from any emission limitation (emission limit and operating limit) that applies to you and there are no deviations from the requirements for work practice standards in Table 3 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in § 63.8(c)(7), a statement that there were no periods during which the CMSs were out-of-control during the reporting period; and	
	c. If you have a deviation from any emission limitation (emission limit and operating limit) where you are not using a CMS to comply with that emission limit or operating limit, or a deviation from a work practice standard during the reporting period, the report must contain the information in § 63.7550(d); and	
	d. If there were periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in § 63.8(c)(7), or otherwise not operating, the report must contain the information in § 63.7550(e)	

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7205, Jan. 31, 2013]

Table 10 to Subpart DDDDD of Part 63—Applicability of General Provisions to Subpart DDDDD

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Applies to subpart DDDDD
§ 63.1	Applicability	Yes.
§ 63.2	Definitions	Yes. Additional terms defined in § 63.7575
§ 63.3	Units and Abbreviations	Yes.
§ 63.4	Prohibited Activities and Circumvention	Yes.
§ 63.5	Preconstruction Review and Notification Requirements	Yes.
§ 63.6(a), (b)(1)-(b)(5), (b)(7), (c)	Compliance with Standards and Maintenance Requirements	Yes.
§ 63.6(e)(1)(i)	General duty to minimize emissions.	No. See § 63.7500(a)(3) for the general duty requirement.
§ 63.6(e)(1)(ii)	Requirement to correct malfunctions as soon as practicable.	No.
§ 63.6(e)(3)	Startup, shutdown, and malfunction plan requirements.	No.
§ 63.6(f)(1)	Startup, shutdown, and malfunction exemptions for compliance with non-opacity emission standards.	No.
§ 63.6(f)(2) and (3)	Compliance with non-opacity emission standards.	Yes.
§ 63.6(g)	Use of alternative standards	Yes.
§ 63.6(h)(1)	Startup, shutdown, and malfunction exemptions to opacity standards.	No. See § 63.7500(a).
§ 63.6(h)(2) to (h)(9)	Determining compliance with opacity emission standards	Yes.
§ 63.6(i)	Extension of compliance	Yes. Note: Facilities may also request extensions of compliance for the installation of combined heat and power, waste heat recovery, or gas pipeline or fuel feeding infrastructure as a means of complying with this subpart.
§ 63.6(j)	Presidential exemption.	Yes.
§ 63.7(a), (b), (c), and (d)	Performance Testing Requirements	Yes.
§ 63.7(e)(1)	Conditions for conducting performance tests	No. Subpart DDDDD specifies conditions for conducting performance tests at § 63.7520(a) to (c).
§ 63.7(e)(2)-(e)(9), (f), (g), and (h)	Performance Testing Requirements	Yes.
§ 63.8(a) and (b)	Applicability and Conduct of Monitoring	Yes.

Citation	Subject	Applies to subpart DDDDD
§ 63.8(c)(1)	Operation and maintenance of CMS	Yes.
§ 63.8(c)(1)(i)	General duty to minimize emissions and CMS operation	No. See § 63.7500(a)(3).
§ 63.8(c)(1)(ii)	Operation and maintenance of CMS	Yes.
§ 63.8(c)(1)(iii)	Startup, shutdown, and malfunction plans for CMS	No.
§ 63.8(c)(2) to (c)(9)	Operation and maintenance of CMS	Yes.
§ 63.8(d)(1) and (2)	Monitoring Requirements, Quality Control Program	Yes.
§ 63.8(d)(3)	Written procedures for CMS	Yes, except for the last sentence, which refers to a startup, shutdown, and malfunction plan. Startup, shutdown, and malfunction plans are not required.
§ 63.8(e)	Performance evaluation of a CMS	Yes.
§ 63.8(f)	Use of an alternative monitoring method.	Yes.
§ 63.8(g)	Reduction of monitoring data	Yes.
§ 63.9	Notification Requirements	Yes.
§ 63.10(a), (b)(1)	Recordkeeping and Reporting Requirements	Yes.
§ 63.10(b)(2)(i)	Recordkeeping of occurrence and duration of startups or shutdowns	Yes.
§ 63.10(b)(2)(ii)	Recordkeeping of malfunctions	No. See § 63.7555(d)(7) for recordkeeping of occurrence and duration and § 63.7555(d)(8) for actions taken during malfunctions.
§ 63.10(b)(2)(iii)	Maintenance records	Yes.
§ 63.10(b)(2)(iv) and (v)	Actions taken to minimize emissions during startup, shutdown, or malfunction	No.
§ 63.10(b)(2)(vi)	Recordkeeping for CMS malfunctions	Yes.
§ 63.10(b)(2)(vii) to (xiv)	Other CMS requirements	Yes.
§ 63.10(b)(3)	Recordkeeping requirements for applicability determinations	No.
§ 63.10(c)(1) to (9)	Recordkeeping for sources with CMS	Yes.
§ 63.10(c)(10) and (11)	Recording nature and cause of malfunctions, and corrective actions	No. See § 63.7555(d)(7) for recordkeeping of occurrence and duration and § 63.7555(d)(8) for actions taken during malfunctions.
§ 63.10(c)(12) and (13)	Recordkeeping for sources with CMS	Yes.
§ 63.10(c)(15)	Use of startup, shutdown, and malfunction plan	No.

Citation	Subject	Applies to subpart DDDDD
§ 63.10(d)(1) and (2)	General reporting requirements	Yes.
§ 63.10(d)(3)	Reporting opacity or visible emission observation results	No.
§ 63.10(d)(4)	Progress reports under an extension of compliance	Yes.
§ 63.10(d)(5)	Startup, shutdown, and malfunction reports	No. See § 63.7550(c)(11) for malfunction reporting requirements.
§ 63.10(e)	Additional reporting requirements for sources with CMS	Yes.
§ 63.10(f)	Waiver of recordkeeping or reporting requirements	Yes.
§ 63.11	Control Device Requirements	No.
§ 63.12	State Authority and Delegation	Yes.
§ 63.13-63.16	Addresses, Incorporation by Reference, Availability of Information, Performance Track Provisions	Yes.
§ 63.1(a)(5),(a)(7)-(a)(9), (b)(2), (c)(3)-(4), (d), 63.6(b)(6), (c)(3), (c)(4), (d), (e)(2), (e)(3)(ii), (h)(3), (h)(5)(iv), 63.8(a)(3), 63.9(b)(3), (h)(4), 63.10(c)(2)-(4), (c)(9).	Reserved	No.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7205, Jan. 31, 2013]

Table 11 to Subpart DDDDD of Part 63—Toxic Equivalency Factors for Dioxins/Furans

Table 11 to Subpart DDDDD of Part 63—Toxic Equivalency Factors for Dioxins/Furans

Dioxin/furan congener	Toxic equivalency factor
2,3,7,8-tetrachlorinated dibenzo-p-dioxin	1
1,2,3,7,8-pentachlorinated dibenzo-p-dioxin	1
1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,7,8,9-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,6,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin	0.01
octachlorinated dibenzo-p-dioxin	0.0003
2,3,7,8-tetrachlorinated dibenzofuran	0.1
2,3,4,7,8-pentachlorinated dibenzofuran	0.3
1,2,3,7,8-pentachlorinated dibenzofuran	0.03
1,2,3,4,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,7,8,9-hexachlorinated dibenzofuran	0.1
2,3,4,6,7,8-hexachlorinated dibenzofuran	0.1

Dioxin/furan congener	Toxic equivalency factor
1,2,3,4,6,7,8-heptachlorinated dibenzofuran	0.01
1,2,3,4,7,8,9-heptachlorinated dibenzofuran	0.01
octachlorinated dibenzofuran	0.0003

[76 FR 15664, Mar. 21, 2011]

EDITORIAL NOTE: At 78 FR 7206, Jan. 31, 2013, Table 11 was added, effective Apr. 1, 2013. However Table 11 could not be added as a Table 11 is already in existence.

Table 12 to Subpart DDDDD of Part 63—Alternative Emission Limits for New or Reconstructed Boilers and Process Heaters That Commenced Construction or Reconstruction After June 4, 2010, and Before May 20, 2011

If your boiler or process heater is in this subcategory	For the following pollutants	The emissions must not exceed the following emission limits, except during periods of startup and shutdown	Using this specified sampling volume or test run duration
1. Units in all subcategories designed to burn solid fuel	a. Mercury	3.5E-06 lb per MMBtu of heat input	For M29, collect a minimum of 2 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [a]collect a minimum of 2 dscm.
2. Units in all subcategories designed to burn solid fuel that combust at least 10 percent biomass/bio-based solids on an annual heat input basis and less than 10 percent coal/solid fossil fuels on an annual heat input basis	a. Particulate Matter	0.008 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr)	Collect a minimum of 1 dscm per run.
	b. Hydrogen Chloride	0.004 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26, collect a minimum of 60 liters per run.
3. Units in all subcategories designed to burn solid fuel that combust at least 10 percent coal/solid fossil fuels on an annual heat input basis and less than 10 percent biomass/bio-based solids on an annual heat input basis	a. Particulate Matter	0.0011 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr)	Collect a minimum of 3 dscm per run.
	b. Hydrogen Chloride	0.0022 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26, collect a minimum of 60 liters per run.
4. Units designed to burn pulverized coal/solid fossil fuel	a. CO	90 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.003 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
5. Stokers designed to burn coal/solid fossil fuel	a. CO	7 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.

If your boiler or process heater is in this subcategory	For the following pollutants	The emissions must not exceed the following emission limits, except during periods of startup and shutdown	Using this specified sampling volume or test run duration
	b. Dioxins/Furans	0.003 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
6. Fluidized bed units designed to burn coal/solid fossil fuel	a. CO	30 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.002 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
7. Stokers designed to burn biomass/bio-based solids	a. CO	560 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.005 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
8. Fluidized bed units designed to burn biomass/bio-based solids	a. CO	260 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.02 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
9. Suspension burners/Dutch Ovens designed to burn biomass/bio-based solids	a. CO	1,010 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.2 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
10. Fuel cells designed to burn biomass/bio-based solids	a. CO	470 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.003 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
11. Hybrid suspension/grate units designed to burn biomass/bio-based solids	a. CO	1,500 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.2 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
12. Units designed to burn liquid fuel	a. Particulate Matter	0.002 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr)	Collect a minimum of 2 dscm per run.
	b. Hydrogen Chloride	0.0032 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26, collect a minimum of 60 liters per run.

If your boiler or process heater is in this subcategory	For the following pollutants	The emissions must not exceed the following emission limits, except during periods of startup and shutdown	Using this specified sampling volume or test run duration
	c. Mercury	3.0E-07 lb per MMBtu of heat input	For M29, collect a minimum of 2 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [a]collect a minimum of 2 dscm.
	d. CO	3 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	e. Dioxins/Furans	0.002 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
13. Units designed to burn liquid fuel located in non-continental States and territories	a. Particulate Matter	0.002 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr)	Collect a minimum of 2 dscm per run.
	b. Hydrogen Chloride	0.0032 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26, collect a minimum of 60 liters per run.
	c. Mercury	7.8E-07 lb per MMBtu of heat input	For M29, collect a minimum of 1 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [a]collect a minimum of 2 dscm.
	d. CO	51 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	e. Dioxins/Furans	0.002 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
14. Units designed to burn gas 2 (other) gases	a. Particulate Matter	0.0067 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr)	Collect a minimum of 1 dscm per run.
	b. Hydrogen Chloride	0.0017 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26, collect a minimum of 60 liters per run.
	c. Mercury	7.9E-06 lb per MMBtu of heat input	For M29, collect a minimum of 1 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [a]collect a minimum of 2 dscm.

If your boiler or process heater is in this subcategory	For the following pollutants	The emissions must not exceed the following emission limits, except during periods of startup and shutdown	Using this specified sampling volume or test run duration
	d. CO	3 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	e. Dioxins/Furans	0.08 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.

[a] Incorporated by reference, see § 63.14.

[76 FR 15664, Mar. 21, 2011]

EDITORIAL NOTE: At 78 FR 7208, Jan. 31, 2013, Table 12 was added, effective Apr. 1, 2013. However, Table 12 could not be added as a Table 12 is already in existence.

Table 13 to Subpart DDDDD of Part 63—Alternative Emission Limits for New or Reconstructed Boilers and Process Heaters That Commenced Construction or Reconstruction After December 23, 2011, and Before January 31, 2013

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
1. Units in all subcategories designed to burn solid fuel	a. HCl	0.022 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26 collect a minimum of 120 liters per run.
	b. Mercury	8.6E-07 [a]lb per MMBtu of heat input	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b]collect a minimum of 4 dscm.
2. Pulverized coal boilers designed to burn coal/solid fossil fuel	a. Carbon monoxide (CO) (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (320 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-03 lb per MMBtu of heat input; or (2.8E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
3. Stokers designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (340 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.8E-02 lb per MMBtu of heat input; or (2.3E-05 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
4. Fluidized bed units designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (230 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-03 lb per MMBtu of heat input; or (2.3E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
5. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel	a. CO (or CEMS)	140 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (150 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-03 lb per MMBtu of heat input; or (2.3E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
6. Stokers/sloped grate/others designed to burn wet biomass fuel	a. CO (or CEMS)	620 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (410 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.0E-02 lb per MMBtu of heat input; or (2.6E-05 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
7. Stokers/sloped grate/others designed to burn kiln-dried biomass fuel	a. CO	460 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.2E-01 lb per MMBtu of heat input; or (4.0E-03 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
8. Fluidized bed units designed to burn biomass/bio-based solids	a. CO (or CEMS)	230 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (310 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	9.8E-03 lb per MMBtu of heat input; or (8.3E-05 [a]lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
9. Suspension burners designed to burn biomass/bio-based solids	a. CO (or CEMS)	2,400 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (2,000 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	5.1E-02 lb per MMBtu of heat input; or (6.5E-03 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
10. Dutch Ovens/Pile burners designed to burn biomass/bio-based solids	a. CO (or CEMS)	810 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (520 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	1 hr minimum sampling time.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
	b. Filterable PM (or TSM)	3.6E-02 lb per MMBtu of heat input; or (3.9E-05 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
11. Fuel cell units designed to burn biomass/bio-based solids	a. CO	910 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.0E-02 lb per MMBtu of heat input; or (2.9E-05 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
12. Hybrid suspension grate boiler designed to burn biomass/bio-based solids	a. CO (or CEMS)	1,500 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (900 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.6E-02 lb per MMBtu of heat input; or (4.4E-04 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
13. Units designed to burn liquid fuel	a. HCl	1.2E-03 lb per MMBtu of heat input	For M26A: Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	b. Mercury	4.9E-07 [a]lb per MMBtu of heat input	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b]collect a minimum of 4 dscm.
14. Units designed to burn heavy liquid fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (18 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.3E-03 lb per MMBtu of heat input; or (7.5E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
15. Units designed to burn light liquid fuel	a. CO (or CEMS)	130 [a]ppm by volume on a dry basis corrected to 3 percent oxygen; or (60 ppm by volume on a dry basis corrected to 3 percent oxygen, 1-day block average).	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-03 [a]lb per MMBtu of heat input; or (2.9E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
16. Units designed to burn liquid fuel that are non-continental units	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average based on stack test; or (91 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-hour rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.3E-02 lb per MMBtu of heat input; or (8.6E-04 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
17. Units designed to burn gas 2 (other) gases	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
	b. HCl	1.7E-03 lb per MMBtu of heat input	For M26A, Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	c. Mercury	7.9E-06 lb per MMBtu of heat input	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b]collect a minimum of 3 dscm.
	d. Filterable PM (or TSM)	6.7E-03 lb per MMBtu of heat input; or (2.1E-04 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.

[a] If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit and you are not required to conduct testing for CEMS or CPMS monitor certification, you can skip testing according to § 63.7515 if all of the other provision of § 63.7515 are met. For all other pollutants that do not contain a footnote “a”, your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.

[b] Incorporated by reference, see § 63.14.

[78 FR 7210, Jan. 31, 2013]

Attachment E
Part 70 Operating Permit Renewal T001-31996-00005

[Downloaded from the eCFR on May 21, 2013]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

40 CFR 60, Subpart Db—Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

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

§ 60.40b Applicability and delegation of authority.

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

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

(1) Coal-fired affected facilities having a heat input capacity between 29 and 73 MW (100 and 250 MMBtu/hr), inclusive, are subject to the particulate matter (PM) and nitrogen oxides (NO_X) standards under this subpart.

(2) Coal-fired affected facilities having a heat input capacity greater than 73 MW (250 MMBtu/hr) and meeting the applicability requirements under subpart D (Standards of performance for fossil-fuel-fired steam generators; § 60.40) are subject to the PM and NO_X standards under this subpart and to the sulfur dioxide (SO_2) standards under subpart D (§ 60.43).

(3) Oil-fired affected facilities having a heat input capacity between 29 and 73 MW (100 and 250 MMBtu/hr), inclusive, are subject to the NO_X standards under this subpart.

(4) Oil-fired affected facilities having a heat input capacity greater than 73 MW (250 MMBtu/hr) and meeting the applicability requirements under subpart D (Standards of performance for fossil-fuel-fired steam generators; § 60.40) are also subject to the NO_X standards under this subpart and the PM and SO_2 standards under subpart D (§ 60.42 and § 60.43).

(c) Affected facilities that also meet the applicability requirements under subpart J or subpart Ja of this part are subject to the PM and NO_X standards under this subpart and the SO_2 standards under subpart J or subpart Ja of this part, as applicable.

(d) Affected facilities that also meet the applicability requirements under subpart E (Standards of performance for incinerators; § 60.50) are subject to the NO_X and PM standards under this subpart.

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

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

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

(1) Section 60.44b(f).

(2) Section 60.44b(g).

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

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

(i) Affected facilities (*i.e.,* heat recovery steam generators) that are associated with stationary combustion turbines and that meet the applicability requirements of subpart KKKK of this part are not subject to this subpart. This subpart will continue to apply to all other affected facilities (*i.e.* heat recovery steam generators with duct burners) that are capable of combusting more than 29 MW (100 MMBtu/h) heat input of fossil fuel. If the affected facility (*i.e.* 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 stationary combustion turbine emissions are subject to subpart GG or KKKK, as applicable, of this part.)

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

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

(l) Affected facilities that also meet the applicability requirements under subpart BB of this part (Standards of Performance for Kraft Pulp Mills) are subject to the SO_2 and NO_X standards under this subpart and the PM standards under subpart BB.

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

[72 FR 32742, June 13, 2007, as amended at 74 FR 5084, Jan. 28, 2009; 77 FR 9459, Feb. 16, 2012]

§ 60.41b Definitions.

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

Annual capacity factor means the ratio between the actual heat input to a steam generating unit from the fuels listed in § 60.42b(a), § 60.43b(a), or § 60.44b(a), as applicable, during a calendar year and the potential heat input to the steam generating unit had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility in a calendar year.

Byproduct/waste means any liquid or gaseous substance produced at chemical manufacturing plants, petroleum refineries, or pulp and paper mills (except natural gas, distillate oil, or residual oil) and combusted in a steam generating unit for heat recovery or for disposal. Gaseous substances with carbon dioxide (CO_2) levels greater than 50 percent or carbon monoxide levels greater than 10 percent are not byproduct/waste for the purpose of this subpart.

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

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

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

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

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

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

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

Distillate oil means fuel oils that contain 0.05 weight percent nitrogen or less and comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society of Testing and Materials in ASTM D396 (incorporated by reference, see § 60.17), diesel fuel oil numbers 1 and 2, as defined by the American Society for Testing and Materials in ASTM D975 (incorporated by reference, see § 60.17), kerosine, as defined by the American Society of Testing and Materials in ASTM D3699 (incorporated by reference, see § 60.17), biodiesel as defined by the American Society of Testing and Materials in ASTM D6751 (incorporated by reference, see § 60.17), or biodiesel blends as defined by the American Society of Testing and Materials in ASTM D7467 (incorporated by reference, see § 60.17).

Dry flue gas desulfurization technology means a SO_2 control system that is located downstream of the steam generating unit and removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline reagent and water, whether introduced separately or as a premixed slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline slurries or solutions used in dry flue gas desulfurization technology include but are not limited to lime and sodium.

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

Emerging technology means any SO_2 control system that is not defined as a conventional technology under this section, and for which the owner or operator of the facility has applied to the Administrator and received approval to operate as an emerging technology under § 60.49b(a)(4).

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

Fluidized bed combustion technology means combustion of fuel in a bed or series of beds (including but not limited to bubbling bed units and circulating bed units) of limestone aggregate (or other sorbent materials) in which these materials are forced upward by the flow of combustion air and the gaseous products of combustion.

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

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

Gaseous fuel means any fuel that is a gas at ISO conditions. This includes, but is not limited to, natural gas and gasified coal (including coke oven gas).

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

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

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

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

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

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

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

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

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

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

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

Natural gas means:

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

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

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

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

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

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

Potential sulfur dioxide emission rate means the theoretical SO_2 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. For gasified coal or oil that is desulfurized prior to combustion, the *Potential sulfur dioxide emission rate* is the theoretical SO_2 emissions (ng/J or lb/MMBtu heat input) that would result from combusting fuel in a cleaned state without using any post combustion emission control systems.

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

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

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

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

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

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

Temporary boiler means any gaseous or liquid fuel-fired steam generating unit that is designed to, and is capable of, being carried or moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers, or platforms. A steam generating unit is not a temporary boiler if any one of the following conditions exists:

(1) The equipment is attached to a foundation.

(2) The steam generating unit or a replacement remains at a location for more than 180 consecutive days. Any temporary boiler that replaces a temporary boiler at a location and performs the same or similar function will be included in calculating the consecutive time period.

(3) The equipment is located at a seasonal facility and operates during the full annual operating period of the seasonal facility, remains at the facility for at least 2 years, and operates at that facility for at least 3 months each year.

(4) The equipment is moved from one location to another in an attempt to circumvent the residence time requirements of this definition.

Very low sulfur oil means for units constructed, reconstructed, or modified on or before February 28, 2005, oil that contains no more than 0.5 weight percent sulfur or that, when combusted without SO_2 emission control, has a SO_2 emission rate equal to or less than 215 ng/J (0.5 lb/MMBtu) heat input. For units constructed, reconstructed, or modified after February 28, 2005 and not located in a noncontinental area, *very low sulfur oil* means oil that contains no more than 0.30 weight percent sulfur or that, when combusted without SO_2 emission control, has a SO_2 emission rate equal to or less than 140 ng/J (0.32 lb/MMBtu) heat input. For units constructed, reconstructed, or modified after February 28, 2005 and located in a noncontinental area, *very low sulfur oil* means oil that contains no more than 0.5 weight percent sulfur or that, when combusted without SO_2 emission control, has a SO_2 emission rate equal to or less than 215 ng/J (0.50 lb/MMBtu) heat input.

Wet flue gas desulfurization technology means a SO_2 control system that is located downstream of the steam generating unit and removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gas with an alkaline slurry or solution and forming a liquid material. This definition applies to devices where the aqueous liquid material product of this contact is subsequently converted to other forms. Alkaline reagents used in wet flue gas desulfurization technology include, but are not limited to, lime, limestone, and sodium.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of PM or SO_2 .

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

[72 FR 32742, June 13, 2007, as amended at 74 FR 5084, Jan. 28, 2009; 77 FR 9459, Feb. 16, 2012]

§ 60.42b Standard for sulfur dioxide (SO2).

(a) Except as provided in paragraphs (b), (c), (d), or (j) of this section, on and after the date on which the performance test is completed or required to be completed under § 60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts coal or oil shall cause to be discharged into the atmosphere any gases that contain SO_2 in excess of 87 ng/J (0.20 lb/MMBtu) or 10 percent (0.10) of the potential SO_2 emission rate (90 percent reduction) and the emission limit determined according to the following formula:

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

Where:

E_s = SO_2 emission limit, in ng/J or lb/MMBtu heat input;

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

K_b = 340 ng/J (or 0.80 lb/MMBtu);

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

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

For facilities complying with the percent reduction standard, only the heat input supplied to the affected facility from the combustion of coal and oil is counted in this paragraph. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels or heat derived from exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

(b) On and after the date on which the performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction,

or modification on or before February 28, 2005, that combusts coal refuse alone in a fluidized bed combustion steam generating unit shall cause to be discharged into the atmosphere any gases that contain SO_2 in excess of 87 ng/J (0.20 lb/MMBtu) or 20 percent (0.20) of the potential SO_2 emission rate (80 percent reduction) and 520 ng/J (1.2 lb/MMBtu) heat input. If coal or oil is fired with coal refuse, the affected facility is subject to paragraph (a) or (d) of this section, as applicable. For facilities complying with the percent reduction standard, only the heat input supplied to the affected facility from the combustion of coal and oil is counted in this paragraph. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels or heat derived from exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

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

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

Where:

E_s = SO2 emission limit, in ng/J or lb/MM Btu heat input;

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

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

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

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

For facilities complying with the percent reduction standard, only the heat input supplied to the affected facility from the combustion of coal and oil is counted in this paragraph. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels, or from the heat input derived from exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

(d) On and after the date on which the performance test is completed or required to be completed under § 60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005 and listed in paragraphs (d)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere any gases that contain SO_2 in excess of 520 ng/J (1.2 lb/MMBtu) heat input if the affected facility combusts coal, or 215 ng/J (0.5 lb/MMBtu) heat input if the affected facility combusts oil other than very low sulfur oil. Percent reduction requirements are not applicable to affected facilities under paragraphs (d)(1), (2), (3) or (4) of this section. For facilities complying with paragraphs (d)(1), (2), or (3) of this section, only the heat input supplied to the affected facility from the combustion of coal and oil is counted in this paragraph. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels or heat derived from exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

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

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

(3) Affected facilities combusting coal or oil, alone or in combination with any fuel, in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat entering the steam generating unit is from

combustion of coal and oil in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from the exhaust gases entering the duct burner; or

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

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

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

(g) Except as provided in paragraph (i) of this section and § 60.45b(a), the SO_2 emission limits and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(h) Reductions in the potential SO_2 emission rate through fuel pretreatment are not credited toward the percent reduction requirement under paragraph (c) of this section unless:

(1) Fuel pretreatment results in a 50 percent or greater reduction in potential SO_2 emissions and

(2) Emissions from the pretreated fuel (without combustion or post-combustion SO_2 control) are equal to or less than the emission limits specified in paragraph (c) of this section.

(i) An affected facility subject to paragraph (a), (b), or (c) of this section may combust very low sulfur oil or natural gas when the SO_2 control system is not being operated because of malfunction or maintenance of the SO_2 control system.

(j) Percent reduction requirements are not applicable to affected facilities combusting only very low sulfur oil. The owner or operator of an affected facility combusting very low sulfur oil shall demonstrate that the oil meets the definition of very low sulfur oil by: (1) Following the performance testing procedures as described in § 60.45b(c) or § 60.45b(d), and following the monitoring procedures as described in § 60.47b(a) or § 60.47b(b) to determine SO_2 emission rate or fuel oil sulfur content; or (2) maintaining fuel records as described in § 60.49b(r).

(k)(1) Except as provided in paragraphs (k)(2), (k)(3), and (k)(4) of this section, on and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, natural gas, a mixture of these fuels, or a mixture of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that contain SO_2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 8 percent (0.08) of the potential SO_2 emission rate (92 percent reduction) and 520 ng/J (1.2 lb/MMBtu) heat input. For facilities complying with the percent reduction standard and paragraph (k)(3) of this section, only the heat input supplied to the affected facility from the combustion of coal and oil is counted in paragraph (k) of this section. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels or heat derived from exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

(2) Units firing only very low sulfur oil, gaseous fuel, a mixture of these fuels, or a mixture of these fuels with any other fuels with a potential SO_2 emission rate of 140 ng/J (0.32 lb/MMBtu) heat input or less are exempt from the SO_2 emissions limit in paragraph (k)(1) of this section.

(3) Units that are located in a noncontinental area and that combust coal, oil, or natural gas shall not discharge any gases that contain SO_2 in excess of 520 ng/J (1.2 lb/MMBtu) heat input if the affected facility combusts coal, or 215 ng/J (0.50 lb/MMBtu) heat input if the affected facility combusts oil or natural gas.

(4) As an alternative to meeting the requirements under paragraph (k)(1) of this section, modified facilities that combust coal or a mixture of coal with other fuels shall not cause to be discharged into the atmosphere any gases that contain SO_2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO_2 emission rate (90 percent reduction) and 520 ng/J (1.2 lb/MMBtu) heat input.

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

§ 60.43b Standard for particulate matter (PM).

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

(1) 22 ng/J (0.051 lb/MMBtu) heat input, (i) If the affected facility combusts only coal, or

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

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

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

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

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

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

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

(4) An affected facility burning coke oven gas alone or in combination with other fuels not subject to a PM standard under § 60.43b and not using a post-combustion technology (except a wet scrubber) for reducing PM or SO_2 emissions is not subject to the PM limits under § 60.43b(a).

(b) On and after the date on which the performance test is completed or required to be completed under § 60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, and that combusts oil (or mixtures of oil with other fuels) and uses a conventional or emerging technology to reduce SO_2 emissions shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 43 ng/J (0.10 lb/MMBtu) heat input.

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

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

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

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

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

(d) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts municipal-type solid waste or mixtures of municipal-type solid waste with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:

(1) 43 ng/J (0.10 lb/MMBtu) heat input;

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

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

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

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

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

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

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

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

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

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

(h)(1) Except as provided in paragraphs (h)(2), (h)(3), (h)(4), (h)(5), and (h)(6) of this section, on and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 13 ng/J (0.030 lb/MMBtu) heat input,

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

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

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

(3) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005, and that combusts over 30 percent wood (by heat input) on an annual basis and has a maximum heat input capacity of 73 MW (250 MMBtu/h) or less shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 43 ng/J (0.10 lb/MMBtu) heat input.

(4) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005, and that combusts over 30 percent wood (by heat input) on an annual basis and has a maximum heat input capacity greater than 73 MW (250 MMBtu/h) shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 37 ng/J (0.085 lb/MMBtu) heat input.

(5) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, an owner or operator of an affected facility not located in a noncontinental area that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.30 weight percent sulfur, coke oven gas, a mixture of these fuels, or either fuel (or a mixture of these fuels) in combination with other fuels not subject to a PM standard in § 60.43b and not using a post-combustion technology (except a wet scrubber) to reduce SO_2 or PM emissions is not subject to the PM limits in (h)(1) of this section.

(6) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, an owner or operator of an affected facility located in a noncontinental area that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.5 weight percent sulfur, coke oven gas, a mixture of these fuels, or either fuel (or a mixture of these fuels) in combination with other fuels not subject to a PM standard in § 60.43b and not using a post-combustion technology (except a wet scrubber) to reduce SO_2 or PM emissions is not subject to the PM limits in (h)(1) of this section.

[72 FR 32742, June 13, 2007, as amended at 74 FR 5084, Jan. 28, 2009; 77 FR 9459, Feb. 16, 2012]

§ 60.44b Standard for nitrogen oxides (NOX).

(a) Except as provided under paragraphs (k) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that is subject to the provisions of this section and that combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO_X (expressed as NO_2) in excess of the following emission limits:

Fuel/steam generating unit type	Nitrogen oxide emission limits (expressed as NO_2) heat input	
	ng/J	lb/MMBTu
(1) Natural gas and distillate oil, except (4):		
(i) Low heat release rate	43	0.10
(ii) High heat release rate	86	0.20
(2) Residual oil:		
(i) Low heat release rate	130	0.30
(ii) High heat release rate	170	0.40
(3) Coal:		
(i) Mass-feed stoker	210	0.50
(ii) Spreader stoker and fluidized bed combustion	260	0.60
(iii) Pulverized coal	300	0.70

Fuel/steam generating unit type	Nitrogen oxide emission limits (expressed as NO_2) heat input	
	ng/J	lb/MMBTu
(iv) Lignite, except (v)	260	0.60
(v) Lignite mined in North Dakota, South Dakota, or Montana and combusted in a slag tap furnace	340	0.80
(vi) Coal-derived synthetic fuels	210	0.50
(4) Duct burner used in a combined cycle system:		
(i) Natural gas and distillate oil	86	0.20
(ii) Residual oil	170	0.40

(b) Except as provided under paragraphs (k) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts mixtures of only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO_X in excess of a limit determined by the use of the following formula:

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

Where:

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

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

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

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

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

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

H_c = Heat input from combustion of coal, J (MMBtu).

(c) Except as provided under paragraph (d) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts coal or oil, natural gas (or any combination of the three), and wood, or any other fuel shall cause to be discharged into the atmosphere any gases that contain NO_X in excess of the emission limit for the coal, oil, natural gas (or any combination of the three), combusted in the affected facility, as determined pursuant to paragraph (a) or (b) of this section. This standard does not apply to an affected facility that is subject to and in compliance with a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, natural gas (or any combination of the three).

(d) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts natural gas and/or distillate oil with a potential SO_2 emissions rate of 26 ng/J (0.060 lb/MMBtu) or less with wood, municipal-type solid waste, or other solid fuel, except coal, shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO_X in excess of 130 ng/J (0.30 lb/MMBtu) heat input unless the affected facility has an annual capacity factor for natural gas, distillate oil, or a mixture of these fuels of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less for natural gas, distillate oil, or a mixture of these fuels.

(e) Except as provided under paragraph (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts only coal, oil, or natural gas with byproduct/waste shall cause to be discharged into the atmosphere any gases that contain NO_X in excess of the emission limit determined by the following formula unless the affected facility has an annual capacity factor for coal, oil, and natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less:

(f) Any owner or operator of an affected facility that combusts byproduct/waste with either natural gas or oil may petition the Administrator within 180 days of the initial startup of the affected facility to establish a NO_X emission limit that shall apply specifically to that affected facility when the byproduct/waste is combusted. The petition shall include sufficient and appropriate data, as determined by the Administrator, such as NO_X emissions from the affected facility, waste composition (including nitrogen content), and combustion conditions to allow the Administrator to confirm that the affected facility is unable to comply with the emission limits in paragraph (e) of this section and to determine the appropriate emission limit for the affected facility.

(1) Any owner or operator of an affected facility petitioning for a facility-specific NO_X emission limit under this section shall:

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

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

(2) The NO_X emission limits for natural gas or distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) or (l)(1) of this section, as appropriate, shall be applicable to the affected facility until and unless the petition is approved by the Administrator. If the petition is approved by the Administrator, a facility-specific NO_X emission limit will be established at the NO_X emission level achievable when the affected facility is combusting oil or natural gas and byproduct/waste in a manner that the Administrator determines to be consistent with minimizing NO_X emissions. In lieu of amending this subpart, a letter will be sent to the facility describing the facility-specific NO_X limit. The facility shall use the compliance procedures detailed in the letter and make the letter available to the public. If the Administrator determines it is appropriate, the conditions and requirements of the letter can be reviewed and changed at any point.

(g) Any owner or operator of an affected facility that combusts hazardous waste (as defined by 40 CFR part 261 or 40 CFR part 761) with natural gas or oil may petition the Administrator within 180 days of the initial startup of the affected facility for a waiver from compliance with the NO_X emission limit that applies specifically to that affected facility. The petition must include sufficient and appropriate data, as determined by the Administrator, on NO_X emissions from the affected facility, waste destruction efficiencies, waste composition (including nitrogen content), the quantity of specific wastes to be combusted and combustion conditions to allow the Administrator to determine if the affected facility is able to comply with the NO_X emission limits required by this section. The owner or operator of the affected facility shall demonstrate that when hazardous waste is combusted in the affected facility, thermal destruction efficiency requirements for hazardous waste specified in an applicable federally enforceable requirement preclude compliance with the NO_X emission limits of this section. The NO_X emission limits for natural gas or distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) or (l)(1) of this section, as appropriate, are applicable to the affected facility until and unless the petition is approved by the Administrator. (See 40 CFR 761.70 for regulations applicable to the incineration of materials containing polychlorinated biphenyls (PCB's).) In lieu of amending this subpart, a letter will be sent to the facility describing the facility-specific NO_X limit. The facility shall use the compliance procedures detailed in the letter and make the letter available to the public. If the Administrator determines it is appropriate, the conditions and requirements of the letter can be reviewed and changed at any point.

(h) For purposes of paragraph (i) of this section, the NO_X standards under this section apply at all times including periods of startup, shutdown, or malfunction.

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

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

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

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

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

(k) Affected facilities that meet the criteria described in paragraphs (j)(1), (2), and (3) of this section, and that have a heat input capacity of 73 MW (250 MMBtu/hr) or less, are not subject to the NO_X emission limits under this section.

(l) On and after the date on which the initial performance test is completed or is required to be completed under 60.8, whichever date is first, no owner or operator of an affected facility that commenced construction after July 9, 1997 shall cause to be discharged into the atmosphere from that affected facility any gases that contain NOx (expressed as NO2) in excess of the following limits:

(1) 86 ng/J (0.20 lb/MMBtu) heat input if the affected facility combusts coal, oil, or natural gas (or any combination of the three), alone or with any other fuels. The affected facility is not subject to this limit if it is subject to and in compliance with a federally enforceable requirement that limits operation of the facility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, and natural gas (or any combination of the three); or

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

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

Where:

E_n = NO_X emission limit, (lb/MMBtu);

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

H_r = 30-day heat input from combustion of any other fuel.

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

[72 FR 32742, June 13, 2007, as amended at 74 FR 5086, Jan. 28, 2009; 77 FR 9459, Feb. 16, 2012]

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

(a) The SO_2 emission standards in § 60.42b apply at all times. Facilities burning coke oven gas alone or in combination with any other gaseous fuels or distillate oil are allowed to exceed the limit 30 operating days per calendar year for SO_2 control system maintenance.

(b) In conducting the performance tests required under § 60.8, the owner or operator shall use the methods and procedures in appendix A (including fuel certification and sampling) of this part or the methods and procedures as specified in this section, except as provided in § 60.8(b). Section 60.8(f) does not apply to this section. The 30-day notice required in § 60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.

(c) The owner or operator of an affected facility shall conduct performance tests to determine compliance with the percent of potential SO_2 emission rate (% P_s) and the SO_2 emission rate (E_s) pursuant to § 60.42b following the procedures listed below, except as provided under paragraph (d) and (k) of this section.

(1) The initial performance test shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the SO_2 standards shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility.

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

(i) The procedures in Method 19 of appendix A-7 of this part are used to determine the hourly SO_2 emission rate (E_{ho}) and the 30-day average emission rate (E_{ao}). The hourly averages used to compute the 30-day averages are obtained from the CEMS of § 60.47b(a) or (b).

(ii) The percent of potential SO_2 emission rate (%P_s) emitted to the atmosphere is computed using the following formula:

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

Where:

%P_s = Potential SO_2 emission rate, 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.

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

(i) An adjusted hourly SO_2 emission rate ($E_{ho}{}^{o}$) is used in Equation 19-19 of Method 19 of appendix A of this part to compute an adjusted 30-day average emission rate (Eao o). The Eho° is computed using the following formula:

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

Where:

$E_{ho}{}^{o}$ = Adjusted hourly SO_2 emission rate, ng/J (lb/MMBtu);

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

E_w = SO_2 concentration in fuels other than coal and oil combusted in the affected facility, as determined by the fuel sampling and analysis procedures in Method 19 of appendix A of this part, ng/J (lb/MMBtu). The value E_w for each fuel lot is used for each hourly average during the time that the lot is being combusted; and

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

(ii) To compute the percent of potential SO_2 emission rate ($\%P_s$), an adjusted $\%R_g$ ($\%R_g{}^o$) is computed from the adjusted Eao o from paragraph (b)(3)(i) of this section and an adjusted average SO2 inlet rate (Eai o) using the following formula:

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

To compute Eai o , an adjusted hourly SO2 inlet rate (Ehi o) is used. The Ehi o is computed using the following formula:

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

Where:

Ehi o = Adjusted hourly SO2 inlet rate, ng/J (lb/MMBtu); and

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

(4) The owner or operator of an affected facility subject to paragraph (c)(3) of this section does not have to measure parameters E_w or X_k if the owner or operator elects to assume that X_k = 1.0. Owners or operators of affected facilities who assume X_k = 1.0 shall:

(i) Determine $\%P_s$ following the procedures in paragraph (c)(2) of this section; and

(ii) Sulfur dioxide emissions (E_s) are considered to be in compliance with SO_2 emission limits under § 60.42b.

(5) The owner or operator of an affected facility that qualifies under the provisions of § 60.42b(d) does not have to measure parameters E_w or X_k in paragraph (c)(3) of this section if the owner or operator of the affected facility elects to measure SO_2 emission rates of the coal or oil following the fuel sampling and analysis procedures in Method 19 of appendix A-7 of this part.

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

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

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

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

(f) For the initial performance test required under § 60.8, compliance with the SO_2 emission limits and percent reduction requirements under § 60.42b is based on the average emission rates and the average percent reduction for SO_2 for the first 30 consecutive steam generating unit operating days, except as provided under paragraph (d) of this section. The initial performance test is the only test for which at least 30 days prior notice is required unless otherwise specified by the Administrator. The initial performance test is to be scheduled so that the first steam generating unit operating day of the 30 successive steam generating unit operating days is completed within 30 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility. The boiler load during the 30-day period does not have to be the maximum design load, but must be representative of future operating conditions and include at least one 24-hour period at full load.

(g) After the initial performance test required under § 60.8, compliance with the SO_2 emission limits and percent reduction requirements under § 60.42b is based on the average emission rates and the average percent reduction for SO_2 for 30 successive steam generating unit operating days, except as provided under paragraph (d). A separate performance test is completed at the end of each steam generating unit operating day after the initial performance test, and a new 30-day average emission rate and percent reduction for SO_2 are calculated to show compliance with the standard.

(h) Except as provided under paragraph (i) of this section, the owner or operator of an affected facility shall use all valid SO_2 emissions data in calculating $\%P_s$ and E_{ho} under paragraph (c), of this section whether or not the minimum emissions data requirements under § 60.46b are achieved. All valid emissions data, including valid SO_2 emission data collected during periods of startup, shutdown and malfunction, shall be used in calculating $\%P_s$ and E_{ho} pursuant to paragraph (c) of this section.

(i) During periods of malfunction or maintenance of the SO_2 control systems when oil is combusted as provided under § 60.42b(i), emission data are not used to calculate $\%P_s$ or E_s under § 60.42b(a), (b) or (c), however, the emissions data are used to determine compliance with the emission limit under § 60.42b(i).

(j) The owner or operator of an affected facility that only combusts very low sulfur oil, natural gas, or a mixture of these fuels with any other fuels not subject to an SO_2 standard is not subject to the compliance and performance testing requirements of this section if the owner or operator obtains fuel receipts as described in § 60.49b(r).

(k) The owner or operator of an affected facility seeking to demonstrate compliance in §§ 60.42b(d)(4), 60.42b(j), 60.42b(k)(2), and 60.42b(k)(3) (when not burning coal) shall follow the applicable procedures in § 60.49b(r).

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

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

(a) The PM emission standards and opacity limits under § 60.43b apply at all times except during periods of startup, shutdown, or malfunction. The NO_X emission standards under § 60.44b apply at all times.

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

(c) Compliance with the NO_X emission standards under § 60.44b shall be determined through performance testing under paragraph (e) or (f), or under paragraphs (g) and (h) of this section, as applicable.

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

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

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

(i) Method 5 of appendix A of this part shall be used at affected facilities without wet flue gas desulfurization (FGD) systems; and

(ii) Method 17 of appendix A-6 of this part may be used at facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of sections 8.1 and 11.1 of Method 5B of appendix A-3 of this part may be used in Method 17 of appendix A-6 of this part only if it is used after a wet FGD system. Do not use Method 17 of appendix A-6 of this part after wet FGD systems if the effluent is saturated or laden with water droplets.

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

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

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

(5) For determination of PM emissions, the oxygen (O_2) or CO_2 sample is obtained simultaneously with each run of Method 5, 5B, or 17 of appendix A of this part by traversing the duct at the same sampling location.

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

(i) The O_2 or CO_2 measurements and PM measurements obtained under this section;

(ii) The dry basis F factor; and

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

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

(e) To determine compliance with the emission limits for NO_X required under § 60.44b, the owner or operator of an affected facility shall conduct the performance test as required under § 60.8 using the continuous system for monitoring NO_X under § 60.48(b).

(1) For the initial compliance test, NO_X from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the NO_X emission standards under § 60.44b. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period.

(2) Following the date on which the initial performance test is completed or is required to be completed in § 60.8, whichever date comes first, the owner or operator of an affected facility which combusts coal (except as specified under § 60.46b(e)(4)) or which combusts residual oil having a nitrogen content greater than 0.30 weight percent shall determine compliance with the NO_X emission standards in § 60.44b on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated for each steam generating unit operating day as the average of all of the hourly NO_X emission data for the preceding 30 steam generating unit operating days.

(3) Following the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, the owner or operator of an affected facility that has a heat input capacity greater than 73 MW (250 MMBtu/hr) and that combusts natural gas, distillate oil, or residual oil having a nitrogen content of 0.30 weight percent or less shall determine compliance with the NO_X standards under § 60.44b on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO_X emission data for the preceding 30 steam generating unit operating days.

(4) Following the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, the owner or operator of an affected facility that has a heat input capacity of 73 MW (250 MMBtu/hr) or less and that combusts natural gas, distillate oil, gasified coal, or residual oil having a nitrogen content of 0.30 weight percent or less shall upon request determine compliance with the NO_X standards in § 60.44b through the use of a 30-day performance test. During periods when performance tests are not requested, NO_X emissions data collected pursuant to § 60.48b(g)(1) or § 60.48b(g)(2) are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NO_X emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO_X emission data for the preceding 30 steam generating unit operating days.

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

(f) To determine compliance with the emissions limits for NO_X required by § 60.44b(a)(4) or § 60.44b(l) for duct burners used in combined cycle systems, either of the procedures described in paragraph (f)(1) or (2) of this section may be used:

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

(i) The emissions rate (E) of NO_X shall be computed using Equation 1 in this section:

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

Where:

E = Emissions rate of NO_X from the duct burner, ng/J (lb/MMBtu) heat input;

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

H_g = Heat input rate to the combustion turbine, in J/hr (MMBtu/hr);

H_b = Heat input rate to the duct burner, in J/hr (MMBtu/hr); and

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

(ii) Method 7E of appendix A of this part shall be used to determine the NO_X concentrations. Method 3A or 3B of appendix A of this part shall be used to determine O_2 concentration.

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

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

(2) The owner or operator of an affected facility may elect to determine compliance on a 30-day rolling average basis by using the CEMS specified under § 60.48b for measuring NO_X and O_2 and meet the requirements of § 60.48b. The sampling site shall be located at the outlet from the steam generating unit. The NO_X emissions rate at the outlet from the steam generating unit shall constitute the NO_X emissions rate from the duct burner of the combined cycle system.

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

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

(1) Conduct an initial performance test as required under § 60.8 over a minimum of 24 consecutive steam generating unit operating hours at maximum heat input capacity to demonstrate compliance with the NO_X emission standards under § 60.44b using Method 7, 7A, 7E of appendix A of this part, or other approved reference methods; and

(2) Conduct subsequent performance tests once per calendar year or every 400 hours of operation (whichever comes first) to demonstrate compliance with the NO_X emission standards under § 60.44b over a minimum of 3 consecutive steam generating unit operating hours at maximum heat input capacity using Method 7, 7A, 7E of appendix A of this part, or other approved reference methods.

(i) The owner or operator of an affected facility seeking to demonstrate compliance with the PM limit in paragraphs § 60.43b(a)(4) or § 60.43b(h)(5) shall follow the applicable procedures in § 60.49b(r).

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

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

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

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

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

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

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

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

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

(ii) [Reserved]

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

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

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

(11) During the correlation testing runs of the CEMS required by Performance Specification 11 in appendix B of this part, PM and O_2 (or CO_2) data shall be collected concurrently (or within a 30-to 60-minute period) by both the continuous emission monitors and performance tests conducted using the following test methods.

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

(ii) For O_2 (or CO_2), Method 3A or 3B of appendix A-2 of this part, as applicable shall be used.

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

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

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

[72 FR 32742, June 13, 2007, as amended at 74 FR 5086, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011; 77 FR 9460, Feb. 16, 2012]

§ 60.47b Emission monitoring for sulfur dioxide.

(a) Except as provided in paragraphs (b) and (f) of this section, the owner or operator of an affected facility subject to the SO_2 standards in § 60.42b shall install, calibrate, maintain, and operate CEMS for measuring SO_2 concentrations and either O_2 or CO_2 concentrations and shall record the output of the systems. For units complying with the percent reduction standard, the SO_2 and either O_2 or CO_2 concentrations shall both be monitored at the inlet and outlet of the SO_2 control device. If the owner or operator has installed and certified SO_2 and O_2 or CO_2 CEMS according to the requirements of § 75.20(c)(1) of this chapter and appendix A to part 75 of this chapter, and is continuing to meet the

ongoing quality assurance requirements of § 75.21 of this chapter and appendix B to part 75 of this chapter, those CEMS may be used to meet the requirements of this section, provided that:

(1) When relative accuracy testing is conducted, SO_2 concentration data and CO_2 (or O_2) data are collected simultaneously; and

(2) In addition to meeting the applicable SO_2 and CO_2 (or O_2) relative accuracy specifications in Figure 2 of appendix B to part 75 of this chapter, the relative accuracy (RA) standard in section 13.2 of Performance Specification 2 in appendix B to this part is met when the RA is calculated on a lb/MMBtu basis; and

(3) The reporting requirements of § 60.49b are met. SO_2 and CO_2 (or O_2) data used to meet the requirements of § 60.49b shall not include substitute data values derived from the missing data procedures in subpart D of part 75 of this chapter, nor shall the SO_2 data have been bias adjusted according to the procedures of part 75 of this chapter.

(b) As an alternative to operating CEMS as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO_2 emissions and percent reduction by:

(1) Collecting coal or oil samples in an as-fired condition at the inlet to the steam generating unit and analyzing them for sulfur and heat content according to Method 19 of appendix A of this part. Method 19 of appendix A of this part provides procedures for converting these measurements into the format to be used in calculating the average SO_2 input rate, or

(2) Measuring SO_2 according to Method 6B of appendix A of this part at the inlet or outlet to the SO_2 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_2 and CO_2 measurement train operated at the candidate location and a second similar train operated according to the procedures in section 3.2 and the applicable procedures in section 7 of Performance Specification 2. Method 6B of appendix A of this part, Method 6A of appendix A of this part, or a combination of Methods 6 and 3 or 3B of appendix A of this part or Methods 6C and 3A of appendix A of this part are suitable measurement techniques. If Method 6B of appendix A of this part is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B of appendix A of this part 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent.

(3) A daily SO_2 emission rate, E_D , shall be determined using the procedure described in Method 6A of appendix A of this part, section 7.6.2 (Equation 6A-8) and stated in ng/J (lb/MMBtu) heat input.

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

(c) The owner or operator of an affected facility shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive boiler operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator or the reference methods and procedures as described in paragraph (b) of this section.

(d) The 1-hour average SO_2 emission rates measured by the CEMS required by paragraph (a) of this section and required under § 60.13(h) is expressed in ng/J or lb/MMBtu heat input and is used to calculate the average emission rates under § 60.42(b). Each 1-hour average SO_2 emission rate must be based on 30 or more minutes of steam generating unit operation. The hourly averages shall be calculated according to § 60.13(h)(2). Hourly SO_2 emission rates are not calculated if the affected facility is operated less than 30 minutes in a given clock hour and are not counted toward determination of a steam generating unit operating day.

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

(1) Except as provided for in paragraph (e)(4) of this section, all CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 of appendix B of this part.

(2) Except as provided for in paragraph (e)(4) of this section, quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 of appendix F of this part.

(3) For affected facilities combusting coal or oil, alone or in combination with other fuels, the span value of the SO_2 CEMS at the inlet to the SO_2 control device is 125 percent of the maximum estimated hourly potential SO_2 emissions of the fuel combusted, and the span value of the CEMS at the outlet to the SO_2 control device is 50 percent of the maximum estimated hourly potential SO_2 emissions of the fuel combusted. Alternatively, SO_2 span values determined according to section 2.1.1 in appendix A to part 75 of this chapter may be used.

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

(i) For all required CO_2 and O_2 monitors and for SO_2 and NO_X monitors with span values greater than or equal to 100 ppm, the daily calibration error test and calibration adjustment procedures described in sections 2.1.1 and 2.1.3 of appendix B to part 75 of this chapter may be followed instead of the CD assessment procedures in Procedure 1, section 4.1 of appendix F to this part.

(ii) For all required CO_2 and O_2 monitors and for SO_2 and NO_X monitors with span values greater than 30 ppm, quarterly linearity checks may be performed in accordance with section 2.2.1 of appendix B to part 75 of this chapter, instead of performing the cylinder gas audits (CGAs) described in Procedure 1, section 5.1.2 of appendix F to this part. If this option is selected: The frequency of the linearity checks shall be as specified in section 2.2.1 of appendix B to part 75 of this chapter; the applicable linearity specifications in section 3.2 of appendix A to part 75 of this chapter shall be met; the data validation and out-of-control criteria in section 2.2.3 of appendix B to part 75 of this chapter shall be followed instead of the excessive audit inaccuracy and out-of-control criteria in Procedure 1, section 5.2 of appendix F to this part; and the grace period provisions in section 2.2.4 of appendix B to part 75 of this chapter shall apply. For the purposes of data validation under this subpart, the cylinder gas audits described in Procedure 1, section 5.1.2 of appendix F to this part shall be performed for SO_2 and NO_X span values less than or equal to 30 ppm; and

(iii) For SO_2 , CO_2 , and O_2 monitoring systems and for NO_X emission rate monitoring systems, RATAs may be performed in accordance with section 2.3 of appendix B to part 75 of this chapter instead of following the procedures described in Procedure 1, section 5.1.1 of appendix F to this part. If this option is selected: The frequency of each RATA shall be as specified in section 2.3.1 of appendix B to part 75 of this chapter; the applicable relative accuracy specifications shown in Figure 2 in appendix B to part 75 of this chapter shall be met; the data validation and out-of-control criteria in section 2.3.2 of appendix B to part 75 of this chapter shall be followed instead of the excessive audit inaccuracy and out-of-control criteria in Procedure 1, section 5.2 of appendix F to this part; and the grace period provisions in section 2.3.3 of appendix B to part 75 of this chapter shall apply. For the purposes of data validation under this subpart, the relative accuracy specification in section 13.2 of Performance Specification 2 in appendix B to this part shall be met on a lb/MMBtu basis for SO_2 (regardless of the SO_2 emission level during the RATA), and for NO_X when the average NO_X emission rate measured by the reference method during the RATA is less than 0.100 lb/MMBtu.

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

[72 FR 32742, June 13, 2007, as amended at 74 FR 5087, Jan. 28, 2009]

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

(a) Except as provided in paragraph (j) of this section, the owner or operator of an affected facility subject to the opacity standard under § 60.43b shall install, calibrate, maintain, and operate a continuous opacity monitoring systems (COMS) for measuring the opacity of emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility subject to an opacity standard under § 60.43b and meeting the conditions under paragraphs (j)(1), (2), (3), (4), (5), or (6) of this section who elects not to use a COMS shall conduct a performance test using Method 9 of appendix A-4 of this part and the procedures in § 60.11 to demonstrate compliance with the applicable limit in § 60.43b by April 29, 2011, within 45 days of stopping use of an existing COMS, or within 180 days after initial startup of the facility, whichever is later, and shall comply with either paragraphs (a)(1), (a)(2), or (a)(3) of this section. The observation period for Method 9 of appendix A-4 of this part

performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation.

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

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

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

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

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

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

(i) The owner or operator shall conduct 10 minute observations (during normal operation) each operating day the affected facility fires fuel for which an opacity standard is applicable using Method 22 of appendix A-7 of this part and demonstrate that the sum of the occurrences of any visible emissions is not in excess of 5 percent of the observation period (*i.e.* , 30 seconds per 10 minute period). If the sum of the occurrence of any visible emissions is greater than 30 seconds during the initial 10 minute observation, immediately conduct a 30 minute observation. If the sum of the occurrence of visible emissions is greater than 5 percent of the observation period (*i.e.,* 90 seconds per 30 minute period), the owner or operator shall either document and adjust the operation of the facility and demonstrate within 24 hours that the sum of the occurrence of visible emissions is equal to or less than 5 percent during a 30 minute observation (*i.e.,* 90 seconds) or conduct a new Method 9 of appendix A-4 of this part performance test using the procedures in paragraph (a) of this section within 45 calendar days according to the requirements in § 60.46d(d)(7).

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

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

(b) Except as provided under paragraphs (g), (h), and (i) of this section, the owner or operator of an affected facility subject to a NO_X standard under § 60.44b shall comply with either paragraphs (b)(1) or (b)(2) of this section.

(1) Install, calibrate, maintain, and operate CEMS for measuring NO_X and O_2 (or CO_2) emissions discharged to the atmosphere, and shall record the output of the system; or

(2) If the owner or operator has installed a NO_X emission rate CEMS to meet the requirements of part 75 of this chapter and is continuing to meet the ongoing requirements of part 75 of this chapter, that CEMS may be used to meet the requirements of this section, except that the owner or operator shall also meet the requirements of § 60.49b. Data reported to meet the requirements of § 60.49b shall not include data substituted using the missing data procedures in subpart D of part 75 of this chapter, nor shall the data have been bias adjusted according to the procedures of part 75 of this chapter.

(c) The CEMS required under paragraph (b) of this section shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

(d) The 1-hour average NO_X emission rates measured by the continuous NO_X monitor required by paragraph (b) of this section and required under § 60.13(h) shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under § 60.44b. The 1-hour averages shall be calculated using the data points required under § 60.13(h)(2).

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

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

(2) For affected facilities combusting coal, oil, or natural gas, the span value for NO_X is determined using one of the following procedures:

(i) Except as provided under paragraph (e)(2)(ii) of this section, NO_X span values shall be determined as follows:

Fuel	**Span values for NO_X (ppm)**
Natural gas	500.
Oil	500.
Coal	1,000.
Mixtures	500 (x + y) + 1,000z.

Where:

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

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

z = Fraction of total heat input derived from coal.

(ii) As an alternative to meeting the requirements of paragraph (e)(2)(i) of this section, the owner or operator of an affected facility may elect to use the NO_X span values determined according to section 2.1.2 in appendix A to part 75 of this chapter.

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

(f) When NO_X emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7 of appendix A

of this part, Method 7A of appendix A of this part, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.

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

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

(2) Monitor steam generating unit operating conditions and predict NO_X emission rates as specified in a plan submitted pursuant to § 60.49b(c).

(h) The owner or operator of a duct burner, as described in § 60.41b, that is subject to the NO_X standards in § 60.44b(a)(4), § 60.44b(e), or § 60.44b(l) is not required to install or operate a continuous emissions monitoring system to measure NO_X emissions.

(i) The owner or operator of an affected facility described in § 60.44b(j) or § 60.44b(k) is not required to install or operate a CEMS for measuring NO_X emissions.

(j) The owner or operator of an affected facility that meets the conditions in either paragraph (j)(1), (2), (3), (4), (5), (6), or (7) of this section is not required to install or operate a COMS if:

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

(2) The affected facility burns only liquid (excluding residual oil) or gaseous fuels with potential SO_2 emissions rates of 26 ng/J (0.060 lb/MMBtu) or less and does not use a post-combustion technology to reduce SO_2 or PM emissions. The owner or operator must maintain fuel records of the sulfur content of the fuels burned, as described under § 60.49b(r); or

(3) The affected facility burns coke oven gas alone or in combination with fuels meeting the criteria in paragraph (j)(2) of this section and does not use a post-combustion technology to reduce SO_2 or PM emissions; or

(4) The affected facility does not use post-combustion technology (except a wet scrubber) for reducing PM, SO_2 , or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.30 weight percent sulfur, and is operated such that emissions of CO to the atmosphere from the affected facility are maintained at levels less than or equal to 0.15 lb/MMBtu on a steam generating unit operating day average basis. Owners and operators of affected facilities electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (j)(4)(i) through (iv) of this section; or

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

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

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

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

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

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

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

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

(5) The affected facility uses a bag leak detection system to monitor the performance of a fabric filter (baghouse) according to the most current requirements in section § 60.48Da of this part; or

(6) The affected facility uses an ESP as the primary PM control device and uses an ESP predictive model to monitor the performance of the ESP developed in accordance and operated according to the most current requirements in section § 60.48Da of this part; or

(7) The affected facility burns only gaseous fuels or fuel oils that contain less than or equal to 0.30 weight percent sulfur and operates according to a written site-specific monitoring plan approved by the permitting authority. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard.

(k) Owners or operators complying with the PM emission limit by using a PM CEMS must calibrate, maintain, operate, and record the output of the system for PM emissions discharged to the atmosphere as specified in § 60.46b(j). The CEMS specified in paragraph § 60.46b(j) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

(l) An owner or operator of an affected facility that is subject to an opacity standard under § 60.43b(f) is not required to operate a COMS provided that the unit burns only gaseous fuels and/or liquid fuels (excluding residue oil) with a potential SO_2 emissions rate no greater than 26 ng/J (0.060 lb/MMBtu), and the unit 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. For testing performed as part of this site-specific monitoring plan, the permitting authority may require as an alternative to the notification and reporting requirements specified in §§ 60.8 and 60.11 that the owner or operator submit any deviations with the excess emissions report required under § 60.49b(h).

[72 FR 32742, June 13, 2007, as amended at 74 FR 5087, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011; 77 FR 9460, Feb. 16, 2012]

§ 60.49b Reporting and recordkeeping requirements.

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

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

(2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §§ 60.42b(d)(1), 60.43b(a)(2), (a)(3)(iii), (c)(2)(ii), (d)(2)(iii), 60.44b(c), (d), (e), (i), (j), (k), 60.45b(d), (g), 60.46b(h), or 60.48b(i);

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

(4) Notification that an emerging technology will be used for controlling emissions of SO_2 . The Administrator will examine the description of the emerging technology and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of § 60.42b(a) unless and until this determination is made by the Administrator.

(b) The owner or operator of each affected facility subject to the SO_2 , PM, and/or NO_X emission limits under §§ 60.42b, 60.43b, and 60.44b shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in appendix B of this part. The owner or operator of each affected facility described in § 60.44b(j) or § 60.44b(k) shall submit to the Administrator the maximum heat input capacity data from the demonstration of the maximum heat input capacity of the affected facility.

(c) The owner or operator of each affected facility subject to the NO_X standard in § 60.44b who seeks to demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions in the provisions of § 60.48b(g)(2) shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored in § 60.48b(g)(2) and the records to be maintained in § 60.49b(g). This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected facility. An affected facility burning coke oven gas alone or in combination with other gaseous fuels or distillate oil shall submit this plan to the Administrator for approval within 360 days of the initial startup of the affected facility or by November 30, 2009, whichever date comes later. If the plan is approved, the owner or operator shall maintain records of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan. The plan shall:

(1) Identify the specific operating conditions to be monitored and the relationship between these operating conditions and NO_X emission rates (*i.e.* , ng/J or lbs/MMBtu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (*i.e.* , the ratio of primary air to secondary and/or tertiary air) and the level of excess air (*i.e.* , flue gas O_2 level);

(2) Include the data and information that the owner or operator used to identify the relationship between NO_X emission rates and these operating conditions; and

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

(d) Except as provided in paragraph (d)(2) of this section, the owner or operator of an affected facility shall record and maintain records as specified in paragraph (d)(1) of this section.

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

(2) As an alternative to meeting the requirements of paragraph (d)(1) of this section, the owner or operator of an affected facility that is subject to a federally enforceable permit restricting fuel use to a single fuel such that the facility is not required to continuously monitor any emissions (excluding opacity) or parameters indicative of emissions may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

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

(f) For an affected facility subject to the opacity standard in § 60.43b, the owner or operator shall maintain records of opacity. In addition, an owner or operator that elects to monitor emissions according to the requirements in § 60.48b(a) shall maintain records according to the requirements specified in paragraphs (f)(1) through (3) of this section, as applicable to the visible emissions monitoring method used.

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

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

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

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

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

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

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

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

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

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

(g) Except as provided under paragraph (p) of this section, the owner or operator of an affected facility subject to the NO_X standards under § 60.44b shall maintain records of the following information for each steam generating unit operating day:

(1) Calendar date;

(2) The average hourly NO_X emission rates (expressed as NO_2) (ng/J or lb/MMBtu heat input) measured or predicted;

(3) The 30-day average NO_X emission rates (ng/J or lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;

(4) Identification of the steam generating unit operating days when the calculated 30-day average NO_X emission rates are in excess of the NO_X emissions standards under § 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken;

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

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

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

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

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

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

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

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

(2) Any affected facility that is subject to the NO_X standard of § 60.44b, and that:

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

(ii) Has a heat input capacity of 73 MW (250 MMBtu/hr) or less and is required to monitor NO_X emissions on a continuous basis under § 60.48b(g)(1) or steam generating unit operating conditions under § 60.48b(g)(2).

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

(4) For purposes of § 60.48b(g)(1), excess emissions are defined as any calculated 30-day rolling average NO_X emission rate, as determined under § 60.46b(e), that exceeds the applicable emission limits in § 60.44b.

(i) The owner or operator of any affected facility subject to the continuous monitoring requirements for NO_X under § 60.48(b) shall submit reports containing the information recorded under paragraph (g) of this section.

(j) The owner or operator of any affected facility subject to the SO_2 standards under § 60.42b shall submit reports.

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

(1) Calendar dates covered in the reporting period;

(2) Each 30-day average SO_2 emission rate (ng/J or lb/MMBtu heat input) measured during the reporting period, ending with the last 30-day period; reasons for noncompliance with the emission standards; and a description of corrective actions taken; For an exceedance due to maintenance of the SO_2 control system covered in paragraph 60.45b(a), the report shall identify the days on which the maintenance was performed and a description of the maintenance;

(3) Each 30-day average percent reduction in SO_2 emissions calculated during the reporting period, ending with the last 30-day period; reasons for noncompliance with the emission standards; and a description of corrective actions taken;

(4) Identification of the steam generating unit operating days that coal or oil was combusted and for which SO_2 or diluent (O_2 or CO_2) data have not been obtained by an approved method for at least 75 percent of the operating

hours in the steam generating unit operating day; justification for not obtaining sufficient data; and description of corrective action taken;

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

(6) Identification of “F” factor used for calculations, method of determination, and type of fuel combusted;

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

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

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

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

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

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

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

(2) The 24-hour average SO_2 emission rate measured for each steam generating unit operating day during the reporting period that coal or oil was combusted, ending in the last 24-hour period in the quarter; reasons for noncompliance with the emission standards; and a description of corrective actions taken;

(3) Identification of the steam generating unit operating days that coal or oil was combusted for which $S0_2$ or diluent (O_2 or CO_2) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and description of corrective action taken;

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

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

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

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

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

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

(m) For each affected facility subject to the SO_2 standards in § 60.42(b) for which the minimum amount of data required in § 60.47b(c) were not obtained during the reporting period, the following information is reported to the Administrator in addition to that required under paragraph (k) of this section:

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

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

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

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

(n) If a percent removal efficiency by fuel pretreatment (*i.e.* , $\%R_f$) is used to determine the overall percent reduction (*i.e.* , $\%R_o$) under § 60.45b, the owner or operator of the affected facility shall submit a signed statement with the report.

(1) Indicating what removal efficiency by fuel pretreatment (*i.e.* , $\%R_f$) was credited during the reporting period;

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

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

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

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

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

(1) Calendar date;

(2) The number of hours of operation; and

(3) A record of the hourly steam load.

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

(1) The annual capacity factor over the previous 12 months;

(2) The average fuel nitrogen content during the reporting period, if residual oil was fired; and

(3) If the affected facility meets the criteria described in § 60.44b(j), the results of any NO_X emission tests required during the reporting period, the hours of operation during the reporting period, and the hours of operation since the last NO_X emission test.

(r) The owner or operator of an affected facility who elects to use the fuel based compliance alternatives in § 60.42b or § 60.43b shall either:

(1) The owner or operator of an affected facility who elects to demonstrate that the affected facility combusts only very low sulfur oil, natural gas, wood, a mixture of these fuels, or any of these fuels (or a mixture of these fuels) in

combination with other fuels that are known to contain an insignificant amount of sulfur in § 60.42b(j) or § 60.42b(k) shall obtain and maintain at the affected facility fuel receipts (such as a current, valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the oil meets the definition of distillate oil and gaseous fuel meets the definition of natural gas as defined in § 60.41b and the applicable sulfur limit. For the purposes of this section, the distillate oil need not meet the fuel nitrogen content specification in the definition of distillate oil. Reports shall be submitted to the Administrator certifying that only very low sulfur oil meeting this definition, natural gas, wood, and/or other fuels that are known to contain insignificant amounts of sulfur were combusted in the affected facility during the reporting period; or

(2) The owner or operator of an affected facility who elects to demonstrate compliance based on fuel analysis in § 60.42b or § 60.43b shall develop and submit a site-specific fuel analysis plan to the Administrator for review and approval no later than 60 days before the date you intend to demonstrate compliance. Each fuel analysis plan shall include a minimum initial requirement of weekly testing and each analysis report shall contain, at a minimum, the following information:

(i) The potential sulfur emissions rate of the representative fuel mixture in ng/J heat input;

(ii) The method used to determine the potential sulfur emissions rate of each constituent of the mixture. For distillate oil and natural gas a fuel receipt or tariff sheet is acceptable;

(iii) The ratio of different fuels in the mixture; and

(iv) The owner or operator can petition the Administrator to approve monthly or quarterly sampling in place of weekly sampling.

(s) Facility specific NO_X standard for Cytec Industries Fortier Plant's C.AOG incinerator located in Westwego, Louisiana:

(1) *Definitions* .

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

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

Total inlet air is defined as the total amount of air introduced into the C.AOG incinerator for combustion of natural gas and chemical by-product waste and is equal to the sum of the air flow into the reducing zone and the air flow into the oxidation zone.

(2) *Standard for nitrogen oxides* . (i) When fossil fuel alone is combusted, the NO_X emission limit for fossil fuel in § 60.44b(a) applies.

(ii) When natural gas and chemical by-product waste are simultaneously combusted, the NO_X emission limit is 289 ng/J (0.67 lb/MMBtu) and a maximum of 81 percent of the total inlet air provided for combustion shall be provided to the reducing zone of the C.AOG incinerator.

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

(ii) The NO_X emission limit shall be determined by the compliance and performance test methods and procedures for NO_X in § 60.46b(i).

(iii) The monitoring of the NO_X emission limit shall be performed in accordance with § 60.48b.

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

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

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

(t) Facility-specific NO_X standard for Rohm and Haas Kentucky Incorporated's Boiler No. 100 located in Louisville, Kentucky:

(1) *Definitions* .

Air ratio control damper is defined as the part of the low NO_X burner that is adjusted to control the split of total combustion air delivered to the reducing and oxidation portions of the combustion flame.

Flue gas recirculation line is defined as the part of Boiler No. 100 that recirculates a portion of the boiler flue gas back into the combustion air.

(2) *Standard for nitrogen oxides* . (i) When fossil fuel alone is combusted, the NO_X emission limit for fossil fuel in § 60.44b(a) applies.

(ii) When fossil fuel and chemical by-product waste are simultaneously combusted, the NO_X emission limit is 473 ng/J (1.1 lb/MMBtu), and the air ratio control damper tee handle shall be at a minimum of 5 inches (12.7 centimeters) out of the boiler, and the flue gas recirculation line shall be operated at a minimum of 10 percent open as indicated by its valve opening position indicator.

(3) *Emission monitoring for nitrogen oxides* . (i) The air ratio control damper tee handle setting and the flue gas recirculation line valve opening position indicator setting shall be recorded during each 8-hour operating shift.

(ii) The NO_X emission limit shall be determined by the compliance and performance test methods and procedures for NO_X in § 60.46b.

(iii) The monitoring of the NO_X emission limit shall be performed in accordance with § 60.48b.

(4) *Reporting and recordkeeping requirements* . (i) The owner or operator of Boiler No. 100 shall submit a report on any excursions from the limits required by paragraph (b)(2) of this section to the Administrator with the quarterly report required by § 60.49b(i).

(ii) The owner or operator of Boiler No. 100 shall keep records of the monitoring required by paragraph (b)(3) of this section for a period of 2 years following the date of such record.

(iii) The owner of operator of Boiler No. 100 shall perform all the applicable reporting and recordkeeping requirements of § 60.49b.

(u) *Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia* . (1) This paragraph (u) applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia (“site”) and only to the natural gas-fired boilers installed as part of the powerhouse conversion required pursuant to 40 CFR 52.2454(g). The requirements of this paragraph shall apply, and the requirements of §§ 60.40b through 60.49b(t) shall not apply, to the natural gas-fired boilers installed pursuant to 40 CFR 52.2454(g).

(i) The site shall equip the natural gas-fired boilers with low NO_X technology.

(ii) The site shall install, calibrate, maintain, and operate a continuous monitoring and recording system for measuring NO_X emissions discharged to the atmosphere and opacity using a continuous emissions monitoring system or a predictive emissions monitoring system.

(iii) Within 180 days of the completion of the powerhouse conversion, as required by 40 CFR 52.2454, the site shall perform a performance test to quantify criteria pollutant emissions.

(2) [Reserved]

(v) The owner or operator of an affected facility may submit electronic quarterly reports for SO_2 and/or NO_X and/or opacity in lieu of submitting the written reports required under paragraphs (h), (i), (j), (k) or (l) of this section. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format.

(w) The reporting period for the reports required under this subpart is each 6 month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

(x) Facility-specific NO_X standard for Weyerhaeuser Company's No. 2 Power Boiler located in New Bern, North Carolina:

(1) *Standard for nitrogen oxides* . (i) When fossil fuel alone is combusted, the NO_X emission limit for fossil fuel in § 60.44b(a) applies.

(ii) When fossil fuel and chemical by-product waste are simultaneously combusted, the NO_X emission limit is 215 ng/J (0.5 lb/MMBtu).

(2) *Emission monitoring for nitrogen oxides* . (i) The NO_X emissions shall be determined by the compliance and performance test methods and procedures for NO_X in § 60.46b.

(ii) The monitoring of the NO_X emissions shall be performed in accordance with § 60.48b.

(3) *Reporting and recordkeeping requirements* . (i) The owner or operator of the No. 2 Power Boiler shall submit a report on any excursions from the limits required by paragraph (x)(2) of this section to the Administrator with the quarterly report required by § 60.49b(i).

(ii) The owner or operator of the No. 2 Power Boiler shall keep records of the monitoring required by paragraph (x)(3) of this section for a period of 2 years following the date of such record.

(iii) The owner or operator of the No. 2 Power Boiler shall perform all the applicable reporting and recordkeeping requirements of § 60.49b.

(y) Facility-specific NO_X standard for INEOS USA's AOGI located in Lima, Ohio:

(1) *Standard for* NO_X . (i) When fossil fuel alone is combusted, the NO_X emission limit for fossil fuel in § 60.44b(a) applies.

(ii) When fossil fuel and chemical byproduct/waste are simultaneously combusted, the NO_X emission limit is 645 ng/J (1.5 lb/MMBtu).

(2) *Emission monitoring for* NO_X . (i) The NO_X emissions shall be determined by the compliance and performance test methods and procedures for NO_X in § 60.46b.

(ii) The monitoring of the NO_X emissions shall be performed in accordance with § 60.48b.

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

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

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

[72 FR 32742, June 13, 2007, as amended at 74 FR 5089, Jan. 28, 2009; 77 FR 9461, Feb. 16, 2012]

Attachment F
Part 70 Operating Permit Renewal T001-31996-00005

[Downloaded from the eCFR on May 13, 2013]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

Part 60, Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Source: 71 FR 39172, July 11, 2006, unless otherwise noted.

What This Subpart Covers

§ 60.4200 Am I subject to this subpart?

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:

(i) 2007 or later, for engines that are not fire pump engines;

(ii) The model year listed in Table 3 to this subpart or later model year, for fire pump engines.

(2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are:

(i) Manufactured after April 1, 2006, and are not fire pump engines, or

(ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

(3) Owners and operators of any stationary CI ICE that are modified or reconstructed after July 11, 2005 and any person that modifies or reconstructs any stationary CI ICE after July 11, 2005.

(4) The provisions of § 60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005.

(b) The provisions of this subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.

(c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.

(d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR part 89, subpart J and 40 CFR part 94, subpart J, for

engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

(e) Owners and operators of facilities with CI ICE that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011]

Emission Standards for Manufacturers

§ 60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP)) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 89.112, 40 CFR 89.113, 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same model year and maximum engine power.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 through 2010 model year non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(c) Stationary CI internal combustion engine manufacturers must certify their 2011 model year and later non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power.

(d) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2007 model year through 2012 non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;

(2) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(3) Their 2013 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(e) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards and other requirements for new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.110, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(2) Their 2014 model year and later non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

(f) Notwithstanding the requirements in paragraphs (a) through (c) of this section, stationary non-emergency CI ICE identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part 94 or, if Table 1 to 40 CFR 1042.1 identifies 40 CFR part 1042 as being applicable, 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:

(1) Areas of Alaska not accessible by the Federal Aid Highway System (FAHS); and

(2) Marine offshore installations.

(g) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (e) of this section that are applicable to the model year, maximum engine power, and displacement of the reconstructed stationary CI ICE.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011]

§ 60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(1) For engines with a maximum engine power less than 37 KW (50 HP):

(i) The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants for model year 2007 engines, and

(ii) The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and table 2 to this subpart, for 2008 model year and later engines.

(2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.

(1) For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(2) For 2011 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants.

(c) [Reserved]

(d) Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power.

(e) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE that are not fire pump engines to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2007 model year through 2012 emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;

(2) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder;

(3) Their 2013 model year emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder; and

(4) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(f) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE to the certification emission standards and other requirements applicable to Tier 3 new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(2) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power less than 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(g) Notwithstanding the requirements in paragraphs (a) through (d) of this section, stationary emergency CI internal combustion engines identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part 94 or, if Table 2 to 40 CFR 1042.101 identifies Tier 3 standards as being applicable, the requirements applicable to Tier 3 engines in 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:

(1) Areas of Alaska not accessible by the FAHS; and

(2) Marine offshore installations.

(h) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (f) of this section that are applicable to the model year, maximum engine power and displacement of the reconstructed emergency stationary CI ICE.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37968, June 28, 2011]

§ 60.4203 How long must my engines meet the emission standards if I am a manufacturer of stationary CI internal combustion engines?

Engines manufactured by stationary CI internal combustion engine manufacturers must meet the emission standards as required in §§ 60.4201 and 60.4202 during the certified emissions life of the engines.

[76 FR 37968, June 28, 2011]

Emission Standards for Owners and Operators

§ 60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in § 60.4201 for their 2007 model year and later stationary CI ICE, as applicable.

(c) Owners and operators of non-emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the following requirements:

(1) For engines installed prior to January 1, 2012, limit the emissions of NOX in the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 grams per kilowatt-hour (g/KW-hr) (12.7 grams per horsepower-hr (g/HP-hr)) when maximum engine speed is less than 130 revolutions per minute (rpm);

(ii) $45 \cdot n^{-0.2}$ g/KW-hr ($34 \cdot n^{-0.2}$ g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012 and before January 1, 2016, limit the emissions of NOX in the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $44 \cdot n^{-0.23}$ g/KW-hr ($33 \cdot n^{-0.23}$ g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) For engines installed on or after January 1, 2016, limit the emissions of NOX in the stationary CI internal combustion engine exhaust to the following:

(i) 3.4 g/KW-hr (2.5 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $9.0 \cdot n^{-0.20}$ g/KW-hr ($6.7 \cdot n^{-0.20}$ g/HP-hr) where n (maximum engine speed) is 130 or more but less than 2,000 rpm; and

(iii) 2.0 g/KW-hr (1.5 g/HP-hr) where maximum engine speed is greater than or equal to 2,000 rpm.

(4) Reduce particulate matter (PM) emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

(d) Owners and operators of non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the not-to-exceed (NTE) standards as indicated in § 60.4212.

(e) Owners and operators of any modified or reconstructed non-emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed non-emergency stationary CI ICE that are specified in paragraphs (a) through (d) of this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37968, June 28, 2011]

§ 60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with the emission standards in Table 1 to this subpart. Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in § 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

(c) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.

(d) Owners and operators of emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in this section.

(1) For engines installed prior to January 1, 2012, limit the emissions of NOX in the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $45 \cdot n^{-0.2}$ g/KW-hr ($34 \cdot n^{-0.2}$ g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/kW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012, limit the emissions of NOX in the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $44 \cdot n^{-0.23}$ g/KW-hr ($33 \cdot n^{-0.23}$ g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).

(e) Owners and operators of emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the NTE standards as indicated in § 60.4212.

(f) Owners and operators of any modified or reconstructed emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed CI ICE that are specified in paragraphs (a) through (e) of this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

§ 60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§ 60.4204 and 60.4205 over the entire life of the engine.

[76 FR 37969, June 28, 2011]

Fuel Requirements for Owners and Operators

§ 60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?

(a) Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

(c) [Reserved]

(d) Beginning June 1, 2012, owners and operators of stationary CI ICE subject to this subpart with a displacement of greater than or equal to 30 liters per cylinder are no longer subject to the requirements of paragraph (a) of this section, and must use fuel that meets a maximum per-gallon sulfur content of 1,000 parts per million (ppm).

(e) Stationary CI ICE that have a national security exemption under § 60.4200(d) are also exempt from the fuel requirements in this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011; 78 FR 6695, Jan. 30, 2013]

Other Requirements for Owners and Operators

§ 60.4208 What is the deadline for importing or installing stationary CI ICE produced in previous model years?

(a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.

(b) After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.

(c) After December 31, 2014, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.

(d) After December 31, 2013, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.

(e) After December 31, 2012, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.

(f) After December 31, 2016, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency engines.

(g) After December 31, 2018, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power greater than or equal to 600 KW (804 HP) and less than 2,000 KW (2,680 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that do not meet the applicable requirements for 2017 model year non-emergency engines.

(h) In addition to the requirements specified in §§ 60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (g) of this section after the dates specified in paragraphs (a) through (g) of this section.

(i) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

§ 60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in § 60.4211.

(a) If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.

(b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in § 60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

Compliance Requirements

§ 60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of less than 10 liters per cylinder to the emission standards specified in § 60.4201(a) through (c) and § 60.4202(a), (b) and (d) using the certification procedures required in 40 CFR part 89, subpart B, or 40 CFR part 1039, subpart C, as applicable, and must test their engines as specified in those parts. For the purposes of this subpart, engines certified to the standards in table 1 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89. For the purposes of this subpart, engines certified to the standards in table 4 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89, except that engines with NFPA nameplate power of less than 37 KW (50 HP) certified to model year 2011 or later standards shall be subject to the same requirements as engines certified to the standards in 40 CFR part 1039.

(b) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the emission standards specified in § 60.4201(d) and (e) and § 60.4202(e) and (f) using the certification procedures required in 40 CFR part 94, subpart C, or 40 CFR part 1042, subpart C, as applicable, and must test their engines as specified in 40 CFR part 94 or 1042, as applicable.

(c) Stationary CI internal combustion engine manufacturers must meet the requirements of 40 CFR 1039.120, 1039.125, 1039.130, and 1039.135, and 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1039. Stationary CI internal combustion engine manufacturers must meet the corresponding provisions of 40 CFR part 89, 40 CFR part 94 or 40 CFR part 1042 for engines that would be covered by that part if they were nonroad (including marine) engines. Labels on such engines must refer to stationary engines, rather than or in addition to nonroad or marine engines, as appropriate. Stationary CI internal combustion engine manufacturers must label their engines according to paragraphs (c)(1) through (3) of this section.

(1) Stationary CI internal combustion engines manufactured from January 1, 2006 to March 31, 2006 (January 1, 2006 to June 30, 2006 for fire pump engines), other than those that are part of certified engine families under the nonroad CI engine regulations, must be labeled according to 40 CFR 1039.20.

(2) Stationary CI internal combustion engines manufactured from April 1, 2006 to December 31, 2006 (or, for fire pump engines, July 1, 2006 to December 31 of the year preceding the year listed in table 3 to this subpart) must be labeled according to paragraphs (c)(2)(i) through (iii) of this section:

(i) Stationary CI internal combustion engines that are part of certified engine families under the nonroad regulations must meet the labeling requirements for nonroad CI engines, but do not have to meet the labeling requirements in 40 CFR 1039.20.

(ii) Stationary CI internal combustion engines that meet Tier 1 requirements (or requirements for fire pumps) under this subpart, but do not meet the requirements applicable to nonroad CI engines must be labeled according to 40 CFR 1039.20. The engine manufacturer may add language to the label clarifying that the engine meets Tier 1 requirements (or requirements for fire pumps) of this subpart.

(iii) Stationary CI internal combustion engines manufactured after April 1, 2006 that do not meet Tier 1 requirements of this subpart, or fire pumps engines manufactured after July 1, 2006 that do not meet the requirements for fire pumps under this subpart, may not be used in the U.S. If any such engines are manufactured in the U.S. after April 1, 2006 (July 1, 2006 for fire pump engines), they must be exported or must be brought into compliance with the appropriate standards prior to initial operation. The export provisions of 40 CFR 1068.230 would apply to engines for export and the manufacturers must label such engines according to 40 CFR 1068.230.

(3) Stationary CI internal combustion engines manufactured after January 1, 2007 (for fire pump engines, after January 1 of the year listed in table 3 to this subpart, as applicable) must be labeled according to paragraphs (c)(3)(i) through (iii) of this section.

(i) Stationary CI internal combustion engines that meet the requirements of this subpart and the corresponding requirements for nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR parts 89, 94, 1039 or 1042, as appropriate.

(ii) Stationary CI internal combustion engines that meet the requirements of this subpart, but are not certified to the standards applicable to nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR parts 89, 94, 1039 or 1042, as appropriate, but the words “stationary” must be included instead of “nonroad” or “marine” on the label. In addition, such engines must be labeled according to 40 CFR 1039.20.

(iii) Stationary CI internal combustion engines that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230.

(d) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under 40 CFR parts 89, 94, 1039 or 1042 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family and/or may include any

such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts.

(e) Manufacturers of engine families discussed in paragraph (d) of this section may meet the labeling requirements referred to in paragraph (c) of this section for stationary CI ICE by either adding a separate label containing the information required in paragraph (c) of this section or by adding the words “and stationary” after the word “nonroad” or “marine,” as appropriate, to the label.

(f) Starting with the model years shown in table 5 to this subpart, stationary CI internal combustion engine manufacturers must add a permanent label stating that the engine is for stationary emergency use only to each new emergency stationary CI internal combustion engine greater than or equal to 19 KW (25 HP) that meets all the emission standards for emergency engines in § 60.4202 but does not meet all the emission standards for non-emergency engines in § 60.4201. The label must be added according to the labeling requirements specified in 40 CFR 1039.135(b). Engine manufacturers must specify in the owner's manual that operation of emergency engines is limited to emergency operations and required maintenance and testing.

(g) Manufacturers of fire pump engines may use the test cycle in table 6 to this subpart for testing fire pump engines and may test at the NFPA certified nameplate HP, provided that the engine is labeled as “Fire Pump Applications Only”.

(h) Engine manufacturers, including importers, may introduce into commerce uncertified engines or engines certified to earlier standards that were manufactured before the new or changed standards took effect until inventories are depleted, as long as such engines are part of normal inventory. For example, if the engine manufacturers' normal industry practice is to keep on hand a one-month supply of engines based on its projected sales, and a new tier of standards starts to apply for the 2009 model year, the engine manufacturer may manufacture engines based on the normal inventory requirements late in the 2008 model year, and sell those engines for installation. The engine manufacturer may not circumvent the provisions of §§ 60.4201 or 60.4202 by stockpiling engines that are built before new or changed standards take effect. Stockpiling of such engines beyond normal industry practice is a violation of this subpart.

(i) The replacement engine provisions of 40 CFR 89.1003(b)(7), 40 CFR 94.1103(b)(3), 40 CFR 94.1103(b)(4) and 40 CFR 1068.240 are applicable to stationary CI engines replacing existing equipment that is less than 15 years old.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

§ 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:

(1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;

(2) Change only those emission-related settings that are permitted by the manufacturer; and

(3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

(b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in §§ 60.4204(a) or 60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in § 60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.

(1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

(2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.

(3) Keeping records of engine manufacturer data indicating compliance with the standards.

(4) Keeping records of control device vendor data indicating compliance with the standards.

(5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in § 60.4212, as applicable.

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in § 60.4204(b) or § 60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in § 60.4205(c), you must comply by purchasing an engine certified to the emission standards in § 60.4204(b), or § 60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.

(d) If you are an owner or operator and must comply with the emission standards specified in § 60.4204(c) or § 60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.

(1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in § 60.4213.

(2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(i) through (v) of this section.

(i) Identification of the specific parameters you propose to monitor continuously;

(ii) A discussion of the relationship between these parameters and NOX and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit NOX and PM emissions;

(iii) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

(iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(3) For non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in § 60.4213.

(e) If you are an owner or operator of a modified or reconstructed stationary CI internal combustion engine and must comply with the emission standards specified in § 60.4204(e) or § 60.4205(f), you must demonstrate compliance according to one of the methods specified in paragraphs (e)(1) or (2) of this section.

(1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in § 60.4204(e) or § 60.4205(f), as applicable.

(2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in § 60.4212 or § 60.4213, as appropriate. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.

(f) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see § 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the

engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

(ii) [Reserved]

(g) If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:

(1) If you are an owner or operator of a stationary CI internal combustion engine with maximum engine power less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

(2) If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

(3) If you are an owner or operator of a stationary CI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37970, June 28, 2011; 78 FR 6695, Jan. 30, 2013]

Testing Requirements for Owners and Operators

§ 60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (e) of this section.

(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F, for stationary CI ICE with a displacement of less than 10 liters per cylinder, and according to 40 CFR part 1042, subpart F, for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

(b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.

(c) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

$$\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \qquad \text{(Eq. 1)}$$

Where:

STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in § 60.4213 of this subpart, as appropriate.

(d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in § 60.4204(a), § 60.4205(a), or § 60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in § 60.4204(a), § 60.4205(a), or § 60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in § 60.4204(a), § 60.4205(a), or § 60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in § 60.4204(a), § 60.4205(a), or § 60.4205(c) may follow the testing procedures specified in § 60.4213, as appropriate.

(e) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1042 must not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1042.101(c).

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

§ 60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (f) of this section.

(a) Each performance test must be conducted according to the requirements in § 60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in § 60.8(c).

(c) You must conduct three separate test runs for each performance test required in this section, as specified in § 60.8(f). Each test run must last at least 1 hour.

(d) To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.

(1) You must use Equation 2 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \qquad \text{(Eq. 2)}$$

Where:

Ci = concentration of NOX or PM at the control device inlet,

Co = concentration of NOX or PM at the control device outlet, and

R = percent reduction of NOX or PM emissions.

(2) You must normalize the NOX or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen (O2) using Equation 3 of this section, or an equivalent percent carbon dioxide (CO2) using the procedures described in paragraph (d)(3) of this section.

$$C_{adj} = C_d \frac{5.9}{20.9 - \% O_2} \qquad \text{(Eq. 3)}$$

Where:

Cadj = Calculated NOX or PM concentration adjusted to 15 percent O2 .

Cd = Measured concentration of NOX or PM, uncorrected.

5.9 = 20.9 percent O2 −15 percent O2 , the defined O2 correction value, percent.

%O2 = Measured O2 concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent O2 and CO2 concentration is measured in lieu of O2 concentration measurement, a CO2 correction factor is needed. Calculate the CO2 correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.

(i) Calculate the fuel-specific Fo value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209 F_d}{F_c} \qquad \text{(Eq. 4)}$$

Where:

Fo = Fuel factor based on the ratio of O2 volume to the ultimate CO2 volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is O2 , percent/100.

Fd = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm3 /J (dscf/106 Btu).

Fc = Ratio of the volume of CO2 produced to the gross calorific value of the fuel from Method 19, dsm3 /J (dscf/106 Btu).

(ii) Calculate the CO2 correction factor for correcting measurement data to 15 percent O2 , as follows:

$$X_{CO_2} = \frac{5.9}{F_c} \qquad \text{(Eq. 5)}$$

Where:

XCO2 = CO2 correction factor, percent.

5.9 = 20.9 percent O2 −15 percent O2 , the defined O2 correction value, percent.

(iii) Calculate the NOX and PM gas concentrations adjusted to 15 percent O2 using CO2 as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \qquad \text{(Eq. 6)}$$

Where:

Cadj = Calculated NOX or PM concentration adjusted to 15 percent O2 .

Cd = Measured concentration of NOX or PM, uncorrected.

%CO2 = Measured CO2 concentration, dry basis, percent.

(e) To determine compliance with the NOX mass per unit output emission limitation, convert the concentration of NOX in the engine exhaust using Equation 7 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{\text{KW-hour}} \qquad \text{(Eq. 7)}$$

Where:

ER = Emission rate in grams per KW-hour.

Cd = Measured NOX concentration in ppm.

1.912x10−3 = Conversion constant for ppm NOX to grams per standard cubic meter at 25 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Brake work of the engine, in KW-hour.

(f) To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

$$ER = \frac{C_{adj} \times Q \times T}{\text{KW-hour}} \qquad \text{(Eq. 8)}$$

Where:

ER = Emission rate in grams per KW-hour.

Cadj = Calculated PM concentration in grams per standard cubic meter.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Energy output of the engine, in KW.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

Notification, Reports, and Records for Owners and Operators

§ 60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of non-emergency stationary CI ICE that are greater than 2,237 KW (3,000 HP), or have a displacement of greater than or equal to 10 liters per cylinder, or are pre-2007 model year engines that are greater than 130 KW (175 HP) and not certified, must meet the requirements of paragraphs (a)(1) and (2) of this section.

(1) Submit an initial notification as required in § 60.7(a)(1). The notification must include the information in paragraphs (a)(1)(i) through (v) of this section.

(i) Name and address of the owner or operator;

(ii) The address of the affected source;

(iii) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(iv) Emission control equipment; and

(v) Fuel used.

(2) Keep records of the information in paragraphs (a)(2)(i) through (iv) of this section.

(i) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(ii) Maintenance conducted on the engine.

(iii) If the stationary CI internal combustion is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.

(iv) If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.

(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

(c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

(d) If you own or operate an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 60.4211(f)(2)(ii) and (iii) or that operates for the purposes specified in § 60.4211(f)(3)(i), you must submit an annual report according to the requirements in paragraphs (d)(1) through (3) of this section.

(1) The report must contain the following information:

(i) Company name and address where the engine is located.

(ii) Date of the report and beginning and ending dates of the reporting period.

(iii) Engine site rating and model year.

(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(v) Hours operated for the purposes specified in § 60.4211(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in § 60.4211(f)(2)(ii) and (iii).

(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in § 60.4211(f)(2)(ii) and (iii).

(vii) Hours spent for operation for the purposes specified in § 60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in § 60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in § 60.4.

[71 FR 39172, July 11, 2006, as amended at 78 FR 6696, Jan. 30, 2013]

Special Requirements

§ 60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?

(a) Stationary CI ICE with a displacement of less than 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the applicable emission standards in §§ 60.4202 and 60.4205.

(b) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are not required to meet the fuel requirements in § 60.4207.

(c) Stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the following emission standards:

(1) For engines installed prior to January 1, 2012, limit the emissions of NOX in the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $45 \cdot n^{-0.2}$ g/KW-hr ($34 \cdot n^{-0.2}$ g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012, limit the emissions of NOX in the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $44 \cdot n^{-0.23}$ g/KW-hr ($33 \cdot n^{-0.23}$ g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

§ 60.4216 What requirements must I meet for engines used in Alaska?

(a) Prior to December 1, 2010, owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder located in areas of Alaska not accessible by the FAHS should refer to 40 CFR part 69 to determine the diesel fuel requirements applicable to such engines.

(b) Except as indicated in paragraph (c) of this section, manufacturers, owners and operators of stationary CI ICE with a displacement of less than 10 liters per cylinder located in areas of Alaska not accessible by the FAHS may meet the requirements of this subpart by manufacturing and installing engines meeting the requirements of 40 CFR parts 94 or 1042, as appropriate, rather than the otherwise applicable requirements of 40 CFR parts 89 and 1039, as indicated in sections §§ 60.4201(f) and 60.4202(g) of this subpart.

(c) Manufacturers, owners and operators of stationary CI ICE that are located in areas of Alaska not accessible by the FAHS may choose to meet the applicable emission standards for emergency engines in § 60.4202 and § 60.4205, and not those for non-emergency engines in § 60.4201 and § 60.4204, except that for 2014 model year and later non-emergency CI ICE, the owner or operator of any such engine that was not certified as meeting Tier 4

PM standards, must meet the applicable requirements for PM in § 60.4201 and § 60.4204 or install a PM emission control device that achieves PM emission reductions of 85 percent, or 60 percent for engines with a displacement of greater than or equal to 30 liters per cylinder, compared to engine-out emissions.

(d) The provisions of § 60.4207 do not apply to owners and operators of pre-2014 model year stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS.

(e) The provisions of § 60.4208(a) do not apply to owners and operators of stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS until after December 31, 2009.

(f) The provisions of this section and § 60.4207 do not prevent owners and operators of stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS from using fuels mixed with used lubricating oil, in volumes of up to 1.75 percent of the total fuel. The sulfur content of the used lubricating oil must be less than 200 parts per million. The used lubricating oil must meet the on-specification levels and properties for used oil in 40 CFR 279.11.

[76 FR 37971, June 28, 2011]

§ 60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?

Owners and operators of stationary CI ICE that do not use diesel fuel may petition the Administrator for approval of alternative emission standards, if they can demonstrate that they use a fuel that is not the fuel on which the manufacturer of the engine certified the engine and that the engine cannot meet the applicable standards required in § 60.4204 or § 60.4205 using such fuels and that use of such fuel is appropriate and reasonably necessary, considering cost, energy, technical feasibility, human health and environmental, and other factors, for the operation of the engine.

[76 FR 37972, June 28, 2011]

General Provisions

§ 60.4218 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§ 60.1 through 60.19 apply to you.

Definitions

§ 60.4219 What definitions apply to this subpart?

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

Certified emissions life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for certified emissions life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for certified emissions life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 94.9(a).

Combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Date of manufacture means one of the following things:

(1) For freshly manufactured engines and modified engines, date of manufacture means the date the engine is originally produced.

(2) For reconstructed engines, date of manufacture means the date the engine was originally produced, except as specified in paragraph (3) of this definition.

(3) Reconstructed engines are assigned a new date of manufacture if the fixed capital cost of the new and refurbished components exceeds 75 percent of the fixed capital cost of a comparable entirely new facility. An engine that is produced from a previously used engine block does not retain the date of manufacture of the engine in which the engine block was previously used if the engine is produced using all new components except for the engine block. In these cases, the date of manufacture is the date of reconstruction or the date the new engine is produced.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.

Diesel particulate filter means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

Emergency stationary internal combustion engine means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary ICE must comply with the requirements specified in § 60.4211(f) in order to be considered emergency stationary ICE. If the engine does not comply with the requirements specified in § 60.4211(f), then it is not considered to be an emergency stationary ICE under this subpart.

(1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc.

(2) The stationary ICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in § 60.4211(f).

(3) The stationary ICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in § 60.4211(f)(2)(ii) or (iii) and § 60.4211(f)(3)(i).

Engine manufacturer means the manufacturer of the engine. See the definition of “manufacturer” in this section.

Fire pump engine means an emergency stationary internal combustion engine certified to NFPA requirements that is used to provide power to pump water for fire suppression or protection.

Freshly manufactured engine means an engine that has not been placed into service. An engine becomes freshly manufactured when it is originally produced.

Installed means the engine is placed and secured at the location where it is intended to be operated.

Manufacturer has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for sale or resale.

Maximum engine power means maximum engine power as defined in 40 CFR 1039.801.

Model year means the calendar year in which an engine is manufactured (see “date of manufacture”), except as follows:

(1) Model year means the annual new model production period of the engine manufacturer in which an engine is manufactured (see “date of manufacture”), if the annual new model production period is different than the calendar year and includes January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year.

(2) For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was manufactured (see “date of manufacture”).

Other internal combustion engine means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

Reciprocating internal combustion engine means any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work.

Rotary internal combustion engine means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

Spark ignition means relating to a gasoline, natural gas, or liquefied petroleum gas fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle, aircraft, or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

Subpart means 40 CFR part 60, subpart IIII.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37972, June 28, 2011; 78 FR 6696, Jan. 30, 2013]

Table 1 to Subpart IIII of Part 60—Emission Standards for Stationary Pre-2007 Model Year Engines With a Displacement of <10 Liters per Cylinder and 2007-2010 Model Year Engines >2,237 KW (3,000 HP) and With a Displacement of <10 Liters per Cylinder

[As stated in §§ 60.4201(b), 60.4202(b), 60.4204(a), and 60.4205(a), you must comply with the following emission standards]

Maximum engine power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007-2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)				
	NMHC + NO_X	HC	NO_X	CO	PM
KW<8 (HP<11)	10.5 (7.8)			8.0 (6.0)	1.0 (0.75)
8≤KW<19 (11≤HP<25)	9.5 (7.1)			6.6 (4.9)	0.80 (0.60)
19≤KW<37 (25≤HP<50)	9.5 (7.1)			5.5 (4.1)	0.80 (0.60)
37≤KW<56 (50≤HP<75)			9.2 (6.9)		

Maximum engine power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007-2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)				
	NMHC + NO_X	HC	NO_X	CO	PM
56≤KW<75 (75≤HP<100)			9.2 (6.9)		
75≤KW<130 (100≤HP<175)			9.2 (6.9)		
130≤KW<225 (175≤HP<300)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
225≤KW<450 (300≤HP<600)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
450≤KW≤560 (600≤HP≤750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
KW>560 (HP>750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

Table 2 to Subpart IIII of Part 60—Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE <37 KW (50 HP) With a Displacement of <10 Liters per Cylinder

[As stated in § 60.4202(a)(1), you must comply with the following emission standards]

Engine power	Emission standards for 2008 model year and later emergency stationary CI ICE <37 KW (50 HP) with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)			
	Model year(s)	NO_X+ NMHC	CO	PM
KW<8 (HP<11)	2008+	7.5 (5.6)	8.0 (6.0)	0.40 (0.30)
8≤KW<19 (11≤HP<25)	2008+	7.5 (5.6)	6.6 (4.9)	0.40 (0.30)
19≤KW<37 (25≤HP<50)	2008+	7.5 (5.6)	5.5 (4.1)	0.30 (0.22)

Table 3 to Subpart IIII of Part 60—Certification Requirements for Stationary Fire Pump Engines

As stated in § 60.4202(d), you must certify new stationary fire pump engines beginning with the following model years:

Engine power	Starting model year engine manufacturers must certify new stationary fire pump engines according to § 60.4202(d)[1]
KW<75 (HP<100)	2011
75≤KW<130 (100≤HP<175)	2010
130≤KW≤560 (175≤HP≤750)	2009
KW>560 (HP>750)	2008

[1]Manufacturers of fire pump stationary CI ICE with a maximum engine power greater than or equal to 37 kW (50 HP) and less than 450 KW (600 HP) and a rated speed of greater than 2,650 revolutions per minute (rpm) are not required to certify such engines until three model years following the model year indicated in this Table 3 for engines in the applicable engine power category.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37972, June 28, 2011]

Table 4 to Subpart IIII of Part 60—Emission Standards for Stationary Fire Pump Engines

[As stated in §§ 60.4202(d) and 60.4205(c), you must comply with the following emission standards for stationary fire pump engines]

Maximum engine power	Model year(s)	NMHC + NO_X	CO	PM
KW<8 (HP<11)	2010 and earlier	10.5 (7.8)	8.0 (6.0)	1.0 (0.75)
	2011+	7.5 (5.6)		0.40 (0.30)
8≤KW<19 (11≤HP<25)	2010 and earlier	9.5 (7.1)	6.6 (4.9)	0.80 (0.60)
	2011+	7.5 (5.6)		0.40 (0.30)
19≤KW<37 (25≤HP<50)	2010 and earlier	9.5 (7.1)	5.5 (4.1)	0.80 (0.60)
	2011+	7.5 (5.6)		0.30 (0.22)
37≤KW<56 (50≤HP<75)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+ [1]	4.7 (3.5)		0.40 (0.30)
56≤KW<75 (75≤HP<100)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+ [1]	4.7 (3.5)		0.40 (0.30)
75≤KW<130 (100≤HP<175)	2009 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2010+ [2]	4.0 (3.0)		0.30 (0.22)
130≤KW<225 (175≤HP<300)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+ [3]	4.0 (3.0)		0.20 (0.15)
225≤KW<450 (300≤HP<600)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+ [3]	4.0 (3.0)		0.20 (0.15)
450≤KW≤560 (600≤HP≤750)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+	4.0 (3.0)		0.20 (0.15)
KW>560 (HP>750)	2007 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2008+	6.4 (4.8)		0.20 (0.15)

[1] For model years 2011-2013, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.

[2] For model years 2010-2012, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

[3] In model years 2009-2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.

Table 5 to Subpart IIII of Part 60—Labeling and Recordkeeping Requirements for New Stationary Emergency Engines

[You must comply with the labeling requirements in § 60.4210(f) and the recordkeeping requirements in § 60.4214(b) for new emergency stationary CI ICE beginning in the following model years:]

Engine power	Starting model year
19≤KW<56 (25≤HP<75)	2013
56≤KW<130 (75≤HP<175)	2012
KW≥130 (HP≥175)	2011

Table 6 to Subpart IIII of Part 60—Optional 3-Mode Test Cycle for Stationary Fire Pump Engines

[As stated in § 60.4210(g), manufacturers of fire pump engines may use the following test cycle for testing fire pump engines:]

Mode No.	Engine speed [1]	Torque (percent) [2]	Weighting factors
1	Rated	100	0.30
2	Rated	75	0.50
3	Rated	50	0.20

[1] Engine speed: ±2 percent of point.

[2] Torque: NFPA certified nameplate HP for 100 percent point. All points should be ±2 percent of engine percent load value.

Table 7 to Subpart IIII of Part 60—Requirements for Performance Tests for Stationary CI ICE With a Displacement of ≥30 Liters per Cylinder

[As stated in § 60.4213, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of ≥30 liters per cylinder:]

For each	Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary CI internal combustion engine with a displacement of ≥30 liters per cylinder	a. Reduce NO_X emissions by 90 percent or more	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O_2 at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O_2 concentration must be made at the same time as the measurements for NO_X concentration.

For each	Complying with the requirement to	You must	Using	According to the following requirements
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and,	(3) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see § 60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurements for NO_Xconcentration.
		iv. Measure NO_Xat the inlet and outlet of the control device	(4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see § 60.17)	(d) NO_Xconcentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	b. Limit the concentration of NO_Xin the stationary CI internal combustion engine exhaust.	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O_2concentration of the stationary internal combustion engine exhaust at the sampling port location; and,	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O_2concentration must be made at the same time as the measurement for NO_Xconcentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and,	(3) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see § 60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurement for NO_Xconcentration.
		iv. Measure NO_Xat the exhaust of the stationary internal combustion engine	(4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see § 60.17)	(d) NO_Xconcentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	c. Reduce PM emissions by 60 percent or more	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O_2at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O_2concentration must be made at the same time as the measurements for PM concentration.

For each	Complying with the requirement to	You must	Using	According to the following requirements
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and	(3) Method 4 of 40 CFR part 60, appendix A	(c) Measurements to determine and moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the inlet and outlet of the control device	(4) Method 5 of 40 CFR part 60, appendix A	(d) PM concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	d. Limit the concentration of PM in the stationary CI internal combustion engine exhaust	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O_2concentration of the stationary internal combustion engine exhaust at the sampling port location; and	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O_2concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(3) Method 4 of 40 CFR part 60, appendix A	(c) Measurements to determine moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the exhaust of the stationary internal combustion engine	(4) Method 5 of 40 CFR part 60, appendix A	(d) PM concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

Table 8 to Subpart IIII of Part 60—Applicability of General Provisions to Subpart IIII

[As stated in § 60.4218, you must comply with the following applicable General Provisions:]

General Provisions citation	Subject of citation	Applies to subpart	Explanation
§ 60.1	General applicability of the General Provisions	Yes	
§ 60.2	Definitions	Yes	Additional terms defined in § 60.4219.
§ 60.3	Units and abbreviations	Yes	
§ 60.4	Address	Yes	
§ 60.5	Determination of construction or modification	Yes	
§ 60.6	Review of plans	Yes	

General Provisions citation	Subject of citation	Applies to subpart	Explanation
§ 60.7	Notification and Recordkeeping	Yes	Except that § 60.7 only applies as specified in § 60.4214(a).
§ 60.8	Performance tests	Yes	Except that § 60.8 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder and engines that are not certified.
§ 60.9	Availability of information	Yes	
§ 60.10	State Authority	Yes	
§ 60.11	Compliance with standards and maintenance requirements	No	Requirements are specified in subpart IIII.
§ 60.12	Circumvention	Yes	
§ 60.13	Monitoring requirements	Yes	Except that § 60.13 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder.
§ 60.14	Modification	Yes	
§ 60.15	Reconstruction	Yes	
§ 60.16	Priority list	Yes	
§ 60.17	Incorporations by reference	Yes	
§ 60.18	General control device requirements	No	
§ 60.19	General notification and reporting requirements	Yes	

Attachment G
Part 70 Operating Permit Renewal T001-31996-00005

[Downloaded from the eCFR on May 13, 2013]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

Part 63, Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

SOURCE: 69 FR 33506, June 15, 2004, unless otherwise noted.

What This Subpart Covers

§ 63.6580 What is the purpose of subpart ZZZZ?

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

[73 FR 3603, Jan. 18, 2008]

§ 63.6585 Am I subject to this subpart?

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

(a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

(b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

(c) An area source of HAP emissions is a source that is not a major source.

(d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.

(e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.

(f) The emergency stationary RICE listed in paragraphs (f)(1) through (3) of this section are not subject to this subpart. The stationary RICE must meet the definition of an emergency stationary RICE in § 63.6675, which includes operating according to the provisions specified in § 63.6640(f).

(1) Existing residential emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in § 63.6640(f)(4)(ii).

(2) Existing commercial emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in § 63.6640(f)(4)(ii).

(3) Existing institutional emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in § 63.6640(f)(4)(ii).

[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008; 78 FR 6700, Jan. 30, 2013]

§ 63.6590 What parts of my plant does this subpart cover?

This subpart applies to each affected source.

(a) *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) *Existing stationary RICE.*

(i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

(ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(2) *New stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(3) *Reconstructed stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in § 63.2 and reconstruction is commenced on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in § 63.2 and reconstruction is commenced on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in § 63.2 and reconstruction is commenced on or after June 12, 2006.

(b) *Stationary RICE subject to limited requirements.* (1) An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of § 63.6645(f).

(i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 63.6640(f)(2)(ii) and (iii).

(ii) The stationary RICE is a new or reconstructed limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(2) A new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of § 63.6645(f) and the requirements of §§ 63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.

(3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:

(i) Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(ii) Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 63.6640(f)(2)(ii) and (iii).

(iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(v) Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

(1) A new or reconstructed stationary RICE located at an area source;

(2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;

(4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010; 75 FR 51588, Aug. 20, 2010; 78 FR 6700, Jan. 30, 2013]

§ 63.6595 When do I have to comply with this subpart?

(a) *Affected sources.* (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations, operating limitations and other requirements no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than October 19, 2013.

(2) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.

(3) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(4) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(5) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(6) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(7) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(b) *Area sources that become major sources.* If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.

(1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.

(2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.

(c) If you own or operate an affected source, you must meet the applicable notification requirements in § 63.6645 and in 40 CFR part 63, subpart A.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 78 FR 6701, Jan. 30, 2013]

Emission and Operating Limitations

§ 63.6600 What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in § 63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing, new, or reconstructed spark ignition 4SRB stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 1a to this subpart and the operating limitations in Table 1b to this subpart which apply to you.

(b) If you own or operate a new or reconstructed 2SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, a new or reconstructed 4SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, or a new or reconstructed CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

(c) If you own or operate any of the following stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the emission limitations in Tables 1a, 2a, 2c, and 2d to this subpart or operating limitations in Tables 1b and 2b to this subpart: an existing 2SLB stationary RICE; an existing 4SLB stationary RICE; a stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; an emergency stationary RICE; or a limited use stationary RICE.

(d) If you own or operate an existing non-emergency stationary CI RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010]

§ 63.6601 What emission limitations must I meet if I own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in § 63.6620 and Table 4 to this subpart. If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at major source of HAP emissions manufactured on or after January 1, 2008, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

§ 63.6602 What emission limitations and other requirements must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?

If you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations and other requirements in Table 2c to this subpart which apply to you. Compliance with the numerical emission limitations established in this subpart is

based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in § 63.6620 and Table 4 to this subpart.

[78 FR 6701, Jan. 30, 2013]

§ 63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in § 63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart that apply to you.

(b) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meets either paragraph (b)(1) or (2) of this section, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. Existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meet either paragraph (b)(1) or (2) of this section must meet the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart.

(1) The area source is located in an area of Alaska that is not accessible by the Federal Aid Highway System (FAHS).

(2) The stationary RICE is located at an area source that meets paragraphs (b)(2)(i), (ii), and (iii) of this section.

(i) The only connection to the FAHS is through the Alaska Marine Highway System (AMHS), or the stationary RICE operation is within an isolated grid in Alaska that is not connected to the statewide electrical grid referred to as the Alaska Railbelt Grid.

(ii) At least 10 percent of the power generated by the stationary RICE on an annual basis is used for residential purposes.

(iii) The generating capacity of the area source is less than 12 megawatts, or the stationary RICE is used exclusively for backup power for renewable energy.

(c) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located on an offshore vessel that is an area source of HAP and is a nonroad vehicle that is an Outer Continental Shelf (OCS) source as defined in 40 CFR 55.2, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. You must meet all of the following management practices:

(1) Change oil every 1,000 hours of operation or annually, whichever comes first. Sources have the option to utilize an oil analysis program as described in § 63.6625(i) in order to extend the specified oil change requirement.

(2) Inspect and clean air filters every 750 hours of operation or annually, whichever comes first, and replace as necessary.

(3) Inspect fuel filters and belts, if installed, every 750 hours of operation or annually, whichever comes first, and replace as necessary.

(4) Inspect all flexible hoses every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.

(d) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and that is subject to an enforceable state or local standard that requires the engine to be replaced no later than June

1, 2018, you may until January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018, choose to comply with the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart instead of the applicable emission limitations in Table 2d, operating limitations in Table 2b, and crankcase ventilation system requirements in § 63.6625(g). You must comply with the emission limitations in Table 2d and operating limitations in Table 2b that apply for non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018. You must also comply with the crankcase ventilation system requirements in § 63.6625(g) by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018.

(e) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 3 (Tier 2 for engines above 560 kilowatt (kW)) emission standards in Table 1 of 40 CFR 89.112, you may comply with the requirements under this part by meeting the requirements for Tier 3 engines (Tier 2 for engines above 560 kW) in 40 CFR part 60 subpart IIII instead of the emission limitations and other requirements that would otherwise apply under this part for existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions.

(f) An existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP must meet the definition of remote stationary RICE in § 63.6675 on the initial compliance date for the engine, October 19, 2013, in order to be considered a remote stationary RICE under this subpart. Owners and operators of existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that meet the definition of remote stationary RICE in § 63.6675 of this subpart as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in § 63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation.

[75 FR 9675, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011; 78 FR 6701, Jan. 30, 2013]

§ 63.6604 What fuel requirements must I meet if I own or operate a stationary CI RICE?

(a) If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel.

(b) Beginning January 1, 2015, if you own or operate an existing emergency CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in § 63.6640(f)(4)(ii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

(c) Beginning January 1, 2015, if you own or operate a new emergency CI stationary RICE with a site rating of more than 500 brake HP and a displacement of less than 30 liters per cylinder located at a major source of HAP that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 63.6640(f)(2)(ii) and (iii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

(d) Existing CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, at area sources in areas of Alaska that meet either § 63.6603(b)(1) or § 63.6603(b)(2), or are on offshore vessels that meet § 63.6603(c) are exempt from the requirements of this section.

[78 FR 6702, Jan. 30, 2013]

General Compliance Requirements

§ 63.6605 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to you at all times.

(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[75 FR 9675, Mar. 3, 2010, as amended at 78 FR 6702, Jan. 30, 2013]

Testing and Initial Compliance Requirements

§ 63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

If you own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions you are subject to the requirements of this section.

(a) You must conduct the initial performance test or other initial compliance demonstrations in Table 4 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in § 63.6595 and according to the provisions in § 63.7(a)(2).

(b) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).

(c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).

(d) An owner or operator is not required to conduct an initial performance test on units for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (d)(1) through (5) of this section.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

(5) The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3605, Jan. 18, 2008]

§ 63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?

If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must conduct an initial performance test within 240 days after the compliance date that is specified for your stationary RICE in § 63.6595 and according to the provisions specified in Table 4 to this subpart, as appropriate.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 51589, Aug. 20, 2010]

§ 63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?

If you own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions you are subject to the requirements of this section.

(a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in § 63.6595 and according to the provisions in § 63.7(a)(2).

(b) An owner or operator is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (b)(1) through (4) of this section.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

[75 FR 9676, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010]

§ 63.6615 When must I conduct subsequent performance tests?

If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in Table 3 of this subpart.

§ 63.6620 What performance tests and other procedures must I use?

(a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.

(b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load for the stationary RICE listed in paragraphs (b)(1) through (4) of this section.

(1) Non-emergency 4SRB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(2) New non-emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP located at a major source of HAP emissions.

(3) New non-emergency 2SLB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(4) New non-emergency CI stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(c) [Reserved]

(d) You must conduct three separate test runs for each performance test required in this section, as specified in § 63.7(e)(3). Each test run must last at least 1 hour, unless otherwise specified in this subpart.

(e)(1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (Eq.\ 1)$$

Where:

C_i = concentration of carbon monoxide (CO), total hydrocarbons (THC), or formaldehyde at the control device inlet,

C_o = concentration of CO, THC, or formaldehyde at the control device outlet, and

R = percent reduction of CO, THC, or formaldehyde emissions.

(2) You must normalize the CO, THC, or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO_2). If pollutant concentrations are to be corrected to 15 percent oxygen and CO_2 concentration is measured in lieu of oxygen concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.

(i) Calculate the fuel-specific F_o value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209\ F_d}{F_c} \quad (Eq.\ 2)$$

Where:

F_o = Fuel factor based on the ratio of oxygen volume to the ultimate CO_2 volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm^3 /J (dscf/10^6 Btu).

F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm^3 /J (dscf/10^6 Btu)

(ii) Calculate the CO_2 correction factor for correcting measurement data to 15 percent O_2 , as follows:

$$X_{CO2} = \frac{5.9}{F_o} \quad (Eq. 3)$$

Where:

X_{CO2} = CO_2 correction factor, percent.

5.9 = 20.9 percent O_2 —15 percent O_2 , the defined O_2 correction value, percent.

(iii) Calculate the CO, THC, and formaldehyde gas concentrations adjusted to 15 percent O_2 using CO_2 as follows:

$$C_{adj} = C_d \frac{X_{CO2}}{\%CO_2} \quad (Eq. 4)$$

Where:

C_{adj} = Calculated concentration of CO, THC, or formaldehyde adjusted to 15 percent O_2.

C_d = Measured concentration of CO, THC, or formaldehyde, uncorrected.

X_{CO2} = CO_2 correction factor, percent.

%CO_2 = Measured CO_2 concentration measured, dry basis, percent.

(f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or NSCR, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.

(g) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.

(1) Identification of the specific parameters you propose to use as operating limitations;

(2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions;

(3) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

(4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(h) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.

(1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally (*e.g.,* operator adjustment, automatic controller adjustment, etc.) or unintentionally (*e.g.,* wear and tear, error, etc.) on a routine basis or over time;

(2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;

(3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;

(4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;

(5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;

(6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and

(7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.

(i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9676, Mar. 3, 2010; 78 FR 6702, Jan. 30, 2013]

§ 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

(a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either O_2 or CO_2 according to the requirements in paragraphs (a)(1) through (4) of this section. If you are meeting a requirement to reduce CO emissions, the CEMS must be installed at both the inlet and outlet of the control device. If you are meeting a requirement to limit the concentration of CO, the CEMS must be installed at the outlet of the control device.

(1) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR part 60, appendix B.

(2) You must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in § 63.8 and according to the applicable performance specifications of 40 CFR part 60, appendix B as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.

(3) As specified in § 63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. You must have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.

(4) The CEMS data must be reduced as specified in § 63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO_2 concentration.

(b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (6) of this section. For an affected source that is complying with the emission limitations and operating limitations on March 9, 2011, the requirements in paragraph (b) of this section are applicable September 6, 2011.

(1) You must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraphs (b)(1)(i) through (v) of this section and in § 63.8(d). As specified in § 63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs (b)(1) through (5) of this section in your site-specific monitoring plan.

(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;

(ii) Sampling interface (*e.g.,* thermocouple) location such that the monitoring system will provide representative measurements;

(iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;

(iv) Ongoing operation and maintenance procedures in accordance with provisions in § 63.8(c)(1)(ii) and (c)(3); and

(v) Ongoing reporting and recordkeeping procedures in accordance with provisions in § 63.10(c), (e)(1), and (e)(2)(i).

(2) You must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.

(3) The CPMS must collect data at least once every 15 minutes (see also § 63.6635).

(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.

(5) You must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.

(6) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.

(d) If you are operating a new or reconstructed emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter prior to the startup of the engine.

(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

(1) An existing stationary RICE with a site rating of less than 100 HP located at a major source of HAP emissions;

(2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;

(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;

(4) An existing non-emergency, non-black start stationary CI RICE with a site rating less than or equal to 300 HP located at an area source of HAP emissions;

(5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions;

(6) An existing non-emergency, non-black start stationary RICE located at an area source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis.

(7) An existing non-emergency, non-black start 4SLB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(8) An existing non-emergency, non-black start 4SRB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(9) An existing, non-emergency, non-black start 4SLB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year; and

(10) An existing, non-emergency, non-black start 4SRB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year.

(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.

(g) If you own or operate an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska that meet either § 63.6603(b)(1) or § 63.6603(b)(2) do not have to meet the requirements of this paragraph (g). Existing CI engines located on offshore vessels that meet § 63.6603(c) do not have to meet the requirements of this paragraph (g).

(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or

(2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates and metals.

(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

(i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from

the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

(j) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011; 78 FR 6703, Jan. 30, 2013]

§ 63.6630 How do I demonstrate initial compliance with the emission limitations, operating limitations, and other requirements?

(a) You must demonstrate initial compliance with each emission limitation, operating limitation, and other requirement that applies to you according to Table 5 of this subpart.

(b) During the initial performance test, you must establish each operating limitation in Tables 1b and 2b of this subpart that applies to you.

(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.6645.

(d) Non-emergency 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more can demonstrate initial compliance with the formaldehyde emission limit by testing for THC instead of formaldehyde. The testing must be conducted according to the requirements in Table 4 of this subpart. The average reduction of emissions of THC determined from the performance test must be equal to or greater than 30 percent.

(e) The initial compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

(1) The compliance demonstration must consist of at least three test runs.

(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.

(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.

(5) You must measure O_2 using one of the O_2 measurement methods specified in Table 4 of this subpart. Measurements to determine O_2 concentration must be made at the same time as the measurements for CO or THC concentration.

(6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O_2 emissions simultaneously at the inlet and outlet of the control device.

[69 FR 33506, June 15, 2004, as amended at 78 FR 6704, Jan. 30, 2013]

Continuous Compliance Requirements

§ 63.6635 How do I monitor and collect data to demonstrate continuous compliance?

(a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.

(b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

[69 FR 33506, June 15, 2004, as amended at 76 FR 12867, Mar. 9, 2011]

§ 63.6640 How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?

(a) You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in § 63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

(c) The annual compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

(1) The compliance demonstration must consist of at least one test run.

(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.

(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.

(5) You must measure O_2 using one of the O_2 measurement methods specified in Table 4 of this subpart. Measurements to determine O_2 concentration must be made at the same time as the measurements for CO or THC concentration.

(6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O_2 emissions simultaneously at the inlet and outlet of the control device.

(7) If the results of the annual compliance demonstration show that the emissions exceed the levels specified in Table 6 of this subpart, the stationary RICE must be shut down as soon as safely possible, and appropriate corrective action must be taken (e.g., repairs, catalyst cleaning, catalyst replacement). The stationary RICE must be retested within 7 days of being restarted and the emissions must meet the levels specified in Table 6 of this subpart. If the retest shows that the emissions continue to exceed the specified levels, the stationary RICE must again be shut down as soon as safely possible, and the stationary RICE may not operate, except for purposes of startup and testing, until the owner/operator demonstrates through testing that the emissions do not exceed the levels specified in Table 6 of this subpart.

(d) For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations. Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR 94.11(a).

(e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.

(f) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary RICE in emergency situations.

(2) You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional

transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

(ii) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see § 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(4) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraphs (f)(4)(i) and (ii) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.

(ii) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010; 78 FR 6704, Jan. 30, 2013]

Notifications, Reports, and Records

§ 63.6645 What notifications must I submit and when?

(a) You must submit all of the notifications in §§ 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;

(1) An existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

(2) An existing stationary RICE located at an area source of HAP emissions.

(3) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(4) A new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 HP located at a major source of HAP emissions.

(5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.

(b) As specified in § 63.9(b)(2), if you start up your stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart, you must submit an Initial Notification not later than December 13, 2004.

(c) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions on or after August 16, 2004, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(d) As specified in § 63.9(b)(2), if you start up your stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart and you are required to submit an initial notification, you must submit an Initial Notification not later than July 16, 2008.

(e) If you start up your new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions on or after March 18, 2008 and you are required to submit an initial notification, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with § 63.6590(b), your notification should include the information in § 63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).

(g) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in § 63.7(b)(1).

(h) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii).

(1) For each initial compliance demonstration required in Table 5 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.

(2) For each initial compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to § 63.10(d)(2).

(i) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and subject to an enforceable state or local standard requiring engine replacement and you intend to meet management practices rather than emission limits, as specified in § 63.6603(d), you must submit a notification by March 3, 2013, stating that you intend to use the provision in § 63.6603(d) and identifying the state or local regulation that the engine is subject to.

[73 FR 3606, Jan. 18, 2008, as amended at 75 FR 9677, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010; 78 FR 6705, Jan. 30, 2013]

§ 63.6650 What reports must I submit and when?

(a) You must submit each report in Table 7 of this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.

(1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in § 63.6595.

(2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in § 63.6595.

(3) For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.

(6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.6595 and ending on December 31.

(7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in § 63.6595.

(8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.

(9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.

(c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 63.6605(b), including actions taken to correct a malfunction.

(5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.

(6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in § 63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.

(d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.

(1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(e) For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in paragraphs (c)(1) through (4) and (e)(1) through (12) of this section.

(1) The date and time that each malfunction started and stopped.

(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each CMS was out-of-control, including the information in § 63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.

(8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.

(9) A brief description of the stationary RICE.

(10) A brief description of the CMS.

(11) The date of the latest CMS certification or audit.

(12) A description of any changes in CMS, processes, or controls since the last reporting period.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

(g) If you are operating as a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to Table 7 of this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (b)(1) through (b)(5) of this section. You must report the data specified in (g)(1) through (g)(3) of this section.

(1) Fuel flow rate of each fuel and the heating values that were used in your calculations. You must also demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis.

(2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.

(3) Any problems or errors suspected with the meters.

(h) If you own or operate an emergency stationary RICE with a site rating of more than 100 brake HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in § 63.6640(f)(4)(ii), you must submit an annual report according to the requirements in paragraphs (h)(1) through (3) of this section.

(1) The report must contain the following information:

(i) Company name and address where the engine is located.

(ii) Date of the report and beginning and ending dates of the reporting period.

(iii) Engine site rating and model year.

(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(v) Hours operated for the purposes specified in § 63.6640(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in § 63.6640(f)(2)(ii) and (iii).

(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in § 63.6640(f)(2)(ii) and (iii).

(vii) Hours spent for operation for the purpose specified in § 63.6640(f)(4)(ii), including the date, start time, and end time for engine operation for the purposes specified in § 63.6640(f)(4)(ii). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(viii) If there were no deviations from the fuel requirements in § 63.6604 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period.

(ix) If there were deviations from the fuel requirements in § 63.6604 that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken.

(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in § 63.13.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9677, Mar. 3, 2010; 78 FR 6705, Jan. 30, 2013]

§ 63.6655 What records must I keep?

(a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in § 63.10(b)(2)(xiv).

(2) Records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment) or the air pollution control and monitoring equipment.

(3) Records of performance tests and performance evaluations as required in § 63.10(b)(2)(viii).

(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with § 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(b) For each CEMS or CPMS, you must keep the records listed in paragraphs (b)(1) through (3) of this section.

(1) Records described in § 63.10(b)(2)(vi) through (xi).

(2) Previous (*i.e.,* superseded) versions of the performance evaluation plan as required in § 63.8(d)(3).

(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in § 63.8(f)(6)(i), if applicable.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must keep the records of your daily fuel usage monitors.

(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

(1) An existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.

(2) An existing stationary emergency RICE.

(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) through (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in § 63.6640(f)(2)(ii) or (iii) or § 63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

(1) An existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.

(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 78 FR 6706, Jan. 30, 2013]

§ 63.6660 In what form and how long must I keep my records?

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

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1).

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010]

Other Requirements and Information

§ 63.6665 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in Table 8: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE.

[75 FR 9678, Mar. 3, 2010]

§ 63.6670 Who implements and enforces this subpart?

(a) This subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out whether this subpart is delegated to your State, local, or tribal agency.

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

(c) The authorities that will not be delegated to State, local, or tribal agencies are:

(1) Approval of alternatives to the non-opacity emission limitations and operating limitations in § 63.6600 under § 63.6(g).

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

(5) Approval of a performance test which was conducted prior to the effective date of the rule, as specified in § 63.6610(b).

§ 63.6675 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act (CAA); in 40 CFR 63.2, the General Provisions of this part; and in this section as follows:

Alaska Railbelt Grid means the service areas of the six regulated public utilities that extend from Fairbanks to Anchorage and the Kenai Peninsula. These utilities are Golden Valley Electric Association; Chugach Electric Association; Matanuska Electric Association; Homer Electric Association; Anchorage Municipal Light & Power; and the City of Seward Electric System.

Area source means any stationary source of HAP that is not a major source as defined in part 63.

Associated equipment as used in this subpart and as referred to in section 112(n)(4) of the CAA, means equipment associated with an oil or natural gas exploration or production well, and includes all equipment from the well bore to the point of custody transfer, except glycol dehydration units, storage vessels with potential for flash emissions, combustion turbines, and stationary RICE.

Backup power for renewable energy means an engine that provides backup power to a facility that generates electricity from renewable energy resources, as that term is defined in Alaska Statute 42.45.045(l)(5) (incorporated by reference, see § 63.14).

Black start engine means an engine whose only purpose is to start up a combustion turbine.

CAA means the Clean Air Act (42 U.S.C. 7401 *et seq.,* as amended by Public Law 101-549, 104 Stat. 2399).

Commercial emergency stationary RICE means an emergency stationary RICE used in commercial establishments such as office buildings, hotels, stores, telecommunications facilities, restaurants, financial institutions such as banks, doctor's offices, and sports and performing arts facilities.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Custody transfer means the transfer of hydrocarbon liquids or natural gas: After processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation. For the purposes of this subpart, the point at which such liquids or natural gas enters a natural gas processing plant is a point of custody transfer.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless or whether or not such failure is permitted by this subpart.

(4) Fails to satisfy the general duty to minimize emissions established by § 63.6(e)(1)(i).

Diesel engine means any stationary RICE in which a high boiling point liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition. This process is also known as compression ignition.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is fuel oil number 2. Diesel fuel also includes any non-distillate fuel with comparable physical and chemical properties (*e.g.* biodiesel) that is suitable for use in compression ignition engines.

Digester gas means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and CO_2 .

Dual-fuel engine means any stationary RICE in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel.

Emergency stationary RICE means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary RICE must comply with the requirements specified in § 63.6640(f) in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in § 63.6640(f), then it is not considered to be an emergency stationary RICE under this subpart.

(1) The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc.

(2) The stationary RICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in § 63.6640(f).

(3) The stationary RICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in § 63.6640(f)(2)(ii) or (iii) and § 63.6640(f)(4)(i) or (ii).

Engine startup means the time from initial start until applied load and engine and associated equipment reaches steady state or normal operation. For stationary engine with catalytic controls, engine startup means the time from initial start until applied load and engine and associated equipment, including the catalyst, reaches steady state or normal operation.

Four-stroke engine means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

Gaseous fuel means a material used for combustion which is in the gaseous state at standard atmospheric temperature and pressure conditions.

Gasoline means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.

Glycol dehydration unit means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes “rich” glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The “lean” glycol is then recycled.

Hazardous air pollutants (HAP) means any air pollutants listed in or pursuant to section 112(b) of the CAA.

Institutional emergency stationary RICE means an emergency stationary RICE used in institutional establishments such as medical centers, nursing homes, research centers, institutions of higher education, correctional facilities, elementary and secondary schools, libraries, religious establishments, police stations, and fire stations.

ISO standard day conditions means 288 degrees Kelvin (15 degrees Celsius), 60 percent relative humidity and 101.3 kilopascals pressure.

Landfill gas means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO_2 .

Lean burn engine means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

Limited use stationary RICE means any stationary RICE that operates less than 100 hours per year.

Liquefied petroleum gas means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining of natural gas production.

Liquid fuel means any fuel in liquid form at standard temperature and pressure, including but not limited to diesel, residual/crude oil, kerosene/naphtha (jet fuel), and gasoline.

Major Source, as used in this subpart, shall have the same meaning as in § 63.2, except that:

(1) Emissions from any oil or gas exploration or production well (with its associated equipment (as defined in this section)) and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;

(2) For oil and gas production facilities, emissions from processes, operations, or equipment that are not part of the same oil and gas production facility, as defined in § 63.1271 of subpart HHH of this part, shall not be aggregated;

(3) For production field facilities, only HAP emissions from glycol dehydration units, storage vessel with the potential for flash emissions, combustion turbines and reciprocating internal combustion engines shall be aggregated for a major source determination; and

(4) Emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in § 63.1271 of subpart HHH of this part, shall not be aggregated.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Natural gas means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.

Non-selective catalytic reduction (NSCR) means an add-on catalytic nitrogen oxides (NO_X) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NO_X, CO, and volatile organic compounds (VOC) into CO_2, nitrogen, and water.

Oil and gas production facility as used in this subpart means any grouping of equipment where hydrocarbon liquids are processed, upgraded (*i.e.,* remove impurities or other constituents to meet contract specifications), or stored prior to the point of custody transfer; or where natural gas is processed, upgraded, or stored prior to entering the natural gas transmission and storage source category. For purposes of a major source determination, facility (including a building, structure, or installation) means oil and natural gas production and processing equipment that is located within the boundaries of an individual surface site as defined in this section. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Pieces of production equipment or groupings of equipment located on different oil and gas leases, mineral fee tracts, lease tracts, subsurface or surface unit areas, surface fee tracts, surface lease tracts, or separate surface sites, whether or not connected by a road, waterway, power line or pipeline, shall not be considered part of the same facility. Examples of facilities in the oil and natural gas production source category include, but are not limited to, well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.

Oxidation catalyst means an add-on catalytic control device that controls CO and VOC by oxidation.

Peaking unit or engine means any standby engine intended for use during periods of high demand that are not emergencies.

Percent load means the fractional power of an engine compared to its maximum manufacturer's design capacity at engine site conditions. Percent load may range between 0 percent to above 100 percent.

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. For oil and natural gas production facilities subject to subpart HH of this part, the potential to emit provisions in § 63.760(a) may be used. For natural gas transmission and storage facilities subject to subpart HHH of this part, the maximum annual facility gas throughput for storage facilities may be determined according to § 63.1270(a)(1) and the maximum annual throughput for transmission facilities may be determined according to § 63.1270(a)(2).

Production field facility means those oil and gas production facilities located prior to the point of custody transfer.

Production well means any hole drilled in the earth from which crude oil, condensate, or field natural gas is extracted.

Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure C_3H_8.

Remote stationary RICE means stationary RICE meeting any of the following criteria:

(1) Stationary RICE located in an offshore area that is beyond the line of ordinary low water along that portion of the coast of the United States that is in direct contact with the open seas and beyond the line marking the seaward limit of inland waters.

(2) Stationary RICE located on a pipeline segment that meets both of the criteria in paragraphs (2)(i) and (ii) of this definition.

(i) A pipeline segment with 10 or fewer buildings intended for human occupancy and no buildings with four or more stories within 220 yards (200 meters) on either side of the centerline of any continuous 1-mile (1.6 kilometers) length of pipeline. Each separate dwelling unit in a multiple dwelling unit building is counted as a separate building intended for human occupancy.

(ii) The pipeline segment does not lie within 100 yards (91 meters) of either a building or a small, well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period. The days and weeks need not be consecutive. The building or area is considered occupied for a full day if it is occupied for any portion of the day.

(iii) For purposes of this paragraph (2), the term pipeline segment means all parts of those physical facilities through which gas moves in transportation, including but not limited to pipe, valves, and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies. Stationary RICE located within 50 yards (46 meters) of the pipeline segment providing power for equipment on a pipeline segment are part of the pipeline segment. Transportation of gas means the gathering, transmission, or distribution of gas by pipeline, or the storage of gas. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

(3) Stationary RICE that are not located on gas pipelines and that have 5 or fewer buildings intended for human occupancy and no buildings with four or more stories within a 0.25 mile radius around the engine. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

Residential emergency stationary RICE means an emergency stationary RICE used in residential establishments such as homes or apartment buildings.

Responsible official means responsible official as defined in 40 CFR 70.2.

Rich burn engine means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to December 19, 2002 with passive emission control technology for NO_X (such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

Site-rated HP means the maximum manufacturer's design capacity at engine site conditions.

Spark ignition means relating to either: A gasoline-fueled engine; or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary reciprocating internal combustion engine (RICE) means any reciprocating internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

Stationary RICE test cell/stand means an engine test cell/stand, as defined in subpart PPPPP of this part, that tests stationary RICE.

Stoichiometric means the theoretical air-to-fuel ratio required for complete combustion.

Storage vessel with the potential for flash emissions means any storage vessel that contains a hydrocarbon liquid with a stock tank gas-to-oil ratio equal to or greater than 0.31 cubic meters per liter and an American Petroleum

Institute gravity equal to or greater than 40 degrees and an actual annual average hydrocarbon liquid throughput equal to or greater than 79,500 liters per day. Flash emissions occur when dissolved hydrocarbons in the fluid evolve from solution when the fluid pressure is reduced.

Subpart means 40 CFR part 63, subpart ZZZZ.

Surface site means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

Two-stroke engine means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3607, Jan. 18, 2008; 75 FR 9679, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 76 FR 12867, Mar. 9, 2011; 78 FR 6706, Jan. 30, 2013]

Table 1 a to Subpart ZZZZ of Part 63—Emission Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE > 500 HP Located at a Major Source of HAP Emissions

As stated in §§ 63.6600 and 63.6640, you must comply with the following emission limitations at 100 percent load plus or minus 10 percent for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 4SRB stationary RICE	a. Reduce formaldehyde emissions by 76 percent or more. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may reduce formaldehyde emissions by 75 percent or more until June 15, 2007 or	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[1]
	b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2	

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9679, Mar. 3, 2010, as amended at 75 FR 51592, Aug. 20, 2010]

Table 1 b to Subpart ZZZZ of Part 63—Operating Limitations for Existing, New, and Reconstructed SI 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

As stated in §§ 63.6600, 63.6603, 63.6630 and 63.6640, you must comply with the following operating limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
1. existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent $O_2$and using NSCR;	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 750 °F and less than or equal to 1250 °F.[1]
2. existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and not using NSCR; or	Comply with any operating limitations approved by the Administrator.
existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent $O_2$and not using NSCR.	

[1] Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

[78 FR 6706, Jan. 30, 2013]

Table 2 a to Subpart ZZZZ of Part 63—Emission Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP and New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions

As stated in §§ 63.6600 and 63.6640, you must comply with the following emission limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE at 100 percent load plus or minus 10 percent:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 2SLB stationary RICE	a. Reduce CO emissions by 58 percent or more; or b. Limit concentration of formaldehyde in the stationary RICE exhaust to 12 ppmvd or less at 15 percent O_2. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may limit concentration of formaldehyde to 17 ppmvd or less at 15 percent O_2until June 15, 2007	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[1]
2. 4SLB stationary RICE	a. Reduce CO emissions by 93 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O_2	

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
3. CI stationary RICE	a. Reduce CO emissions by 70 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at 15 percent O_2	

[1] Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9680, Mar. 3, 2010]

Table 2 b to Subpart ZZZZ of Part 63—Operating Limitations for New and Reconstructed 2SLB and CI Stationary RICE >500 HP Located at a Major Source of HAP Emissions, New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions, Existing CI Stationary RICE >500 HP

As stated in §§ 63.6600, 63.6601, 63.6603, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions; new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions; and existing CI stationary RICE >500 HP:

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
1. New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and using an oxidation catalyst; and New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst.	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.[1]
2. Existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and using an oxidation catalyst	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the initial performance test; and
	b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.[1]
3. New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and not using an oxidation catalyst; and	Comply with any operating limitations approved by the Administrator.
New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst; and	

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and not using an oxidation catalyst.	

[1] Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

[78 FR 6707, Jan. 30, 2013]

Table 2 c to Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE ≤500 HP Located at a Major Source of HAP Emissions

As stated in §§ 63.6600, 63.6602, and 63.6640, you must comply with the following requirements for existing compression ignition stationary RICE located at a major source of HAP emissions and existing spark ignition stationary RICE ≤500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Emergency stationary CI RICE and black start stationary CI RICE [1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first.[2] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[3]
2. Non-Emergency, non-black start stationary CI RICE <100 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first.[2] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
3. Non-Emergency, non-black start CI stationary RICE 100≤HP≤300 HP	Limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O_2.	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
4. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O_2; or b. Reduce CO emissions by 70 percent or more.	
5. Non-Emergency, non-black start stationary CI RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O_2; or b. Reduce CO emissions by 70 percent or more.	
6. Emergency stationary SI RICE and black start stationary SI RICE.[1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2] b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
7. Non-Emergency, non-black start stationary SI RICE <100 HP that are not 2SLB stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[2] b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary;	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
8. Non-Emergency, non-black start 2SLB stationary SI RICE <100 HP	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first;[2] b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, and replace as necessary;	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.[3]	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
9. Non-emergency, non-black start 2SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent O_2.	
10. Non-emergency, non-black start 4SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O_2.	
11. Non-emergency, non-black start 4SRB stationary RICE 100≤HP≤500	Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent O_2.	
12. Non-emergency, non-black start stationary RICE 100≤HP≤500 which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Limit concentration of CO in the stationary RICE exhaust to 177 ppmvd or less at 15 percent O_2.	

[1] If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

[2] Sources have the option to utilize an oil analysis program as described in § 63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2c of this subpart.

[3] Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[78 FR 6708, Jan. 30, 2013, as amended at 78 FR 14457, Mar. 6, 2013]

Table 2 d to Subpart ZZZZ of Part 63—Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

As stated in §§ 63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Non-Emergency, non-black start CI stationary RICE ≤300 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first;[1] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
2. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
3. Non-Emergency, non-black start CI stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
4. Emergency stationary CI RICE and black start stationary CI RICE.[2]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1]	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
5. Emergency stationary SI RICE; black start stationary SI RICE; non-emergency, non-black start 4SLB stationary RICE >500 HP that operate 24 hours or less per calendar year; non-emergency, non-black start 4SRB stationary RICE >500 HP that operate 24 hours or less per calendar year.[2]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1]; b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
6. Non-emergency, non-black start 2SLB stationary RICE	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.	
7. Non-emergency, non-black start 4SLB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
8. Non-emergency, non-black start 4SLB remote stationary RICE >500 HP	a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.	
9. Non-emergency, non-black start 4SLB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install an oxidation catalyst to reduce HAP emissions from the stationary RICE.	
10. Non-emergency, non-black start 4SRB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
11. Non-emergency, non-black start 4SRB remote stationary RICE >500 HP	a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.	
12. Non-emergency, non-black start 4SRB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install NSCR to reduce HAP emissions from the stationary RICE.	
13. Non-emergency, non-black start stationary RICE which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1] b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	

[1] Sources have the option to utilize an oil analysis program as described in § 63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2d of this subpart.

[2] If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

[78 FR 6709, Jan. 30, 2013]

Table 3 to Subpart ZZZZ of Part 63—Subsequent Performance Tests

As stated in §§ 63.6615 and 63.6620, you must comply with the following subsequent performance test requirements:

For each . . .	Complying with the requirement to . . .	You must . . .
1. New or reconstructed 2SLB stationary RICE >500 HP located at major sources; new or reconstructed 4SLB stationary RICE ≥250 HP located at major sources; and new or reconstructed CI stationary RICE >500 HP located at major sources	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually.[1]
2. 4SRB stationary RICE ≥5,000 HP located at major sources	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually.[1]
3. Stationary RICE >500 HP located at major sources and new or reconstructed 4SLB stationary RICE 250≤HP≤500 located at major sources	Limit the concentration of formaldehyde in the stationary RICE exhaust	Conduct subsequent performance tests semiannually.[1]
4. Existing non-emergency, non-black start CI stationary RICE >500 HP that are not limited use stationary RICE	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760 hours or 3 years, whichever comes first.
5. Existing non-emergency, non-black start CI stationary RICE >500 HP that are limited use stationary RICE	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760 hours or 5 years, whichever comes first.

[1] After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[78 FR 6711, Jan. 30, 2013]

Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests

As stated in §§ 63.6610, 63.6611, 63.6612, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
1. 2SLB, 4SLB, and CI stationary RICE	a. reduce CO emissions	i. Measure the O_2 at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522-00 (Reapproved 2005).[a c]	(a) Measurements to determine O_2 must be made at the same time as the measurements for CO concentration.
		ii. Measure the CO at the inlet and the outlet of the control device	(1) ASTM D6522-00 (Reapproved 2005) [a b c] or Method 10 of 40 CFR part 60, appendix A	(a) The CO concentration must be at 15 percent O_2, dry basis.
2. 4SRB stationary RICE	a. reduce formaldehyde emissions	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A § 63.7(d)(1)(i)	(a) sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O_2 at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522-00 (Reapproved 2005).[a]	(a) measurements to determine O_2 concentration must be made at the same time as the measurements for formaldehyde or THC concentration.
		iii. Measure moisture content at the inlet and outlet of the control device; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03.[a]	(a) measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or THC concentration.
		iv. If demonstrating compliance with the formaldehyde percent reduction requirement, measure formaldehyde at the inlet and the outlet of the control device	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348-03,[a] provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) formaldehyde concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. If demonstrating compliance with the THC percent reduction requirement, measure THC at the inlet and the outlet of the control device	(1) Method 25A, reported as propane, of 40 CFR part 60, appendix A	(a) THC concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
3. Stationary RICE	a. limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A § 63.7(d)(1)(i)	(a) if using a control device, the sampling site must be located at the outlet of the control device.

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
		ii. Determine the O_2concentration of the stationary RICE exhaust at the sampling port location; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522-00 (Reapproved 2005).[a]	(a) measurements to determine O_2concentration must be made at the same time and location as the measurements for formaldehyde or CO concentration.
		iii. Measure moisture content of the stationary RICE exhaust at the sampling port location; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03.[a]	(a) measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or CO concentration.
		iv. Measure formaldehyde at the exhaust of the stationary RICE; or	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348-03,[a]provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. measure CO at the exhaust of the stationary RICE.	(1) Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522-00 (2005),[a] [c]Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03.[a]	(a) CO concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

[a] Incorporated by reference, see 40 CFR 63.14. You may also obtain copies from University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

[b] You may also use Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03.

[c] ASTM-D6522-00 (2005) may be used to test both CI and SI stationary RICE.

[78 FR 6711, Jan. 30, 2013]

Table 5 to Subpart ZZZZ of Part 63—Initial Compliance With Emission Limitations, Operating Limitations, and Other Requirements

As stated in §§ 63.6612, 63.6625 and 63.6630, you must initially comply with the emission and operating limitations as required by the following:

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions and using oxidation catalyst, and using a CPMS	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
2. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, using oxidation catalyst, and using a CPMS	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions and not using oxidation catalyst	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in § 63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test.
4. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, and not using oxidation catalyst	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in § 63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
5. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O_2or CO_2at both the inlet and outlet of the oxidation catalyst according to the requirements in § 63.6625(a); and ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and
		iii. The average reduction of CO calculated using § 63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.
6. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O_2or CO_2at the outlet of the oxidation catalyst according to the requirements in § 63.6625(a); and
		ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and
		iii. The average concentration of CO calculated using § 63.6620 is less than or equal to the CO emission limitation. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average concentration measured during the 4-hour period.
7. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction, or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; and
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
8. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; and

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
		ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in § 63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
9. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
10. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in § 63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
11. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Reduce CO emissions	i. The average reduction of emissions of CO or formaldehyde, as applicable determined from the initial performance test is equal to or greater than the required CO or formaldehyde, as applicable, percent reduction.
12. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.
13. Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	i. You have conducted an initial compliance demonstration as specified in § 63.6630(e) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O_2;
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1350 °F.

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
14. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install NSCR	i. You have conducted an initial compliance demonstration as specified in § 63.6630(e) to show that the average reduction of emissions of CO is 75 percent or more, the average CO concentration is less than or equal to 270 ppmvd at 15 percent O_2, or the average reduction of emissions of THC is 30 percent or more;
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1250 °F.

[78 FR 6712, Jan. 30, 2013]

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, and Other Requirements

As stated in § 63.6640, you must continuously comply with the emissions and operating limitations and work or management practices as required by the following:

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved [a]; and ii. Collecting the catalyst inlet temperature data according to § 63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
2. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and not using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved [a]; and ii. Collecting the approved operating parameter (if any) data according to § 63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, new or reconstructed non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using a CEMS	i. Collecting the monitoring data according to § 63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction or concentration of CO emissions according to § 63.6620; and ii. Demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period, or that the emission remain at or below the CO concentration limit; and
		iii. Conducting an annual RATA of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B, as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.
4. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and using NSCR	i. Collecting the catalyst inlet temperature data according to § 63.6625(b); and
		ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		iv. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
5. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. Collecting the approved operating parameter (if any) data according to § 63.6625(b); and
		ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
6. Non-emergency 4SRB stationary RICE with a brake HP ≥5,000 located at a major source of HAP	a. Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved, or to demonstrate that the average reduction of emissions of THC determined from the performance test is equal to or greater than 30 percent.[a]

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
7. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit [a]; and ii. Collecting the catalyst inlet temperature data according to § 63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
8. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit [a]; and ii. Collecting the approved operating parameter (if any) data according to § 63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
9. Existing emergency and black start stationary RICE ≤500 HP located at a major source of HAP, existing non-emergency stationary RICE <100 HP located at a major source of HAP, existing emergency and black start stationary RICE located at an area source of HAP, existing non-emergency stationary CI RICE ≤300 HP located at an area source of HAP, existing non-emergency 2SLB stationary RICE located at an area source of HAP, existing non-emergency stationary SI RICE located at an area source of HAP which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, existing non-emergency 4SLB and 4SRB stationary RICE ≤500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate 24 hours or less per calendar year, and existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are remote stationary RICE	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
10. Existing stationary CI RICE >500 HP that are not limited use stationary RICE	a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and using oxidation catalyst	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to § 63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
11. Existing stationary CI RICE >500 HP that are not limited use stationary RICE	a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and not using oxidation catalyst	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to § 63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
12. Existing limited use CI stationary RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using an oxidation catalyst	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to § 63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
13. Existing limited use CI stationary RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and not using an oxidation catalyst	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to § 63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
14. Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	i. Conducting annual compliance demonstrations as specified in § 63.6640(c) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O_2; and either ii. Collecting the catalyst inlet temperature data according to § 63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than 450 °F and less than or equal to 1350 °F for the catalyst inlet temperature; or iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1350 °F.

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
15. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install NSCR	i. Conducting annual compliance demonstrations as specified in § 63.6640(c) to show that the average reduction of emissions of CO is 75 percent or more, the average CO concentration is less than or equal to 270 ppmvd at 15 percent O_2, or the average reduction of emissions of THC is 30 percent or more; and either ii. Collecting the catalyst inlet temperature data according to § 63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than or equal to 750 °F and less than or equal to 1250 °F for the catalyst inlet temperature; or iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1250 °F.

[a] After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[78 FR 6715, Jan. 30, 2013]

Table 7 to Subpart ZZZZ of Part 63—Requirements for Reports

As stated in § 63.6650, you must comply with the following requirements for reports:

For each . . .	You must submit a . . .	The report must contain . . .	You must submit the report . . .
1. Existing non-emergency, non-black start stationary RICE 100≤HP≤500 located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >500 HP located at a major source of HAP; existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >300 HP located at an area source of HAP; new or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP; and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	Compliance report	a. If there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in § 63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or	i. Semiannually according to the requirements in § 63.6650(b)(1)-(5) for engines that are not limited use stationary RICE subject to numerical emission limitations; and ii. Annually according to the requirements in § 63.6650(b)(6)-(9) for engines that are limited use stationary RICE subject to numerical emission limitations.

For each . . .	You must submit a . . .	The report must contain . . .	You must submit the report . . .
		b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in § 63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in § 63.8(c)(7), the information in § 63.6650(e); or	i. Semiannually according to the requirements in § 63.6650(b).
		c. If you had a malfunction during the reporting period, the information in § 63.6650(c)(4).	i. Semiannually according to the requirements in § 63.6650(b).
2. New or reconstructed non-emergency stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Report	a. The fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas or digester gas, is equivalent to 10 percent or more of the gross heat input on an annual basis; and	i. Annually, according to the requirements in § 63.6650.
		b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and	i. See item 2.a.i.
		c. Any problems or errors suspected with the meters.	i. See item 2.a.i.
3. Existing non-emergency, non-black start 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Compliance report	a. The results of the annual compliance demonstration, if conducted during the reporting period.	i. Semiannually according to the requirements in § 63.6650(b)(1)-(5).
4. Emergency stationary RICE that operate or are contractually obligated to be available for more than 15 hours per year for the purposes specified in § 63.6640(f)(2)(ii) and (iii) or that operate for the purposes specified in § 63.6640(f)(4)(ii)	Report	a. The information in § 63.6650(h)(1)	i. annually according to the requirements in § 63.6650(h)(2)-(3).

[78 FR 6719, Jan. 30, 2013]

Table 8 to Subpart ZZZZ of Part 63—Applicability of General Provisions to Subpart ZZZZ.

As stated in § 63.6665, you must comply with the following applicable general provisions.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§ 63.1	General applicability of the General Provisions	Yes.	
§ 63.2	Definitions	Yes	Additional terms defined in § 63.6675.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§ 63.3	Units and abbreviations	Yes.	
§ 63.4	Prohibited activities and circumvention	Yes.	
§ 63.5	Construction and reconstruction	Yes.	
§ 63.6(a)	Applicability	Yes.	
§ 63.6(b)(1)-(4)	Compliance dates for new and reconstructed sources	Yes.	
§ 63.6(b)(5)	Notification	Yes.	
§ 63.6(b)(6)	[Reserved]		
§ 63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources	Yes.	
§ 63.6(c)(1)-(2)	Compliance dates for existing sources	Yes.	
§ 63.6(c)(3)-(4)	[Reserved]		
§ 63.6(c)(5)	Compliance dates for existing area sources that become major sources	Yes.	
§ 63.6(d)	[Reserved]		
§ 63.6(e)	Operation and maintenance	No.	
§ 63.6(f)(1)	Applicability of standards	No.	
§ 63.6(f)(2)	Methods for determining compliance	Yes.	
§ 63.6(f)(3)	Finding of compliance	Yes.	
§ 63.6(g)(1)-(3)	Use of alternate standard	Yes.	
§ 63.6(h)	Opacity and visible emission standards	No	Subpart ZZZZ does not contain opacity or visible emission standards.
§ 63.6(i)	Compliance extension procedures and criteria	Yes.	
§ 63.6(j)	Presidential compliance exemption	Yes.	
§ 63.7(a)(1)-(2)	Performance test dates	Yes	Subpart ZZZZ contains performance test dates at §§ 63.6610, 63.6611, and 63.6612.
§ 63.7(a)(3)	CAA section 114 authority	Yes.	
§ 63.7(b)(1)	Notification of performance test	Yes	Except that § 63.7(b)(1) only applies as specified in § 63.6645.
§ 63.7(b)(2)	Notification of rescheduling	Yes	Except that § 63.7(b)(2) only applies as specified in § 63.6645.
§ 63.7(c)	Quality assurance/test plan	Yes	Except that § 63.7(c) only applies as specified in § 63.6645.
§ 63.7(d)	Testing facilities	Yes.	
§ 63.7(e)(1)	Conditions for conducting performance tests	No.	Subpart ZZZZ specifies conditions for conducting performance tests at § 63.6620.
§ 63.7(e)(2)	Conduct of performance tests and reduction of data	Yes	Subpart ZZZZ specifies test methods at § 63.6620.
§ 63.7(e)(3)	Test run duration	Yes.	

General provisions citation	Subject of citation	Applies to subpart	Explanation
§ 63.7(e)(4)	Administrator may require other testing under section 114 of the CAA	Yes.	
§ 63.7(f)	Alternative test method provisions	Yes.	
§ 63.7(g)	Performance test data analysis, recordkeeping, and reporting	Yes.	
§ 63.7(h)	Waiver of tests	Yes.	
§ 63.8(a)(1)	Applicability of monitoring requirements	Yes	Subpart ZZZZ contains specific requirements for monitoring at § 63.6625.
§ 63.8(a)(2)	Performance specifications	Yes.	
§ 63.8(a)(3)	[Reserved]		
§ 63.8(a)(4)	Monitoring for control devices	No.	
§ 63.8(b)(1)	Monitoring	Yes.	
§ 63.8(b)(2)-(3)	Multiple effluents and multiple monitoring systems	Yes.	
§ 63.8(c)(1)	Monitoring system operation and maintenance	Yes.	
§ 63.8(c)(1)(i)	Routine and predictable SSM	No	
§ 63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan	Yes.	
§ 63.8(c)(1)(iii)	Compliance with operation and maintenance requirements	No	
§ 63.8(c)(2)-(3)	Monitoring system installation	Yes.	
§ 63.8(c)(4)	Continuous monitoring system (CMS) requirements	Yes	Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).
§ 63.8(c)(5)	COMS minimum procedures	No	Subpart ZZZZ does not require COMS.
§ 63.8(c)(6)-(8)	CMS requirements	Yes	Except that subpart ZZZZ does not require COMS.
§ 63.8(d)	CMS quality control	Yes.	
§ 63.8(e)	CMS performance evaluation	Yes	Except for § 63.8(e)(5)(ii), which applies to COMS.
		Except that § 63.8(e) only applies as specified in § 63.6645.	
§ 63.8(f)(1)-(5)	Alternative monitoring method	Yes	Except that § 63.8(f)(4) only applies as specified in § 63.6645.
§ 63.8(f)(6)	Alternative to relative accuracy test	Yes	Except that § 63.8(f)(6) only applies as specified in § 63.6645.
§ 63.8(g)	Data reduction	Yes	Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§ 63.6635 and 63.6640.
§ 63.9(a)	Applicability and State delegation of notification requirements	Yes.	
§ 63.9(b)(1)-(5)	Initial notifications	Yes	Except that § 63.9(b)(3) is reserved.

General provisions citation	Subject of citation	Applies to subpart	Explanation
		Except that § 63.9(b) only applies as specified in § 63.6645.	
§ 63.9(c)	Request for compliance extension	Yes	Except that § 63.9(c) only applies as specified in § 63.6645.
§ 63.9(d)	Notification of special compliance requirements for new sources	Yes	Except that § 63.9(d) only applies as specified in § 63.6645.
§ 63.9(e)	Notification of performance test	Yes	Except that § 63.9(e) only applies as specified in § 63.6645.
§ 63.9(f)	Notification of visible emission (VE)/opacity test	No	Subpart ZZZZ does not contain opacity or VE standards.
§ 63.9(g)(1)	Notification of performance evaluation	Yes	Except that § 63.9(g) only applies as specified in § 63.6645.
§ 63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.
§ 63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded	Yes	If alternative is in use.
		Except that § 63.9(g) only applies as specified in § 63.6645.	
§ 63.9(h)(1)-(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. § 63.9(h)(4) is reserved.
			Except that § 63.9(h) only applies as specified in § 63.6645.
§ 63.9(i)	Adjustment of submittal deadlines	Yes.	
§ 63.9(j)	Change in previous information	Yes.	
§ 63.10(a)	Administrative provisions for recordkeeping/reporting	Yes.	
§ 63.10(b)(1)	Record retention	Yes	Except that the most recent 2 years of data do not have to be retained on site.
§ 63.10(b)(2)(i)-(v)	Records related to SSM	No.	
§ 63.10(b)(2)(vi)-(xi)	Records	Yes.	
§ 63.10(b)(2)(xii)	Record when under waiver	Yes.	
§ 63.10(b)(2)(xiii)	Records when using alternative to RATA	Yes	For CO standard if using RATA alternative.
§ 63.10(b)(2)(xiv)	Records of supporting documentation	Yes.	
§ 63.10(b)(3)	Records of applicability determination	Yes.	
§ 63.10(c)	Additional records for sources using CEMS	Yes	Except that § 63.10(c)(2)-(4) and (9) are reserved.
§ 63.10(d)(1)	General reporting requirements	Yes.	
§ 63.10(d)(2)	Report of performance test results	Yes.	

General provisions citation	Subject of citation	Applies to subpart	Explanation
§ 63.10(d)(3)	Reporting opacity or VE observations	No	Subpart ZZZZ does not contain opacity or VE standards.
§ 63.10(d)(4)	Progress reports	Yes.	
§ 63.10(d)(5)	Startup, shutdown, and malfunction reports	No.	
§ 63.10(e)(1) and (2)(i)	Additional CMS Reports	Yes.	
§ 63.10(e)(2)(ii)	COMS-related report	No	Subpart ZZZZ does not require COMS.
§ 63.10(e)(3)	Excess emission and parameter exceedances reports	Yes.	Except that § 63.10(e)(3)(i) (C) is reserved.
§ 63.10(e)(4)	Reporting COMS data	No	Subpart ZZZZ does not require COMS.
§ 63.10(f)	Waiver for recordkeeping/reporting	Yes.	
§ 63.11	Flares	No.	
§ 63.12	State authority and delegations	Yes.	
§ 63.13	Addresses	Yes.	
§ 63.14	Incorporation by reference	Yes.	
§ 63.15	Availability of information	Yes.	

[75 FR 9688, Mar. 3, 2010, as amended at 78 FR 6720, Jan. 30, 2013]

Appendix A—Protocol for Using an Electrochemical Analyzer to Determine Oxygen and Carbon Monoxide Concentrations From Certain Engines

1.0 Scope and Application. What is this Protocol?

This protocol is a procedure for using portable electrochemical (EC) cells for measuring carbon monoxide (CO) and oxygen (O_2) concentrations in controlled and uncontrolled emissions from existing stationary 4-stroke lean burn and 4-stroke rich burn reciprocating internal combustion engines as specified in the applicable rule.

1.1 Analytes. What does this protocol determine?

This protocol measures the engine exhaust gas concentrations of carbon monoxide (CO) and oxygen (O_2).

Analyte	CAS No.	Sensitivity
Carbon monoxide (CO)	630-08-0	Minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.
Oxygen (O_2)	*7782-44-7*	

1.2 Applicability. When is this protocol acceptable?

This protocol is applicable to 40 CFR part 63, subpart ZZZZ. Because of inherent cross sensitivities of EC cells, you must not apply this protocol to other emissions sources without specific instruction to that effect.

1.3 Data Quality Objectives. How good must my collected data be?

Refer to Section 13 to verify and document acceptable analyzer performance.

1.4 Range. What is the targeted analytical range for this protocol?

The measurement system and EC cell design(s) conforming to this protocol will determine the analytical range for each gas component. The nominal ranges are defined by choosing up-scale calibration gas concentrations near the maximum anticipated flue gas concentrations for CO and O_2 , or no more than twice the permitted CO level.

1.5 Sensitivity. What minimum detectable limit will this protocol yield for a particular gas component?

The minimum detectable limit depends on the nominal range and resolution of the specific EC cell used, and the signal to noise ratio of the measurement system. The minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.

2.0 Summary of Protocol

In this protocol, a gas sample is extracted from an engine exhaust system and then conveyed to a portable EC analyzer for measurement of CO and O_2 gas concentrations. This method provides measurement system performance specifications and sampling protocols to ensure reliable data. You may use additions to, or modifications of vendor supplied measurement systems (e.g., heated or unheated sample lines, thermocouples, flow meters, selective gas scrubbers, etc.) to meet the design specifications of this protocol. Do not make changes to the measurement system from the as-verified configuration (Section 3.12).

3.0 Definitions

3.1 Measurement System. The total equipment required for the measurement of CO and O_2 concentrations. The measurement system consists of the following major subsystems:

3.1.1 Data Recorder. A strip chart recorder, computer or digital recorder for logging measurement data from the analyzer output. You may record measurement data from the digital data display manually or electronically.

3.1.2 Electrochemical (EC) Cell. A device, similar to a fuel cell, used to sense the presence of a specific analyte and generate an electrical current output proportional to the analyte concentration.

3.1.3 Interference Gas Scrubber. A device used to remove or neutralize chemical compounds that may interfere with the selective operation of an EC cell.

3.1.4 Moisture Removal System. Any device used to reduce the concentration of moisture in the sample stream so as to protect the EC cells from the damaging effects of condensation and to minimize errors in measurements caused by the scrubbing of soluble gases.

3.1.5 Sample Interface. The portion of the system used for one or more of the following: sample acquisition; sample transport; sample conditioning or protection of the EC cell from any degrading effects of the engine exhaust effluent; removal of particulate matter and condensed moisture.

3.2 Nominal Range. The range of analyte concentrations over which each EC cell is operated (normally 25 percent to 150 percent of up-scale calibration gas value). Several nominal ranges can be used for any given cell so long as the calibration and repeatability checks for that range remain within specifications.

3.3 Calibration Gas. A vendor certified concentration of a specific analyte in an appropriate balance gas.

3.4 Zero Calibration Error. The analyte concentration output exhibited by the EC cell in response to zero-level calibration gas.

3.5 Up-Scale Calibration Error. The mean of the difference between the analyte concentration exhibited by the EC cell and the certified concentration of the up-scale calibration gas.

3.6 Interference Check. A procedure for quantifying analytical interference from components in the engine exhaust gas other than the targeted analytes.

3.7 Repeatability Check. A protocol for demonstrating that an EC cell operated over a given nominal analyte concentration range provides a stable and consistent response and is not significantly affected by repeated exposure to that gas.

3.8 Sample Flow Rate. The flow rate of the gas sample as it passes through the EC cell. In some situations, EC cells can experience drift with changes in flow rate. The flow rate must be monitored and documented during all phases of a sampling run.

3.9 Sampling Run. A timed three-phase event whereby an EC cell's response rises and plateaus in a sample conditioning phase, remains relatively constant during a measurement data phase, then declines during a refresh phase. The sample conditioning phase exposes the EC cell to the gas sample for a length of time sufficient to reach a constant response. The measurement data phase is the time interval during which gas sample measurements can be made that meet the acceptance criteria of this protocol. The refresh phase then purges the EC cells with CO-free air. The refresh phase replenishes requisite O_2 and moisture in the electrolyte reserve and provides a mechanism to de-gas or desorb any interference gas scrubbers or filters so as to enable a stable CO EC cell response. There are four primary types of sampling runs: pre- sampling calibrations; stack gas sampling; post-sampling calibration checks; and measurement system repeatability checks. Stack gas sampling runs can be chained together for extended evaluations, providing all other procedural specifications are met.

3.10 Sampling Day. A time not to exceed twelve hours from the time of the pre-sampling calibration to the post-sampling calibration check. During this time, stack gas sampling runs can be repeated without repeated recalibrations, providing all other sampling specifications have been met.

3.11 Pre-Sampling Calibration/Post-Sampling Calibration Check. The protocols executed at the beginning and end of each sampling day to bracket measurement readings with controlled performance checks.

3.12 Performance-Established Configuration. The EC cell and sampling system configuration that existed at the time that it initially met the performance requirements of this protocol.

4.0 Interferences.

When present in sufficient concentrations, NO and NO_2 are two gas species that have been reported to interfere with CO concentration measurements. In the likelihood of this occurrence, it is the protocol user's responsibility to employ and properly maintain an appropriate CO EC cell filter or scrubber for removal of these gases, as described in Section 6.2.12.

5.0 Safety. [Reserved]

6.0 Equipment and Supplies.

6.1 What equipment do I need for the measurement system?

The system must maintain the gas sample at conditions that will prevent moisture condensation in the sample transport lines, both before and as the sample gas contacts the EC cells. The essential components of the measurement system are described below.

6.2 Measurement System Components.

6.2.1 Sample Probe. A single extraction-point probe constructed of glass, stainless steel or other non-reactive material, and of length sufficient to reach any designated sampling point. The sample probe must be designed to prevent plugging due to condensation or particulate matter.

6.2.2 Sample Line. Non-reactive tubing to transport the effluent from the sample probe to the EC cell.

6.2.3 Calibration Assembly (optional). A three-way valve assembly or equivalent to introduce calibration gases at ambient pressure at the exit end of the sample probe during calibration checks. The assembly must be designed such that only stack gas or calibration gas flows in the sample line and all gases flow through any gas path filters.

6.2.4 Particulate Filter (optional). Filters before the inlet of the EC cell to prevent accumulation of particulate material in the measurement system and extend the useful life of the components. All filters must be fabricated of materials that are non-reactive to the gas mixtures being sampled.

6.2.5 Sample Pump. A leak-free pump to provide undiluted sample gas to the system at a flow rate sufficient to minimize the response time of the measurement system. If located upstream of the EC cells, the pump must be constructed of a material that is non-reactive to the gas mixtures being sampled.

6.2.8 Sample Flow Rate Monitoring. An adjustable rotameter or equivalent device used to adjust and maintain the sample flow rate through the analyzer as prescribed.

6.2.9 Sample Gas Manifold (optional). A manifold to divert a portion of the sample gas stream to the analyzer and the remainder to a by-pass discharge vent. The sample gas manifold may also include provisions for introducing calibration gases directly to the analyzer. The manifold must be constructed of a material that is non-reactive to the gas mixtures being sampled.

6.2.10 EC cell. A device containing one or more EC cells to determine the CO and O_2 concentrations in the sample gas stream. The EC cell(s) must meet the applicable performance specifications of Section 13 of this protocol.

6.2.11 Data Recorder. A strip chart recorder, computer or digital recorder to make a record of analyzer output data. The data recorder resolution (i.e., readability) must be no greater than 1 ppm for CO; 0.1 percent for O_2 ; and one degree (either °C or °F) for temperature. Alternatively, you may use a digital or analog meter having the same resolution to observe and manually record the analyzer responses.

6.2.12 Interference Gas Filter or Scrubber. A device to remove interfering compounds upstream of the CO EC cell. Specific interference gas filters or scrubbers used in the performance-established configuration of the analyzer must continue to be used. Such a filter or scrubber must have a means to determine when the removal agent is exhausted. Periodically replace or replenish it in accordance with the manufacturer's recommendations.

7.0 Reagents and Standards. What calibration gases are needed?

7.1 Calibration Gases. CO calibration gases for the EC cell must be CO in nitrogen or CO in a mixture of nitrogen and O_2. Use CO calibration gases with labeled concentration values certified by the manufacturer to be within ± 5 percent of the label value. Dry ambient air (20.9 percent O_2) is acceptable for calibration of the O_2 cell. If needed, any lower percentage O_2 calibration gas must be a mixture of O_2 in nitrogen.

7.1.1 Up-Scale CO Calibration Gas Concentration. Choose one or more up-scale gas concentrations such that the average of the stack gas measurements for each stack gas sampling run are between 25 and 150 percent of those concentrations. Alternatively, choose an up-scale gas that does not exceed twice the concentration of the applicable outlet standard. If a measured gas value exceeds 150 percent of the up-scale CO calibration gas value at any time during the stack gas sampling run, the run must be discarded and repeated.

7.1.2 Up-Scale O_2 Calibration Gas Concentration.

Select an O_2 gas concentration such that the difference between the gas concentration and the average stack gas measurement or reading for each sample run is less than 15 percent O_2 . When the average exhaust gas O_2 readings are above 6 percent, you may use dry ambient air (20.9 percent O_2) for the up-scale O_2 calibration gas.

7.1.3 Zero Gas. Use an inert gas that contains less than 0.25 percent of the up-scale CO calibration gas concentration. You may use dry air that is free from ambient CO and other combustion gas products (e.g., CO_2).

8.0 Sample Collection and Analysis

8.1 Selection of Sampling Sites.

8.1.1 Control Device Inlet. Select a sampling site sufficiently downstream of the engine so that the combustion gases should be well mixed. Use a single sampling extraction point near the center of the duct (e.g., within the 10 percent centroidal area), unless instructed otherwise.

8.1.2 Exhaust Gas Outlet. Select a sampling site located at least two stack diameters downstream of any disturbance (e.g., turbocharger exhaust, crossover junction or recirculation take-off) and at least one-half stack diameter upstream of the gas discharge to the atmosphere. Use a single sampling extraction point near the center of the duct (e.g., within the 10 percent centroidal area), unless instructed otherwise.

8.2 Stack Gas Collection and Analysis. Prior to the first stack gas sampling run, conduct that the pre-sampling calibration in accordance with Section 10.1. Use Figure 1 to record all data. Zero the analyzer with zero gas. Confirm and record that the scrubber media color is correct and not exhausted. Then position the probe at the sampling point and begin the sampling run at the same flow rate used during the up-scale calibration. Record the start time. Record all EC cell output responses and the flow rate during the “sample conditioning phase” once per minute until constant readings are obtained. Then begin the “measurement data phase” and record readings every 15 seconds for at least two minutes (or eight readings), or as otherwise required to achieve two continuous minutes of data that meet the specification given in Section 13.1. Finally, perform the “refresh phase” by introducing dry air, free from CO and other combustion gases, until several minute-to-minute readings of consistent value have been obtained. For each run use the “measurement data phase” readings to calculate the average stack gas CO and O_2 concentrations.

8.3 EC Cell Rate. Maintain the EC cell sample flow rate so that it does not vary by more than ± 10 percent throughout the pre-sampling calibration, stack gas sampling and post-sampling calibration check. Alternatively, the EC cell sample flow rate can be maintained within a tolerance range that does not affect the gas concentration readings by more than ± 3 percent, as instructed by the EC cell manufacturer.

9.0 Quality Control (Reserved)

10.0 Calibration and Standardization

10.1 Pre-Sampling Calibration. Conduct the following protocol once for each nominal range to be used on each EC cell before performing a stack gas sampling run on each field sampling day. Repeat the calibration if you replace an EC cell before completing all of the sampling runs. There is no prescribed order for calibration of the EC cells; however, each cell must complete the measurement data phase during calibration. Assemble the measurement system by following the manufacturer's recommended protocols including for preparing and preconditioning the EC cell. Assure the measurement system has no leaks and verify the gas scrubbing agent is not depleted. Use Figure 1 to record all data.

10.1.1 Zero Calibration. For both the O_2 and CO cells, introduce zero gas to the measurement system (e.g., at the calibration assembly) and record the concentration reading every minute until readings are constant for at least two consecutive minutes. Include the time and sample flow rate. Repeat the steps in this section at least once to verify the zero calibration for each component gas.

10.1.2 Zero Calibration Tolerance. For each zero gas introduction, the zero level output must be less than or equal to ± 3 percent of the up-scale gas value or ± 1 ppm, whichever is less restrictive, for the CO channel and less than or equal to ± 0.3 percent O_2 for the O_2 channel.

10.1.3 Up-Scale Calibration. Individually introduce each calibration gas to the measurement system (e.g., at the calibration assembly) and record the start time. Record all EC cell output responses and the flow rate during this “sample conditioning phase” once per minute until readings are constant for at least two minutes. Then begin the “measurement data phase” and record readings every 15 seconds for a total of two minutes, or as otherwise required. Finally, perform the “refresh phase” by introducing dry air, free from CO and other combustion gases, until readings are constant for at least two consecutive minutes. Then repeat the steps in this section at least once to verify the calibration for each component gas. Introduce all gases to flow through the entire sample handling system (i.e., at the exit end of the sampling probe or the calibration assembly).

10.1.4 Up-Scale Calibration Error. The mean of the difference of the "measurement data phase" readings from the reported standard gas value must be less than or equal to ± 5 percent or ± 1 ppm for CO or ± 0.5 percent O_2 , whichever is less restrictive, respectively. The maximum allowable deviation from the mean measured value of any single "measurement data phase" reading must be less than or equal to ± 2 percent or ± 1 ppm for CO or ± 0.5 percent O_2 , whichever is less restrictive, respectively.

10.2 Post-Sampling Calibration Check. Conduct a stack gas post-sampling calibration check after the stack gas sampling run or set of runs and within 12 hours of the initial calibration. Conduct up-scale and zero calibration checks using the protocol in Section 10.1. Make no changes to the sampling system or EC cell calibration until all post-sampling calibration checks have been recorded. If either the zero or up-scale calibration error exceeds the respective specification in Sections 10.1.2 and 10.1.4 then all measurement data collected since the previous successful calibrations are invalid and re-calibration and re-sampling are required. If the sampling system is disassembled or the EC cell calibration is adjusted, repeat the calibration check before conducting the next analyzer sampling run.

11.0 Analytical Procedure

The analytical procedure is fully discussed in Section 8.

12.0 Calculations and Data Analysis

Determine the CO and O_2 concentrations for each stack gas sampling run by calculating the mean gas concentrations of the data recorded during the "measurement data phase".

13.0 Protocol Performance

Use the following protocols to verify consistent analyzer performance during each field sampling day.

13.1 Measurement Data Phase Performance Check. Calculate the mean of the readings from the "measurement data phase". The maximum allowable deviation from the mean for each of the individual readings is ± 2 percent, or ± 1 ppm, whichever is less restrictive. Record the mean value and maximum deviation for each gas monitored. Data must conform to Section 10.1.4. The EC cell flow rate must conform to the specification in Section 8.3.

Example: A measurement data phase is invalid if the maximum deviation of any single reading comprising that mean is greater than ± 2 percent *or ± 1 ppm (the default criteria). For example, if the mean = 30 ppm, single readings of below 29 ppm and above 31 ppm are disallowed*).

13.2 Interference Check. Before the initial use of the EC cell and interference gas scrubber in the field, and semi-annually thereafter, challenge the interference gas scrubber with NO and NO_2 gas standards that are generally recognized as representative of diesel-fueled engine NO and NO_2 emission values. Record the responses displayed by the CO EC cell and other pertinent data on Figure 1 or a similar form.

13.2.1 Interference Response. The combined NO and NO_2 interference response should be less than or equal to ± 5 percent of the up-scale CO calibration gas concentration.

13.3 Repeatability Check. Conduct the following check once for each nominal range that is to be used on the CO EC cell within 5 days prior to each field sampling program. If a field sampling program lasts longer than 5 days, repeat this check every 5 days. Immediately repeat the check if the EC cell is replaced or if the EC cell is exposed to gas concentrations greater than 150 percent of the highest up-scale gas concentration.

13.3.1 Repeatability Check Procedure. Perform a complete EC cell sampling run (all three phases) by introducing the CO calibration gas to the measurement system and record the response. Follow Section 10.1.3. Use Figure 1 to record all data. Repeat the run three times for a total of four complete runs. During the four repeatability check runs, do not adjust the system except where necessary to achieve the correct calibration gas flow rate at the analyzer.

13.3.2 Repeatability Check Calculations. Determine the highest and lowest average "measurement data phase" CO concentrations from the four repeatability check runs and record the results on Figure 1 or a similar form. The

absolute value of the difference between the maximum and minimum average values recorded must not vary more than ± 3 percent or ± 1 ppm of the up-scale gas value, whichever is less restrictive.

14.0 Pollution Prevention (Reserved)

15.0 Waste Management (Reserved)

16.0 Alternative Procedures (Reserved)

17.0 References

(1) “Development of an Electrochemical Cell Emission Analyzer Test Protocol”, Topical Report, Phil Juneau, Emission Monitoring, Inc., July 1997.

(2) “Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Emissions from Natural Gas-Fired Engines, Boilers, and Process Heaters Using Portable Analyzers”, EMC Conditional Test Protocol 30 (CTM-30), Gas Research Institute Protocol GRI-96/0008, Revision 7, October 13, 1997.

(3) “ICAC Test Protocol for Periodic Monitoring”, EMC Conditional Test Protocol 34 (CTM-034), The Institute of Clean Air Companies, September 8, 1999.

(4) “Code of Federal Regulations”, Protection of Environment, 40 CFR, Part 60, Appendix A, Methods 1-4; 10.

Table 1: Appendix A—Sampling Run Data.

Facility_____ Engine I.D._____ Date_____											
Run Type:	(_)				(_)			(_)			(_)
(X)	Pre-Sample Calibration				Stack Gas Sample			Post-Sample Cal. Check			Repeatability Check
Run #	1	1	2	2	3	3	4	4	Time	Scrub. OK	Flow- Rate
Gas	O_2	CO	O_2	CO	O_2	CO	O_2	CO			
Sample Cond. Phase											
″											
″											
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″											
Measurement Data Phase											
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[78 FR 6721, Jan. 30, 2013]

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document for a Part 70 Operating Permit Renewal

Source Description and Location

Source Name:	Bunge North America (East), LLC
Source Location:	1200 N. 2nd Street, Decatur, Indiana 46733
County:	Adams
SIC Code:	2075, 2079, and 5153
Part 70 Operation Permit Renewal No.:	T001-31996-00005
Permit Reviewer:	Julie Alexander

On July 27, 2013, the Office of Air Quality (OAQ) had a notice published in the Decatur Daily Democrat, Decatur, Indiana, stating that Bunge North America (East), LLC had applied for a Part 70 Operating Permit to continue to operate a stationary grain handling, soybean meal production, and soybean oil extraction plant. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Upon further review, the OAQ has decided to make the following revisions to the permit (bolded language has been added, the language with a line through it has been deleted). The Table Of Contents has been modified to reflect these changes.

On August 20, 2013, Bunge North America (East), LLC submitted comments on the proposed Part 70 permit. The summary of the comments is as follows:

Comment #1:
Page 50, D.2 (xx)(1),(2),(3) - The A & B meal dryers and the meal cooler do not use cyclones for PM control. They are used for product recovery as they are an integral part of the process. The cyclones are designed as part of the dryer and cooler mechanisms to recover product valued at approximately $9 million annually. The cyclones are designed as an integral part of the drying and cooling process and would be utilized for that purpose and constructed as such whether or not air quality regulations were in place.

Page 63, D.4(xx)(1),(2),(3) - Same as above

Page 7, (xx)(1),(2),(3) - Same as above

Response #1:
IDEM has made the following determination when it comes to the A & B meal dryers and the meal cooler cyclones based on the information the source has provided.

The applicant has submitted the following justification such that the DTDC cyclones, associated with units 24EX1, 24EX2 and 24EX3, should be considered as an integral part of the DTDC system:

The DTDC (Desolventizer-Toaster-Dryer-Cooler) system can be broken into two different areas.

In the first area, the desolventizer toaster, the solvent laden flakes enter the top and land on the predesolventizing tray, which is steam heated. The flakes are evenly distributed onto the first main tray. Each main tray has hollow stay bolts for venting vapours from one tray to the next. The quantity and position are carefully designed to allow maximum contact between vapours and meal.

Steam is injected through the perforated bottom tray. The steam strips the final solvent from the meal and then vents up through all the trays above. A true counter current desolventization is achieved, previously unavailable in DT's. The result is a uniquely low solvent content in desolventised meal, and significantly reduced solvent losses.

The meal flows from one tray to the next through chutes. The bottom tray contains a specially designed variable speed rotary valve to maintain a level surface.

The second area, the dryer cooler, will dry and cool almost any solvent extracted vegetable oil bearing meal. The drying and cooling is accomplished by injecting heated air in the drying section and using ambient temperature air to cool the meal in the cooling section. This produces a meal with the desired characteristics for sale and storage.

Air leaves the dryer cooler via ducting and dryer cooler cyclones, which have rotary airlocks at the bottom. The cyclones are used to extract any meal that was swept up into the air. The bottoms of the cyclones are attached to the meal conveyor allowing the meal to drop into the moving meal below.

The DTDC could run without the cyclones. If the cyclones are not run, the company would loss 2% to 3% of meal product. At a maximum 110 ton/hr flow rate, an average 8400 hours per year, $400/ton meal product, averaged over the last five years, and an average recovery of 2.5%, this equates to an annual loss in product of $9,240,000. The cyclones are a significant economic benefit for the source because it reduces the amount of meal that is lost. The economic benefit of the cyclones is as follows:

	Amount	Units
Cyclones Flow Rate	110	tons/hr
Hours of Operation	8400	hours
Meal Recoved	2.5	%
Cost of Meal	$400	per ton
Estimated Cost of Lost Meal	$9,240,000	ton of meal /year
Cost of System	$200,000	per system
Economic Benefit of Cyclone System	$9,040,000	per year

[1] The cyclone system consists of 8 cyclones, was installed in 2002 and has a 10 - 20+ year life cycle.

IDEM, OAQ has evaluated the information submitted and agreed that the DTDC cyclones should be considered an integral part of the DTDC system. This determination is based on the fact that the total cost of installation, operation and maintenance of the system is far less than the net savings that the source enjoys from recovering otherwise lost product. Therefore, the permitting level will be determined using the potential to emit after the DTDC cyclones. Operating conditions in the proposed permit will specify that the DTDC cyclones shall operate at all times when the DTDC system is in operation.

Based on the integral determination, the Federal and State Rule Applicability were reviewed.

For the purpose of Compliance Assurance Monitoring (CAM), the cyclones are considered inherent process equipment because their primary purpose is product recovery. CAM does not consider inherent process equipment to be a control deceive. Therefore CAM does not apply to these units.

Stack ID	Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
24EX	PM*	Cyclone	Y	>100	<100	100	N	N
	PM10*	Cyclone	Y	>100	<100	100	N	N
	PM2.5*	Cyclone	Y	>100	<100	100	N	N
	VOC	Mineral Oil Absorber	Y	>100	<100	100	Y	N
	Total HAPs	Mineral Oil Absorber	Y	>100	<100	100	Y	N

* The cyclones are considered inherent process equipment.

326 IAC 6-3 is applicable to all manufacturing processes that produce particulate emissions anywhere in the state. Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from this processes shall not exceed the given emissions in pounds per hour when operating at the given process weight rates. The pound per hour limitations were calculated with the following equation.

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

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

Process / Emission Unit	P (tons/hr)	E (lbs/hr)
24EX1	109.4	52.18
24EX2	109.4	52.18
24EX3	110	52.24

To insure the cyclones are working properly and the facility is in compliance with 326 IAC 6-3-2, daily visible emissions notations will be taken on the integral cyclones.

IDEM made the following change to the permit, with deleted language as ~~strikeouts~~ and new language **bolded**.

The calculations have been corrected to reflect the integral determination. Based on these changes, the PTE of the source has not changed. See Appendix A to the TSD Addendum for a detailed copy of the revisions to the calculations.

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

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(xx) ***

(1) One (1) ‘A’ unit, identified as 24EX1, consisting of 'A' pre-DT, constructed in 1996, ‘A’ DT, constructed in 1980, and the 'A' Meal Dryer, constructed in 1980, with a maximum capacity of 109.4 tons per hour, each. 'A' pre-DT is on top of and feeds the ‘A’ DT, which is on top of and feeds the ‘A’ Meal Dryer. The ‘A’ pre-DT and the 'A' DT exhaust to the hexane solvent reclaim system. The ‘A’ Meal Dryer uses **an integral** cyclone for **product recovery, which also provides** PM control, and exhausts to stack 24EX1. Hexane emissions are reported in 24EX.

(2) One (1) ‘B’ unit, identified as 24EX2, consisting of 'B' pre-DT, constructed in 1996, 'B' DT, constructed in 1980, and the 'B' Meal Dryer, constructed in 1980, with a maximum capacity of 109.4 tons per hour, each. 'B' pre-DT is on top of and feeds the ‘B’ DT which is on top of and feeds the ‘B’ Meal Dryer. The 'B' pre-DT and the ‘B’ DT exhaust to the hexane solvent reclaim system. The ‘B’ Meal Dryer uses **an integral** cyclone for **product recovery, which also provides** PM control, and exhausts to stack 24EX2. Hexane emissions are reported in 24EX.

(3) One meal cooler, identified as 24EX3, constructed in 1996, with a maximum capacity of 110 tons per hour, using two (2) **integral** cyclones for **product recovery, which also provide** PM control, exhausting to stacks 24EX3A and 24EX3B, respectively, with hexane emissions reported in 24EX.

***

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

***

(xx) ***

(1) One (1) ‘A’ unit, identified as 24EX1, consisting of 'A' pre-DT, constructed in 1996, ‘A’ DT, constructed in 1980, and the 'A' Meal Dryer, constructed in 1980, with a maximum capacity of 109.4 tons per hour, each. 'A' pre-DT is on top of and feeds the ‘A’ DT, which is on top of and feeds the ‘A’ Meal Dryer. The ‘A’ pre-DT and the 'A' DT exhaust to the hexane solvent reclaim system. The ‘A’ Meal Dryer uses **an integral** cyclone for **product recovery, which also provides** PM control, and exhausts to stack 24EX1. Hexane emissions are reported in 24EX.

(2) One (1) ‘B’ unit, identified as 24EX2, consisting of 'B' pre-DT, constructed in 1996, 'B' DT, constructed in 1980, and the 'B' Meal Dryer, constructed in 1980, with a maximum capacity of 109.4 tons per hour, each. 'B' pre-DT is on top of and feeds the ‘B’ DT which is on top of and feeds the ‘B’ Meal Dryer. The 'B' pre-DT and the ‘B’ DT exhaust to the hexane solvent reclaim system. The ‘B’ Meal Dryer uses **an integral** cyclone for **product recovery, which also provides** PM control, and exhausts to stack 24EX2. Hexane emissions are reported in 24EX.

(3) One meal cooler, identified as 24EX3, constructed in 1996, with a maximum capacity of 110 tons per hour, using two (2) **integral** cyclones for **product recovery, which also provide** PM control, exhausting to stacks 24EX3A and 24EX3B, respectively, with hexane emissions reported in 24EX.

***

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Hexane Extraction System

(xx) ***

(1) One (1) ‘A’ unit, identified as 24EX1, consisting of 'A' pre-DT, constructed in 1996, ‘A’ DT, constructed in 1980, and the 'A' Meal Dryer, constructed in 1980, with a maximum capacity of 109.4 tons per hour, each. 'A' pre-DT is on top of and feeds the ‘A’ DT, which is on top of and feeds the ‘A’ Meal Dryer. The ‘A’ pre-DT and the 'A' DT exhaust to the hexane solvent reclaim system. The ‘A’ Meal Dryer uses **an integral** cyclone for **product recovery, which also provides** PM control, and exhausts to stack 24EX1. Hexane emissions are reported in 24EX.

(2) One (1) 'B' unit, identified as 24EX2, consisting of 'B' pre-DT, constructed in 1996, 'B' DT, constructed in 1980, and the 'B' Meal Dryer, constructed in 1980, with a maximum capacity of 109.4 tons per hour, each. 'B' pre-DT is on top of and feeds the 'B' DT which is on top of and feeds the 'B' Meal Dryer. The 'B' pre-DT and the 'B' DT exhaust to the hexane solvent reclaim system. The 'B' Meal Dryer uses **an integral** cyclone for **product recovery, which also provides** PM control, and exhausts to stack 24EX2. Hexane emissions are reported in 24EX.

(3) One meal cooler, identified as 24EX3, constructed in 1996, with a maximum capacity of 110 tons per hour, using two (2) **integral** cyclones for **product recovery, which also provide** PM control, exhausting to stacks 24EX3A and 24EX3B, respectively, with hexane emissions reported in 24EX.

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SECTION E.3 National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production [40 CFR 63, Subpart GGGG] [326 IAC 20-60]

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(xx) ***

(1) One (1) 'A' unit, identified as 24EX1, consisting of 'A' pre-DT, constructed in 1996, 'A' DT, constructed in 1980, and the 'A' Meal Dryer, constructed in 1980, with a maximum capacity of 109.4 tons per hour, each. 'A' pre-DT is on top of and feeds the 'A' DT, which is on top of and feeds the 'A' Meal Dryer. The 'A' pre-DT and the 'A' DT exhaust to the hexane solvent reclaim system. The 'A' Meal Dryer uses **an integral** cyclone for **product recovery, which also provides** PM control, and exhausts to stack 24EX1. Hexane emissions are reported in 24EX.

(2) One (1) 'B' unit, identified as 24EX2, consisting of 'B' pre-DT, constructed in 1996, 'B' DT, constructed in 1980, and the 'B' Meal Dryer, constructed in 1980, with a maximum capacity of 109.4 tons per hour, each. 'B' pre-DT is on top of and feeds the 'B' DT which is on top of and feeds the 'B' Meal Dryer. The 'B' pre-DT and the 'B' DT exhaust to the hexane solvent reclaim system. The 'B' Meal Dryer uses **an integral** cyclone for **product recovery, which also provides** PM control, and exhausts to stack 24EX2. Hexane emissions are reported in 24EX.

(3) One meal cooler, identified as 24EX3, constructed in 1996, with a maximum capacity of 110 tons per hour, using two (2) **integral** cyclones for **product recovery, which also provide** PM control, exhausting to stacks 24EX3A and 24EX3B, respectively, with hexane emissions reported in 24EX.

***

D.2.8 Visible Emissions Notations [326 IAC 6-3-2]

(a) Visible emission notations of the grain handling, grain drying, and soybean meal production stack exhausts/vents (24EX1, 24EX2, 24EX3A, and 24EX3B) shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

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

D.2.~~8~~**9** Visible Emissions Notations [40 CFR 64 (CAM)]

(a) Visible emission notations of the grain handling, grain drying, and soybean meal production stack exhausts/vents (9EL, 6EX **and** 7EX ~~24EX1, 24EX2, 24EX3A, and 24EX3B~~) shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) ***

(c) ***

(d) ***

(e) ***

D.2.~~9~~**10** Parametric Monitoring

***

D.2.1~~0~~**1** Parametric Monitoring [40 CFR 64 (CAM)]

***

D.2.1~~1~~**2** Broken or Failed Bag Detection

***

D.2.1~~2~~**3** Cyclone Failure Detection

***

D.2.1~~3~~**4** Record Keeping Requirements

(a) ***

(b) To document the compliance status with Condition D.2.7, ~~and~~ D.2.8 **and D.2.9** the Permittee shall maintain a daily record of visible emission notations of the grain handling and soybean meal production processes' stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(c) To document the compliance status with Condition D.2.**10**~~9~~ and D.2.**11**~~10~~, the Permittee shall maintain a daily record of the pressure drop across the baghouses controlling the grain handling and soybean meal production processes. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(d) ***

D.2.1~~4~~**5** Reporting Requirements

***

Comment #2:
Page 62, D.3.12(a)(2) - Since these projects were completed nearly two years ago, per the conditions, a statement should be added to indentify the projects were completed. Completion was demonstrated and the projects resulted in the required emission reductions. The compliance information was submitted historically to the regulatory agencies. Since the Consent Decree must remain a part of the permit, an acknowledgement/statement of the conditions being met would avoid any future questions as to whether or not the projects were completed and conditions met.

Response #2:
IDEM made the following change to the permit, with deleted language as ~~strikeouts~~ and new language **bolded**, to include a statement about when the projects where completed.

D.3.12 Consent Decree Limits, Compliance, and Record Keeping Requirements

***

The above projects were completed in August of 2011 and October of 2011.

No change will be made to the original TSD. The OAQ prefers that the TSD reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Appendix A: Emission Calculations
Plant Summary

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

Unrestricted Emissions

Process/ Emission Unit	PM	PM_{10}	$PM_{2.5}$	SO_2	NO_X	VOC	CO	CO_2e	Total HAP	Hex.
Grain Elevator (EL)	19,690.06	19,465.72	9,966.95	--	--	--	--	--	--	--
Grain Elevator (EL) - *Fugitive Emissions*	182.67	54.16	9.19	--	--	--	--	--	--	--
Hexane Extraction System (24EX) (Part 70)	29.32	29.32	11.05	--	--	435.07	--	--	435.07	435.07
Hexane Extraction System (24EX) (PSD and CAM)	*3,664.65*	*3,664.65*	*1,381.57*	--	--	*435.07*	--	--	*435.07*	*435.07*
Milling & Extraction (EX)	605.66	545.42	489.03	--	--	--	--	--	--	--
Milling & Extraction (EX) - *Fugitive Emissions*	26.61	3.94	0.26	--	--	--	--	--	--	--
Natural Gas Combustion	1.27	5.07	5.07	0.47	49.44	4.34	71.94	95,290	1.49	1.42
Coal Combustion	38.58	38.58	6.55	1,302.56	323.88	1.88	44.36	167,929	73.46	1.80E-03
Murray Boiler	0.92	3.67	3.67	0.29	48.27	2.65	40.54	58,274	0.91	0.87
Fire Pumps	0.46	0.46	0.26	0.43	6.55	0.53	1.41	18,241	0.81	--
Vehicle Refueling Operations	--	--	--	--	--	4.39	--	--	--	--
Tanks	--	--	--	--	--	0.14	--	--	0.14	0.14
Cooling Tower	0.11	0.09	0.09	--	--	--	--	--	--	--
Salt Handling, Enzyme, Etc. Operations	47.42	47.42	47.42	--	--	--	--	--	--	--
Ash Handling	347.63	224.33	224.33	--	--	--	--	--	--	--
Coal Handling	17.31	5.91	4.24	--	--	--	--	--	--	--
Degreasing	--	--	--	--	--	0.49	--	--	--	--
Paved/Unpaved Roads	16.30	3.26	0.80	--	--	--	--	--	--	--
Total Unrestricted PTE (Part 70)	21,004.31	20,427.34	10,768.90	1,303.75	428.14	449.49	158.25	339,733.28	511.88	437.50
Total Unrestricted PTE (PSD and CAM)	*24,639.65*	*24,062.68*	*12,139.42*	*1,303.75*	*428.14*	*449.49*	*158.25*	*339,733.28*	*511.88*	*437.50*

Controlled Emissions

Process/ Emission Unit	PM	PM_{10}	$PM_{2.5}$	SO_2	NO_X	VOC	CO	CO_2e	Total HAP	Hex.
Grain Elevator (EL)	400.45	176.11	40.32	--	--	--	--	--	--	--
Grain Elevator (EL) - Fugitive Emissions	182.67	54.16	9.19	--	--	--	--	--	--	--
Hexane Extraction System (24EX) (Part 70)	29.32	29.32	11.05	--	--	4.35	--	--	4.35	4.35
Hexane Extraction System (24EX) (PSD and CAM)	*29.32*	*29.32*	*11.05*	--	--	*4.35*	--	--	*4.35*	*4.35*
Milling & Extraction (EX)	308.88	248.64	192.26	--	--	--	--	--	--	--
Milling & Extraction (EX) - Fugitive Emissions	26.61	3.94	0.26	--	--	--	--	--	--	--
Natural Gas Combustion	1.27	5.07	5.07	0.47	49.44	4.34	71.94	95,290	1.49	1.42
Coal Combustion	38.58	38.58	6.55	1,302.56	323.88	1.88	44.36	167,929	73.46	1.80E-03
Murray Boiler	0.92	3.67	3.67	0.29	48.27	2.65	40.54	58,274	0.91	0.87
Fire Pumps	0.46	0.46	0.26	0.43	6.55	0.53	1.41	18,241	0.81	--
Vehicle Refueling Operations	--	--	--	--	--	4.39	--	--	--	--
Tanks	--	--	--	--	--	0.14	--	--	0.14	0.14
Cooling Tower	0.11	0.09	0.09	--	--	--	--	--	--	--
Salt Handling, Enzyme, Etc. Operations	0.47	0.47	0.47	--	--	--	--	--	--	--
Ash Handling	96.47	34.82	34.82	--	--	--	--	--	--	--
Coal Handling	17.31	5.91	4.24	--	--	--	--	--	--	--
Degreasing	--	--	--	--	--	0.49	--	--	--	--
Paved/Unpaved Roads	16.30	3.26	0.80	--	--	--	--	--	--	--
Total Unrestricted PTE (Part 70)	1,119.83	604.51	309.05	1,303.75	428.14	18.77	158.25	339,733	81.16	6.78
Total Unrestricted PTE (PSD and CAM)	*1,119.83*	*604.51*	*309.05*	*2,607.51*	*428.14*	*18.77*	*316.51*	*679,467*	*81.16*	*6.78*

Appendix A: Emission Calculations
Plant Summary

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

Potential to Emit After Issuance

Process/ Emission Unit	PM	PM_{10}	$PM_{2.5}$	SO_2	NO_X	VOC	CO	CO_2e	Total HAP	Hex.
Grain Elevator (EL)	400.45	176.11	40.32	--	--	--	--	--	--	--
Grain Elevator (EL) - Fugitive Emissions	182.67	54.16	9.19	--	--	--	--	--	--	--
Hexane Extraction System (24EX) (Part 70)	29.32	29.32	11.05	--	--	4.35	--	--	4.35	4.35
Hexane Extraction System (24EX) (PSD and CAM)	29.32	29.32	11.05	--	--	4.35	--	--	4.35	4.35
Milling & Extraction (EX)	308.88	248.64	192.26	--	--	--	--	--	--	--
Milling & Extraction (EX) - Fugitive Emissions	26.61	3.94	0.26	--	--	--	--	--	--	--
Natural Gas Combustion	1.27	5.07	5.07	0.47	49.44	4.34	71.94	95,290	1.49	1.42
Coal Combustion	38.58	38.58	6.55	1,302.56	323.88	1.88	44.36	167,929	73.46	1.80E-03
Murray Boiler	0.92	3.67	3.67	0.29	48.27	2.65	40.54	57,921	0.91	0.87
Fire Pumps	0.46	0.46	0.26	0.43	6.55	0.53	1.41	18,241	0.81	--
Vehicle Refueling Operations	--	--	--	--	--	4.39	--	--	--	--
Tanks	--	--	--	--	--	0.14	--	--	0.14	0.14
Cooling Tower	0.11	0.09	0.09	--	--	--	--	--	--	--
Salt Handling, Enzyme, Etc. Operations	0.47	0.47	0.47	--	--	--	--	--	--	--
Ash Handling	96.47	34.82	34.82	--	--	--	--	--	--	--
Coal Handling	17.31	5.91	4.24	--	--	--	--	--	--	--
Degreasing	--	--	--	--	--	0.49	--	--	--	--
Paved/Unpaved Roads	16.30	3.26	0.80	--	--	--	--	--	--	--
Total Unrestricted PTE (Part 70)	1,119.83	604.51	309.05	1,303.75	428.14	18.77	158.25	339,381	81.16	6.78
Total Unrestricted PTE (PSD and CAM)	*1,119.83*	*604.51*	*309.05*	*1,303.75*	*428.14*	*18.77*	*158.25*	*339,381*	*81.16*	*6.78*

Part 70 Major Source Thresholds	100	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	250	100,000	NA	NA

Controlled Emissions are less than the PTE After Issuance because some control measures used by Bunge are not required by the permit.

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
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					Unrestricted Emissions						Controlled Emissions								
Stack ID	**Process / Units**	**SCC**	**Operating Hours** *(hrs/yr)*	**Max Throughput** *(tons/hr)*	**PM EF** *(lb/ton)*	**PM_{10} EF** *(lb/ton)*	**$PM_{2.5}$ EF** *(lb/ton)*	**PM** *(tons/yr)*	**PM_{10}** *(tons/yr)*	**$PM_{2.5}$** *(tons/yr)*	**PM Outlet Grain Loading** *(gr/dscf)*	**Flow Rate** *(dscfm)*	**Control Device** *description*	**Control Device** *Model #*	**Control Efficiency** *%*	**PM** *(lb/hr)*	**PM** *(tons/yr)*	**PM_{10}** *(tons/yr)*	**$PM_{2.5}$** *(tons/yr)*
4SP	Salt Conveying 4SP1	3-02-005-30	8,760	21.0	na	na	na	11.65	11.65	11.65	0.005	620	Baghouse	54AVS16	99.9%	0.027	0.12	0.116	0.116
204RO	Filter Aid Unit 204RO1	3-05-009-05	8,760	2.5	na	na	na	7.52	7.52	7.52	0.005	400	fabric filter		99.9%	0.017	0.08	0.075	0.075
102EO	Daily Use Bins 102EO1	3-02-005-40	8,760	2.5	na	na	na	11.27	11.27	11.27	0.005	600	fabric filter		99.9%	0.026	0.11	0.113	0.113
103EO	Filter Aid Silos 103EO1	3-02-005-40	8,760	16.0	na	na	na	9.40	9.40	9.40	0.005	500	fabric filter		99.9%	0.021	0.09	0.094	0.094
112EO	Batch Enzyme Bag Unloader 112EO1		8,760	51.0	na	na	na	7.58	7.58	7.58	0.005	400	fabric filter		99.0%	0.017	0.08	0.075	0.075
	Subtotal for MISC							47.42	47.42	47.42						0.11	0.47	0.47	0.47
Ash Handling																			
8SP	Pneumatic Ash Conveying 8SP1	3-05-011-17 (similar to cement)	8,760	13.8	na	na	na	157.84	157.84	157.84	0.020	2,100	Baghouse		99.9%	0.360	1.577	1.577	1.577
	Ash Loadout 8SP2	3-05-011-10 (similar to cement)	8,760	13.8	3.14	1.10	1.10	189.79	66.49	66.49	NA	NA	water spray		50.0%	21.67	94.90	33.24	33.24
	Subtotal for Ash Handling							347.63	224.33	224.33						22.03	96.47	34.82	34.82
Coal Handling																			
6SP	Coal Receiving 6SP	3-05-010-08	8,760	150.00	0.02	0.01	0.01	13.14	3.94	3.94	NA	NA	NA	NA	NA	3.00	13.14	3.94	3.94
	Coal Handling*		8,760	150.00	0.0032	0.0015	0.00023	2.085	0.99	0.1493	NA	NA	NA	NA	NA	0.476	2.085	0.99	0.1493
	Coal Storage Shed (3 sided)*		8,760	150.00	0.0032	0.0015	0.00023	2.085	0.99	0.1493	NA	NA	NA	NA	NA	0.476	2.085	0.99	0.1493
	Subtotal for Coal Handling							17.31	5.91	4.24						3.95	17.310	5.91	4.24

E (lb/ton) = k (0.0032) x [(U/5)^1.3 / (M/2)^1.4]

k (PM) = 0.74 U = 15 Mean wind speed (mph)
k (PM10) = 0.35 M = 4.5 Moisture content (%)
k (PM2.5) = 0.053

*PM, PM10 and PM2.5 EF from AP-42 13.2.4 equation 13.2.4.3

Methodology:

For units that do not employ a control device:

Unrestricted PM/PM_{10}/$PM_{2.5}$ (tons/yr) = Throughput (tons/hr) x EF (lb/ton) x 8760 hr/yr x 1 ton/2000lb
Controlled PM/PM_{10}/$PM_{2.5}$ (tons/yr) = Unrestricted PM/PM10 /PM2.5 (tons/yr)

For units that employ a control device:

Unrestricted PM/PM_{10}/$PM_{2.5}$ (tons/yr) = Controlled Emission Rate (tons/yr) / Control Efficiency (%)
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
Controlled emisions $PM_{2.5}$ = 37.7% of PM_{10} controlled emissions. This was developed using the EPA PM calculator (http://www.epa.gov/ttnchie1/software/pmcalc/).

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

Coal Combustion (Boilers)

Unit	ID#	Heat Input Capacity MMBtu/hr	Potential Throughput ton/yr	Date Installed	SCC	Permit Ref.	Sulfur Content %	PM Control Efficiency %
B&W Boiler	1SP1	108.0	36,025	2002	10200204	A.2(uu)	1.02	99.9%
Keeler Boiler	2SP1	52.75	17,595	1994	10200204	A.2(vv)	2.23	99.9%
		160.75	53,620					

	Pollutant										
	CO	NO_X	PM	PM_{10}	$PM_{2.5}$	SO_2	VOC	CO_2	CH_4	N_2O	CO_2e
*Source Provided Emission Factor in lb/MMBtu**	***0.063***	***0.46***	***0.0548***	***0.0548***	***0.0093***	***1.85***					
Source Provided Emission Factor in lb/MMBtu (uncontrolled)			***54.80***	***54.80***	***9.30***						
Source Provided Emission Factor in lb/ton							***0.07***				
AP-42 Emission Factor in lb/ton								***6,250***	***0.06***	***0.04***	
								1	*21*	*310*	*= GWP*
Unrestricted PTE											
B&W Boiler 1SP1 PTE (ton/yr)	29.80	217.60	25,923	25,923	4,399	875.12	1.26	112,577	1.08	0.72	112,823
Keeler Boiler 2SP1 PTE (ton/yr)	14.56	106.28	12,661	12,661	2,149	427.43	0.62	54,986	0.53	0.35	55,106
NEW Total PTE (tons/yr)	44.36	323.88	38,584	38,584	6,548	1,303	1.88	167,563	1.61	1.07	167,929

Controlled PTE											
B&W Boiler 1SP1 PTE (ton/yr)	29.80	217.60	25.92	25.92	4.40	875.12	1.26	112,577	1.08	0.72	112,823
Keeler Boiler 2SP1 PTE (ton/yr)	14.56	106.28	12.66	12.66	2.15	427.43	0.62	54,986	0.53	0.35	55,106
NEW Total PTE (tons/yr)	44.36	323.88	38.58	38.58	6.55	1,303	1.88	167,563	1.61	1.07	167,929

	HAPs - Metals												Metal HAP Subtotal
	Antimony	Arsenic	Beryllium	Cadmium	Chromium	Cobalt	Lead	Magnesium	Manganese	Mercury	Nickel	Selenium	
AP-42 Emission Factor in lb/ton	***1.8E-05***	***4.1E-04***	***2.1E-05***	***5.10E-05***	***2.6E-04***	***1.0E-04***	***4.2E-04***	***1.1E-02***	***4.9E-04***	***8.3E-05***	***2.8E-04***	***1.3E-03***	
B&W Boiler 1SP1 PTE (ton/yr)	3.2E-04	7.4E-03	3.8E-04	9.2E-04	4.7E-03	1.8E-03	7.6E-03	2.0E-01	8.8E-03	1.5E-03	5.0E-03	2.3E-02	0.260
Keeler Boiler 2SP1 PTE (ton/yr)	1.6E-04	3.6E-03	1.8E-04	4.5E-04	2.3E-03	8.8E-04	3.7E-03	9.7E-02	4.3E-03	7.3E-04	2.5E-03	1.1E-02	0.127
Total PTE (tons/yr)	4.83E-04	1.10E-02	5.63E-04	1.37E-03	6.97E-03	2.68E-03	1.13E-02	2.95E-01	1.31E-02	2.23E-03	7.51E-03	3.49E-02	0.387

	HAPs - Organics												Organic HAP Subtotal
	D/F	HCl	HF	Anthracene	Benzene	Formaldehyde	Hexane	Napthalene	Phenol	Phenanthrene	Pyrene	Toluene	
*Source Provided Emission Factor in lb/MMBtu**		***0.098***											
AP-42 Emission Factor in lb/ton	***2.4E-07***		***0.15***	***2.10E-07***	***1.3E-03***	***2.4E-04***	***6.7E-05***	***1.3E-05***	***1.6E-05***	***2.7E-06***	***3.3E-07***	***2.4E-04***	
B&W Boiler 1SP1 PTE (ton/yr)	4.4E-06	46.36	2.70	3.78E-06	2.34E-02	4.32E-03	1.21E-03	2.34E-04	2.88E-04	4.86E-05	5.94E-06	4.32E-03	49.09
Keeler Boiler 2SP1 PTE (ton/yr)	2.1E-06	22.64	1.32	1.85E-06	1.14E-02	2.11E-03	5.89E-04	1.14E-04	1.41E-04	2.38E-05	2.90E-06	2.11E-03	23.98
Total PTE (tons/yr)	6.54E-06	6.90E+01	4.02E+00	5.63E-06	3.49E-02	6.43E-03	1.80E-03	3.49E-04	4.29E-04	7.24E-05	8.85E-06	6.43E-03	73.07

B&W Boiler 1SP1 PTE (ton/yr)	Total HAP:	49.35
Keeler Boiler 2SP1 PTE (ton/yr)	Total HAP:	24.11
	Total HAP:	**73.46**

Notes
***Emission Factor based on 2010 stack testing of the source.**
Metal HAP Emission Factors: AP-42, Ch. 1.1, Table 1.1-18
Organic HAP Emission Factors: AP-42, Ch. 1.1, Tables 1.1-13 and 1.1-14
D/F Emission Factors: AP-42, Ch. 1.1, Table 1.1-12
HCl & HF Emission Factors: AP-42, Ch. 1.1, Table 1.1-15
Additional HAPs emission factors are available in AP-42, Chapter 1.1.
MMBtu = 1,000,000 Btu
Heating Value, Bituminous Coal, 13,131 Btu/lb
Wherever no emission rate was provided by the source, Emission Factors are from AP 42, Chapter 1.1, SCC #1-02-002-04, Spreader-Stoker, bituminous
PM emissions are controlled by baghouses.
PM emission factor is filterable PM only. PM_{10} emission factor is filterable and condensable PM_{10} combined.
$PM_{2.5}$ emission factor is filterable and condensable $PM_{2.5}$ combined.
Greenhouse Warming Potentials (GWP) from AP-42 1.1-19
CH_4 and N_2O emission factors are from 40 CFR 98, Table C-2.
Potential Throughput (ton/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 lb/ 0.013131 MMBtu x 1 ton/2000 lb
Emission (tons/yr) = Throughput (ton/yr) x Emission Factor (lb/ton)/2,000 lb/ton
CO_2e (tons/yr) = CO_2 Potential Emission ton/yr x CO_2 GWP (1) + CH_4 Potential Emission ton/yr x CH_4 GWP (21) + N_2O Potential Emission ton/yr x N_2O GWP (310).

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

Murray Boiler (3SP1)

Unit	ID#	Date Installed	Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	SCC
Murray Boiler	3SP1	1968	110.2	965.4	10200601

Permit Ref.: A.2(ww)

Heating Value: *1,020* Btu/CF

	Pollutant										
	CO	NO_X	PM	PM_{10}	$PM_{2.5}$	SO_2	VOC	CO_2	CH_4	N_2O	CO_2e
Natural Gas Emission Factor in lb/MMCF	*84.0*	*100.0*	*1.9*	*7.6*	*7.6*	*0.6*	*5.5*	*120,000*	*2.3*	*2.2*	*120,730*
								1	*21*	*310*	*= GWP*
Murray Boiler 3SP1 PTE (ton/yr) - N.G.	40.54	48.27	0.92	3.67	3.67	0.29	2.65	57,921	1.11	1.06	58,274

Notes
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
CH_4 and N_2O emission factors for vegetable oil, used oil, and hazardous waste are from 40 CFR 98, Table C-2.

NATURAL GAS - emission factors: AP-42, Chapter 1.4
PM emission factor is filterable PM only. PM_{10} emission factor is filterable and condensable PM combined. $PM_{2.5}$ emission factor is filterable and condensable PM combined.
Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32
The N_2O Emission Factor for uncontrolled is 2.2. The N_2O Emission Factor for low NO_X burner is 0.64.

Methodology
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Potential Throughput (kgal/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 kgal/150 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Emission (tons/yr) = Throughput (kgal/yr) x Emission Factor (lb/kgal)/2,000 lb/ton
CO_2e (tons/yr) = CO_2 Potential Emission ton/yr x CO_2 GWP (1) + CH_4 Potential Emission ton/yr x CH_4 GWP (21) + N_2O Potential Emission ton/yr x N_2O GWP (310).

	HAPs - Organics					HAP Subtotal
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	*Organic*
Natural Gas Emission Factor in lb/MMCF	*2.1E-03*	*1.2E-03*	*7.5E-02*	*1.80*	*3.4E-03*	
Murray Boiler 3SP1 PTE (ton/yr) - N.G.	1.0E-03	5.8E-04	3.6E-02	0.87	1.6E-03	0.91

HAP TOTAL
0.91

	HAPs - Metals					HAP Subtotal
	Cadmium	Chromium	Lead	Manganese	Nickel	*Metals*
Natural Gas Emission Factor in lb/MMCF	*1.1E-03*	*1.4E-03*	*5.0E-04*	*3.8E-04*	*2.1E-03*	
Murray Boiler 3SP1 PTE (ton/yr) - N.G.	5.3E-04	6.8E-04	2.4E-04	1.8E-04	1.0E-03	2.6E-03

NATURAL GAS - HAP emission factors: AP-42, Chapter 1.4

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

Fire Pump Engines (Diesel)

	Size hp	Displacement L/cyl.	Potential Throughput hp-hr/yr	Heat Input Capacity MMBtu/hr	Emergency Use Only 500 hrs/yr	Fuel Diesel
Cummins Fire Pump #1 (1980)	380	2.34	190,000	2.66		
Cummins Fire Pump #2 (1980)	380	2.34	190,000	2.66		
Detroit Fire Pump	85	1.16	42,500	0.60		
	845	5.83	422,500	5.92		

	Pollutant						
	CO	NO_X	PM	PM_{10}	$PM_{2.5}$	SO_2	VOC
Emission Factor in lb/hp-hr	*6.68E-03*	*0.031*	*2.20E-03*	*2.20E-03*	*2.20E-03*	*2.05E-03*	*2.51E-03*
Cummins Fire Pump #1 (1980) PTE (ton/yr)	0.63	2.95	0.209	0.209	0.209	0.195	0.239
Cummins Fire Pump #2 (1980) PTE (ton/yr)	0.63	2.95	0.209	0.209	0.000	0.195	0.239
Detroit Fire Pump PTE (ton/yr)	0.14	0.66	0.047	0.047	0.047	0.044	0.053
Total	1.41	6.55	0.46	0.46	0.26	0.43	0.53

Emission factors are from AP-42 Table 3.3-1.
7,000 Btu = 1 hp-hr
All 3 fire pumps are 4 stroke engines.

Methodology
Throughput (hp-hr/yr) = Size (hp) x Operating Hours (hr/yr)
Heat Input Capacity (MMBtu/hr) = Size (hp) x 7000 Btu/hp-hr x 1 MMBtu/1,000,000 Btu
Emission (tons/yr) = Throughput (hp-hr/yr) x Emission Factor (lb/hp-hr) / 2,000 lb/ton

Greenhouse Gas Emissions	*1*	*21*	*310*	*GWP*
	CO_2	CH_4	N_20	GHGs as CO_2e
Emission Factor in lb/hp-hr	*1.15*	*2.2E-01*	*2.6E-01*	
Cummins Fire Pump #1 (1980) PTE (ton/yr)	109	2.08E+01	2.47E+01	8,203
Cummins Fire Pump #2 (1980) PTE (ton/yr)	109	2.08E+01	2.47E+01	8,203
Detroit Fire Pump PTE (ton/yr)	24	4.65E+00	5.53E+00	1,835
Total	243	4.63E+01	5.49E+01	18,241

Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
CO_2 emission factor is from AP-42.
CH_4 and N_2O emission factors are from 40 CFR 98, Table C-2.
CO_2e (ton/yr) = CO_2 Potential Emission (ton/yr) x CO_2 GWP + CH_4 Potential Emission (ton/yr) x CH_4 GWP + N_2O Potential Emission (ton/yr) x N_2O GWP

VOC Emission Rates:	
2.47E-03	exhaust
0	evaporative
4.41E-05	crankcase
0	refueling
2.51E-03	total

	HAPs - Organics							
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH	Total HAP
Emission Factor in lb/hp-hr	*9.33E-04*	*4.09E-04*	*2.85E-04*	*1.18E-03*	*7.67E-04*	*9.25E-05*	*1.68E-04*	
Cummins Fire Pump #1 (1980) PTE (ton/yr)	8.9E-02	3.9E-02	2.7E-02	1.1E-01	7.3E-02	8.8E-03	1.6E-02	**0.36**
Cummins Fire Pump #2 (1980) PTE (ton/yr)	8.9E-02	3.9E-02	2.7E-02	1.1E-01	7.3E-02	8.8E-03	1.6E-02	**0.36**
Detroit Fire Pump PTE (ton/yr)	2.0E-02	8.7E-03	6.1E-03	2.5E-02	1.6E-02	2.0E-03	3.6E-03	**0.08**
Total	0.20	8.6E-02	6.0E-02	0.25	0.16	2.0E-02	3.5E-02	0.81

PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)
Emission factors are from AP-42 Table 3.3-2.

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

Year Installed	Process / Units	Capture Efficiency (%)	Hours of Operation (hrs/yr)	Max Throughput (tons/hr)	PM EF (lb/ton)	PM_{10} EF (lb/ton)	$PM_{2.5}$ EF (lb/ton)	Potential to Emit PM (tons/yr)	Potential to Emit PM_{10} (tons/yr)	Potential to Emit $PM_{2.5}$ (tons/yr)	Fugitive PM (tons/yr)	Fugitive PM_{10} (tons/yr)	Fugitive $PM_{2.5}$ (tons/yr)	SCC
1980	Truck Dump No. 2 - 1EL fug.	95.0%	8760	600	1.80E-01	5.90E-02	1.00E-02	473.04	155.05	26.28	23.652	7.753	1.314	3-02-005-51
1984	Rail Loadout - 10EL fug.	85.0%	8760	720	2.70E-02	2.20E-03	3.70E-04	85.15	6.94	1.17	12.772	1.041	0.175	3-02-005-63
1960	Rail Receiving - 10EL fug.	85.0%	8760	720	3.20E-02	7.80E-03	1.30E-03	100.92	24.60	4.10	15.137	3.690	0.615	3-02-005-53
1997	Truck Dump No. 7 - 20EL fug.	95.0%	8760	450	1.80E-01	5.90E-02	1.00E-02	354.78	116.29	19.71	17.739	5.814	0.986	3-02-005-51
< 1977	Silo bin vents - 3EL fug.	80.0%	8760	900	2.50E-02	6.30E-03	1.10E-03	98.55	24.83	4.34	19.710	4.967	0.867	3-02-005-40
< 1977	Silo direct loadout - 4EL fug.	80.0%	8760	270	8.60E-02	2.90E-02	4.90E-03	101.70	34.30	5.79	20.341	6.859	1.159	3-02-005-40
1976	Truck Dump No. 3 & Leg - 9EL fug.	95.0%	8760	900	1.80E-01	5.90E-02	1.00E-02	709.56	232.58	39.42	35.478	11.629	1.971	3-02-005-51
< 1977	Truck Dump No. 5 & Leg - 12EL fug.	95.0%	8760	600	1.80E-01	5.90E-02	1.00E-02	473.04	155.05	26.28	23.652	7.753	1.314	3-02-005-51
< 1977	Truck Dump No. 6 - 15EL fug.	95.0%	8760	360	1.80E-01	5.90E-02	1.00E-02	283.82	93.03	15.77	14.191	4.652	0.788	3-02-005-51
	Subtotal for Grain Elevator (EL)							2,680.56	842.67	142.86	182.67	54.16	9.19	
1982 (1999)	Truck & Rail Meal Loadout	85.0%	8760	150	0.27	0.04	0.0027	177.39	26.28	1.76	26.609	3.942	0.264	3-02-007-91
	Subtotal for Milling & Extraction (EX)							177.39	26.28	1.76	26.61	3.94	0.26	

Grain Elevator (EL) - AP-42 Emission Factors: Table 9.9.1-1
Milling & Extraction (EX) - AP-42 Emission factors:Table 9.11.1-1 (Vegetable Oil Processing)

Methodology:

Unrestricted $PM/PM_{10}/PM_{2.5}$ (tons/hr) = Throughput (tons/hr) x EF (lb/ton) x 8760 hr/yr x 1 ton/2000lb

Fugitive $PM/PM_{10}/PM_{2.5}$ (tons/hr) = Unrestricted PM/PM10 /PM2.5 (tons/hr) x (1 - Capture Efficiency (%))

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

1) Equipment with controls that creates an artificial air flow

				Emission Factors			Unrestricted Emissions			Controlled Emissions								
Stack ID	**Process / Units**	**Hours**	**Max Throughput**	**PM EF**	**PM_{10} EF**	**$PM_{2.5}$ EF**	**PM**	**PM_{10}**	**$PM_{2.5}$**	**PM Outlet Grain Loading**	**Flow Rate**	**Control Device**	**Control Device**	**Control Efficiency**	**PM**		**PM_{10}**	**$PM_{2.5}$**
		(hrs/yr)	*(tons/hr)*	*(lb/ton)*	*(lb/ton)*	*(lb/ton)*	*(tons/yr)*	*(tons/yr)*	*(tons/yr)*	*(gr/dscf)*	*(dscfm)*	*description*	*Model #*	*%*	*(lb/hr)*	*(tons/yr)*	*(tons/yr)*	*(tons/yr)*
1EL	Truck Dump No. 2 1EL1	8,760	600.0	na	na	na	150.92	150.92	75.46	0.003	13,400	fabric filter	124RF10	99.0%	0.34	1.51	1.51	0.75
2EL	Dryer/Screener (Megatex)	8,760	300.0	na	na	na	17,269.71	17,269.71	8,634.86	0.002	23,000	Baghouse	72RJ96	99.99%	0.39	1.73	1.73	0.86
	#1 Scalperator	8,760	120.0															
	#2 Scalperator	8,760	120.0															
	East Work House 2EL1	8,760	270.0															
	Ext. Screening Bin																	
	Screening Bin																	
	Solvent Screening Leg																	
	#1 Leg																	
	#2 Leg																	
	#3 Leg																	
	West to East Hi-Roller																	
	West to East Belt Loader																	
	Dry Bean Leg																	
	#1 Dryer Hi-Roller																	
	Weaver's Belt																	
	102 Belt																	
2EL2	Screenings Hammermill - 2EL2	8,760	5.6	na	na	na	45.05	45.05	22.53	0.003	4,000	fabric filter	2EL2	99.0%	0.10	0.45	0.45	0.23
5EL	5EL1	8,760	900.0	na	na	na	45.48	45.48	22.74	0.003	4,038	fabric filter	24RJ72	99.0%	0.10	0.45	0.45	0.23
	North Tripper Buggy																	
	North Galley Belt Loader																	
	East West Belt																	
	Bin 102																	
6EL	6EL1	8,760	900.0	na	na	na	43.56	43.56	21.78	0.003	3,868	fabric filter	24RJ72	99.0%	0.10	0.44	0.44	0.22
	South Tripper Buggy																	
	South Galley Belt Loader																	
	North South Belt																	
9EL	Truck Dump No. 3 & Leg 9EL1	8,760	900.0	na	na	na	432.12	432.12	432.12	0.005	23,020	fabric filter	72RJ96	99.0%	0.99	4.32	4.32	4.32
10EL	Rail Car Loadout Shed 10EL1	8,760	720.0	na	na	na	375.94	375.94	187.97	0.005	20,027	fabric filter	72RJ96	99.0%	0.86	3.76	3.76	1.88
	Rail Loadout																	
	Rail Receiving																	
	North Leg																	
	South Leg																	
12EL	Truck Dump No. 5 & Leg 12EL1	8,760	600.0	na	na	na	154.11	154.11	77.06	0.005	8,210	fabric filter	72RJ96	99.0%	0.35	1.54	1.54	0.77
13EL	Jumbo Silo Tunnel Belts 13EL1	8,760	360.0	na	na	na	174.76	174.76	87.38	0.005	9,310	fabric filter	72RJ96	99.0%	0.40	1.75	1.75	0.87
	Jumbo Silo East Tunnel Belt																	
	Jumbo Silo West Tunnel Belt																	
	Jumbo Silo Crossover Tunnel Belt																	
14EL	Jumbo Silo Galley 14EL1	8,760	600.0	na	na	na	268.51	268.51	134.25	0.005	14,304	fabric filter	72RJ96	99.0%	0.61	2.69	2.69	1.34
	Jumbo Silo East Galley Belt																	
	Jumbo Silo West Galley Belt																	
	Jumbo Silo Crossover Galley Belt																	
15EL	Truck Dump No. 6 15EL1	8,760	360.0	na	na	na	214.37	214.37	107.18	0.005	11,420	fabric filter	72RJ96	99.0%	0.49	2.14	2.14	1.07
20EL	Truck Dump No. 7 20EL1	8,760	450.0	na	na	na	126.14	126.14	126.14	0.005	7,000	fabric filters (2 in parallel)	24RJ72	99.0%	0.29	1.26	1.26	1.26
	Weigh Scale Truck Unloading Pit																	
	#1 Bucket Elevator Leg																	
	#2 Bucket Elevator Leg																	
22EX2	Screenings Pneumatic Convey - 2EL3	8,760	5.6	na	na	na	11.08	11.08	11.08	0.005	590	fabric filter	22EX2	99.0%	0.03	0.11	0.11	0.11
	Subtotal for Grain Elevator (EL)						**19,311.76**	**19,311.76**	**9,940.55**						**5.06**	**22.15**	**22.15**	**13.92**

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

2) Equipment with controls that does not creates an artificial air flow

					Emission Factors			Unrestricted Emissions			Controlled Emissions								
Stack ID	**Process / Units**	**SCC**	**Hours**	**Max Throughput**	**PM EF**	**PM_{10} EF**	**$PM_{2.5}$ EF**	**PM**	**PM_{10}**	**$PM_{2.5}$**	**PM Outlet Grain Loading**	**Flow Rate**	**Control Device**	**Control Device**	**Control Efficiency**	**PM**		**PM_{10}**	**$PM_{2.5}$**
			(hrs/yr)	*(tons/hr)*	*(lb/ton)*	*(lb/ton)*	*(lb/ton)*	*(tons/yr)*	*(tons/yr)*	*(tons/yr)*	*(gr/dscf)*	*(dscfm)*	*description*	*Model #*		*(lb/hr)*	*(tons/yr)*	*(tons/yr)*	*(tons/yr)*
19EL	No.2 Dryer 19EL1	3-02-005-27	8,760	60.0	2.20E-01	5.50E-02	9.40E-03	57.82	14.45	2.47	NA	NA	Screen-Kleen	NA	NA	13.20	57.82	14.45	2.47
3EL	Silo bin vents 3EL1	3-02-005-40	8,760	900.0	2.50E-02	6.30E-03	1.10E-03	98.55	24.83	4.34	NA	NA	oil dust suppressant	NA	NA	22.50	98.55	24.83	4.34
4EL	Silo direct loadout 4EL1	3-02-005-40	8,760	270.0	2.50E-02	6.30E-03	1.10E-03	29.57	7.45	1.30	NA	NA	oil dust suppressant	NA	NA	6.75	29.57	7.45	1.30
7EL1	south west receiving conveyor	3-02-005-30	8,760	360.0	6.10E-02	3.40E-02	5.80E-03	96.18	53.61	9.15	NA	NA	oil dust suppressant	NA	NA	21.96	96.18	53.61	9.15
8EL1	north west receiving conveyor	3-02-005-30	8,760	360.0	6.10E-02	3.40E-02	5.80E-03	96.18	53.61	9.15	NA	NA	oil dust suppressant	NA	NA	21.96	96.18	53.61	9.15
Subtotal for Grain Elevator (EL)								**378.30**	**153.96**	**26.40**						**86.37**	**378.30**	**153.96**	**26.40**
Total for Grain Elevator (EL)								**19,690.06**	**19,465.72**	**9,966.95**						**91.43**	**400.45**	**176.11**	**40.32**

Grain Elevator (EL) - AP-42 Emission Factors: Table 9.9.1-1, unless otherwise specified

Methodology:

For units that do not employ a control device: Unrestricted $PM/PM_{10}/PM_{2.5}$ (tons/yr) = Throughput (tons/hr) x EF (lb/ton) x 8760 hr/yr x 1 ton/2000lb

Controlled $PM/PM_{10}/PM_{2.5}$ (tons/yr) = Unrestricted PM/PM10 /PM2.5 (tons/yr)

For units that employ a control device: Unrestricted $PM/PM_{10}/PM_{2.5}$ (tons/yr) = Controlled Emission Rate (tons/yr) / Control Efficiency (%)

Controlled PM/PM10 /PM2.5 (ton/yr) = Flow rate (dscfm) x Outlet Grain Loading (gr/dscf) x 1 lb/7000 grains x 60 minutes/hr x 8760 hr/yr x 1 ton/2000 lb

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

1) Equipment with controls that creates an artificial air flow

				Emission Factors			Unrestricted Emissions			Controlled Emissions								
Stack ID	Process / Units	Hours	Max Throughput	PM EF	PM_{10} EF	$PM_{2.5}$ EF	PM	PM_{10}	$PM_{2.5}$	PM Outlet Grain Loading	Flow Rate	Control Device	Control Device	Control Efficiency	PM		PM_{10}	$PM_{2.5}$
		(hrs/yr)	(tons/hr)	(lb/ton)	(lb/ton)	(lb/ton)	(tons/yr)	(tons/yr)	(tons/yr)	(gr/dscf)	(dscfm)	ID#	Model #	%	(lb/hr)	(tons/yr)	(tons/yr)	(tons/yr)
9EX	No. 2 Leg Aspiration 9EX1	8,760	125.0	na	na	na	11.26	11.26	11.26	0.003	1,000.00	fabric filter	96AVS16	99.0%	0.03	0.11	0.11	0.11
	Leg No. 2	8,760																
	Mixing Conveyor	8,760																
	Bin Drag	8,760																
12EX	Loadout Bin Aspiration 12EX1	8,760	540.0	na	na	na	95.73	95.73	95.73	0.003	8,500.00	fabric filter	96AVR80	99.0%	0.22	0.96	0.96	0.96
6EX	Truck Meal Loadout 6EX1	8,760	150.0	na	na	na	116.56	116.56	116.56	0.003	51,744.00	fabric filter	RF12376	95.0%	1.33	5.83	5.83	5.83
6EX	Rail Meal Loadout 6EX1	8,760																
10EX	No. 3 Leg Aspiration 10EX1	8,760	333.0	na	na	na	22.53	22.53	22.53	0.003	2,000.00	fabric filter	96AVS16	99.0%	0.05	0.23	0.23	0.23
	Leg No. 3	8,760																
	Tunnel Drag	8,760																
	Meal Loadout Drag	8,760																
11EX	Kaolin Bin 11EX1	8,760	15.0	na	na	na	11.26	11.26	11.26	0.003	1,000.00	fabric filter	96AVS16	99.0%	0.03	0.11	0.11	0.11
22EX	Millfeed Storage Bin 22EX	8,760	156.3	na	na	na	5.63	5.63	5.63	0.003	500.00	fabric filter	Fabric Filter	99.0%	0.01	0.06	0.06	0.06
32EX	Pelletizer/Pellet Cooler 32EX1	8,760	10.0	na	na	na	6.94	6.94	6.94	0.006	6,160.00	cyclone	Cyclone	80.0%	0.32	1.39	1.39	1.39
32EX2	Enclosed Conveyor 32EX2	8,760																
	Subtotal for Milling & Extraction (EX)						**162.91**	**162.91**	**162.91**						**1.74**	**7.61**	**7.61**	**7.61**

2) Equipment with controls that does not creates an artificial air flow

					Emission Factors			Unrestricted Emissions			Controlled Emissions								
Stack ID	Process / Units	SCC	Hours	Max Throughput	PM EF	PM_{10} EF	$PM_{2.5}$ EF	PM	PM_{10}	$PM_{2.5}$	PM Outlet Grain Loading	Flow Rate	Control Device	Control Device	Control Efficiency	PM		PM_{10}	$PM_{2.5}$
			(hrs/yr)	(tons/hr)	(lb/ton)	(lb/ton)	(lb/ton)	(tons/yr)	(tons/yr)	(tons/yr)	(gr/dscf)	(dscfm)	ID#	Model #	%	(lb/hr)	(tons/yr)	(tons/yr)	(tons/yr)
1EX	B Flake Aspiration 1EX1	3-02-008-18	8,760	93.1	0.15	0.08	0.08	13.97	13.97	13.97	0.003	12,000.00	fabric filter	DC Vox Fabric 1EX	99.0%	0.31	1.35	1.35	1.35
	Flaking Roll #1	3-02-008-18	8,760																
	Flaking Roll #2	3-02-008-18	8,760																
	Flaking Roll #3	3-02-008-18	8,760																
	Flaking Roll #4	3-02-008-18	8,760																
	Flaking Roll #5	3-02-008-18	8,760																
	Flaking Roll #6	3-02-008-18	8,760																
	B Flake N/S Drag	3-02-008-18	8,760																
	Flaking #14 1EX2	3-02-008-18	8,760																
	Flaking Roll #14	3-02-008-18	8,760																
	Flaking Roll Discharge #14	3-02-008-18	8,760																
3EX	A Flake Aspiration 3EX1	3-02-008-88	8,760	48.8	0.15	0.08	0.08	7.32	7.32	7.32	0.012	6,870.00	cyclone	Cyclone 3EX2	80.0%	0.70	3.07	3.07	3.07
	Flaking Roll #9	3-02-008-18	8,760																
	Flaking Roll #10	3-02-008-18	8,760																
	Flaking Roll #11	3-02-008-18	8,760																
	Flaking Roll #12	3-02-008-18	8,760																
	Flaking Roll #13	3-02-008-18	8,760																
	A Flake N/S Drag	3-02-008-18	8,760																
	A Flake E/W Drag	3-02-008-18	8,760																
	North Run Around Drag 3EX2	3-02-008-18	8,760																
4EX	Hull whole bean processing 4EX1	3-02-005-30	8,760	156.3	6.10E-02	3.40E-02	5.80E-03	9.53	9.53	9.53	0.006	33,300.00	fabric filter	Cyclone 144RJ120	99.0%	1.80	7.88	7.88	7.88
	Whole Bean Scale	3-02-005-30	8,760																
	A Whole Bean Leg	3-02-005-30	8,760																
	A Surge Bin	3-02-005-30	8,760																
	Whole Bean Drag	3-02-005-30	8,760																
	B Surge Bin	3-02-005-30	8,760																
	Run Around Rework Screw 4EX2	3-02-005-30	8,760																
	Hull Refining/Grinding 4EX3	3-02-005-30	8,760																
	Hull Refining Screw Conveyor	3-02-005-30	8,760																
	Hull Refining	3-02-005-30	8,760																
	Hull Grinding	3-02-005-30	8,760																
5EX	Dehulling 5EX1	3-02-007-85	8,760	156.3	0.36	0.36	0.36	56.27	56.27	56.27	0.003	39,100.00	fabric filter	Cyclone 144RJ120	99.0%	1.11	4.84	4.84	4.84
	Screen Aspiration 5EX3	3-02-007-85	8,760																
7EX	Soybean Meal Sizing/Grinding 7EX	3-02-007-93	8,760	176.0	0.32	0.32	0.32	56.85	56.85	56.85	0.003	20,000.00	fabric filter	Baghouse 96AVS64	99.0%	0.51	2.25	2.25	2.25
	Meal Screener 7EX1	3-02-007-93	8,760																
	Meal Grinder 7EX2	3-02-007-93	8,760																
	Meal Grinder 7EX3	3-02-007-93	8,760																
	Meal Grinder 7EX4	3-02-007-93	8,760																
	Meal Grinder 7EX5	3-02-007-93	8,760																
	Conveyors	3-02-007-93	8,760																

2) Equipment with controls that does not creates an artificial air flow

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

					Emission Factors			Unrestricted Emissions			Controlled Emissions								
Stack ID	**Process / Units**	**SCC**	**Hours**	**Max Throughput**	**PM EF**	**PM_{10} EF**	**$PM_{2.5}$ EF**	**PM**	**PM_{10}**	**$PM_{2.5}$**	**PM Outlet Grain Loading**	**Flow Rate**	**Control Device**	**Control Device**	**Control Efficiency**	**PM**		**PM_{10}**	**$PM_{2.5}$**
			(hrs/yr)	*(tons/hr)*	*(lb/ton)*	*(lb/ton)*	*(lb/ton)*	*(tons/yr)*	*(tons/yr)*	*(tons/yr)*	*(gr/dscf)*	*(dscfm)*	*ID#*	*Model #*	*%*	*(lb/hr)*	*(tons/yr)*	*(tons/yr)*	*(tons/yr)*
17EX	B Flake Aspiration 17EX2	3-02-008-18	8,760	156.3	0.15	0.08	0.08	23.45	23.45	23.45	0.018	2,250.00	cyclone	Cyclone	80.0%	0.35	1.52	1.52	1.52
	Flaking Roll #8	3-02-008-18	8,760																
	B Flake E/W Drag	3-02-008-18	8,760																
33EX	Hot Dehulling 5EX2	3-02-007-86	8,761	156.3	0.20	0.20	0.20	136.92	136.92	136.92	NA	NA	water knock out box	NA	NA	31.26	136.92	136.92	136.92
	Flake Drag Aspiration Fan 15EX		8,760	NA	NA	NA	NA	NA	NA	NA	NA	NA		Air Break Fan	NA	NA	5.00	5.00	5.00
23EX	Meal Storage 23EX1	3-02-005-40	8,760	125.0	2.50E-02	6.30E-03	1.10E-03	3.13	1.58E-04	6.93E-06	NA	NA	fabric filter	bin vent filter	NA	0.71	3.13	1.58E-04	6.93E-06
29EX	Pelletizer Loadout Bin 29EX1		8,760	10.0	2.50E-02	6.30E-03	1.10E-03	0.25	1.58E-04	6.93E-06	NA	NA	bin vent filter	bin vent filter	NA	0.06	0.25	1.58E-04	6.93E-06
internal	Outside Conditioner 31EX1	3-02-007-87	8,760	156.3	0.10	0.06	0.02	68.46	41.08	15.49	NA	NA	filter bag (internal)	NA	NA	15.63	68.46	41.08	15.49
internal	Outside Conditioner 31EX2	3-02-007-87	8,760																
		Subtotal for Milling & Extraction (EX)						**376.13**	**345.38**	**319.78**						**52.44**	**234.67**	**203.91**	**178.32**

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

3) Equipment without controls

					Emission Factors			Unrestricted Emissions			Controlled Emissions								
Stack ID	**Process / Units**	**SCC**	**Hours**	**Max Throughput**	**PM EF**	**PM_{10} EF**	**$PM_{2.5}$ EF**	**PM**	**PM_{10}**	**$PM_{2.5}$**	**PM Outlet Grain Loading**	**Flow Rate**	**Control Device**	**Control Device**	**Control Efficiency**	**PM**		**PM_{10}**	**$PM_{2.5}$**
			(hrs/yr)	*(tons/hr)*	*(lb/ton)*	*(lb/ton)*	*(lb/ton)*	*(tons/yr)*	*(tons/yr)*	*(tons/yr)*	*(gr/dscf)*	*(dscfm)*	*ID#*	*Model #*	*%*	*(lb/hr)*	*(tons/yr)*	*(tons/yr)*	*(tons/yr)*
16EX	16EX	3-02-019-16	8,760	93.0	0.06	0.03	0.01	24.85	13.85	2.36	NA	NA	NA	NA	NA	5.67	24.85	13.85	2.36
	Belt to Storage Bowls 16EX1	3-02-019-16	8,760																
	Large Storage Bowl 16EX2	3-02-019-16	8,760																
	Small Storage Bowl 16EX3	3-02-019-16	8,760																
18EX	Whole Bean Bins 18EX1	3-02-019-20	8,760	156.3	0.06	0.03	0.01	41.76	23.28	3.97	NA	NA	NA	NA	NA	9.53	41.76	23.28	3.97
		Subtotal for Milling & Extraction (EX)						**66.61**	**37.13**	**6.33**						**15.21**	**66.61**	**37.13**	**6.33**
		Total for Milling & Extraction (EX)						**605.66**	**545.42**	**489.03**						**69.38**	**308.88**	**248.64**	**192.26**

Milling & Extraction (EX) - AP-42 Emission factors:Table 9.11.1-1 (Vegetable Oil Processing), unless otherwise specified

Methodology:

For units that do not employ a control device:

Unrestricted $PM/PM_{10}/PM_{2.5}$ (tons/yr) = Throughput (tons/hr) x EF (lb/ton) x 8760 hr/yr x 1 ton/2000lb
Controlled $PM/PM_{10}/PM_{2.5}$ (tons/yr) = Unrestricted PM/PM10 /PM2.5 (tons/yr)

For units that employ a control device:

Unrestricted $PM/PM_{10}/PM_{2.5}$ (tons/yr) = Controlled Emission Rate (tons/yr) / Control Efficiency (%)
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
Controlled emisions $PM_{2.5}$ = 37.7% of PM_{10} controlled emissions. This was developed using the EPA PM calculator (http://www.epa.gov/ttnchie1/software/pmcalc/).

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

					Unrestricted Particulate Emissions						Controlled Particulate Emissions									VOC/HAP Emissions				
Year Installed	Stack ID	Process / Units	SCC	Max Throughput	PM EF	PM_{10} EF	$PM_{2.5}$ EF	PM	PM_{10}	$PM_{2.5}$	PM Outlet Grain Loading	Flow Rate	PM Control Device	PM Control Device	PM Control Efficiency	PM		PM_{10}	$PM_{2.5}$	VOC / HAP EF	Potential to Emit VOC / HAP	VOC / HAP Control	VOC / HAP Control Efficiency	Controlled VOC / HAP
				(tons/hr)	(lb/ton)	(lb/ton)	(lb/ton)	(tons/yr)	(tons/yr)	(tons/yr)	(gr/dscf)	(dscfm)	description	ID #	%	(lb/hr)	(tons/yr)	(tons/yr)	(tons/yr)	(lb/ton)	(tons/yr)	ID #	%	(tons/yr)
	24EXA	Hexane Extraction System (Total Hexane Usage) 24EX	3-02-019-99	105.08	hexane from oil use			Throughput = VOC in			NA	NA	NA	NA	NA	NA	NA	NA	NA	130.7 ppm	120.31	vent system to mineral oil absorber	99%	4.35
				0.058	direct hexane			Throughput = VOC in			NA	NA	NA	NA	NA	NA	NA	NA	NA	61.96% n-hexane	315			
1996	24EX	A Unit 13EXa A pre-DT		109.40	NA	NA	NA	1,671.83	1,671.83	630.28	0.0095	37,500	mineral oil absorber	mineral oil absorber	80%	3.05	13.37	13.37	5.04	NA	NA			
1980		A Unit 13EXb A DT											mineral oil absorber	mineral oil absorber										
1980		A Unit 13EXc A Meal Dryer	3-02-007-89										integral cyclone	integral cyclone										
1996		B Unit 14EXa B pre-DT		109.40	NA	NA	NA	1,671.83	1,671.83	630.28	0.0095	37,500	mineral oil absorber	mineral oil absorber	80%	3.05	13.37	13.37	5.04	NA	NA			
1980		B Unit 14EXb B DT											mineral oil absorber	mineral oil absorber										
1980		B Unit 14EXc B Meal Dryer	3-02-007-89										integral cyclone	integral cyclone										
1996		Meal Cooler 21EX	3-02-007-90	110.00	NA	NA	NA	320.99	320.99	121.01	0.0036	19,000	integral cyclone	integral cyclone	80%	0.59	2.57	2.57	0.97	NA	NA			
													integral cyclone	integral cyclone										
1995		EAST Hexane Storage Tank 24EX4A		--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	--	0.83			
2005		WEST Hexane Storage Tank 24EX4B		--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	--	0.78			
< 1980		Wastewater System 24EX5		7.36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.19 ppm	0.01			
1975		Refined Hot Oil Well 24EX6		24.26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	74.8 ppm	15.89			
		Hexane Losses from transfer to meal		97.34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	138 ppm	117.67			
		Hexane Losses from Oil Received		7.74	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	130.7 ppm	8.86			
< 1980		Sampling/ Hexane Unloading Port 19EX		--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	--	120.00			
< 1980		Oil Tanks (non-deodorized oil) 24EX8		--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	--	1.61E+00			
Subtotal for Hexane Extraction System 24EX (Part 70)																6.69	29.32	29.32	11.05		435.07			4.35
Subtotal for Hexane Extraction System 24EX (PSD and CAM)								3,665	3,665	1,382						6.69	29.32	29.32	11.05		435.07			4.35

All PM emissions equal PM_{10} and $PM_{2.5}$ emissions.
Unrestricted Particulate Emission factor is from AP-42, Chapter 9.11 - Vegetable Oil Processing, Section 9.11.1.3, Table 9.11.1-1 (11/95).
All VOC is HAP Hexane. VOC/HAPs emission factors based on 2011 Emission Report.
Max rate of the plant of 3,750 tons/day
1) The cyclones for control should be considered an integral part of the process. For Part 70 applicablity, the PTE should be calculated from the After Controls values.

Methodology:

For units that do not employ a control device:
Unrestricted $PM/PM_{10}/PM_{2.5}$ (tons/yr) = Throughput (tons/hr) x EF (lb/ton) x 8760 hr/yr x 1 ton/2000lb
Controlled $PM/PM_{10}/PM_{2.5}$ (tons/yr) = Unrestricted PM/PM10 /PM2.5 (tons/yr)

For units that employ a control device:
Unrestricted $PM/PM_{10}/PM_{0.5}$ (tons/yr) = Controlled Emission Rate (tons/yr) / Control Efficiency (%)
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
Controlled emisions $PM_{2.5}$ = 37.7% of PM_{50} controlled emissions. This was developed using the EPA PM calculator (http://www.epa.gov/ttnchie1/software/pmcalc/).

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

Natural Gas Combustion <100 MMBtu/hr (Boilers & Dryers)

Unit	ID#	Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Date Installed	SCC
#2 Geka Boiler	110EO	14.0	122.6	2002	10200602
#3 Steam Generator	108EO	14.0	122.6	1994	10200602
No. 2 Dryer*		7.0	61.3	1995	30200527 & 10200603
Hydrogen Generator Furnace	107EO1	25.2	220.8	1992	
No. 1 Dryer (Berico)*	16EL1	7.0	61.3	1986	30200527 & 10200603
No. 4 Dryer*	17EL1	7.0	61.3	1960s	30200527 & 10200603
No. 5 Dryer*	17EL1	7.0	61.3	1960s	30200527 & 10200603
natural gas boiler	9SP1	99.0	867.2	2012	
		180.2	1,579		

	Pollutant						
	CO	NO_X	PM	PM_{10}	$PM_{2.5}$	SO_2	VOC
Emission Factor in lb/MMCF	*84*	*100.0*	1.9	7.6	7.6	*0.6*	*5.5*
	130.0	*32.0*					
#2 Geka Boiler 110EO PTE (ton/yr)	5.15	6.13	0.12	0.47	0.47	0.04	0.34
#3 Steam Generator 108EO PTE (ton/yr)	5.15	6.13	0.12	0.47	0.47	0.04	0.34
No. 2 Dryer* PTE (ton/yr)	3.99	3.07	*	*	*	0.02	0.17
Hydrogen Generator Furnace 107EO1 PTE (ton/yr)	9.27	11.04	0.21	0.84	0.84	0.07	0.61
No. 1 Dryer (Berico)* 16EL1 PTE (ton/yr)	3.99	3.07	*	*	*	0.02	0.17
No. 4 Dryer* 17EL1 PTE (ton/yr)	3.99	3.07	*	*	*	0.02	0.17
No. 5 Dryer* 17EL1 PTE (ton/yr)	3.99	3.07	*	*	*	0.02	0.17
natural gas boiler 9SP1 PTE (ton/yr)	36.42	13.88	0.82	3.30	3.30	0.26	2.38
Total PTE (tons/yr)	71.94	49.44	1.27	5.07	5.07	0.47	4.34

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	n-Hexane	Toluene
Emission Factor in lb/MMCF	*2.1E-03*	*1.2E-03*	*7.5E-02*	*1.80*	*3.4E-03*
#2 Geka Boiler 110EO PTE (ton/yr)	1.3E-04	7.4E-05	4.6E-03	0.11	2.1E-04
#3 Steam Generator 108EO PTE (ton/yr)	1.3E-04	7.4E-05	4.6E-03	0.11	2.1E-04
No. 2 Dryer* PTE (ton/yr)	6.4E-05	3.7E-05	2.3E-03	0.06	1.0E-04
Hydrogen Generator Furnace 107EO1 PTE (ton/yr)	2.3E-04	1.3E-04	8.3E-03	0.20	3.8E-04
No. 1 Dryer (Berico)* 16EL1 PTE (ton/yr)	6.4E-05	3.7E-05	2.3E-03	0.06	1.0E-04
No. 4 Dryer* 17EL1 PTE (ton/yr)	6.4E-05	3.7E-05	2.3E-03	0.06	1.0E-04
No. 5 Dryer* 17EL1 PTE (ton/yr)	6.4E-05	3.7E-05	2.3E-03	0.06	1.0E-04
natural gas boiler 9SP1 PTE (ton/yr)	9.1E-04	5.2E-04	3.3E-02	0.78	1.5E-03
Total PTE (tons/yr)	1.7E-03	9.5E-04	5.9E-02	1.42	2.7E-03

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMCF	*5.0E-04*	*1.1E-03*	*1.4E-03*	*3.8E-04*	*2.1E-03*
#2 Geka Boiler 110EO PTE (ton/yr)	3.1E-05	6.7E-05	8.6E-05	2.3E-05	1.3E-04
#3 Steam Generator 108EO PTE (ton/yr)	3.1E-05	6.7E-05	8.6E-05	2.3E-05	1.3E-04
No. 2 Dryer* PTE (ton/yr)	1.5E-05	3.4E-05	4.3E-05	1.2E-05	6.4E-05
Hydrogen Generator Furnace 107EO1 PTE (ton/yr)	5.5E-05	1.2E-04	1.5E-04	4.2E-05	2.3E-04
No. 1 Dryer (Berico)* 16EL1 PTE (ton/yr)	1.5E-05	3.4E-05	4.3E-05	1.2E-05	6.4E-05
No. 4 Dryer* 17EL1 PTE (ton/yr)	1.5E-05	3.4E-05	4.3E-05	1.2E-05	6.4E-05
No. 5 Dryer* 17EL1 PTE (ton/yr)	1.5E-05	3.4E-05	4.3E-05	1.2E-05	6.4E-05
natural gas boiler 9SP1 PTE (ton/yr)	2.2E-04	4.8E-04	6.1E-04	1.6E-04	9.1E-04
Total PTE (tons/yr)	3.9E-04	8.7E-04	1.1E-03	3.0E-04	1.7E-03
Total HAPs:	1.49				

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Natural Gas Combustion <100 MMBtu/hr (Boilers & Dryers)				
	GHGs			
	CO_2	CH_4	N_2O	CO_2e
Emission Factor in lb/MMCF	*120,000*	*2.3*	*2.2*	
	1	*21*	*310*	*= GWP*
#2 Geka Boiler 110EO PTE (ton/yr)	7,358	0.14	0.13	7,403
#3 Steam Generator 108EO PTE (ton/yr)	7,358	0.14	0.13	7,403
No. 2 Dryer* PTE (ton/yr)	3,679	0.07	0.07	3,702
Hydrogen Generator Furnace 107EO1 PTE (ton/yr)	13,245	0.25	0.24	13,326
No. 1 Dryer (Berico)* 16EL1 PTE (ton/yr)	3,679	0.07	0.07	3,702
No. 4 Dryer* 17EL1 PTE (ton/yr)	3,679	0.07	0.07	3,702
No. 5 Dryer* 17EL1 PTE (ton/yr)	3,679	0.07	0.07	3,702
natural gas boiler 9SP1 PTE (ton/yr)	52,034	1.00	0.95	52,351
Total PTE (tons/yr)	94,713	1.82	1.74	95,290

Notes

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
PM emission factor is filterable PM only. PM_{10} emission factor is filterable and condensable PM_{10} combined.
$PM_{2.5}$ emission factor is filterable and condensable $PM_{2.5}$ combined.
Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32
The N_2O Emission Factor for uncontrolled is 2.2. The N_2O Emission Factor for low NO_X burner is 0.64.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
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
CO_2e (tons/yr) = CO_2 Potential Emission ton/yr x CO_2 GWP (1) + CH_4 Potential Emission ton/yr x CH_4 GWP (21) + N_2O Potential Emission ton/yr x N_2O GWP (310).
The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.
The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x
*The dryers are direct fired. The PM, PM10, and PM2.5 emssions are calculated with its respected grain elevator.

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
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Reviewer: Julie Alexander
Date: May 09, 2013

Storage Tanks

Distillate Fuel Oil No. 2 Storage Tanks:

Tank	Number of tanks	Volume (gal)	Throughput (gal)	Standing Losses (lb/yr)	Working Losses (lb/yr)	Total Losses (lb/year)	Tanks VOC/HAP Emissions (tons/yr)
Lagoon	1	200	786	1.04E-01	1.64E-02	1.20E-01	6.02E-05
Steam and Power		300	3170	0.00E+00	6.60E-02	0.00E+00	0.00E+00
Elevator	1	250	2636	1.04E-01	5.49E-02	1.59E-01	7.95E-05
EO South Tank Farm	1	500	6422	2.04E-01	1.34E-01	3.37E-01	1.69E-04
Fire Protection	1	500	302	2.11E-01	6.29E-03	2.17E-01	1.09E-04
Fire Protection	2	550	302	2.22E-01	6.25E-03	4.57E-01	2.28E-04
						Total VOC/HAP Emissions from Diesel Tanks	6.45E-04

Gasoline Storage Tank:

Tank	Number of tanks	Volume (gal)	Standing Losses (lb/yr)	Working Losses (lb/yr)	Total Losses (lb/year)	Tanks VOC/HAP Emissions (tons/yr)
M&R	1	5564	2.30E+02	4.62E+01	276.2551549	1.38E-01
					Total VOC/HAP Emissions from Gasoline Tank	1.38E-01

Total VOC/HAP Emissions: 0.14 ton/yr

Hexane Storahe Tank:

Tank	Number of tanks	Volume (gal)	Standing Losses (lb/yr)	Working Losses (lb/yr)	Total Losses (lb/year)	Tanks VOC/HAP Emissions (tons/yr)
WEST Hexane	1	17,094	5.15E+02	1.04E+03	1550.50	7.75E-01
EAST Hexane	1	22,950	6.28E+02	1.04E+03	1663.47	8.32E-01
					Total VOC/HAP Emissions from Hexane Tanks	1.61E+00

The Hexane Emissions from the storage tanks are routed to the stack for the Hexane Extraction System (24EXA), and the emission factors for this Tank information was provided by the source

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

Cooling Towers

	Extraction	Edible Oil	Refined Oil
	0.005%	0.006%	0.007%
Density (lbs/gal) =	8.35	8.35	8.35
Total Dissolved Solids (ppm) =	1800	1800	1200
Circulating Water Flow (gal/min) =	2,350	2,350	1,950

	Unrestricted PTE			
	ton/yr	*ton/yr*	*ton/yr*	*TOTAL*
PM	0.11	0.13	0.08	0.31
PM_{10}	0.09	0.11	0.07	0.27
$PM_{2.5}$	0.09	0.11	0.07	0.27

Emission factor are based on the research paper, *Calculating Realistic PM $_{10}$ Emissions from Cooling Towers* .
PM_{10} emissions are estimated based on the assumption that 85% of PM is PM $_{10}$.
$PM_{2.5}$ emissions are estimated based on the assumption that 85% of PM is PM $_{2.5}$.

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

Vehicle Refueling Operations (Gasoline)

Storage Capacity:	1,300	gallons
Maximum Daily Throughput Capacity:	1,300	gal/day
Maximum Monthly Throughput Capacity:	39,542	gal/month
Maximum Annual Throughput Capacity:	474,500	gal/yr
	30.42	turnovers/month
	365	turnovers/year

Emission Factors (AP 42 Section 5.2, "Transportation and Marketing of Petroleum Liquids", 6/08):

Displacement Losses (uncontrolled)	11.0	lb/ 1000 gal
Displacement Losses (controlled)	1.1	lb/ 1000 gal
Spillage	0.7	lb/ 1000 gal

VOC Emissions:

Displacement Losses (uncontrolled)	2.61	ton/yr
Spillage	0.17	ton/yr
Total Uncontrolled VOC:	**2.78**	**ton/yr**

Notes:
Emission Factors for VOC is also for total organic emissions because the methane and ethane content of gasoline evaporative emissions is negligible.
This gasoline tank is not equipped with vapor recovery; therefore, all emissions are uncontrolled.

Methodology:
VOC Emissions (ton/yr) = Emission Factor (lb/1000 gal) x Annual Throughput (gal/yr) / 1000 / 2000 lb/ton

Vehicle Refueling Operations (NonGasoline)

Storage Capacity:	10,500	gallons
Maximum Daily Throughput Capacity:	10,500	gal/day
Maximum Monthly Throughput Capacity:	23,000	gal/month
Maximum Annual Throughput Capacity:	276,000	gal/yr
Maximum No. of Turnovers	2.19	turnovers/month
	26	turnovers/year

Emission Factors (AP 42 Section 5.2, "Transportation and Marketing of Petroleum Liquids", 6/08):

Displacement Losses (uncontrolled)	11.0	lb/ 1000 gal
Displacement Losses (controlled)	1.1	lb/ 1000 gal
Spillage	0.7	lb/ 1000 gal

VOC Emissions:

Displacement Losses (uncontrolled)	1.52	ton/yr
Spillage	0.10	ton/yr
Total Uncontrolled VOC:	**1.61**	**ton/yr**

Notes:
Emission Factors for VOC is also for total organic emissions because the methane and ethane content is negligible.
This tank is not equipped with vapor recovery; therefore, all emissions are uncontrolled.

Methodology:
VOC Emissions (ton/yr) = Emission Factor (lb/1000 gal) x Annual Throughput (gal/yr) / 1000 / 2000 lb/ton

Total Uncontrolled V ***4.39 ton/yr***

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

Degreasing Operations

145 gal/yr, total no control

Material	Density lbs/gal	Vapor Pressure	Weight Organic %	Potential VOC tons/yr
Crystal Clean 142+ Mineral Spirits	6.7	< 1.0 mmHg @ 20 C; <0.1 psia @ 38 C	100%	0.49

Composition of Material: 100% aliphatic petroleum distillates (CAS No. 64742-47-8)
There are No HAP emissions from this material.
Potential VOC Before Controls (tons/yr) = Density (lbs/gal) x % VOC x Material Usage (gal/yr) x (1 ton/2000 lbs)

Appendix A: Emission Calculations
Paved/Unpaved Roads

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

Fugitive Emissions
Paved Roads

According to AP-42, Chapter 13.2.1 - Paved Roads (1/11), the particulate emission factors for paved roads can be estimated from the following equation:

$EF = [k\ (sL)^{0.91}(W)^{1.02}]$ 0.798 PM 0.1596 PM_{10} 0.03918 $PM_{2.5}$

where: EF = Emission Factor lbs/VMT
k = Particle Size Multiplier for Paved Road Equation
0.011 PM 0.0022 PM_{10} 0.00054 $PM_{2.5}$
sL = Road Surface Silt Loading (grams per square meter (g/m2)) 2.9 (g/m^2) (AP-42, Table 13.2.1-3)
W = average weight (tons) of vehicles traveling the road. 25.8

Vehicle Type	Average Vehicle Weight* *tons*	Maximum Trips* *trips/day*	Total Trip Number* *trips/yr*	Round Trip Distance* *miles/trip*	Vehicle Mile Traveled (VMT) *miles/yr*	PM Emissions *lb/hr*	PM_{10} Emissions *lb/hr*	$PM_{2.5}$ Emissions *lb/hr*	PM Emissions *ton/yr*	PM_{10} Emissions *ton/yr*	$PM_{2.5}$ Emissions *ton/yr*
Elevator Truck Dumps	28.5	93.0	33,945	0.50	16,973	1.546	0.309	0.076	6.77	1.35	0.33
Trucks to Bowls	28.5	3.0	1,095	0.30	329	0.030	0.006	0.001	0.13	0.03	0.01
Extr Meal LO	25.5	47.0	17,155	1.00	17,155	1.563	0.313	0.077	6.85	1.37	0.34
RO Oil Rcvd	22.5	9.0	3,285	0.35	1,142	0.104	0.021	0.005	0.46	0.09	0.02
EO Oil Shipped	24.0	24.0	8,760	0.60	5,256	0.479	0.096	0.024	2.10	0.42	0.10
Total	**25.8**				**40,854**	**3.72**	**0.74**	**0.18**	**16.30**	**3.26**	**0.80**

* This information is provided by the source.

Methodology
Component Vehicle Weight = Ave. Vehicle Weight (tons) x Traffic Component (%)
(Note that the summation of the component vehicle weight equals the Mean Vehicle Weight.)
VMT (miles/yr) = Round Trip Distance (miles/trip) x Total Trip Numbers (trips/yr)
Potential to Emit (tons/yr) = VMT (miles/yr) x Emission Factors (lb/mile) / 2000 lb/ton

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:	**Bunge North America (East), LLC**
Source Location:	**1200 N. 2nd Street, Decatur, Indiana 46733**
County:	**Adams**
SIC Code:	**2075, 2079, 5153**
Part 70 Operating Permit Renewal No.:	**T001-31996-00005**
Permit Reviewer:	**Julie Alexander**

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Bunge North America (East), LLC relating to the operation of a stationary grain handling, soybean meal production, and soybean oil extraction plant. On June 8, 2012, Bunge North America (East), LLC submitted an application to the OAQ requesting to renew its operating permit. Bunge North America (East), LLC was issued its first Part 70 Operating Permit Renewal (T001-23640-00005) on April 8, 2008.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

(a) Truck Dump #2, identified as 1EL1, constructed in 1980, with a maximum capacity of 600 tons per hour, using a baghouse for particulate matter (PM) control, and exhausting to stack 1EL. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD.

(b) The following grain elevator East Workhouse components, together identified as 2EL1, with a maximum throughput of 270 tons per hour (Bottlenecked to 240 tons per hour), each, unless otherwise stated, using a baghouse and oil suppressant for PM control, and exhausting to stack 2EL, consisting of:

(1) One (1) Megatex screener, approved for construction in 2013, with a maximum throughput of 300 tons per hour, using a baghouse, identified as 2EL4, for particulate control, and exhausting to stack 2EL4. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD;

(2) One (1) #1 scalperator, constructed in 2011 and approved for modification in 2013, with a maximum throughput of 120 tons per hour, using a baghouse, identified as 2EL4, for particulate control, and exhausting to stack 2EL4. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD;

(3) One (1) #2 scalperator, constructed in 2011 and approved for modification in 2013, with a maximum throughput of 120 tons per hour, using a baghouse, identified as 2EL4, for particulate control, and exhausting to stack 2EL4. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD;

(4) One (1) ext. screening bin, constructed prior to 1977;

(5) One (1) screening bin, constructed prior to 1977;

(6) One (1) solvent screening leg, constructed prior to 1977;

(7) One (1) #1 leg, constructed prior to 1977;

(8) One (1) #2 leg, constructed prior to 1977;

(9) One (1) #3 leg, constructed prior to 1977;

(10) One (1) west to east Hi-Roller, constructed prior to 1977;

(11) One (1) west to east belt loader, constructed prior to 1977;

(12) One (1) dry bean leg, constructed prior to 1977;

(13) One (1) #1 dryer Hi-Roller, constructed prior to 1977;

(14) One (1) weaver's belt, constructed prior to 1977; and

(15) One (1) 102 belt, constructed prior to 1977.

(c) One (1) hammermill, permitted in 2010 for construction, identified as 2EL2, with a maximum capacity of 5.60 tons per hour, using a baghouse as control (Unit ID 2EL2), and exhausting to stack 2EL2.

(d) One (1) pneumatic conveying system, permitted in 2010 for construction, identified as 2EL3, with a maximum capacity of 5.60 tons per hour, using a baghouse for control (Unit ID 22EX2) as control, and exhausting to stack 22EX2.

(e) The following grain elevator components, together identified as 5EL1, with a maximum throughput of 900 tons per hour, each, using a baghouse and oil suppressant for PM control, and exhausting to stack 5EL, consisting of:

(1) One (1) north tripper buggy, constructed prior to 1977;

(2) One (1) north galley belt loader, constructed prior to 1977;

(3) One (1) east west belt, constructed prior to 1977; and

(4) One (1) bin 102, constructed prior to 1977.

(f) One (1) north west receiving house enclosed conveyor identified as 8EL1, constructed prior to 1977, with a maximum throughput of 360 tons per hour**,** using oil suppressant for PM control, with no aspiration.

(g) The following grain elevator components together identified as 10EL1, with a maximum throughput of 720 tons per hour, each, using a baghouse and oil suppressant for PM control, and exhausting to stack 10EL, consisting of:

(1) One (1) rail loadout, constructed in 1984. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD;

(2) One (1) rail receiving, constructed in 1960;

(3) One (1) north leg, constructed prior to 1960; and

(4) One (1) south leg, constructed prior to 1960.

(h) The following grain elevator components together identified as 14EL1, with a maximum throughput of 600 tons per hour, each**,** using a baghouse and oil suppressant for PM control, and exhausting to stack 14EL, consisting of:

(1) One (1) jumbo silo east galley belt, constructed prior to 1977;

(2) One (1) jumbo silo west galley belt, constructed prior to 1977;

(3) One (1) jumbo silo crossover galley belt, constructed prior to 1977;

(i) One (1) natural gas fired grain dryer #2, identified as 19EL1, constructed in 1995, with a maximum capacity of 60 tons per hour and a maximum heat input capacity of 7 MMBtu/hr**,** using self-cleaning screens for PM control, and exhausting to vent 19EL. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD.

(j) One (1) truck dump #7, identified as 20EL1, constructed in 1997, with a maximum throughput of 450 tons per hour, consisting of one (1) weigh scale truck unloading pit, and two (2) enclosed bucket elevator legs, using two (2) baghouses in parallel for PM control, and exhausting to stack 20EL. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD.

(k) Silo bin vents, identified as 3EL1, constructed prior to 1977, with a maximum throughput of 900 tons per hour**,** total, using soybean oil as a dust suppressant, and exhausting to vent 3EL.

(l) Silo direct loadout, identified as 4EL1, constructed prior to 1977, with a maximum throughput of 270 tons per hour**,** using soybean oil as a dust suppressant.

(m) One (1) south tripper buggy, one (1) south galley belt loader, and one (1) north south belt, identified as 6EL1, all constructed prior to 1977, with a maximum throughput of 900 tons per hour, each, using a baghouse and oil suppressant for PM control, and exhausting to stack 6EL.

(n) One (1) south west receiving house enclosed conveyor, identified as 7EL1, constructed prior to 1977, with a maximum throughput of 360 tons per hour**,** using oil suppressant for PM control with no aspiration.

(o) One (1) truck dump #3, identified as 9EL1, constructed in 1976, with a maximum throughput of 900 tons per hour**,** using a baghouse for PM control, and exhausting to stack 9EL.

(p) One (1) truck dump #5, identified as 12EL1, constructed prior to 1977, with a maximum throughput of 600 tons per hour**,** using a baghouse for PM control, and exhausting to stack 12EL.

(q) One (1) jumbo silo east tunnel belt, one (1) jumbo silo west tunnel belt, and one (1) jumbo silo crossover tunnel belt, identified as 13EL1, all constructed prior to 1977, with a maximum throughput of 360 tons per hour, each, using a baghouse and oil suppressant for PM control, and exhausting to stack 13EL.

(r) One (1) truck dump #6, identified as 15EL1, constructed prior to 1977, with a maximum throughput of 360 tons per hour, using a baghouse for PM control, and exhausting to stack 15EL.

(s) One (1) natural gas fired grain dryer #1, identified as 16EL1, constructed in 1986, with a maximum capacity of 75 tons per hour and a maximum heat input capacity of 7 MMBtu/hr, using self-cleaning screens for PM control, and exhausting to stack 16EL. This is an affected facility under the New Source Performance Standard for Grain Elevators 40 CFR 60.300, Subpart DD.

(t) Two (2) natural gas fired grain dryers, #4 and #5, identified as 17EL1, constructed in the 1960's, with a maximum capacity of 150 tons per hour and a maximum heat input capacity of 14 MMBtu/hr, total, using self-cleaning screens for PM control, and exhausting to vent 17EL.

(u) One (1) Lec. Dept. filter aid unit, identified as 204RO1, constructed in 1980, with a maximum throughput of 2.5 tons per hour, using a baghouse for PM control, and exhausting to stack 204RO.

(v) Daily use bins, identified as 102EO1, constructed in 1976, with a maximum throughput of 2.5 tons per hour, each, using a baghouse for PM control, and exhausting to stack 102EO.

(w) Filter aid silos, identified as 103EO1, constructed in 1976, with a maximum throughput of 16 tons per hour, each, using a baghouse for PM control, and exhausting to stack 103EO.

(x) One (1) natural gas fired hydrogen generator furnace, identified as 107EO1, constructed in 1992**,** with a maximum heat input capacity of 25.2 MMBtu/hr, and exhausting to stack 107EO. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

(y) Salt conveying, identified as 4SP1, constructed in 1981, with a maximum throughput of 21 tons per hour**,** using a baghouse for PM control, and exhausting to stack 4SP.

(z) Six (6) flaking rolls, #1, #2, #3, #4, #5, and #6, constructed in 1996, and B flake n/s drag, constructed in 1991, all identified together as 1EX1, with a maximum throughput of 93.1 tons per hour, total, using fabric filters for PM control, and exhausting to stack 1EX.

(aa) One (1) flaking roll #14 and flaking roll discharge #14, identified as 1EX2, constructed in 1991, with a maximum throughput of 93.1 tons per hour, each, using fabric filters for PM control, and exhausting to stack 1EX.

(bb) The following soybean processing equipment, together identified as 3EX1, with a maximum throughput of 48.8 tons per hour, each, sharing a cyclone with 3EX2 for PM control, and exhausting to stack 3EX, consisting of:

(1) Four (4) flaking rolls, #9, #10, #11, and #12, constructed in 1978;

(2) One (1) flaking roll #13, constructed in 1985;

(3) One (1) ‘A’ flake n/s drag, constructed in 1993; and

(4) One (1) ‘A’ flake e/w drag, constructed in 1993.

(cc) One (1) north run around drag, identified as 3EX2, constructed in 1984, with a maximum throughput of 48.8 tons per hour**,** sharing a cyclone with 3EX1, and exhausting to stack 3EX.

(dd) The following soybean processing equipment, together identified as 4EX1, with a maximum throughput of 156.3 tons per hour, each, sharing a baghouse with 4EX2 and 4EX3 for PM control, and exhausting to stack 4EX, consisting of:

(1) One (1) whole bean scale, constructed in 1989;

(2) One (1) 'A' whole bean leg, constructed in 1997;

(3) One (1) 'A' surge bin, constructed prior to 1979;

(4) One (1) whole bean drag, constructed in 1981; and

(5) One (1) 'B' surge bin, constructed prior to 1979.

(ee) A run around rework screw, identified as 4EX2, constructed in 1991, with a maximum throughput of 156.3 tons per hour, sharing a baghouse with 4EX1 and 4EX3 for PM control, and exhausting to stack 4EX.

(ff) The following soybean processing equipment, together identified as 4EX3, with a maximum throughput of 156.3 tons per hour, each**,** sharing a baghouse with 4EX1 and 4EX2 for PM control, and exhausting to stack 4EX, consisting of:

(1) One (1) hull refining screw conveyor, constructed in 1991;

(2) One (1) hull refining process, constructed in 1991; and

(3) One (1) hull grinding process, constructed in 1987.

(gg) Dehulling equipment, identified as 5EX1, constructed in 1997, with a maximum throughput of 156.3 tons per hour**,** sharing a baghouse with 5EX3 for PM control, and exhausting to stack 5EX.

(hh) Hot dehulling equipment, identified as 5EX2, constructed in 1991, with a maximum throughput of 156.3 tons per hour, using a water knock out box for PM control.

(ii) Screening aspiration, identified as 5EX3, constructed in 1988, with a maximum throughput of 156.3 tons per hour**,** sharing a baghouse with 5EX1 for PM control, and exhausting to stack 5EX.

(jj) Truck meal loadout and rail meal loadout, identified as 6EX1, constructed in 1982, replaced in 1999, with a maximum throughput of 150 tons per hour, with truck meal loadout using a baghouse for PM control, and exhausting to stack 6EX, and rail meal loadout using a choke loader for intrinsic PM control of fugitive emissions.

(kk) One (1) soybean meal sizing and grinding operation, collectively identified as 7EX, approved in 2010 for construction, using a baghouse for PM control, and exhausting to stack 7EX, consisting of:

(1) One (1) meal screener, identified as 7EX1, with a maximum capacity of 176 tons per hour;

(2) Four (4) meal grinders, identified as 7EX2 through 7EX5, each with a maximum capacity of 45 tons per hour; and

(3) Associated conveyors.

(ll) One (1) leg No. 2, one (1) mixing conveyor, and one (1) bin drag, together identified as 9EX1, all constructed in 1983, with a maximum throughput of 125 tons per hour, each, using a baghouse for PM control, and exhausting to stack 9EX.

(mm) The following soybean processing equipment, together identified as 10EX1, with a maximum throughput of 333 tons per hour, each, using a baghouse for PM control, and exhausting to stack 10EX, consisting of:

(1) One (1) leg No. 3, constructed in the 1950's;

(2) One (1) tunnel drag, constructed in 1983; and

(3) One (1) meal loadout drag, constructed in 1982.

(nn) One (1) kaolin bin, identified as 11EX1, constructed in the 1950's, with a maximum throughput of 15 tons per hour, using a baghouse for PM control, and exhausting to stack 11EX.

(oo) One (1) meal loadout bin, identified as 12EX1, constructed in 1982, with a maximum throughput of 540 tons per hour, using a baghouse for PM control, and exhausting to stack 12EX.

(pp) One (1) belt to storage bowls, one (1) large storage bowl, and one (1) small storage bowl, identified as 16EX1, 16EX2, and 16EX3, respectively, all constructed in 1982, with a maximum capacity of 93 tons per hour, each, with no PM control, and exhausting to stack 16EX.

(qq) Whole bean bins, identified as 18EX1, constructed in the 1940's, with a maximum throughput of 156.3 tons per hour, total, with no PM control, and exhausting to stack 18EX.

(rr) Meal storage silos with bin vents, identified as 23EX1, constructed in the 1950's, with a maximum throughput of 125 tons per hour, total, using one (1) bin vent filter as control, exhausting to stack 23EX.

(ss) One (1) natural gas fired steam generator, identified as 110EO1, constructed in 2002, with a maximum heat input capacity of 14 MMBtu/hr, and exhausting to stack 110EO. This is an affected facility under the New Source Performance Standards for Small Industrial - Commercial - Institutional Steam Generating Units 40 CFR 60, Subpart Dc and an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

(tt) One (1) natural gas fired steam generator #3, identified as 108EO1, constructed in 1994, with a maximum heat input capacity of 14 MMBtu/hr, and exhausting to stack 108EO. This is an affected facility under the New Source Performance Standards for Small Industrial - Commercial - Institutional Steam Generating Units 40 CFR 60, Subpart Dc and an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

(uu) One (1) B & W coal fired boiler, identified as 1SP1, constructed in 1950, with a maximum heat input capacity of 108 MMBtu/hr, using multiple cyclones and a baghouse for control of particulate and HAPs, and exhausting to stack 1SP. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

(vv) One (1) Keeler coal fired boiler, identified as 2SP1, constructed in 1963, with a maximum heat input capacity of 52.75 MMBtu/hr, using multiple cyclones and a baghouse for control of particulate and HAPs, and exhausting to stack 1SP. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

(ww) One (1) Murray natural gas fired, vegetable oil-fired, used oil-fired, and hazardous chemical fired boiler, identified as 3SP1, constructed in 1968, with a maximum heat input capacity of 110.2 MMBtu/hr, and exhausting to stack 1SP. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

(xx) One (1) hexane extraction system, identified collectively as 24EX, modified prior to 1980, with hexane emissions from the vent system controlled by a mineral oil absorber, and exhausting to stack 24EXA. For reporting purposes, all hexane emissions are collectively accounted for in the total hexane losses named 24EX.

(1) One (1) ‘A’ unit, identified as 24EX1, consisting of 'A' pre-DT, constructed in 1996, ‘A’ DT, constructed in 1980, and the 'A' Meal Dryer, constructed in 1980, with a maximum capacity of 109.4 tons per hour, each. 'A' pre-DT is on top of and feeds the ‘A’ DT, which is on top of and feeds the ‘A’ Meal Dryer. The ‘A’ pre-DT and the 'A' DT exhaust to the hexane solvent reclaim system. The ‘A’ Meal Dryer uses a cyclone for PM control, and exhausts to stack 24EX1. Hexane emissions are reported in 24EX.

(2) One (1) ‘B’ unit, identified as 24EX2, consisting of 'B' pre-DT, constructed in 1996, 'B' DT, constructed in 1980, and the 'B' Meal Dryer, constructed in 1980, with a maximum capacity of 109.4 tons per hour, each. 'B' pre-DT is on top of and feeds the ‘B’ DT which is on top of and feeds the ‘B’ Meal Dryer. The 'B' pre-DT and the ‘B’ DT exhaust to the hexane solvent reclaim system. The ‘B’ Meal Dryer uses a cyclone for PM control, and exhausts to stack 24EX2. Hexane emissions are reported in 24EX.

(3) One meal cooler, identified as 24EX3, constructed in 1996, with a maximum capacity of 110 tons per hour, using two (2) cyclones for PM control, exhausting to stacks 24EX3A and 24EX3B, respectively, with hexane emissions reported in 24EX.

(4) Two (2) hexane storage tanks, identified as 24EX4A and 24EX4B, constructed in 1995 and 2005, respectively, with emissions vented to the mineral oil absorber inlet, with hexane emissions reported in 24EX.

(5) One (1) wastewater system, identified as 24EX5, constructed prior to 1980, containing traces of hexane, exhausting to the extraction hot water separation pit, with hexane emissions reported in 24EX.

(6) One (1) refined oil hot well, identified as 24EX6, constructed in 1975, with hexane emissions reported in 24EX.

(7) One (1) sampling /hexane unloading port, identified as 24EX7, with hexane emissions reported in 24EX.

(8) Oil tanks containing non-deodorized oil, identified as 24EX8, venting to the atmosphere, with hexane emissions reported at 24EX.

The hexane extraction system (24EX, consisting of 24EX1 through 24EX8) are affected facilities under the National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production 40 CFR 63, Subpart GGGG.

(yy) The following soybean processing equipment, identified as 17EX2, modified in 1987, with a maximum throughput of 156.3 tons per hour, each, using a cyclone for PM control, and exhausting to stack 17EX, consisting of:

(1) One (1) flaking roll #8, constructed in 1981; and

(2) One (1) 'B' flake e/w drag, constructed in 1980.

(zz) Two (2) conditioners identified as 31EX1 and 31EX2 constructed in 2002, with a maximum capacity of 156.3 tons per hour for each conditioner, and exhausting internally.

(aaa) One (1) enclosed pneumatic ash conveying and loading operation, constructed in the 1950's, identified as emission unit 8SP1 and 8SP2, with a maximum throughput of 13.8 tons per hour, using a baghouse for emission control, and exhausting to stack 1SP. The ash loading operation uses water spray for fugitive emission mitigation.

(bbb) One (1) batch enzyme bag unloader, with a maximum throughput rate of 51 tons per year, identified as 112EO1, approved in 2009 for construction, using a baghouse for emission control and exhausting to stack 112EO.

This emission unit is not an affected facility under the National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production 40 CFR 63, Subpart GGGG.

(ccc) One (1) pelletizer/pellet cooler to produce pellets from the existing dehulling/grinding (millfeed) system, approved in 2009 for construction, with a maximum rate of 10 tons per hour, identified as 32EX1, using a high efficiency cyclone for emission control and exhausting to stack 32EX.

(ddd) One (1) totally enclosed conveyor, approved in 2009 for construction, with a maximum rate of 10 tons per hour, identified as 32EX2.

(eee) One (1) loadout bin, identified as 29EX1, constructed in 1994, with a maximum throughput of 10 tons per hour, using a bin vent filter for PM control, and exhausting to stack 29EX.

(fff) One (1) natural gas-fired boiler, identified as 9SP1, approved for construction in 2012, with a maximum heat input capacity of 99 MMBtu/hr, equipped with low NOx burners and flue gas recirculation (FGR) for NOx control, and exhausting to stack 9SP. This is an affected facility under the New Source Performance Standards for Small Industrial - Commercial - Institutional Steam Generating Units 40 CFR 60, Subpart Dc and an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD.

Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit

The source also consists of the following emission units that were constructed and/or are operating without a permit:

(a) One (1) Millfeed storage bin, identified as 22EX, with a maximum capacity of 156.3 tons/hr, using fabric filter as control and exhausting to stack 22EX.

(b) One (1) Coal receiving, handling and storage operation, identified as 6SP, with a maximum capacity of 150 tons/hr each and exhausting to stack 6SP.

Insignificant Activities

The source also consists of the following insignificant activities:

(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.

(c) Combustion source flame safety purging on start-up.

(d) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.

(e) A petroleum fuel, other than gasoline, dispensing facility having a storage capacity less than or equal to 10,500 gallons, and dispensing less than or equal to 23,000 gallons per month.

(f) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.

(g) Machining where an aqueous cutting coolant continuously floods the machining interface.

(h) Degreasing operations that do not exceed 145 gallons per 12 months, and not subject to 326 IAC 20-6.

(i) Cleaners and solvents characterized as follows:

(1) having a vapor pressure equal to or less than 2 kPa; 15 mmHg; or 0.3 psi measured at 38 degrees C (100°F); or

(2) having a vapor pressure equal to or less than 0.7 kPa; 5 mmHg; or 0.1 psi measured at 20 degrees C (68°F);

the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(j) Closed loop heating and cooling systems.

(k) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.

(l) Water based adhesives that are less than or equal to 5% by volume of VOCs, excluding HAPs.

(m) Noncontact cooling tower systems with natural draft cooling towers not regulated under a NESHAP.

(n) Replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other filtrations equipment.

(o) Heat exchanger cleaning and repair.

(p) Process vessel degreasing and cleaning to prepare for internal repairs.

(q) Underground conveyors.

(r) Coal bunker and coal scale exhausts and associated dust collector vents.

(s) Asbestos abatement projects regulated by 326 IAC 14-10.

(t) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.

(u) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.

(v) Blowdown for any of the following: sight glass, boiler, compressors, pumps, and cooling tower.

(w) Stationary fire pumps, as follows;

(1) Two (2) stationary diesel-fired fire pump engine, constructed in 1980, permitted in 2008, with a maximum power output rate of 380 hp.

(2) One (1) stationary diesel-fired fire pump engine, permitted in 2008, with a maximum power output rate of 85 hp.

This is an affected source under National Emission Standards for Hazardous Air Pollutants: Stationary Reciprocating Internal Combustion Engines [40 CFR 63, Subpart ZZZZ] and New Standards of Performance (NSPS) for Stationary Compression Ignition Internal Combustion Engines [40 CFR 60, Subpart IIII].

(x) Purge double block and bleed valves.

(y) Filter or coalescer media changeout.

(z) Vents from ash transport systems not operated at positive pressure.

(aa) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(bb) Emission units with PM and PM10 emissions less than five (5) tons per year, SO2, NOx, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, lead emissions less than two-tenths (0.2) tons per year, single HAP emissions less than one (1) ton per year, and combination of HAPs emissions less than two and a half (2.5) tons per year, consisting of:

(1) One (1) acetic anhydride storage tank.

(2) One (1) Hoffman vacuum system, for housekeeping.

(3) One (1) elevator/railcar pest control/fumigation.

(4) One (1) Flake drag air brake fan, 15EX.

(cc) Paved and unpaved roads and parking lots with public access [326 IAC 6-4].

Existing Approvals

Since the issuance of the Part 70 Operating Permit Renewal (T001-23640-00005) on April 8, 2008, the source has constructed or has been operating under the following additional approvals:

(a) Administrative Amendment No. 001-26472-00005, issued May 7, 2008

(b) Administrative Amendment No. 001-27445-00005, issued February 27, 2009

(c) Administrative Amendment No. 001-27635-00005, issued April 28, 2009

(d) Significant Source Modification No. 001-28224-00005, issued November 6, 2009

(e) Significant Permit Modification No. 001-27816-00005, issued November 24, 2009

(f) Significant Source Modification No. 001-29100-00005, issued July 8, 2010

(g) Significant Permit Modification No. 001-29164-00005, issued August 4, 2010

(h) Significant Source Modification No. 001-29347-00005, issued August 17, 2010

(i) Significant Permit Modification No. 001-29371-00005, issued September 1, 2010

(j) Significant Permit Modification No.: 001-29887-00005, issued July 29, 2011

(k) Significant Source Modification No. 001-30622-00005, issued October 4, 2011

(l) Significant Permit Modification No.: 001-30609-00005, issued October 21, 2011

(m) Significant Permit Modification No.:001-30642-00005, issued on January 26, 2012

(n) Minor Source Modification No. 001-32520-00005, issued December 11, 2012

(o) Significant Permit Modification No.:001-32650-00005, issued February 20, 2013

(p) Significant Source Modification No.:001-32616-00005, issued April 4, 2013

(q) Significant Permit Modification No.:001-32659-00005, issued April 24, 2013

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.

Enforcement Issue

IDEM is aware that equipment has been constructed (and/or operated) prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled "Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit".

IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Adams County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.
[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for $PM_{2.5}$.	

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (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. Adams County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$
Adams County has been classified as attainment for $PM_{2.5}$. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for $PM_{2.5}$ emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct $PM_{2.5}$ significant level at ten (10) tons per year. This rule became effective, June 28, 2011. Therefore, direct $PM_{2.5,}$ $SO_{2,}$ and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

(c) Other Criteria Pollutants
Adams County has been classified as attainment or unclassifiable in Indiana for SO_2, CO, PM_{10}, NO_2, and Pb. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

This type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, however, the grain elevator has an applicable New Source Performance Standard that was in effect on August 7, 1980, therefore fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

EPA published a final rule in the Federal Register on May 1, 2007, that excluded ethanol production facilities that produce ethanol through natural fermentation, from the major source category "Chemical Process Plants". Therefore, the fugitive emissions from ethanol production facilities are not counted toward determination of PSD, Emission Offset, and Part 70 Permit applicability.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Unrestricted Potential Emissions	
Pollutant	Tons/year
PM	Great than 250
PM_{10}	Great than 250
$PM_{2.5}$	Great than 250
SO_2	Great than 250
VOC	Great than 250
CO	Great than 100, Less than 250
NO_x	Great than 250
GHGs as CO_2e	Great than 100,000
Single HAP	Great than 10
Total HAP	Great than 25

Appendix A of this TSD reflects the unrestricted potential emissions of the source.

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM, PM_{10}, $PM_{2.5}$, SO_2, VOC, CO, and NO_X is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7 and will be issued a Part 70 Operating Permit Renewal.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of GHGs is equal to or greater than one hundred thousand (100,000) tons of CO_2 equivalent emissions (CO_2e) per year. Therefore, the source is subject to the provisions of 326 IAC 2-7 and will be issued a Part 70 Operating Permit Renewal.

(c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, because the source met 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 new 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	Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)									
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	GHGs	Total HAPs	Worst Single HAP(1)
Grain Elevator (EL)	400.45	176.11	40.32	--	--	--	--	--	--	--
Grain Elevator (EL) - Fugitive Emissions	182.67	54.16	9.19	--	--	--	--	--	--	--
Hexane Extraction System (24EX)	29.32	29.32	11.05	--	--	4.35	--	--	4.35	4.35
Milling & Extraction (EX)	308.88	248.64	192.26	--	--	--	--	--	--	--
Milling & Extraction (EX) - Fugitive Emissions	26.61	3.94	0.26	--	--	--	--	--	--	--
Natural Gas Combustion	1.27	5.07	5.07	0.47	49.44	4.34	71.94	95,290	1.49	1.42
Coal Combustion	38.58	38.58	6.55	1,302.56	323.88	1.88	44.36	167,929	73.46	1.80E-03
Murray Boiler	0.92	3.67	3.67	0.29	48.27	2.65	40.54	57,921	0.91	0.87
Fire Pumps	0.46	0.46	0.26	0.43	6.55	0.53	1.41	18,241	0.81	--
Vehicle Refueling Operations	--	--	--	--	--	4.39	--	--	--	--
Tanks	--	--	--	--	--	0.14	--	--	0.14	0.14
Cooling Tower	0.11	0.09	0.09	--	--	--	--	--	--	--
Salt Handling, Enzyme, Etc. Operations	0.47	0.47	0.47	--	--	--	--	--	--	--
Ash Handling	96.47	34.82	34.82	--	--	--	--	--	--	--
Coal Handling	17.31	5.91	4.24	--	--	--	--	--	--	--
Degreasing	--	--	--	--	--	0.49	--	--	--	--

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)									
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	GHGs	Total HAPs	Worst Single HAP(1)
Paved/Unpaved Roads	16.30	3.26	0.80	--	--	--	--	--	--	--
Total PTE of Entire Source	1,119.83	604.51	309.05	1,303.75	428.14	18.77	158.25	339,381	81.16	6.78
Title V Major Source Thresholds	NA	100	100	100	100	100	100	100,000 CO_2e	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	250	100,000 CO_2e	NA	NA

negl. = negligible
*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
**$PM_{2.5}$ listed is direct $PM_{2.5}$.
(1) Worst Single HAP is hexane.

(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, emissions of GHGs are equal to or greater than one hundred thousand (>100,000) tons of CO_2 equivalent emissions (CO_2e) per year, and it is not in one of the twenty-eight (28) listed source categories.

On April 30, 2013 the Indiana Court of Appeals reversed the Indiana, Marion County Superior Court decision (Cause Nos. 49F12-1102-MI-5363, 49F12-1102-MI-5373, and 49F12-1102-MI-5298) that held that ethanol production plants that produce ethanol by natural fermentation do not constitute a “chemical process plant” under 326 IAC 2-2-1(ff)(1)(U). The Indiana Department of Environmental Management has filed a motion for rehearing with the Indiana Court of Appeals and takes the position that because the current Indiana State Implementation Plan is silent as to what constitutes a “chemical process plant” Indiana should follow the current federal law that specifically excludes fuel grade ethanol plants from the definition of “chemical process plants” if the fuel grade ethanol is produced through a natural fermentation process. During the appeal process IDEM amended its rule to include the federal rule language that specifically excludes fuel grade natural fermentation ethanol plants from the definition of “chemical process plant”. IDEM submitted this rule to U.S. EPA for SIP approval in September 2011. For this reason, it is IDEM’s position that this category of fuel ethanol production should be subject to the 250 tons per year threshold for Prevention of Significant Deterioration (PSD) New Source Review. [The permittee company] is aware that IDEM’s interpretation of the Indiana PSD State Implementation Plan is still under court review and has asked IDEM to process its permit under current rule 326 IAC 2-2-1(ff)(1)(U) that excludes natural fermentation fuel ethanol plants from the definition of “chemical process plant”.

Federal Rule Applicability

(a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to each existing pollutant-specific emission unit that meets 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 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:

Stack ID	Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
102EO	PM	Baghouse	Y	<100	<100	100	N	N
	PM10	Baghouse	Y	<100	<100	100	N	N
	PM2.5	Baghouse	Y	<100	<100	100	N	N
103EO	PM	Baghouse	Y	<100	<100	100	N	N
	PM10	Baghouse	Y	<100	<100	100	N	N
	PM2.5	Baghouse	Y	<100	<100	100	N	N
10EL*	PM	Baghouse	Y	>100	<100	100	Y	N
	PM10	Baghouse	Y	>100	<100	100	Y	N
	PM2.5	Baghouse	Y	>100	<100	100	Y	N
10EX	PM	Baghouse	Y	<100	<100	100	N	N
	PM10	Baghouse	Y	<100	<100	100	N	N
	PM2.5	Baghouse	Y	<100	<100	100	N	N
112EO	PM	Baghouse	Y	<100	<100	100	N	N
	PM10	Baghouse	Y	<100	<100	100	N	N
	PM2.5	Baghouse	Y	<100	<100	100	N	N
11EX	PM	Baghouse	Y	<100	<100	100	N	N
	PM10	Baghouse	Y	<100	<100	100	N	N
	PM2.5	Baghouse	Y	<100	<100	100	N	N
12EL	PM	Baghouse	Y	>100	<100	100	Y	N
	PM10	Baghouse	Y	>100	<100	100	Y	N
	PM2.5	Baghouse	Y	>100	<100	100	Y	N
12EX	PM	Baghouse	Y	<100	<100	100	N	N
	PM10	Baghouse	Y	<100	<100	100	N	N
	PM2.5	Baghouse	Y	<100	<100	100	N	N
13EL	PM	Baghouse	Y	>100	<100	100	Y	N
	PM10	Baghouse	Y	>100	<100	100	Y	N
	PM2.5	Baghouse	Y	>100	<100	100	Y	N

Stack ID	Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
14EL	PM	Baghouse	Y	>100	<100	100	Y	N
	PM10	Baghouse	Y	>100	<100	100	Y	N
	PM2.5	Baghouse	Y	>100	<100	100	Y	N
15EL	PM	Baghouse	Y	>100	<100	100	Y	N
	PM10	Baghouse	Y	>100	<100	100	Y	N
	PM2.5	Baghouse	Y	>100	<100	100	Y	N
17EX	PM	Cyclone	Y	<100	<100	100	N	N
	PM10	Cyclone	Y	<100	<100	100	N	N
	PM2.5	Cyclone	Y	<100	<100	100	N	N
19EL	PM	Screen-Kleen	Y	<100	<100	100	N	N
	PM10	Screen-Kleen	Y	<100	<100	100	N	N
	PM2.5	Screen-Kleen	Y	<100	<100	100	N	N
1EL*	PM	Baghouse	Y	>100	<100	100	Y	N
	PM10	Baghouse	Y	>100	<100	100	N	N
	PM2.5	Baghouse	Y	<100	<100	100	N	N
1EX	PM	Baghouse	Y	<100	<100	100	N	N
	PM10	Baghouse	Y	<100	<100	100	N	N
	PM2.5	Baghouse	Y	<100	<100	100	N	N
1SP	PM	Baghouse and Multiclones	Y	>100	<100	100	Y	N
	PM10	Baghouse and Multiclones	Y	>100	<100	100	Y	N
	PM2.5	Baghouse and Multiclones	Y	>100	<100	100	Y	N
204RO	PM	Baghouse	Y	<100	<100	100	N	N
	PM10	Baghouse	Y	<100	<100	100	N	N
	PM2.5	Baghouse	Y	<100	<100	100	N	N

Stack ID	Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
20EL*	PM	Baghouse	Y	>100	<100	100	Y	N
	PM10	Baghouse	Y	>100	<100	100	Y	N
	PM2.5	Baghouse	Y	>100	<100	100	Y	N
22EX	PM	Baghouse	Y	<100	<100	100	N	N
	PM10	Baghouse	Y	<100	<100	100	N	N
	PM2.5	Baghouse	Y	<100	<100	100	N	N
22EX2	PM	Baghouse	Y	<100	<100	100	N	N
	PM10	Baghouse	Y	<100	<100	100	N	N
	PM2.5	Baghouse	Y	<100	<100	100	N	N
23EX	PM	Baghouse	Y	<100	<100	100	N	N
	PM10	Baghouse	Y	<100	<100	100	N	N
	PM2.5	Baghouse	Y	<100	<100	100	N	N
24EX	PM	Cyclone	Y	>100	<100	100	Y	N
	PM10	Cyclone	Y	>100	<100	100	Y	N
	PM2.5	Cyclone	Y	>100	<100	100	Y	N
	VOC	Mineral Oil Absorber	Y	>100	<100	100	Y	N
	Total HAPs	Mineral Oil Absorber	Y	>100	<100	100	Y	N
29EX	PM	Baghouse	Y	<100	<100	100	N	N
	PM10	Baghouse	Y	<100	<100	100	N	N
	PM2.5	Baghouse	Y	<100	<100	100	N	N
2EL	PM	Baghouse	Y	>100	<100	100	Y	N
	PM10	Baghouse	Y	>100	<100	100	Y	N
	PM2.5	Baghouse	Y	>100	<100	100	Y	N
2EL2	PM	Baghouse	Y	<100	<100	100	N	N
	PM10	Baghouse	Y	<100	<100	100	N	N
	PM2.5	Baghouse	Y	<100	<100	100	N	N

Stack ID	Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
2SP	PM	Baghouse and Multiclones	Y	>100	<100	100	Y	N
	PM10	Baghouse and Multiclones	Y	>100	<100	100	Y	N
	PM2.5	Baghouse and Multiclones	Y	>100	<100	100	Y	N
31EX	PM	Baghouse	Y	<100	<100	100	N	N
	PM10	Baghouse	Y	<100	<100	100	N	N
	PM2.5	Baghouse	Y	<100	<100	100	N	N
32EX	PM	Cyclone	Y	<100	<100	100	N	N
	PM10	Cyclone	Y	<100	<100	100	N	N
	PM2.5	Cyclone	Y	<100	<100	100	N	N
33EX	PM	Wet Scrubber	Y	<100	<100	100	N	N
	PM10	Wet Scrubber	Y	<100	<100	100	N	N
	PM2.5	Wet Scrubber	Y	<100	<100	100	N	N
3EL	PM	oil dust suppressant	Y	<100	<100	100	N	N
	PM10	oil dust suppressant	Y	<100	<100	100	N	N
	PM2.5	oil dust suppressant	Y	<100	<100	100	N	N
3EX	PM	Cyclone	Y	<100	<100	100	N	N
	PM10	Cyclone	Y	<100	<100	100	N	N
	PM2.5	Cyclone	Y	<100	<100	100	N	N
4EL	PM	oil dust suppressant	Y	<100	<100	100	N	N
	PM10	oil dust suppressant	Y	<100	<100	100	N	N
	PM2.5	oil dust suppressant	Y	<100	<100	100	N	N
4EX	PM	Baghouse	Y	<100	<100	100	N	N
	PM10	Baghouse	Y	<100	<100	100	N	N
	PM2.5	Baghouse	Y	<100	<100	100	N	N

Stack ID	Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
4SP	PM	Baghouse	Y	<100	<100	100	N	N
	PM10	Baghouse	Y	<100	<100	100	N	N
	PM2.5	Baghouse	Y	<100	<100	100	N	N
5EL	PM	Baghouse	Y	<100	<100	100	N	N
	PM10	Baghouse	Y	<100	<100	100	N	N
	PM2.5	Baghouse	Y	<100	<100	100	N	N
5EX	PM	Baghouse	Y	<100	<100	100	N	N
	PM10	Baghouse	Y	<100	<100	100	N	N
	PM2.5	Baghouse	Y	<100	<100	100	N	N
6EL	PM	Baghouse	Y	<100	<100	100	N	N
	PM10	Baghouse	Y	<100	<100	100	N	N
	PM2.5	Baghouse	Y	<100	<100	100	N	N
6EX	PM	Baghouse	Y	>100	<100	100	Y	N
	PM10	Baghouse	Y	>100	<100	100	Y	N
	PM2.5	Baghouse	Y	>100	<100	100	Y	N
7EX	PM	Baghouse	Y	>100	<100	100	Y	N
	PM10	Baghouse	Y	>100	<100	100	Y	N
	PM2.5	Baghouse	Y	>100	<100	100	Y	N
8EL	PM	oil dust suppressant	Y	<100	<100	100	N	N
	PM10	oil dust suppressant	Y	<100	<100	100	N	N
	PM2.5	oil dust suppressant	Y	<100	<100	100	N	N
8SP	PM	Baghouse	Y	>100	<100	100	Y	N
	PM10	Baghouse	Y	>100	<100	100	Y	N
	PM2.5	Baghouse	Y	>100	<100	100	Y	N
9EL	PM	Baghouse	Y	>100	<100	100	Y	N
	PM10	Baghouse	Y	>100	<100	100	Y	N
	PM2.5	Baghouse	Y	>100	<100	100	Y	N
9EX	PM	Baghouse	Y	<100	<100	100	N	N
	PM10	Baghouse	Y	<100	<100	100	N	N
	PM2.5	Baghouse	Y	<100	<100	100	N	N

Based on this evaluation, the requirements of 40 CFR Part 64, Compliance Assurance Monitoring (CAM) are applicable to the 1EL, 10EL and 20EL for PM and PM10 and 10EL, 20EL for PM2.5. The requirements of CAM are applicable because the units each have uncontrolled potential to emit above the major source thresholds for PM, PM10 and PM2.5 (for 10EL and 20EL), are subject to an emissions limit for PM [326 IAC 6-3-2], and use a control device to comply with the emissions limits. Pursuant to 40 CFR 64.2(b)(1)(i), the requirements of CAM shall not apply to emission limitations or standards required by a NESHAP proposed after November 15, 1990. The requirements of CAM do apply to these units for PM, PM10, and PM2.5 because they are subject to emission limitations for PM, PM10, and PM2.5 not established under 40 CFR 60, Subpart DD.

Based on this evaluation, the requirements of 40 CFR Part 64, Compliance Assurance Monitoring (CAM) are applicable to the 1SP, 2SP, 12EL, 13EL, 14EL, 2EL, 6EX, 7EX, 8SP, 24EX and 9EL for PM, PM10 and PM2.5 and 24EX for VOC and HAPs.

A CAM plan has been submitted and the Compliance Determination and Monitoring Requirements section includes a detailed description of the CAM requirements.

(b) New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60)

(1) **Standards of Performance for Grain Elevators [40 CFR 60, Subpart DD]**
This grain elevator is still subject to the Standards of Performance for Grain Elevators (40 CFR 60, Subpart DD), which is incorporated by reference as 326 IAC 12, because it is a plant or installation at which grain is unloaded, handled, cleaned, dried, stored, or loaded, that was constructed after August 3, 1978, and has a grain terminal elevator with a permanent storage capacity greater than 1 million bushels. 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. Soybean meal and hull do not meet the definition of “grain” in 40 CFR 60.301(a). Therefore, this NSPS does not apply to the meal and hull processing operations.

The following grain receiving and handling operations at this source are subject to the requirements of 40 CFR 60, Subpart DD.

- Truck Dump #2, identified as 1EL1, constructed in 1980, with a maximum capacity of 600 tons per hour, using a baghouse for particulate matter (PM) control, and exhausting to stack 1EL.

- The following grain elevator East Workhouse components, together identified as 2EL1, with a maximum throughput of 270 tons per hour (Bottlenecked to 240 tons per hour), each, unless otherwise stated, using a baghouse and oil suppressant for PM control, and exhausting to stack 2EL, consisting of:

  - One (1) Megatex screener, approved for construction in 2013, with a maximum throughput of 300 tons per hour, using a baghouse, identified as 2EL4, for particulate control, and exhausting to stack 2EL4.

  - One (1) #1 scalperator, constructed in 2011 and approved for modification in 2013 , with a maximum throughput of 120 tons per hour, using a baghouse, identified as 2EL4, for particulate control, and exhausting to stack 2EL4.

- One (1) #2 scalperator, constructed in 2011 and approved for modification in 2013, with a maximum throughput of 120 tons per hour, using a baghouse, identified as 2EL4, for particulate control, and exhausting to stack 2EL4.

- The following grain elevator components together identified as 10EL1, with a maximum throughput of 720 tons per hour, each, using a baghouse and oil suppressant for PM control, and exhausting to stack 10EL, consisting of:

  - One (1) rail loadout, constructed in 1984;

- One (1) natural gas fired grain dryer #2, identified as 19EL1, constructed in 1995, with a maximum capacity 60 tons per hour and a maximum heat input capacity of 7 MMBtu/hr, using self-cleaning screens for PM control, and exhausting to vent 19EL.

- One (1) truck dump #7, identified as 20EL1, constructed in 1997, with a maximum throughput of 450 tons per hour, consisting of one (1) weigh scale truck unloading pit, and two (2) enclosed bucket elevator legs, using two (2) baghouses in parallel for PM control, and exhausting to stack 20EL.

- One (1) natural gas fired grain dryer #1, identified as 16EL1, constructed in 1986, with a maximum capacity of 75 tons per hour and a maximum heat input capacity of 7 MMBtu/hr, using self-cleaning screens for PM control, and exhausting to stack 16EL.

These emission units are 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)
(4) 40 CFR 60.303
(5) 40 CFR 60.304

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

(2) **Standards of Performance for Fossil-Fuel-Fired Steam Generators [40 CFR 60, Subpart D]**
The requirements of 40 CFR 60, Subpart D are not applicable to any of the existing boilers at Bunge because they each have heat input rates of less than 250 MMBtu/hr. Therefore, the requirements of the NSPS are not included in the permit.

(3) **Standards of Performance for Electric Utility Steam Generating Units [40 CFR 60, Subpart Da]**
The requirements of 40 CFR 60, Subpart Da are not applicable to any of the existing boilers at Bunge because they are not electric utility steam generating units and each has a heat input rate of less than 250 MMBtu/hr. Therefore, the requirements of the NSPS are not included in the permit.

(4) **Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units [40 CFR 60, Subpart Db]**

The requirements of 40 CFR 60, Subpart Db are not applicable to the Keeler Boiler (2SP1), #2 Geka Boiler (110EO), #3 Steam Generator (108EO), hydrogen generator furnace (107EO1), natural gas fired boiler (9SP1) and natural gas fired dryers (19EL1, 16EL1, and 17EL1) because they have heat input rates of less than 100 MMBtu/hr, each. Therefore, the requirements of the NSPS are not included in the permit.

The following emission units are subject to the Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60, Subpart Db), which is incorporated by reference as 326 IAC 12. These units are steam generating units for which construction, modification, or reconstruction commenced after June 19, 1984 and that have a maximum design heat input capacities of greater than 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)).

- One (1) B & W coal fired boiler, identified as 1SP1, constructed in 1950, with a maximum heat input capacity of 108 MMBtu/hr, using multiple cyclones and a baghouse for control of particulate and HAPs, and exhausting to stack 1SP.

- One (1) Murray natural gas fired boiler, identified as 3SP1, constructed in 1968, with a maximum heat input capacity of 110.2 MMBtu/hr, and exhausting to stack 1SP.

These units are subject to the following portions of 40 CFR 60, Subpart Db:

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

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

(5) **Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR 60, Subpart Dc]**

The requirements of 40 CFR 60, Subpart Dc are not applicable to the B & W coal fired boiler (1SP1), Keeler Boiler (2SP1), Murray natural gas fired boiler (3SP1) and the natural gas fired dryers (19EL1, 16EL1, and 17EL1). The natural gas fired dryers (19EL1, 16EL1, and 17EL1) are not subject to this rule because they are not steam generating units. The B & W coal fired boiler (1SP1) is a steam generating unit and was constructed after June 9, 1989; however, since the design heat input capacity is greater than 100 MMBtu/hr, 40 CFR 60, Subpart Dc, is not applicable. The Murray natural gas fired boiler (3SP1) is a steam generating unit; however, since was constructed prior to June 9, 1989, and the design heat input capacity is greater than 100 MMBtu/hr, 40 CFR 60, Subpart Dc, is not applicable.

The following emission units are still subject to the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60, Subpart Dc), which is incorporated by reference as 326 IAC 12. These units are steam generating units for which construction, modification, or reconstruction commenced after June 9, 1989, and that have a maximum design heat input capacities 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).

- One (1) natural gas fired hydrogen generator furnace, identified as 107EO1, constructed in 1992, with a maximum heat input capacity of 25.2 MMBtu/hr, and exhausting to stack 107EO.

- One (1) natural gas fired steam generator, identified as 110EO1, constructed in 2002, with a maximum heat input capacity of 14 MMBtu/hr, and exhausting to stack 110EO.

- One (1) natural gas fired steam generator #3, identified as 108EO1, constructed in 1994, with a maximum heat input capacity of 14 MMBtu/hr, and exhausting to stack 108EO.

- One (1) natural gas-fired boiler, identified as 9SP1, approved for construction in 2012, with a maximum heat input capacity of 99 MMBtu/hr, equipped with low NOx burners and flue gas recirculation (FGR) for NOx control, and exhausting to stack 9SP.

- One (1) Keeler coal fired boiler, identified as 2SP1, constructed in 1963, with a maximum heat input capacity of 52.75 MMBtu/hr, using multiple cyclones and a baghouse for control of particulate and HAPs, and exhausting to stack 1SP.

These units are subject to the following portions of 40 CFR 60, Subpart Dc:

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

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

(6) **Standards of Performance 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]**
The two (2) fixed roof hexane storage tanks, approved in 1996 for construction, were constructed after July 23, 1984; however, the storage capacity of each tank is less than 75 cubic meters. Therefore NSPS Kb is not applicable to these tanks.

The one (1) horizontal fixed roof hexane storage tank will be constructed after July 23, 1984, and the storage capacity of this tank is greater than 75 cubic meters and less than 151 cubic meters. The maximum true vapor pressure of hexane is greater than 15.0 kPa. NSPS Kb would be applicable to this tank; however, pursuant to 60.110b(d)(8), this tank is not subject to NSPS Kb because it is part of the vegetable oil production process that is subject to 40 CFR 63, Subpart GGGG.

The one (1) fixed roof hexane work tank was constructed after July 23, 1984; however, the storage capacity of this tank is less than 75 cubic meters. Therefore NSPS Kb is not applicable to this tank.

Therefore, the requirements of the NSPS are not included in the permit.

(7) **Standards of Performance for Stationary Compression Ignition Internal Combustion Engines [40 CFR 60, Subpart IIII]**

The existing fire pump engine is not subject to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60, Subpart IIII)), which is incorporated by reference as 326 IAC 12, because they were constructed before July 11, 2005. Therefore, the requirements of the NSPS are not included in the permit.

The new fire pump engine is subject to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60, Subpart IIII), which is incorporated by reference as 326 IAC 12. The new fire pump engine was constructed after July 11, 2005, and has a displacement less than 30 liters per cylinder.

- Two (2) stationary diesel-fired fire pump engine, constructed in 1980, permitted in 2008, with a maximum power output rate of 380 hp.
- One (1) stationary diesel-fired fire pump engine, permitted in 2008, with a maximum power output rate of 85 hp.

The new fire pump engine is subject to the following portions of 40 CFR 60, Subpart IIII:

(1) 40 CFR 60.4200(a)(2)(ii) and (a)(4)
(2) 40 CFR 60.4205(c) and (e)
(3) 40 CFR 60.4206
(4) 40 CFR 60.4207(b)
(5) 40 CFR 60.4208
(6) 40 CFR 60.4209, (a)
(7) 40 CFR 60.4211(a), (c), (f), and (g)(2)
(8) 40 CFR 60.4212, (a), (b), (c), and (e)
(9) 40 CFR 60.4214(b)
(10) 40 CFR 60.4218
(11) 40 CFR 60.4219
(12) Table 4 to 40 CFR 60, Subpart IIII
(13) Table 5 to 40 CFR 60, Subpart IIII
(14) Table 8 to 40 CFR 60, Subpart IIII

The provisions of 40 CFR 60 Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in Table 8 to 40 CFR 60, Subpart IIII.

(8) **Standards of Performance for Stationary Spark Ignition Internal Combustion Engines [40 CFR 60, Subpart JJJJ]**
The emergency generator is not subject to the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (40 CFR 60, Subpart JJJJ) because it was constructed before June 12, 2006. Therefore, the requirements of the NSPS are not included in the permit.

(c) National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 40 CFR Part 61, 326 IAC 20 and 40 CFR Part 63)

(1) **National Emission Standards for Hazardous Air Pollutants for Halogenated Solvent Cleaning [40 CFR Part 63, Subpart T]**
The solvents used in the degreasing operations (insignificant activities) do not contain any halogenated HAP as defined in 40 CFR 63.460. Therefore, the requirements of the National Emission Standards for Hazardous Air Pollutants for Halogenated Solvent Cleaning (40 CFR Part 63, Subpart T) are not included in this permit.

(2) **National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production [40 CFR 63, Subpart GGGG]**
This source is still subject to the National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production (40 CFR Part 63, Subpart GGGG), which is incorporated by reference as 326 IAC 20-60, because it is a vegetable oil production process that is also a major source of HAP emissions.

The emission units subject to this rule include the following:

- One (1) hexane extraction system, identified collectively as 24EX, modified prior to 1980, with hexane emissions from the vent system controlled by a mineral oil absorber, and exhausting to stack 24EXA. For reporting purposes, all hexane emissions are collectively accounted for in the total hexane losses named 24EX.
    - One (1) ‘A’ unit, identified as 13EX1, with a maximum capacity of 109.4 tons per hour, each, consisting of:
        - 'A' pre-DT, constructed in 1996,
        - ‘A’ DT, constructed in 1980, and
        - 'A' Meal Dryer, constructed in 1980.

        'A' pre-DT is on top of and feeds the ‘A’ DT, which is on top of and feeds the ‘A’ Meal Dryer. The ‘A’ pre-DT and the 'A' DT exhaust to the hexane solvent reclaim system. The ‘A’ Meal Dryer uses a cyclone for PM control, and exhausts to stack 24EX1. Hexane emissions are reported in 24EX.
    - One (1) ‘B’ unit, identified as 14EX1, with a maximum capacity of 109.4 tons per hour, each, consisting of:
        - 'B' pre-DT, constructed in 1996,
        - 'B' DT, constructed in 1980, and
        - 'B' Meal Dryer, constructed in 1980,

'B' pre-DT is on top of and feeds the ‘B’ DT which is on top of and feeds the ‘B’ Meal Dryer. The 'B' pre-DT and the ‘B’ DT exhaust to the hexane solvent reclaim system. The ‘B’ Meal Dryer uses a cyclone for PM control, and exhausts to stack 24EX2. Hexane emissions are reported in 24EX.

- One meal cooler, identified as 21EX1, constructed in 1996, with a maximum capacity of 110 tons per hour, using two (2) cyclones for PM control, exhausting to stacks 24EX3A and 24EX3B, respectively, with hexane emissions reported in 24EX.

- Two (2) hexane storage tanks, identified as 24EX4A (West) and 24EX4B (East), constructed in 1995 and 2005, respectively, with emissions vented to the mineral oil absorber inlet, with hexane emissions reported in 24EX. 24EX4A (West) has a maximum capacity of 17,094 gallons, and 24EX4B (East) has a maximum capacity of 22,950 gallons.

- One (1) wastewater system, identified as 24EX5, constructed prior to 1980, containing traces of hexane, exhausting to the extraction hot water separation pit, with hexane emissions reported in 24EX.

- One (1) refined oil hot well, identified as 24EX6, constructed in 1975, with hexane emissions reported in 24EX.

- One (1) sampling /hexane unloading port, identified as 24EX7, with hexane emissions reported in 24EX.

- Five (5) Distillate Fuel Oil No. 2 Storage Tanks containing non-deodorized oil, identified as 24EX8, venting to the atmosphere, with hexane emissions reported at 24EX.

  - Two (2) tanks with a maximum storage capacity of 500 gallons, each;

  - Three (3) tanks with a maximum storage capacity of 300 gallons, each.

The hexane extraction system (24EX, consisting of 24EX1 through 24EX8) are affected facilities under the National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production 40 CFR 63, Subpart GGGG.

These emission units are subject to the following portions of Subpart GGGG.

(1) 40 CFR 63.2830
(2) 40 CFR 63.2831
(3) 40 CFR 63.2832
(4) 40 CFR 63.2833(a), (d)
(5) 40 CFR 63.2834
(6) 40 CFR 63.2840(a), (b), (c), (d)
(7) 40 CFR 63.2850(a), (b), (e)
(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(a), (c), (d)
(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.

(3) **National Emission Standards for Hazardous Air Pollutants: Stationary Reciprocating Internal Combustion Engines [40 CFR 63, Subpart ZZZZ]**
The emergency generator and fire pump engines are still subject to the National Emission Standards for Hazardous Air Pollutants: Stationary Reciprocating Internal Combustion Engines (40 CFR Part 63, Subpart ZZZZ), which is incorporated by reference as 326 IAC 20-82, because they are stationary reciprocating internal combustion engines (RICE), and they are not specifically exempted from the requirements of this rule.

The emission units subject to this rule include the following:

- Two (2) stationary diesel-fired fire pump engine, constructed in 1980, permitted in 2008, with a maximum power output rate of 380 hp.

- One (1) stationary diesel-fired fire pump engine, permitted in 2008, with a maximum power output rate of 85 hp.

The emergency generator and fire pump engines are subject to the following portions of Subpart ZZZZ.

(1) 40 CFR 63.6580;
(2) 40 CFR 63.6585(a), (b);
(3) 40 CFR 63.6590(a)(1)(ii);
(4) 40 CFR 63.6595(a)(1), (c);
(5) 40 CFR 63.6602;
(6) 40 CFR 63.6605;
(7) 40 CFR 63.6612;
(8) 40 CFR 63.6620;
(9) 40 CFR 63.6625(e), (f), (h), (i), (j);
(10) 40 CFR 63.6635;
(11) 40 CFR 63.6640(a), (b), (f)(1);
(12) 40 CFR 63.6645(a)(5);
(13) 40 CFR 63.6650(a), (b), (c)(1) through (c)(5), (d), (f);
(14) 40 CFR 63.6655(a), (d), (e)(2);
(15) 40 CFR 63.6660;
(16) 40 CFR 63.6665;
(17) 40 CFR 63.6670;
(18) 40 CFR 63.6675;
(19) Table 2c to 40 CFR 63 Subpart ZZZZ;
(20) Table 4 to 40 CFR 63 Subpart ZZZZ;
(21) Table 6 to 40 CFR 63 Subpart ZZZZ; and
(22) Table 7 to 40 CFR 63 Subpart ZZZZ.

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 ZZZZ.

(4) **National Emission Standards for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR 63, Subpart DDDDD]**

This requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR Part 63, Subpart DDDDD (326 IAC 20-95), are not included in this proposed modification for the four (4) existing natural gas-fired grain dryers (#1, #2, #4, and #5) because each dryer does not meet the definition of a boiler or process heater in 40 CFR 63.7575.

This source is still subject to the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers and Process Heaters (40 CFR Part 63, Subpart DDDDD), which is incorporated by reference in 326 IAC 20-95, because the source operates at least one industrial, commercial, or institutional boiler or process heater as defined in §63.7575 that is located at, or is part of, a major source of HAP.

The emission units subject to this rule include the following:

- One (1) natural gas fired hydrogen generator furnace, identified as 107EO1, constructed in 1992, with a maximum heat input capacity of 25.2 MMBtu/hr, and exhausting to stack 107EO.

- One (1) natural gas fired steam generator, identified as 110EO1, constructed in 2002, with a maximum heat input capacity of 14 MMBtu/hr, and exhausting to stack 110EO. This is an affected facility under the New Source Performance Standards for Small Industrial - Commercial - Institutional Steam Generating Units 40 CFR 60, Subpart Dc.

- One (1) natural gas fired steam generator #3, identified as 108EO1, constructed in 1994, with a maximum heat input capacity of 14 MMBtu/hr, and exhausting to stack 108EO. This is an affected facility under the New Source Performance Standards for Small Industrial - Commercial - Institutional Steam Generating Units 40 CFR 60, Subpart Dc.

- One (1) B & W coal fired boiler, identified as 1SP1, constructed in 1950, with a maximum heat input capacity of 108 MMBtu/hr, using multiple cyclones and a baghouse for control of particulate and HAPs, and exhausting to stack 1SP.

- One (1) Keeler coal fired boiler, identified as 2SP1, constructed in 1963, with a maximum heat input capacity of 52.75 MMBtu/hr, using multiple cyclones and a baghouse for control of particulate and HAPs, and exhausting to stack 1SP.

- One (1) Murray natural gas fired, vegetable oil-fired, used oil-fired, and hazardous chemical fired boiler, identified as 3SP1, constructed in 1968, with a maximum heat input capacity of 110.2 MMBtu/hr, and exhausting to stack 1SP.

- One (1) natural gas-fired boiler, identified as 9SP1, approved for construction in 2012, with a maximum heat input capacity of 99 MMBtu/hr, equipped with low NOx burners and flue gas recirculation (FGR) for NOx control, and exhausting to stack 9SP.

Applicable portions of the NESHAP are the following:

(1) 40 CFR 63.7480
(2) 40 CFR 63.7485
(3) 40 CFR 63.7490
(4) 40 CFR 63.7495(a), (b), and (d)
(5) 40 CFR 63.7499
(6) 40 CFR 63.7500
(7) 40 CFR 63.7505
(8) 40 CFR 63.7506(b)
(9) 40 CFR 63.7507
(10) 40 CFR 63.7510(a), (b), (c), (d), and (g)
(11) 40 CFR 63.7515
(12) 40 CFR 63.7520(a), (b), (d), (e), (f), and (g)
(13) 40 CFR 63.7521
(14) 40 CFR 63.7522
(15) 40 CFR 63.7525
(16) 40 CFR 63.7530(a), (c), (d), and (e)
(17) 40 CFR 63.7535
(18) 40 CFR 63.7540
(19) 40 CFR 63.7541
(20) 40 CFR 63.7545(a), (b), (c), (d), (e)(1-7), and (e)(9)
(21) 40 CFR 63.7550
(22) 40 CFR 63.7555
(23) 40 CFR 63.7560
(24) 40 CFR 63.7565
(25) 40 CFR 63.7570
(26) 40 CFR 63.7575
(27) Table 1 to 40 CFR 63
(28) Table 2 to 40 CFR 63
(29) Table 3 to 40 CFR 63
(30) Table 4 to 40 CFR 63
(31) Table 5 to 40 CFR 63
(32) Table 6 to 40 CFR 63
(33) Table 7 to 40 CFR 63
(34) Table 8 to 40 CFR 63
(35) Table 9 to 40 CFR 63
(36) Table 10 to 40 CFR 63
(37) Appendix A to 40 CFR 63

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

(5) **National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities [40 CFR 63, Subpart BBBBBB]**
This source is major for HAPs. Subpart BBBBBB only applies to area sources. Therefore, the requirements of the National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities (40 CFR 63, Subpart BBBBBB) are not included in this permit.

(6) **National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities [40 CFR 63, Subpart CCCCCC]**
This source is major for HAPs. Subpart CCCCCC only applies to area sources. Therefore, the requirements of the National Emission Standards for Hazardous Air

Pollutants for Source Category: Gasoline Dispensing Facilities (40 CFR 63, Subpart CCCCCC) are not included in this 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.

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

(a) The potential to emit of PM, PM10, PM2.5, SO_2 and NOx are all greater than two hundred and fifty (250) tons per hear. Therefore, the source is a major source under Prevention of Significant Deterioration (PSD).

(b) Pursuant to CP 001-4673-00005, issued May 10, 1996, and AA 001-9930-00005, issued September 17, 1998:

(1) The amount of soybean grains processed after the grain dryers shall be limited to less than 1,368,750 tons per twelve (12) consecutive month period, with compliance determined at the end of each month, and

(2) The PM and PM10 emissions shall be limited as follows:

EU ID	Stack ID	PM Limit (lb/hr)	PM10 Limit (lb/hr)
19EL1	19EL	1.36	0.283
1EX1, 1EX2	1EX	0.474	0.474
4EX1, 4EX2, 4EX3	4EX	1.441	1.441
5EX1, 5EX2, 5EX3	5EX	1.505	1.505
7EX1	7EX	0.514	0.514
23EX1	23EX	0.021	0.021
6EX1	6EX	2.218	2.218
5EX2	33EX	0.171	0.171
24EX1	24EX1	6.79	6.79
24EX2	24EX2	6.79	6.79
24EX3	24EX3A, 24EX3B	2.18, each	2.18, each

These limits restrict the net increases of PM and PM10 emissions from the modification in 1996 to below the PSD significant levels of twenty-five (25) and fifteen (15) tons per year, respectively. This will render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the modification performed in 1996.

(c) Pursuant to CP (002) 2005, issued August 23, 1991, the hexane usage for all of the oil extraction facilities (24EX1 through 24EX11) combined shall be limited to less than 330,000 gallons per twelve (12) consecutive month period to ensure that the increase in hexane emissions from these units remains below 39.2 tons per year. This will ensure that 326 IAC 2-2 (Prevention of Significant Deterioration) does not apply to this modification.

(d) In order to make the requirements of 326 IAC 2-2 not applicable, the total emissions from the Megatex screener, #1 scalperator, and #2 scalperator shall be limited to the following:

(1) The PM emission rate from the Megatex screener, #1 scalperator, and #2 scalperator, controlled by the baghouse for 2EL4, shall not exceed 5.7 pounds per hour,

(2) The PM_{10} emission rate from the Megatex screener, #1 scalperator, and #2 scalperator, controlled by the baghouse for 2EL4, shall not exceed 3.40 pounds per hour, and

(3) The $PM_{2.5}$ emission rate from the Megatex screener, #1 scalperator, and #2 scalperator, controlled by the baghouse for 2EL4, shall not exceed 2.28 pounds per hour.

(e) In order to make the requirements of 326 IAC 2-2 not applicable, the PM/PM_{10}emissions from the hammermill plenum baghouse filter, Unit ID 2EL2, shall not exceed 0.17 lb/hr.

(f) In order to make the requirements of 326 IAC 2-2 not applicable, the PM/PM_{10}emissions from the screenings pneumatic conveyor baghouse filter, Unit ID 2EL3, shall not exceed 0.03 lb/hr.

(g) Pursuant to SSM No. 001-29100-00005, the PM and PM_{10} emissions shall be limited as follows:

EU ID	**Stack ID**	**PM Limit** (lb/hr)	**PM_{10} Limit** (lb/hr)
7EX	7EX	0.514	0.514

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. The source's potential to emit of VOC and PM10 is greater than 250 tons per year. In accordance with the compliance schedule specified in 326 IAC 2-6-3, an emission statement must be submitted annually by July 1. 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 Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in the permit:

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

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

326 IAC 6-4 (Fugitive Dust Emissions)
The source is subject to 326 IAC 6-4 (Fugitive Dust Emissions) because the source maintains paved and unpaved roads and parking lots with public access. Pursuant to 326 IAC 6-4, the Permittee shall not generate fugitive dust to the extent that some portion of the material escapes

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.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
This source is not located in a county listed in 326 IAC 6-5-1(a) and has not added a facility with the potential to emit fugitive particulate matter greater than 25 tons per year, which requires a permit as set forth in 326 IAC 2, after December 13, 1985. Therefore, pursuant to 326 IAC 6-5-1, this source is not subject to the requirements of 326 IAC 6-5.

State Rule Applicability – Individual Facilities

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The source was constructed before June 29, 1998. The operation of all the equpiment installed after June 29, 1998, 2EL1, 2EL4, 2EL4, 2EL2, 2EL3, 7EX, 110E01, 24EX4B, 31EX1, 31EX2, 112E01, 32EX1, 32EX2, and 9SP1, will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

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

(a) The three (3) boilers identified as 1SP1, 2SP1, and 3SP1 were constructed before June 8, 1972. Pursuant to 326 IAC 6-2-3(b), boilers existing and in operation before June 8, 1972 shall each be limited by the following equation:

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

Where
C = max ground level concentration (= 50 µm/m^3)
Pt = emission rate limit (lbs/MMBtu)
Q = total source heat input capacity (MMBtu/hr) = 271 MMBtu/hr
N = number of stacks = 1
a = plume rise factor = 0.67
h = stack height (ft) = 184

However, pursuant to 326 IAC 6-2-3(d), particulate emissions from any facilities used for indirect heating purposes which were existing and in operation on or before June 1972 shall in no case exceed 0.8 pounds per MMBtu heat input.

(b) The natural gas-fired boilers 107EO1, 108EO1, 110EO01, and 9SP1 are subject to 326 IAC 6-2-4 because it was constructed after September 21, 1983 and is a source of indirect heating. Pursuant to 326 IAC 6-2-4(a), indirect heating facilities constructed after September 12, 1983, shall be limited by the following equation:

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

Where
Pt = emission rate limit (lbs/MMBtu)
Q = total source heat input capacity (MMBtu/hr)

(c) The following table shows the 326 IAC 6-2 limits for all the indirect heating units located at the source.

Emission Unit	Construction Date	Heat Input Capacity (MMBtu/hr)	Emission Rate limit based on equation (lbs/MMBtu)	Emission Rate Limit (lbs/MMBtu)
1SP1	1950	270.95	1.21	0.8

2SP1	1963	270.95	1.21	0.8
3SP1	1968	270.95	1.21	0.8
107EO1	1992	270.95 + 25.2 = 296.15	0.263	0.263
108EO1	1994	296.15 + 14 = 310.15	0.260	0.260
110EO1	2002	310.15 + 14 = 324.15	0.257	0.257
9SP1	2012	324.15 + 99.0 = 423.15	0.24	0.24

1SP1, 2SP1 and 3SP1 shall not exceed 0.8 lbs/MMBtu heat input of PM emissions. Based on AP 42 emission factors and calculations, 1SP1, 2SP1, 3SP1, 107EO1, 108EO1, 110EO01, and 9SP1can comply with its limit after the effect of the cyclones and baghouse.

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

(a) The natural gas-fired boiler (9SP1) is exempt from the requirements of 326 IAC 6-3, because, pursuant to 326 IAC 1-2-59, liquid and gaseous fuels and combustion air are not considered as part of the process weight.

(b) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the following processes shall not exceed the given emissions in pounds per hour when operating at the given process weight rates. The pound per hour limitations were calculated with the following equation:

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

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

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

Process / Emission Unit	P (tons/hr)	E (lbs/hr)
102EO1	2.5	7.58
204RO1	2.5	7.58
112EO1	3.3	9.1
2EL2	5.6	13.00
2EL3	5.6	13.00
29EX1	10	19.18
32EX1	10	19.18
32EX2	10	19.18
8SP2	13.8	23.80
8SP1	13.8	23.80
11EX1	15	25.16
103EO1	16	26.28
4SP1	21	31.53
7EX2	45	43.60
7EX3	45	43.60

Process / Emission Unit	P (tons/hr)	E (lbs/hr)
7EX4	45	43.60
7EX5	45	43.60
3EX1	48.8	44.35
3EX2	48.8	44.35
19EL1	60	46.29
16EL1	75	48.43
16EX1	93	50.55
16EX2	93	50.55
16EX3	93	50.55
1EX1	93.1	50.56
1EX2	93.1	50.56
24EX1	109.4	52.18
24EX2	109.4	52.18
24EX3	110	52.24
#1 Scalperator	120	53.13
#2 Scalperator	120	53.13
23EX1	125	53.55
9EX1	125	53.55
6SP	150	55.44
17EL1	150	55.44
6EX1	150	55.44
22EX	156.3	55.87
17EX2	156.3	55.87
18EX1	156.3	55.87
31EX1	156.3	55.87
31EX2	156.3	55.87
4EX1	156.3	55.87
4EX2	156.3	55.87
4EX3	156.3	55.87
5EX1	156.3	55.87
5EX2	156.3	55.87
5EX3	156.3	55.87
7EX1	176	57.13
Conveyor (each)	176	57.13
2EL1	240	60.50
4EL1	270	61.82
Megatex Screener	300	63.00
10EX1	333	64.19
13EL1	360	65.09
15EL1	360	65.09
7EL1	360	65.09
8EL1	360	65.09
8EL1	360	65.09
20EL1	450	67.70
12EX1	540	69.88
12EL1	600	71.16

Process / Emission Unit	P (tons/hr)	E (lbs/hr)
14EL1	600	71.16
1EL1	600	71.16
10EL1	720	73.41
3EL1	900	76.23
5EL1	900	76.23
6EL1	900	76.23
9EL1	900	76.23

(c) The emission limits under 40 CFR 60, Subpart DD for the emission units identified as truck dump #2 (1EL1), rail loadout (10EL1), and truck dump #7 (20EL1) are more stringent than the limits under 326 IAC 6-3-2. Pursuant to 326 IAC 6-3-1(c)(5), if an emission limitation established in 326 IAC 12 is more stringent than the emission limitation established in 326 IAC 6-3, then the requirements of 326 IAC 6-3 shall not apply. Therefore, the requirements of 326 IAC 6-3-2 do not apply to these units.

(d) The baghouses, filters, cyclones, dust control oil, and self-cleaning screens for PM control shall be in operation at all times the respective facilities are in operation, in order to comply with these limits.

326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitations)

(a) The B&W boiler (1SP1) and Keeler boiler (2SP1) are both subject to 326 IAC 7 (Sulfur Dioxide Emission Limitations) because they have the potential to emit greater than twenty-five (25) tons per year of sulfur dioxide. Pursuant to 326 IAC 7-1.1-2(a)(1), the sulfur dioxide emissions from the boilers, when combusting coal, shall be less than 6.0 pounds per MMBtu.

(b) The Murray boiler (3SP1), natural gas-fired boiler (9SP1) and the steam generator #3 (108EO1) are not subject to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations) because they do not have the potential to emit greater than twenty-five (25) tons per year of sulfur dioxide and ten (10) pounds per hour.

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

(a) Based upon information submitted by the Permittee with it's first renewal T001-31996-00005, IDEM has determined that the emission units identified as 24EX1 through 24EX11 and 21EX are not subject to 326 IAC 8-1-6 BACT because the units were either built prior to the January 1, 1980 applicability date or, for units built after this date, they have potential emissions of less than 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

(b) The natural gas-fired boiler (9SP1) is not subject to 326 IAC 8-1-6 (New Facilities; General Reduction Requirements), because this unit has the potential to emit VOC of less than twenty-five (25) tons per year.

326 IAC 8-3-2 (Cold Cleaner Operations)

The cold cleaner degreasing facility is located in Adams County and was constructed prior to January 1, 1980. Therefore, the requirements of 326 IAC 8-3-2 (Cold Cleaner Operations) do not apply.

326 IAC 8-6 (Organic Solvent Emission Limitations)

This source is not subject to 326 IAC 8-6 (Organic Solvent Emission Limitations) because it is located in Adams County and was constructed after January 1, 1980.

326 IAC 9-1-1 (Carbon Monoxide Emission Limits)
The natural gas-fired boiler (9SP1) is not subject to 326 IAC 9-1-1 (Carbon Monoxide Emission Limits) because there is no applicable emission limits for the source under 326 IAC 9-1-2.

326 IAC 10 (Nitrogen Oxides)
The boilers are not located in Clark or Floyd Counties, are not in a source category described in 326 IAC 10-3, are not used for generating electricity, and are not "large affected units", as that term is described in 326 IAC 10-4. Therefore, the requirements of 326 IAC 10 do not apply.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance determination requirements applicable to this source are as follows:

<u>Sulfur Dioxide Emissions and Sulfur Content</u>

(a) The Permittee shall submit quarterly reports of the calendar month average coal sulfur content, coal heat content, the sulfur dioxide emission rate in pounds per MMBtu, and the total monthly coal consumption.

(b) Coal sampling and analysis data shall be collected pursuant to the procedures specified in 326 IAC 3-7-2(b) or 326 IAC 3-7-3 as follows:

(1) Minimum Coal Sampling Requirements and Analysis Methods:

(A) The coal sample acquisition point shall be at a location where representative samples of the total coal flow to be combusted by the facility or facilities may be obtained. A single as-bunkered or as-burned sampling station may be used to represent the coal to be combusted by multiple facilities using the same stockpile feed system;

(B) Coal shall be sampled at least one (1) time per day;

(C) Minimum sample size shall be five hundred (500) grams;

(D) Samples shall be composited and analyzed at the end of each calendar month;

(E) Preparation of the coal sample, heat content analysis, and sulfur content analysis shall be determined pursuant to 326 IAC 3-7-2(c); or

(2) Sample and analyze the coal pursuant to 326 IAC 3-7-3.

Volatile Organic Compounds (VOC)
In order to comply, the mineral oil absorber for VOC control shall be in operation and control emissions from the listed facilities at all times when the facilities are in operation.

Particulate Matter

(a) In order to comply, the baghouses, filters, and cyclones for PM control shall be in operation and control emissions from the listed facilities at all times that these facilities are in operation.

(1) The baghouses for particulate control shall be in operation and control emissions from 1EL1, 2EL1, Megatex screener, #1 scalperator, #2 scalperator, 2EL2, 2EL3, 5EL1, 10EL1, 14EL1, and 20EL1 at all times that these processes are in operation.

(2) The baghouse shall be in operation and control emissions from the meal sizing and grinding operation, unit ID 7EX, at all times when the equipment is in operation.

(3) The cyclone for Particulate control shall be in operation at all times and control emissions from the pelletizer/pellet cooler at all times the pelletizer/pellet cooler is in operation.

(b) In order to comply, the self-cleaning screens for PM control shall be in operation and control emissions from 19EL1 and 16 EL1 at all times that these processes are in operation.

(c) In order to comply, dust control oil shall be applied on all grain received at the dump pits serving the emission units identified as 2EL1, 5EL1, 8EL1, 10EL1, 14EL1, 3EL1, 4EL1, 6EL1, 7EL1, and 13 EL1.

(d) In order to comply, the self-cleaning screens for PM control shall be in operation and control emissions from the grain dryers #4 and #5 (17EL1) at all times that these facilities are in operation.

(e) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

Testing

Control Device	Associated Unit ID	Pollutant	Timeframe for Testing	Date of Initial Compliance Test	Frequency of Testing
Baghouse	2 EL4	PM, PM10	Not later than five (5) years from the date of the last valid compliance demonstration	December 07, 2011 (compliant)	Once (1) every five (5) years
Hammermill plenum baghouse filter	2EL2			March 03, 2011 (compliant)	
Meal sizing and grinding operation	7EX				

The compliance monitoring requirements applicable to this source are as follows:

Volatile Organic Compounds (VOC)
To document compliance, the mineral oil absorption vent VOC (hexane) emission rate shall be determined daily by measuring the airflow rate and the concentration of hexane in the air stream. This concentration will be determined daily by measuring percent Lower Explosive Limit (LEL). If the air flow meter proves unreliable, airflow can be determined by calculations.

Equipment	Control Device/stack	Operating Parameters	Range	Frequency	Excursions and Exceedances
1EL, 2EL, 2EL4, 2EL2, 22EX2, 5EL, 10EL, 14EL, 19EL, 20EL, 16EL, 6EL, 9EL, 12EL, 13EL, 15EL, 17EL, 204RO, 102EO, 103EO, 4SP, 1EX, 3EX, 4EX, 5EX, 6EX, 7EX, 9EX, 10EX, 11EX, 12EX, 24EX1, 24EX2, 24EX3A, 24EX3B, 23EX, 33EX, 1SP, and 17EX	grain handling, drying and soybean meal production stack exhausts/vents	Visible Emission Notations	Normal or Abnormal	Daily	Response Steps
1SP1, 2SP1, 3SP1	stack exhaust				
29EX	Loadout bin stack				
32EX	Pelletizer/pellet cooler cyclone				
1EL1, 2EL1, 2EL4, 2EL2, 2EL3, 5EL1, 10EL1, 14EL1, and 20EL1	Baghouses	Pressure Drop Reading	Between 0.5 and 10.0 inches of water		
6EL1, 9EL1, 12EL1, 13EL1, 15EL1, 204RO1, 102EO1, 103EO1, 4SP1, 1EX1, 1EX2, 4EX1, 4EX2, 4EX3, 5EX1, 5EX3, 6EX1, 7EX, 9EX1, 10EX1, 11EX1, 12EX1, 8SP1, 1SP1 and 2SP1	Baghouses		Between 0.5 and 12.0 inches water		

Broken or Failed Bag Detection

(a) For a single compartment baghouses 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 have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

Cyclone Failure Detection
In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emission unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the control devices for the facilities must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations), 40 CFR 64 (CAM), and 326 IAC 2-7 (Part 70).

Consent Decree Entered on January 16, 2007, in Civil Action No. :06-CV-02209
The mineral oil absorption vent VOC (hexane) emission rate shall be determined daily by measuring the airflow rate and the concentration of hexane in the air stream. This concentration will be determined daily by measuring percent Lower Explosive Limit (LEL). If the air flow meter proves unreliable, airflow can be determined by calculations.

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit Renewal No. T001-23640-00005. These corrections, changes, and removals may include Title I changes (e.g. changes that add or modify synthetic minor emission limits). Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

Changes Affecting Conditions Throughout the Permit

(a) *Multiple Conditions - Rule References*
On October 1, 2010, revisions to Title 326 of the Indiana Administrative Code (IAC) were published in the Indiana Register. Some of the revisions affect the IAC references included in the permit. The permit has been revised to reflect the revisions that were made to Title 326 of the IAC.

On October 27, 2010, the Indiana Air Pollution Control Board issued revisions to 326 IAC 2. These revisions resulted in changes to the rule sites listed in the permit. These changes are not changes to the underlining provisions. The change is only to site of these rules Section B - Preventative Maintenance Plan, Section B - Emergency Provisions, Section B - Operational Flexibility, Section C - Risk Management Plan, the Facility Descriptions, and Section D - Preventative Maintenance Plan.

On November 3, 2011, the Indiana Air Pollution Control Board issued a revision to 326 IAC 2. The revision resulted in a change to the rule site of the “responsible official” definition.

(b) *Multiple Conditions - Renewal Language*
Throughout the permit, the permit number and language has been updated to reflect the renewal status of the permit.

(c) *Multiple Conditions - Typographical Errors, Language Clarification*
Throughout the permit, typographical and grammatical errors have been corrected. Additionally, changes to language for clarification or to align with the current preferred permit language conventions have been made.

Changes Specific to Section A of the Permit

(a) 5EX2 has been updated to include the water knock out box used for PM control instead of the baghouse that was never installed.

(b) Emission units have been updated to better define the equipment.

Section A of the permit has been revised as follows:

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

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(hh) Hot dehulling equipment, identified as 5EX2, constructed in 1991, with a maximum throughput of 156.3 tons per hour**,** using a **water knock out box** ~~baghouse~~ for PM control.~~, and exhausting to stack 33EX.~~

(uu) One (1) B & W coal fired boiler, identified as 1SP1, constructed in 1950, with a maximum heat input capacity of 108 MMBtu/hr, using multiple cyclones and a baghouse for control of particulate and HAPs, and exhausting to stack 1SP. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD **and Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units 40 CFR 60, Subpart Db.**

(ww) One (1) Murray natural gas fired, vegetable oil-fired, used oil-fired, and hazardous chemical fired boiler, identified as 3SP1, constructed in 1968, with a maximum heat input capacity of 110.2 MMBtu/hr, and exhausting to stack 1SP. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD **and Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units 40 CFR 60, Subpart Db.**

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(aaa) One (1) enclosed pneumatic ash conveying and loading operation, constructed in the 1950's, identified as emission unit 8SP1 **and 8SP2**, with a maximum throughput of 13.8 tons per hour, using a baghouse for emission control, and exhausting to stack 1SP. The ash loading operation uses water spray for fugitive emission mitigation.

***

(ggg) One (1) Millfeed storage bin, identified as 22EX, with a maximum capacity of 156.3 tons/hr, using fabric filter as control and exhausting to stack 22EX.

(hhh) One (1) Coal receiving, handling and storage operation, identified as 6SP, with a maximum capacity of 150 tons/hr each and exhausting to stack 6SP.

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

***

(a) ***

(b) Stationary fire pumps, as follows;

(1) Two (2) stationary diesel-fired fire pump engine, constructed in 1980, permitted in 2008, with a maximum power output rate of 380 hp.

(2) One (1) stationary diesel-fired fire pump engine, permitted in 2008, with a maximum power output rate of 85 hp.

This is an affected source under National Emission Standards for Hazardous Air Pollutants: Stationary Reciprocating Internal Combustion Engines [40 CFR 63, Subpart ZZZZ] and New Standards of Performance (NSPS) for Stationary Compression Ignition Internal Combustion Engines [40 CFR 60, Subpart IIII].

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

***

(bb) Emission units with PM and PM10 emissions less than five (5) tons per year, SO2, NOx, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, lead emissions less than two-tenths (0.2) tons per year, single HAP emissions less than one (1) ton per year, and combination of HAPs emissions less than two and a half (2.5) tons per year, consisting of:

(1) One (1) acetic anhydride storage tank.

(2) One (1) Hoffman vacuum system, for housekeeping.

(3) One (1) elevator/railcar pest control/fumigation.

~~(4) One (1) Millfeed storage bin, 22EX.~~

(5) One (1) Flake drag air brake fan, 15EX.

~~(6) One (1) Coal receiving operation, 6SP.~~

Changes Specific to Section B and C of the Permit

(a) *Section B - Prior Permits Superseded*
IDEM, OAQ has decided to clarify Section B - Prior Permits Superseded to be consistent with the rule and to clarify that Section B - Prior Permits Superseded only states what a certification must be.

(b) *Section C - Compliance Monitoring*
IDEM, OAQ has revised Section C - Compliance Monitoring. The reference to recordkeeping has been removed due to the fact that other conditions already address recordkeeping. The voice of the condition has been changed to clearly indicate that it is the Permittee that must follow the requirements of the condition. IDEM, OAQ has decided to clarify the Permittee's responsibility under CAM.

(c) *Section C - Response to Excursions or Exceedances*
IDEM, OAQ has revised Section C - Response to Excursions or Exceedances. The introduction sentence has been added to clarify that it is only when an excursion or exceedance is detected that the requirements of this condition need to be followed. The word "excess" was added to the last sentence of paragraph (a) because the Permittee only has to minimize excess emissions. The middle of paragraph (b) has been deleted as it was duplicative of paragraph (a). The phrase "or are returning" was added to subparagraph (b)(2) as this is an acceptable response assuming the operation or emission unit does return to normal or its usual manner of operation. The phrase "within

the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable" was replaced with "normal or usual manner of operation" because the first phrase is just a limited list of the second phrase. The recordkeeping required by paragraph (e) was changed to require only records of the response because the previously listed items are required to be recorded elsewhere in the permit. IDEM, OAQ has decided to clarify the Permittee's responsibility under CAM.

(d) *Section C - General Record Keeping Requirements*
The voice of paragraph (b) of Section C - General Record Keeping Requirements has been changed to clearly indicate that it is the Permittee that must follow the requirements of the paragraph. IDEM, OAQ has clarified the Permittee's responsibility with regards to record keeping. IDEM, OAQ has clarified the interaction of the Quarterly Deviation and Compliance Monitoring Report and the Emergency Provisions. IDEM, OAQ has decided to clarify the Permittee's responsibility under CAM.

Section B and C of the permit has been revised as follows:

SECTION B GENERAL CONDITIONS

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

(a) This permit, T001-**31996**~~23640~~-00005, 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) ***

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

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

(i) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(**35**~~34~~), and

(ii) ***

(b) ***

(c) A "responsible official" is defined at 326 IAC 2-7-1(**35**~~34~~).

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

(a) ***

(b) ***

(c) ***

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(**35**~~34~~).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(**12)]**~~1),(3) and (13)] [326 IAC 2-7-6(1) and (6)]~~ [326 IAC 1-6-3]

(a) ***

(b) ***

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(**35**~~34~~).

***

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(**35**~~34~~).

(d) ***

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

(a) ***

(b) ***

(1) ***

(2) ***

(3) ***

(4) ***

(5) ***

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(**35**~~34~~).

(6) ***

(c) ***

(d) ***

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(**8**~~9~~) be revised in response to an emergency.

(f) ***

(g) ***

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

(a) All terms and conditions of permits established prior to T001-**31996**~~23640~~-00005 and issued pursuant to permitting programs approved into the state implementation plan have been either:

***

(b) Provided that all terms and conditions are accurately reflected in this ~~combined~~ permit, all previous registrations and permits are superseded by this ~~combined new source review and~~ part 70 operating permit.

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit.
[326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(**35**~~3~~4).

(b) ***

(c) ***

(d) ***

B.16 Permit Renewal [326 IAC 2-7-3] [326 IAC 2-7-4] [326 IAC 2-7-8(e)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(**35**~~3~~4).

***

(b) ***

(c) ***

B.17 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) ***

(b) ***

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(**35**~~3~~4).

(c) ***

B.19 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

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

(1) ***

(2) ***

(3) ***

(4) ***

(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)**(1) and** (c)**(1)**~~, 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) **and** (c)(1)~~, and (e)(2).~~

(b) ***

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(**35**~~34~~).

(c) ***

(d) ***

(e) ***

B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

(a) ***

(b) ***

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(**35**~~34~~).

(c) ***

SECTION C SOURCE OPERATION CONDITIONS

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

(a) ***

(b) ***

(c) ***

(d) ***

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(**35**~~34~~).

(e) ***

(f) ***

(g) ***

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

(a) ***

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(**35**~~34~~).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(**35**~~34~~).

(c) ***

C.10 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)][**40 CFR 64][326 IAC 3-8]**

(a) ***

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(**35**~~34~~).

***

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

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

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

(I) Upon detecting an excursion where a response step is required by the D Section, or an exceedance of a limitation**, not subject to CAM,** in this permit:

***

(II)

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

(1) Upon detecting an excursion or exceedance, subject to CAM, the Permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as

practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(2) Determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

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

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

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

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

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

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

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

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

(h) ***CAM recordkeeping requirements.***

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

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

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) ***

(b) ***

(c) ***

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(**35**~~34~~).

C.16 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]

***

The emission statement does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(**35**~~34~~).

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

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. **Support information includes the following:**

(AA) All calibration and maintenance records.

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

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

Records of required monitoring information include the following:

(AA) The date, place, as defined in this permit, and time of sampling or measurements.
(BB) The dates analyses were performed.
(CC) The company or entity that performed the analyses.
(DD) The analytical techniques or methods used.
(EE) The results of such analyses.
(FF) The operating conditions as existing at the time of sampling or measurement.

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

(b) ***

(c) If there is a reasonable possibility (as defined in **326 IAC 2-2-8 (b)(6)(A), 326 IAC 2-2-8 (b)(6)(B), 326 IAC 2-3-2 (l)(6)(A), and/or 326 IAC 2-3-2 (l)(6)(B)** ~~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~~**oo**) and/or 326 IAC 2-3-1(~~ll~~**jj**)) 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~~**dd**) and/or 326 IAC 2-3-1(**y**~~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(**pp**~~rr~~) and/or 326 IAC 2-3-1(**kk**~~mm~~)), the Permittee shall comply with following:

(1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(**00**~~qq~~) and/or 326 IAC 2-3-1(**jj**~~ll~~)) at an existing emissions unit, document and maintain the following records:

(A) ***

(B) ***

(C) ***

(i) ***

(ii) ***

(iii) Amount of emissions excluded under section 326 IAC 2-2-1(**pp**~~rr~~)(2)(A)(iii) and/or 326 IAC 2-3-1 (**kk**~~mm~~)(2)(A)(iii); and

(iv) ***

(d) If there is a reasonable possibility (as defined in **326 IAC 2-2-8 (b)(6)(A) and/or 326 IAC 2-3-2 (l)(6)(A)** ~~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(**oo**~~qq~~) and/or 326 IAC 2-3-1(**jj**~~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(**dd**~~ee~~) and/or 326 IAC 2-3-1(**y**~~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(**pp**~~rr~~) and/or 326 IAC 2-3-1(**kk**~~mm~~)), the Permittee shall comply with following:

(1) ***

(2) ***

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

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. **Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph.** Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(**35**~~34~~). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(b) ***

(c) ***

(d) ***

(e) 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 (**oo**~~qq~~) and/or 326 IAC 2-3-1 (**jj**~~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 (**ww**~~xx~~) and/or 326 IAC 2-3-1 (**pp**~~qq~~), for that regulated NSR pollutant, and

(2) ***

(f) ***

(g) ***

<u>Changes Specific to Section D and Forms of the Permit:</u>

(a) IDEM, OAQ has decided to clarify Section D- Preventive Maintenance Plan, Section D - Testing Requirements, Section D - Visible Emissions Notations, Section D - Parametric Monitoring, Section D - Reporting Requirements and Section D - Particulate Control.

(b) IDEM, OAQ has clarified the interaction of the Quarterly Deviation and Compliance Monitoring Report and the Emergency Provisions.

(c) 5EX2 has been updated to include the water knock out box used for PM control instead of the baghouse that was never installed.

Section D and Forms of the permit has been revised as follows:

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

D.1.2 PSD Minor Limits [326 IAC 2-2]

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

(a) ***

(b) The PM/PM_{10}emissions from the hammermill plenum baghouse filter, Unit ID 2EL2, shall not exceed 0.17 lb/hr.

(c) The PM/PM_{10} emissions from the screenings pneumatic conveyor baghouse filter, Unit ID 2EL3, shall not exceed 0.03 lb/hr.

***

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(~~13~~**12**)]

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

D.1.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) In order to demonstrate compliance with Condition D.1.2(a)(1), (2), (3), and D.1.3 the Permittee shall perform PM and PM_{10} testing **of** ~~on~~ the baghouse, unit ID 2EL4, when only the Megatex screener, **#1 scalperator and #2 scalperator** is operating, ~~no later than sixty (60) days after achieving the maximum capacity, but not later than one hundred eighty (180) days after initial startup of the Megatex screener,~~ utilizing methods as approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM_{10} includes filterable and condensable PM.

~~(b) In order to demonstrate compliance with Condition D.1.2(b)(1), (2), (3), and D.1.3 the Permittee shall perform PM and PM_{10} testing of the baghouse, unit ID 2EL4, when only the #1 scalperator and #2 scalperator are operating, utilizing methods as approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM_{10} includes filterable and condensable PM.~~

(b) In order to demonstrate compliance with Condition D.1.2(c), the Permittee shall perform PM and PM_{10} testing of the hammermill plenum baghouse filter, unit ID 2EL2, ~~no later than 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 ($PM_{2.5}$), 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 the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM_{10} includes filterable and condensable PM.

D.1.7 Visible Emissions Notations ~~[40 CFR 64 (CAM)]~~

(a) ~~Daily~~ Visible emission notations of the grain handling and grain drying stack exhausts/vents (1EL, 2EL, 2EL2, 22EX2, 5EL, 10EL, ~~14EL~~, 19EL, 20EL, 16EL) shall be performed **once per day** during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) ***

(c) ***

(d) ***

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

D.1.8 Visible Emissions Notations [40 CFR 64 (CAM)]

(a) Daily visible emission notations of the grain handling and grain drying stack exhausts/vents (14EL) shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take a reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.1.~~8~~**9** Parametric Monitoring ~~[40 CFR 64 (CAM)]~~

The Permittee shall record the pressure drop across the baghouses used in conjunction with 1EL1, 2EL1 (including baghouse 2EL4), 2EL2, 2EL3, 5EL1, 10EL1, ~~14EL1~~, and 20EL1 at least once per day when **the associated** ~~these~~ facilities are in operation. When, for any one reading, the pressure drop across the baghouse is outside the normal range, the Permittee shall take **a** reasonable response. The normal range for these units is a pressure drop ~~range~~ between 0.5 and 10.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C – Response to Excursions or Exceedances

contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

***

D.1.10 Parametric Monitoring [40 CFR 64 (CAM)]

The Permittee shall record the pressure drop across the baghouses used in conjunction with 14EL1 at least once per day when the associated facilities are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range the Permittee shall take a reasonable response. The normal range for these units is a pressure drop between 0.5 and 10.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C – Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months.

D.1.~~9~~**11** Broken or Failed Bag Detection

***

D.1.~~10~~**12** Record Keeping Requirements

(a) ***

(b) To document the compliance status with Condition D.1.7 **and D.1.8**, the Permittee shall maintain a daily record of visible emission notations of the grain handling processes' stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(c) To document the compliance status with Condition D.1.~~8~~ **9 and D.1.10,** the Permittee shall maintain a daily record of the pressure drop across the baghouses controlling the grain handling processes. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

***

D.1.~~11~~**13** Reporting Requirements

A quarterly summary of the information to document **the** compliance status with Condition D.1.1(a)(1) 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,~~ not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(**35**~~34~~).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

***

(v) Hot dehulling equipment, identified as 5EX2, constructed in 1991, with a maximum throughput

of 156.3 tons per hour**,** using a **water knock out box** ~~baghouse~~ for PM control.~~, and exhausting to stack 33EX.~~

***

D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(~~13~~**12**)]

A Preventive Maintenance Plan is required for these facilities and **any** ~~their~~ control devices. Section B - Preventative Maintenance Plan contains the Permittee's obligation with regard to the preventative maintenance plan required by this condition.

D.2.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

~~(a)~~ In order to demonstrate compliance with Condition D.2.1(c), the Permittee shall perform PM and PM_{10} testing of the meal sizing and grinding operation, unit ID 7EX, ~~no later than 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 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 **the most recent** ~~this~~ valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM_{10} includes filterable and condensable PM.

(b) ***

D.2.7 Visible Emissions Notations ~~[40 CFR 64 (CAM)]~~

(a) ~~Daily~~ Visible emission notations of the grain handling, grain drying, and soybean meal production stack exhausts/vents (6EL, ~~9EL~~, 12EL, 13EL, 15EL, 17EL, 204RO, 102EO, 103EO, 4SP, 1EX, 3EX, 4EX, 5EX, ~~6EX, 7EX~~, 9EX, 10EX, 11EX, 12EX, ~~24EX1, 24EX2, 24EX3A, 24EX3B,~~ 23EX, 33EX, 1SP, and 17EX) shall be performed **once per day** during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) ***

(c) ***

(d) ***

(e) If abnormal emissions are observed, the Permittee shall take **a** reasonable response ~~steps~~. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. **Failure to take response steps shall be considered a deviation from this permit.**

D.2.8 Visible Emissions Notations [40 CFR 64 (CAM)]

(a) Visible emission notations of the grain handling, grain drying, and soybean meal production stack exhausts/vents (9EL, 6EX, 7EX, 24EX1, 24EX2, 24EX3A, and 24EX3B) shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take a reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.2.~~8~~**9** Parametric Monitoring ~~[40 CFR 64 (CAM)]~~

The Permittee shall record the pressure drop across the baghouses used in conjunction with 6EL1, ~~9EL1~~, 12EL1, 13EL1, 15EL1, 204RO1, 102EO1, 103EO1, 4SP1, 1EX1, 1EX2, 4EX1, 4EX2, 4EX3, 5EX1, ~~5EX2~~, 5EX3, ~~6EX1, 7EX~~, 9EX1, 10EX1, 11EX1, 12EX1, and ~~8SP1~~ at least once per day when **the associated** ~~these~~ facilities are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range, **the Permittee shall take a reasonable response. The normal range for this unit is a pressure drop between** ~~of~~ 0.5 and 12.0 inches of water ~~or a range established~~ **unless a different upper-bound or lower-bound value for this range is determined** during the latest stack test~~, the Permittee shall take reasonable response steps~~. Section C – Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

***

D.2.10 Parametric Monitoring [40 CFR 64 (CAM)]

The Permittee shall record the pressure drop across the baghouses used in conjunction with 9EL1, 6EX1, 7EX and 8SP1 at least once per day when the associatedfacilities are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range, the Permittee shall take a reasonable response. The normal range for this unit is a pressure drop between 0.5 and 12.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C – Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months.

D.2.~~9~~**11** Broken or Failed Bag Detection

***

D.2.~~10~~**12** Cyclone Failure Detection

***

D.2.~~11~~**13** Record Keeping Requirements

(a) ***

(b) To document the compliance status with Condition D.2.7 **and D.2.8**, the Permittee shall maintain a daily record of visible emission notations of the grain handling processes' stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(c) To document the compliance status with Condition D.2.~~8~~ **9 and D.2.10,** the Permittee shall maintain a daily record of the pressure drop across the baghouses controlling the grain handling processes. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(d) ***

D.2.~~12~~**14** Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.2.1(a)(1) shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(**35**~~34~~).

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

****

(uu) One (1) B & W coal fired boiler, identified as 1SP1, constructed in 1950, with a maximum heat input capacity of 108 MMBtu/hr, using multiple cyclones and a baghouse for control of particulate and HAPs, and exhausting to stack 1SP. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD **and Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units 40 CFR 60, Subpart Db.**

***

(ww) One (1) Murray natural gas fired, vegetable oil-fired, used oil-fired, and hazardous chemical fired boiler, identified as 3SP1, constructed in 1968, with a maximum heat input capacity of 110.2 MMBtu/hr, and exhausting to stack 1SP. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD **and Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units 40 CFR 60, Subpart Db.**

***

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

D.3.1 Particulate Matter Limitation (PM) [326 IAC 6-2-3] [326 IAC 6-2-4]

(a) Pursuant to 326 IAC 6-2-3(d) (Particulate Emission Limitations for Sources of Indirect Heating), the particulate matter (PM) emissions from the boilers identified as 1SP1, 2SP1, and 3SP1 shall not exceed 0.8 pounds per MMBtu of heat input, each~~. The emission limit was calculated by the following equation:~~

$$\cancel{Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}}}$$

~~Where:~~

~~C = max ground level concentration (= 50 µm/m3)~~
~~Pt = emission rate limit (lbs/MMBtu)~~
~~Q = total source heat input capacity (MMBtu/hr) = 271 MMBtu~~
~~N = number of stacks = 1~~
~~A = plume rise factor = 0.67~~
~~H = stack height (ft) = 184~~

(b) Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Source of Indirect Heating), the particulate matter (PM) emissions from the boiler identified as 107EO1 shall be limited to less than ~~0.25~~ **0.263** pounds per MMBtu of heat input.

(c) Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Source of Indirect Heating), the particulate matter (PM) emissions from the boiler identified as 108EO1 shall be limited to less than ~~0.245~~ **0.260** pounds per MMBtu of heat input.

(d) Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Source of Indirect Heating), the particulate matter (PM) emissions from the boiler identified as 110EO1 shall be limited to less than ~~0.24~~ **0.257** pounds per MMBtu of heat input.

(e) Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Source of Indirect Heating), the particulate matter (PM) emissions from the boiler identified as 9SP1 shall be limited to less than ~~0.23~~ **0.24** pounds per MMBtu of heat input.

***

D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(**12**~~13~~)]

A Preventive Maintenance Plan is required for these facilities and **any** ~~their~~ control devices. Section B - Preventative Maintenance Plan contains the Permittee's obligation with regard to the preventative maintenance plan required by this condition.

D.3.6 Visible Emissions Notations

(a) ***

(b) ***

(c) ***

(d) ***

(e) If abnormal emissions are observed, the Permittee shall take **a** reasonable response ~~steps~~. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. **Failure to take response steps shall be considered a deviation from this permit.**

D.3.7 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouse used in conjunction with 1SP1 and 2SP1 at least once per day when **the associated emissions units** ~~these boilers~~ are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range**, the Permittee shall take a reasonable response. The normal range for this unit is a pressure drop between** of 0.5 and 12.0 inches of water **unless a different upper-bound or lower-bound value for this range is determined** ~~or a range established~~ during the latest stack test~~, the Permittee shall take reasonable response steps~~. Section C – Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be

considered a deviation from this permit.
***

D.3.11 Reporting Requirements

A quarterly summary of the information to document the compliance status with Conditions D.3.2 and D.3.4 shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(**35**~~34~~).

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

D.4.2 Preventive Maintenance Plan [326 IAC 2-7-5(~~13~~**12**)]

A Preventive Maintenance Plan is required for these facilities and **any** ~~their~~ control devices. Section B - Preventative Maintenance Plan contains the Permittee's obligation with regard to the preventative maintenance plan required by this condition.

D.4.3 Volatile Organic Compounds (VOC) **[40 CFR 64 (CAM)]**

***

D.4.6 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.4.1 shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(**35**~~34~~).

SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS

D.6.3 Particulate Control

In order to ensure compliance with Condition D.6.1, the cyclone **for Particulate control** shall be in operation at all times **and control emissions from** ~~when~~ the pelletizer/pellet cooler **at all times the pelletizer/pellet cooler** is in operation.

D.6.4 Visible Emissions Notations

(a) ~~Daily~~ Visible emission notations of pelletizer/pellet cooler cyclone stack 32EX and loadout bin stack 29EX shall be performed **once per day** during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) ***

(c) ***

(d) ***

(e) If abnormal emissions are observed, the Permittee shall take **a** reasonable response ~~steps~~. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. **Failure to take response steps shall be considered a deviation from this permit.**

SECTION E.2 New Source Performance Standards (NSPS) For Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR 60, Subpart Dc] [326 IAC 12]

E.2.2 Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR 60, Subpart Dc] [326 IAC 12]

***

(1) 40 CFR 60.40c (a) and (b)
(2) 40 CFR 60.41c
(3) 40 CFR 60.42c (a), (c)(1), (g), (i)
(4) 40 CFR 60.43c (a), (a)(1), (c), (d)
(5) 40 CFR 60.44c (a), (b), (c), (d), (f), (f)(1), (h), (j)
(6) 40 CFR 60.45c (a), (b), (c)
(7) 40 CFR 60.46c (d), (d)(1), (f)
(8) 40 CFR 60.47c (a), (b)
(9) ~~(3)~~ 40 CFR 60.48c (a)(1), (g), and (i)

SECTION E.4 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR 63, Subpart DDDDD] [326 IAC 20-95]

***

(vv) One (1) Keeler coal fired boiler, identified as 2SP1, constructed in 1963, with a maximum heat input capacity of 52.75 MMBtu/hr, using multiple cyclones and a baghouse for control of particulate and HAPs, and exhausting to stack 1SP. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD **and Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units 40 CFR 60, Subpart Db.**

(ww) One (1) Murray natural gas fired, vegetable oil-fired, used oil-fired, and hazardous chemical fired boiler, identified as 3SP1, constructed in 1968, with a maximum heat input capacity of 110.2 MMBtu/hr, and exhausting to stack 1SP. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD **and Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units 40 CFR 60, Subpart Db.**

***

SECTION E.5 New Source Performance Standards (NSPS) Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units [40 CFR 60, Subpart Db]

Facility Description [326 IAC 2-7-5(14)]

(d) One (1) B & W coal fired boiler, identified as 1SP1, constructed in 1950, with a maximum heat input capacity of 108 MMBtu/hr, using multiple cyclones and a baghouse for control of particulate and HAPs, and exhausting to stack 1SP. This is an affected source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD and Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units 40 CFR 60, Subpart Db.

(f) One (1) Murray natural gas fired, vegetable oil-fired, used oil-fired, and hazardous chemical fired boiler, identified as 3SP1, constructed in 1968, with a maximum heat input capacity of 110.2 MMBtu/hr, and exhausting to stack 1SP. This is an affected

source under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD and Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units 40 CFR 60, Subpart Db.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

New Source Performance Standards (NSPS) [40 CFR 60]

E.5.1 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.5, except when otherwise specified in 40 CFR 60, Subpart Db.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Ave.
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.5.2 Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units [40 CFR 60, Subpart Db] [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 Industrial-Commercial-Institutional Steam Generating Units, which are incorporated by reference as 326 IAC 12, (included as attachment E of this permit) as specified as follows:

(1) 40 CFR 60.40b (a), (g)
(2) 40 CFR 60.41b
(3) 40 CFR 60.42b (a), (e), (g), (k)(2)
(4) 40 CFR 60.43b (a), (e), (g)
(5) 40 CFR 60.44b (a), (h), (i)
(6) 40 CFR 60.45b (a), (b), (c), (c)(1), (c)(2), (f), (g), (h), (i), (j), (k)
(7) 40 CFR 60.46b (a), (b), (c), (d), (e), (e)(1), (e)(2), (e)(3), (e)(4), (f), (g), (j)
(8) 40 CFR 60.47b (b), (c)
(9) 40 CFR 60.48b (a), (b), (c), (d), (e), (f), (i), (j), (j)(2), (l)
(10) 40 CFR 60.49b (a), (b), (d), (f), (g), (i), (j), (k), (m), (n), (o), (r), (p), (v), (w)

SECTION E.6 New Standards of Performance (NSPS) for Stationary Compression Ignition Internal Combustion Engines [40 CFR 60, Subpart IIII]

Facility Description [326 IAC 2-7-5(14)]

(b) Stationary fire pumps.

(1) Two (2) stationary diesel-fired fire pump engine, constructed in 1980, permitted in 2008, with a maximum power output rate of 380 hp.

(2) One (1) stationary diesel-fired fire pump engine, permitted in 2008, with a

maximum power output rate of 85 hp.

This is an affected source under National Emission Standards for Hazardous Air Pollutants: Stationary Reciprocating Internal Combustion Engines [40 CFR 63, Subpart ZZZZ] and New Standards of Performance (NSPS) for Stationary Compression Ignition Internal Combustion Engines [40 CFR 60, Subpart IIII].

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

New Source Performance Standards (NSPS) [40 CFR 60]

E.6.1 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.6, except when otherwise specified in 40 CFR 60, Subpart IIII.

(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.6.2 Standards of Performance for Stationary Compression Ignition Internal Combustion Engines [40 CFR 60, Subpart IIII] [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 Industrial-Commercial-Institutional Steam Generating Units, which are incorporated by reference as 326 IAC 12, (included as attachment F of this permit) as specified as follows:

(1) 40 CFR 60.4200(a)(2)(ii) and (a)(4)
(2) 40 CFR 60.4205(c) and (e)
(3) 40 CFR 60.4206
(4) 40 CFR 60.4207(b)
(5) 40 CFR 60.4208
(6) 40 CFR 60.4209, (a)
(7) 40 CFR 60.4211(a), (c), (f), and (g)(2)
(8) 40 CFR 60.4212, (a), (b), (c), and (e)
(9) 40 CFR 60.4214(b)
(10) 40 CFR 60.4218
(11) 40 CFR 60.4219
(12) Table 4 to 40 CFR 60, Subpart IIII
(13) Table 5 to 40 CFR 60, Subpart IIII
(14) Table 8 to 40 CFR 60, Subpart IIII

SECTION E.7 National Emission Standards for Hazardous Air Pollutants: Stationary Reciprocating Internal Combustion Engines [40 CFR 63, Subpart ZZZZ] [326 IAC 20-60]

Facility Description [326 IAC 2-7-5(14)]

(b) Stationary fire pumps.

(1) Two (2) stationary diesel-fired fire pump engine, constructed in 1980, permitted in 2008, with a maximum power output rate of 380 hp.

(2) One (1) stationary diesel-fired fire pump engine, permitted in 2008, with a maximum power output rate of 85 hp.

This is an affected source under National Emission Standards for Hazardous Air Pollutants: Stationary Reciprocating Internal Combustion Engines [40 CFR 63, Subpart ZZZZ] and New Standards of Performance (NSPS) for Stationary Compression Ignition Internal Combustion Engines [40 CFR 60, Subpart IIII].

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

National Emission Standards for Hazardous Air Pollutants (NESHAP) [40 CFR 60]

E.7.1 General Provisions Relating to NESHAP ZZZZ [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 ZZZZ in accordance with schedule in 40 CFR 63 Subpart ZZZZ.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

E.7.2 National Emission Standards for Hazardous Air Pollutants: Stationary Reciprocating Internal Combustion Engines [40 CFR 63, Subpart ZZZZ]

The Permittee shall comply with the following provisions of 40 CFR 63, Subpart ZZZZ (included as Attachment G of this permit), as specified as follows:

(1) 40 CFR 63.6580;
(2) 40 CFR 63.6585(a), (b);
(3) 40 CFR 63.6590(a)(1)(ii);
(4) 40 CFR 63.6595(a)(1), (c);
(5) 40 CFR 63.6602;
(6) 40 CFR 63.6605;
(7) 40 CFR 63.6612;
(8) 40 CFR 63.6620;
(9) 40 CFR 63.6625(e), (f), (h), (i), (j);

(10) 40 CFR 63.6635;
(11) 40 CFR 63.6640(a), (b), (f)(1);
(12) 40 CFR 63.6645(a)(5);
(13) 40 CFR 63.6650(a), (b), (c)(1) through (c)(5), (d), (f);
(14) 40 CFR 63.6655(a), (d), (e)(2);
(15) 40 CFR 63.6660;
(16) 40 CFR 63.6665;
(17) 40 CFR 63.6670;
(18) 40 CFR 63.6675;
(19) Table 2c to 40 CFR 63 Subpart ZZZZ;
(20) Table 4 to 40 CFR 63 Subpart ZZZZ;
(21) Table 6 to 40 CFR 63 Subpart ZZZZ; and
(22) Table 7 to 40 CFR 63 Subpart ZZZZ.

CERTIFICATION

***
Part 70 Permit No.: T001-~~23640~~**31996**-00005
***

EMERGENCY OCCURRENCE REPORT

***
Part 70 Permit No.: T001-~~23640~~**31996**-00005
***

Part 70 Quarterly Reports

***
Part 70 Permit No.: T001-~~23640~~**31996**-00005
***

QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

***
Part 70 Permit No.: T001-~~23640~~**31996**-00005
***

This report shall be submitted quarterly based on a calendar year. **Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C-General Reporting**. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked “No deviations occurred this reporting period”.

***

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 June 8, 2012. Additional information was received on February 19, 2012.

Conclusion

The operation of this stationary grain handling, soybean meal production, and soybean oil extraction plant shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No. T001-31966-00005.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Julie Alexander at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-1782 or toll free at 1-800-451-6027 extension 3-1782.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Appendix A: Emission Calculations
Plant Summary

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

Unrestricted Emissions

Process/ Emission Unit	PM	PM_{10}	$PM_{2.5}$	SO_2	NO_X	VOC	CO	CO_2e	Total HAP	Hex.
Grain Elevator (EL)	19,690.06	19,465.72	9,966.95	--	--	--	--	--	--	--
Grain Elevator (EL) - *Fugitive Emissions*	182.67	54.16	9.19	--	--	--	--	--	--	--
Hexane Extraction System (24EX)	3,664.65	3,664.65	1,381.57	--	--	435.07	--	--	435.07	435.07
Milling & Extraction (EX)	605.66	545.42	489.03	--	--	--	--	--	--	--
Milling & Extraction (EX) - *Fugitive Emissions*	26.61	3.94	0.26	--	--	--	--	--	--	--
Natural Gas Combustion	1.27	5.07	5.07	0.47	49.44	4.34	71.94	95,290	1.49	1.42
Coal Combustion	38.58	38.58	6.55	1,302.56	323.88	1.88	44.36	167,929	73.46	1.80E-03
Murray Boiler	0.92	3.67	3.67	0.29	48.27	2.65	40.54	58,274	0.91	0.87
Fire Pumps	0.46	0.46	0.26	0.43	6.55	0.53	1.41	18,241	0.81	--
Vehicle Refueling Operations	--	--	--	--	--	4.39	--	--	--	--
Tanks	--	--	--	--	--	0.14	--	--	0.14	0.14
Cooling Tower	0.11	0.09	0.09	--	--	--	--	--	--	--
Salt Handling, Enzyme, Etc. Operations	47.42	47.42	47.42	--	--	--	--	--	--	--
Ash Handling	347.63	224.33	224.33	--	--	--	--	--	--	--
Coal Handling	17.31	5.91	4.24	--	--	--	--	--	--	--
Degreasing	--	--	--	--	--	0.49	--	--	--	--
Paved/Unpaved Roads	16.30	3.26	0.80	--	--	--	--	--	--	--
Total Unrestricted PTE	24,639.65	24,062.68	12,139.42	1,303.75	428.14	449.49	158.25	339,733	511.88	437.50

Controlled Emissions

Process/ Emission Unit	PM	PM_{10}	$PM_{2.5}$	SO_2	NO_X	VOC	CO	CO_2e	Total HAP	Hex.
Grain Elevator (EL)	400.45	176.11	40.32	--	--	--	--	--	--	--
Grain Elevator (EL) - Fugitive Emissions	182.67	54.16	9.19	--	--	--	--	--	--	--
Hexane Extraction System (24EX)	29.32	29.32	11.05	--	--	4.35	--	--	4.35	4.35
Milling & Extraction (EX)	308.88	248.64	192.26	--	--	--	--	--	--	--
Milling & Extraction (EX) - Fugitive Emissions	26.61	3.94	0.26	--	--	--	--	--	--	--
Natural Gas Combustion	1.27	5.07	5.07	0.47	49.44	4.34	71.94	95,290	1.49	1.42
Coal Combustion	38.58	38.58	6.55	1,302.56	323.88	1.88	44.36	167,929	73.46	1.80E-03
Murray Boiler	0.92	3.67	3.67	0.29	48.27	2.65	40.54	58,274	0.91	0.87
Fire Pumps	0.46	0.46	0.26	0.43	6.55	0.53	1.41	18,241	0.81	--
Vehicle Refueling Operations	--	--	--	--	--	4.39	--	--	--	--
Tanks	--	--	--	--	--	0.14	--	--	0.14	0.14
Cooling Tower	0.11	0.09	0.09	--	--	--	--	--	--	--
Salt Handling, Enzyme, Etc. Operations	0.47	0.47	0.47	--	--	--	--	--	--	--
Ash Handling	96.47	34.82	34.82	--	--	--	--	--	--	--
Coal Handling	17.31	5.91	4.24	--	--	--	--	--	--	--
Degreasing	--	--	--	--	--	0.49	--	--	--	--
Paved/Unpaved Roads	16.30	3.26	0.80	--	--	--	--	--	--	--
Total Controlled PTE	1,119.83	604.51	309.05	1,303.75	428.14	18.77	158.25	339,733	81.16	6.78

Appendix A: Emission Calculations
Plant Summary

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

Potential to Emit After Issuance

Process/ Emission Unit	PM	PM_{10}	$PM_{2.5}$	SO_2	NO_X	VOC	CO	CO_2e	Total HAP	Hex.
Grain Elevator (EL)	400.45	176.11	40.32	--	--	--	--	--	--	--
Grain Elevator (EL) - Fugitive Emissions	182.67	54.16	9.19	--	--	--	--	--	--	--
Hexane Extraction System (24EX)	29.32	29.32	11.05	--	--	4.35	--	--	4.35	4.35
Milling & Extraction (EX)	308.88	248.64	192.26	--	--	--	--	--	--	--
Milling & Extraction (EX) - Fugitive Emissions	26.61	3.94	0.26	--	--	--	--	--	--	--
Natural Gas Combustion	1.27	5.07	5.07	0.47	49.44	4.34	71.94	95,290	1.49	1.42
Coal Combustion	38.58	38.58	6.55	1,302.56	323.88	1.88	44.36	167,929	73.46	1.80E-03
Murray Boiler	0.92	3.67	3.67	0.29	48.27	2.65	40.54	57,921	0.91	0.87
Fire Pumps	0.46	0.46	0.26	0.43	6.55	0.53	1.41	18,241	0.81	--
Vehicle Refueling Operations	--	--	--	--	--	4.39	--	--	--	--
Tanks	--	--	--	--	--	0.14	--	--	0.14	0.14
Cooling Tower	0.11	0.09	0.09	--	--	--	--	--	--	--
Salt Handling, Enzyme, Etc. Operations	0.47	0.47	0.47	--	--	--	--	--	--	--
Ash Handling	96.47	34.82	34.82	--	--	--	--	--	--	--
Coal Handling	17.31	5.91	4.24	--	--	--	--	--	--	--
Degreasing	--	--	--	--	--	0.49	--	--	--	--
Paved/Unpaved Roads	16.30	3.26	0.80	--	--	--	--	--	--	--
Total Limited PTE	1,119.83	604.51	309.05	1,303.75	428.14	18.77	158.25	339,381	81.16	6.78

Part 70 Major Source Thresholds	100	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	250	100,000	NA	NA

Controlled Emissions are less than the PTE After Issuance because some control measures used by Bunge are not required by the permit.

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
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					Unrestricted Emissions						Controlled Emissions								
Stack ID	**Process / Units**	**SCC**	**Operating Hours** *(hrs/yr)*	**Max Throughput** *(tons/hr)*	**PM EF** *(lb/ton)*	**PM_{10} EF** *(lb/ton)*	**$PM_{2.5}$ EF** *(lb/ton)*	**PM** *(tons/yr)*	**PM_{10}** *(tons/yr)*	**$PM_{2.5}$** *(tons/yr)*	**PM Outlet Grain Loading** *(gr/dscf)*	**Flow Rate** *(dscfm)*	**Control Device** *description*	**Control Device** *Model #*	**Control Efficiency** *%*	**PM** *(lb/hr)*	**PM** *(tons/yr)*	**PM_{10}** *(tons/yr)*	**$PM_{2.5}$** *(tons/yr)*
4SP	Salt Conveying 4SP1	3-02-005-30	8,760	21.0	na	na	na	11.65	11.65	11.65	0.005	620	Baghouse	54AVS16	99.9%	0.027	0.12	0.116	0.116
204RO	Filter Aid Unit 204RO1	3-05-009-05	8,760	2.5	na	na	na	7.52	7.52	7.52	0.005	400	fabric filter		99.9%	0.017	0.08	0.075	0.075
102EO	Daily Use Bins 102EO1	3-02-005-40	8,760	2.5	na	na	na	11.27	11.27	11.27	0.005	600	fabric filter		99.9%	0.026	0.11	0.113	0.113
103EO	Filter Aid Silos 103EO1	3-02-005-40	8,760	16.0	na	na	na	9.40	9.40	9.40	0.005	500	fabric filter		99.9%	0.021	0.09	0.094	0.094
112EO	Batch Enzyme Bag Unloader 112EO1		8,760	51.0	na	na	na	7.58	7.58	7.58	0.005	400	fabric filter		99.0%	0.017	0.08	0.075	0.075
	Subtotal for MISC							47.42	47.42	47.42						0.11	0.47	0.47	0.47
Ash Handling																			
8SP	Pneumatic Ash Conveying 8SP1	3-05-011-17 (similar to cement)	8,760	13.8	na	na	na	157.84	157.84	157.84	0.020	2,100	Baghouse		99.9%	0.360	1.577	1.577	1.577
	Ash Loadout 8SP2	3-05-011-10 (similar to cement)	8,760	13.8	3.14	1.10	1.10	189.79	66.49	66.49	NA	NA	water spray		50.0%	21.67	94.90	33.24	33.24
	Subtotal for Ash Handling							347.63	224.33	224.33						22.03	96.47	34.82	34.82
Coal Handling																			
6SP	Coal Receiving 6SP	3-05-010-08	8,760	150.00	0.02	0.01	0.01	13.14	3.94	3.94	NA	NA	NA	NA	NA	3.00	13.14	3.94	3.94
	Coal Handling*		8,760	150.00	0.0032	0.0015	0.00023	2.085	0.99	0.1493	NA	NA	NA	NA	NA	0.476	2.085	0.99	0.1493
	Coal Storage Shed (3 sided)*		8,760	150.00	0.0032	0.0015	0.00023	2.085	0.99	0.1493	NA	NA	NA	NA	NA	0.476	2.085	0.99	0.1493
	Subtotal for Coal Handling							17.31	5.91	4.24						3.95	17.310	5.91	4.24

E (lb/ton) = k (0.0032) x [(U/5)^1.3 / (M/2)^1.4]

k (PM) = 0.74 U = 15 Mean wind speed (mph)
k (PM10) = 0.35 M = 4.5 Moisture content (%)
k (PM2.5) = 0.053

*PM, PM10 and PM2.5 EF from AP-42 13.2.4 equation 13.2.4.3

Methodology:

For units that do not employ a control device:

Unrestricted PM/PM_{10}/$PM_{2.5}$ (tons/yr) = Throughput (tons/hr) x EF (lb/ton) x 8760 hr/yr x 1 ton/2000lb
Controlled PM/PM_{10}/$PM_{2.5}$ (tons/yr) = Unrestricted PM/PM10 /PM2.5 (tons/yr)

For units that employ a control device:

Unrestricted PM/PM_{10}/$PM_{2.5}$ (tons/yr) = Controlled Emission Rate (tons/yr) / Control Efficiency (%)
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
Controlled emisions $PM_{2.5}$ = 37.7% of PM_{10} controlled emissions. This was developed using the EPA PM calculator (http://www.epa.gov/ttnchie1/software/pmcalc/).

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

Coal Combustion (Boilers)

Unit	ID#	Heat Input Capacity MMBtu/hr	Potential Throughput ton/yr	Date Installed	SCC	Permit Ref.	Sulfur Content %	PM Control Efficiency %
B&W Boiler	1SP1	108.0	36,025	2002	10200204	A.2(uu)	1.02	99.9%
Keeler Boiler	2SP1	52.75	17,595	1994	10200204	A.2(vv)	2.23	99.9%
		160.75	53,620					

	Pollutant										
	CO	NO_X	PM	PM_{10}	$PM_{2.5}$	SO_2	VOC	CO_2	CH_4	N_2O	CO_2e
*Source Provided Emission Factor in lb/MMBtu**	***0.063***	***0.46***	***0.0548***	***0.0548***	***0.0093***	***1.85***					
Source Provided Emission Factor in lb/MMBtu (uncontrolled)			***54.80***	***54.80***	***9.30***						
Source Provided Emission Factor in lb/ton							***0.07***				
AP-42 Emission Factor in lb/ton								***6,250***	***0.06***	***0.04***	
								1	*21*	*310*	*= GWP*
Unrestricted PTE											
B&W Boiler 1SP1 PTE (ton/yr)	29.80	217.60	25,923	25,923	4,399	875.12	1.26	112,577	1.08	0.72	112,823
Keeler Boiler 2SP1 PTE (ton/yr)	14.56	106.28	12,661	12,661	2,149	427.43	0.62	54,986	0.53	0.35	55,106
NEW Total PTE (tons/yr)	44.36	323.88	38,584	38,584	6,548	1,303	1.88	167,563	1.61	1.07	167,929
Controlled PTE											
B&W Boiler 1SP1 PTE (ton/yr)	29.80	217.60	25.92	25.92	4.40	875.12	1.26	112,577	1.08	0.72	112,823
Keeler Boiler 2SP1 PTE (ton/yr)	14.56	106.28	12.66	12.66	2.15	427.43	0.62	54,986	0.53	0.35	55,106
NEW Total PTE (tons/yr)	44.36	323.88	38.58	38.58	6.55	1,303	1.88	167,563	1.61	1.07	167,929

	HAPs - Metals												Metal HAP Subtotal
	Antimony	Arsenic	Beryllium	Cadmium	Chromium	Cobalt	Lead	Magnesium	Manganese	Mercury	Nickel	Selenium	
AP-42 Emission Factor in lb/ton	***1.8E-05***	***4.1E-04***	***2.1E-05***	***5.10E-05***	***2.6E-04***	***1.0E-04***	***4.2E-04***	***1.1E-02***	***4.9E-04***	***8.3E-05***	***2.8E-04***	***1.3E-03***	
B&W Boiler 1SP1 PTE (ton/yr)	3.2E-04	7.4E-03	3.8E-04	9.2E-04	4.7E-03	1.8E-03	7.6E-03	2.0E-01	8.8E-03	1.5E-03	5.0E-03	2.3E-02	0.260
Keeler Boiler 2SP1 PTE (ton/yr)	1.6E-04	3.6E-03	1.8E-04	4.5E-04	2.3E-03	8.8E-04	3.7E-03	9.7E-02	4.3E-03	7.3E-04	2.5E-03	1.1E-02	0.127
Total PTE (tons/yr)	4.83E-04	1.10E-02	5.63E-04	1.37E-03	6.97E-03	2.68E-03	1.13E-02	2.95E-01	1.31E-02	2.23E-03	7.51E-03	3.49E-02	0.387

	HAPs - Organics												Organic HAP Subtotal
	D/F	HCl	HF	Anthracene	Benzene	Formaldehyde	Hexane	Napthalene	Phenol	Phenanthrene	Pyrene	Toluene	
*Source Provided Emission Factor in lb/MMBtu**		***0.098***											
AP-42 Emission Factor in lb/ton	***2.4E-07***		***0.15***	***2.10E-07***	***1.3E-03***	***2.4E-04***	***6.7E-05***	***1.3E-05***	***1.6E-05***	***2.7E-06***	***3.3E-07***	***2.4E-04***	
B&W Boiler 1SP1 PTE (ton/yr)	4.4E-06	46.36	2.70	3.78E-06	2.34E-02	4.32E-03	1.21E-03	2.34E-04	2.88E-04	4.86E-05	5.94E-06	4.32E-03	49.09
Keeler Boiler 2SP1 PTE (ton/yr)	2.1E-06	22.64	1.32	1.85E-06	1.14E-02	2.11E-03	5.89E-04	1.14E-04	1.41E-04	2.38E-05	2.90E-06	2.11E-03	23.98
Total PTE (tons/yr)	6.54E-06	6.90E+01	4.02E+00	5.63E-06	3.49E-02	6.43E-03	1.80E-03	3.49E-04	4.29E-04	7.24E-05	8.85E-06	6.43E-03	73.07

B&W Boiler 1SP1 PTE (ton/yr)	Total HAP:	49.35
Keeler Boiler 2SP1 PTE (ton/yr)	Total HAP:	24.11
	Total HAP:	**73.46**

Notes
***Emission Factor based on 2010 stack testing of the source.**
Metal HAP Emission Factors: AP-42, Ch. 1.1, Table 1.1-18
Organic HAP Emission Factors: AP-42, Ch. 1.1, Tables 1.1-13 and 1.1-14
D/F Emission Factors: AP-42, Ch. 1.1, Table 1.1-12
HCl & HF Emission Factors: AP-42, Ch. 1.1, Table 1.1-15
Additional HAPs emission factors are available in AP-42, Chapter 1.1.
MMBtu = 1,000,000 Btu
Heating Value, Bituminous Coal, 13,131 Btu/lb
Wherever no emission rate was provided by the source, Emission Factors are from AP 42, Chapter 1.1, SCC #1-02-002-04, Spreader-Stoker, bituminous
PM emissions are controlled by baghouses.
PM emission factor is filterable PM only. PM_{10} emission factor is filterable and condensable PM_{10} combined.
$PM_{2.5}$ emission factor is filterable and condensable $PM_{2.5}$ combined.
Greenhouse Warming Potentials (GWP) from AP-42 1.1-19
CH_4 and N_2O emission factors are from 40 CFR 98, Table C-2.
Potential Throughput (ton/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 lb/ 0.013131 MMBtu x 1 ton/2000 lb
Emission (tons/yr) = Throughput (ton/yr) x Emission Factor (lb/ton)/2,000 lb/ton
CO_2e (tons/yr) = CO_2 Potential Emission ton/yr x CO_2 GWP (1) + CH_4 Potential Emission ton/yr x CH_4 GWP (21) + N_2O Potential Emission ton/yr x N_2O GWP (310).

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

Murray Boiler (3SP1)

Unit	ID#	Date Installed	Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	SCC
Murray Boiler	3SP1	1968	110.2	965.4	10200601

Permit Ref.: A.2(ww)

Heating Value: *1,020* Btu/CF

Pollutant	CO	NO_X	PM	PM_{10}	$PM_{2.5}$	SO_2	VOC	CO_2	CH_4	N_2O	CO_2e
Natural Gas Emission Factor in lb/MMCF	*84.0*	*100.0*	*1.9*	*7.6*	*7.6*	*0.6*	*5.5*	*120,000*	*2.3*	*2.2*	*120,730*
								1	*21*	*310*	*= GWP*
Murray Boiler 3SP1 PTE (ton/yr) - N.G.	40.54	48.27	0.92	3.67	3.67	0.29	2.65	57,921	1.11	1.06	58,274

Notes
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
CH_4 and N_2O emission factors for vegetable oil, used oil, and hazardous waste are from 40 CFR 98, Table C-2.

NATURAL GAS - emission factors: AP-42, Chapter 1.4
PM emission factor is filterable PM only. PM_{10} emission factor is filterable and condensable PM combined. $PM_{2.5}$ emission factor is filterable and condensable PM combined.
Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32
The N_2O Emission Factor for uncontrolled is 2.2. The N_2O Emission Factor for low NO_X burner is 0.64.

Methodology
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Potential Throughput (kgal/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 kgal/150 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Emission (tons/yr) = Throughput (kgal/yr) x Emission Factor (lb/kgal)/2,000 lb/ton
CO_2e (tons/yr) = CO_2 Potential Emission ton/yr x CO_2 GWP (1) + CH_4 Potential Emission ton/yr x CH_4 GWP (21) + N_2O Potential Emission ton/yr x N_2O GWP (310).

HAPs - Organics	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	HAP Subtotal *Organic*
Natural Gas Emission Factor in lb/MMCF	*2.1E-03*	*1.2E-03*	*7.5E-02*	*1.80*	*3.4E-03*	
Murray Boiler 3SP1 PTE (ton/yr) - N.G.	1.0E-03	5.8E-04	3.6E-02	0.87	1.6E-03	0.91

HAP TOTAL
0.91

HAPs - Metals	Cadmium	Chromium	Lead	Manganese	Nickel	HAP Subtotal *Metals*
Natural Gas Emission Factor in lb/MMCF	*1.1E-03*	*1.4E-03*	*5.0E-04*	*3.8E-04*	*2.1E-03*	
Murray Boiler 3SP1 PTE (ton/yr) - N.G.	5.3E-04	6.8E-04	2.4E-04	1.8E-04	1.0E-03	2.6E-03

NATURAL GAS - HAP emission factors: AP-42, Chapter 1.4

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

Fire Pump Engines (Diesel)

	Size	Displacement	Potential Throughput	Heat Input Capacity	Emergency Use Only	Fuel
	hp	L/cyl.	hp-hr/yr	MMBtu/hr	500	Diesel
Cummins Fire Pump #1 (1980)	380	2.34	190,000	2.66	hrs/yr	
Cummins Fire Pump #2 (1980)	380	2.34	190,000	2.66		
Detroit Fire Pump	85	1.16	42,500	0.60		
	845	5.83	422,500	5.92		

	Pollutant						
	CO	NO_X	PM	PM_{10}	$PM_{2.5}$	SO_2	VOC
Emission Factor in lb/hp-hr	*6.68E-03*	*0.031*	*2.20E-03*	*2.20E-03*	*2.20E-03*	*2.05E-03*	*2.51E-03*
Cummins Fire Pump #1 (1980) PTE (ton/yr)	0.63	2.95	0.209	0.209	0.209	0.195	0.239
Cummins Fire Pump #2 (1980) PTE (ton/yr)	0.63	2.95	0.209	0.209	0.000	0.195	0.239
Detroit Fire Pump PTE (ton/yr)	0.14	0.66	0.047	0.047	0.047	0.044	0.053
Total	1.41	6.55	0.46	0.46	0.26	0.43	0.53

Emission factors are from AP-42 Table 3.3-1.
7,000 Btu = 1 hp-hr
All 3 fire pumps are 4 stroke engines.

Methodology
Throughput (hp-hr/yr) = Size (hp) x Operating Hours (hr/yr)
Heat Input Capacity (MMBtu/hr) = Size (hp) x 7000 Btu/hp-hr x 1 MMBtu/1,000,000 Btu
Emission (tons/yr) = Throughput (hp-hr/yr) x Emission Factor (lb/hp-hr) / 2,000 lb/ton

Greenhouse Gas Emissions	*1*	*21*	*310*	*GWP*
	CO_2	CH_4	N_20	GHGs as CO_2e
Emission Factor in lb/hp-hr	*1.15*	*2.2E-01*	*2.6E-01*	
Cummins Fire Pump #1 (1980) PTE (ton/yr)	109	2.08E+01	2.47E+01	8,203
Cummins Fire Pump #2 (1980) PTE (ton/yr)	109	2.08E+01	2.47E+01	8,203
Detroit Fire Pump PTE (ton/yr)	24	4.65E+00	5.53E+00	1,835
Total	243	4.63E+01	5.49E+01	18,241

VOC Emission Rates:	
2.47E-03	exhaust
0	evaporative
4.41E-05	crankcase
0	refueling
2.51E-03	total

Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
CO_2 emission factor is from AP-42.
CH_4 and N_2O emission factors are from 40 CFR 98, Table C-2.
CO_2e (ton/yr) = CO_2 Potential Emission (ton/yr) x CO_2 GWP + CH_4 Potential Emission (ton/yr) x CH_4 GWP + N_2O Potential Emission (ton/yr) x N_2O GWP

	HAPs - Organics							
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH	Total HAP
Emission Factor in lb/hp-hr	*9.33E-04*	*4.09E-04*	*2.85E-04*	*1.18E-03*	*7.67E-04*	*9.25E-05*	*1.68E-04*	
Cummins Fire Pump #1 (1980) PTE (ton/yr)	8.9E-02	3.9E-02	2.7E-02	1.1E-01	7.3E-02	8.8E-03	1.6E-02	**0.36**
Cummins Fire Pump #2 (1980) PTE (ton/yr)	8.9E-02	3.9E-02	2.7E-02	1.1E-01	7.3E-02	8.8E-03	1.6E-02	**0.36**
Detroit Fire Pump PTE (ton/yr)	2.0E-02	8.7E-03	6.1E-03	2.5E-02	1.6E-02	2.0E-03	3.6E-03	**0.08**
Total	0.20	8.6E-02	6.0E-02	0.25	0.16	2.0E-02	3.5E-02	0.81

PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)
Emission factors are from AP-42 Table 3.3-2.

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

Year Installed	Process / Units	Capture Efficiency (%)	Hours of Operation (hrs/yr)	Max Throughput (tons/hr)	PM EF (lb/ton)	PM_{10} EF (lb/ton)	$PM_{2.5}$ EF (lb/ton)	Potential to Emit PM (tons/yr)	Potential to Emit PM_{10} (tons/yr)	Potential to Emit $PM_{2.5}$ (tons/yr)	Fugitive PM (tons/yr)	Fugitive PM_{10} (tons/yr)	Fugitive $PM_{2.5}$ (tons/yr)	SCC
1980	Truck Dump No. 2 - 1EL fug.	95.0%	8760	600	1.80E-01	5.90E-02	1.00E-02	473.04	155.05	26.28	23.652	7.753	1.314	3-02-005-51
1984	Rail Loadout - 10EL fug.	85.0%	8760	720	2.70E-02	2.20E-03	3.70E-04	85.15	6.94	1.17	12.772	1.041	0.175	3-02-005-63
1960	Rail Receiving - 10EL fug.	85.0%	8760	720	3.20E-02	7.80E-03	1.30E-03	100.92	24.60	4.10	15.137	3.690	0.615	3-02-005-53
1997	Truck Dump No. 7 - 20EL fug.	95.0%	8760	450	1.80E-01	5.90E-02	1.00E-02	354.78	116.29	19.71	17.739	5.814	0.986	3-02-005-51
< 1977	Silo bin vents - 3EL fug.	80.0%	8760	900	2.50E-02	6.30E-03	1.10E-03	98.55	24.83	4.34	19.710	4.967	0.867	3-02-005-40
< 1977	Silo direct loadout - 4EL fug.	80.0%	8760	270	8.60E-02	2.90E-02	4.90E-03	101.70	34.30	5.79	20.341	6.859	1.159	3-02-005-40
1976	Truck Dump No. 3 & Leg - 9EL fug.	95.0%	8760	900	1.80E-01	5.90E-02	1.00E-02	709.56	232.58	39.42	35.478	11.629	1.971	3-02-005-51
< 1977	Truck Dump No. 5 & Leg - 12EL fug.	95.0%	8760	600	1.80E-01	5.90E-02	1.00E-02	473.04	155.05	26.28	23.652	7.753	1.314	3-02-005-51
< 1977	Truck Dump No. 6 - 15EL fug.	95.0%	8760	360	1.80E-01	5.90E-02	1.00E-02	283.82	93.03	15.77	14.191	4.652	0.788	3-02-005-51
	Subtotal for Grain Elevator (EL)							2,680.56	842.67	142.86	182.67	54.16	9.19	
1982 (1999)	Truck & Rail Meal Loadout	85.0%	8760	150	0.27	0.04	0.0027	177.39	26.28	1.76	26.609	3.942	0.264	3-02-007-91
	Subtotal for Milling & Extraction (EX)							177.39	26.28	1.76	26.61	3.94	0.26	

Grain Elevator (EL) - AP-42 Emission Factors: Table 9.9.1-1
Milling & Extraction (EX) - AP-42 Emission factors:Table 9.11.1-1 (Vegetable Oil Processing)

Methodology:

Unrestricted $PM/PM_{10}/PM_{2.5}$ (tons/hr) = Throughput (tons/hr) x EF (lb/ton) x 8760 hr/yr x 1 ton/2000lb

Fugitive $PM/PM_{10}/PM_{2.5}$ (tons/hr) = Unrestricted PM/PM10 /PM2.5 (tons/hr) x (1 - Capture Efficiency (%))

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

1) Equipment with controls that creates an artificial air flow

				Emission Factors			Unrestricted Emissions			Controlled Emissions								
Stack ID	**Process / Units**	**Hours**	**Max Throughput**	**PM EF**	**PM_{10} EF**	**$PM_{2.5}$ EF**	**PM**	**PM_{10}**	**$PM_{2.5}$**	**PM Outlet Grain Loading**	**Flow Rate**	**Control Device**	**Control Device**	**Control Efficiency**	**PM**		**PM_{10}**	**$PM_{2.5}$**
		(hrs/yr)	*(tons/hr)*	*(lb/ton)*	*(lb/ton)*	*(lb/ton)*	*(tons/yr)*	*(tons/yr)*	*(tons/yr)*	*(gr/dscf)*	*(dscfm)*	*description*	*Model #*	*%*	*(lb/hr)*	*(tons/yr)*	*(tons/yr)*	*(tons/yr)*
1EL	Truck Dump No. 2 1EL1	8,760	600.0	na	na	na	150.92	150.92	75.46	0.003	13,400	fabric filter	124RF10	99.0%	0.34	1.51	1.51	0.75
2EL	Dryer/Screener (Megatex)	8,760	300.0	na	na	na	17,269.71	17,269.71	8,634.86	0.002	23,000	Baghouse	72RJ96	99.99%	0.39	1.73	1.73	0.86
	#1 Scalperator	8,760	120.0															
	#2 Scalperator	8,760	120.0															
	East Work House 2EL1	8,760	270.0															
	Ext. Screening Bin																	
	Screening Bin																	
	Solvent Screening Leg																	
	#1 Leg																	
	#2 Leg																	
	#3 Leg																	
	West to East Hi-Roller																	
	West to East Belt Loader																	
	Dry Bean Leg																	
	#1 Dryer Hi-Roller																	
	Weaver's Belt																	
	102 Belt																	
2EL2	Screenings Hammermill - 2EL2	8,760	5.6	na	na	na	45.05	45.05	22.53	0.003	4,000	fabric filter	2EL2	99.0%	0.10	0.45	0.45	0.23
5EL	5EL1	8,760	900.0	na	na	na	45.48	45.48	22.74	0.003	4,038	fabric filter	24RJ72	99.0%	0.10	0.45	0.45	0.23
	North Tripper Buggy																	
	North Galley Belt Loader																	
	East West Belt																	
	Bin 102																	
6EL	6EL1	8,760	900.0	na	na	na	43.56	43.56	21.78	0.003	3,868	fabric filter	24RJ72	99.0%	0.10	0.44	0.44	0.22
	South Tripper Buggy																	
	South Galley Belt Loader																	
	North South Belt																	
9EL	Truck Dump No. 3 & Leg 9EL1	8,760	900.0	na	na	na	432.12	432.12	432.12	0.005	23,020	fabric filter	72RJ96	99.0%	0.99	4.32	4.32	4.32
10EL	Rail Car Loadout Shed 10EL1	8,760	720.0	na	na	na	375.94	375.94	187.97	0.005	20,027	fabric filter	72RJ96	99.0%	0.86	3.76	3.76	1.88
	Rail Loadout																	
	Rail Receiving																	
	North Leg																	
	South Leg																	
12EL	Truck Dump No. 5 & Leg 12EL1	8,760	600.0	na	na	na	154.11	154.11	77.06	0.005	8,210	fabric filter	72RJ96	99.0%	0.35	1.54	1.54	0.77
13EL	Jumbo Silo Tunnel Belts 13EL1	8,760	360.0	na	na	na	174.76	174.76	87.38	0.005	9,310	fabric filter	72RJ96	99.0%	0.40	1.75	1.75	0.87
	Jumbo Silo East Tunnel Belt																	
	Jumbo Silo West Tunnel Belt																	
	Jumbo Silo Crossover Tunnel Belt																	
14EL	Jumbo Silo Galley 14EL1	8,760	600.0	na	na	na	268.51	268.51	134.25	0.005	14,304	fabric filter	72RJ96	99.0%	0.61	2.69	2.69	1.34
	Jumbo Silo East Galley Belt																	
	Jumbo Silo West Galley Belt																	
	Jumbo Silo Crossover Galley Belt																	
15EL	Truck Dump No. 6 15EL1	8,760	360.0	na	na	na	214.37	214.37	107.18	0.005	11,420	fabric filter	72RJ96	99.0%	0.49	2.14	2.14	1.07
20EL	Truck Dump No. 7 20EL1	8,760	450.0	na	na	na	126.14	126.14	126.14	0.005	7,000	fabric filters (2 in parallel)	24RJ72	99.0%	0.29	1.26	1.26	1.26
	Weigh Scale Truck Unloading Pit																	
	#1 Bucket Elevator Leg																	
	#2 Bucket Elevator Leg																	
22EX2	Screenings Pneumatic Convey - 2EL3	8,760	5.6	na	na	na	11.08	11.08	11.08	0.005	590	fabric filter	22EX2	99.0%	0.03	0.11	0.11	0.11
	Subtotal for Grain Elevator (EL)						**19,311.76**	**19,311.76**	**9,940.55**						**5.06**	**22.15**	**22.15**	**13.92**

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

2) Equipment with controls that does not creates an artificial air flow

					Emission Factors			Unrestricted Emissions			Controlled Emissions								
Stack ID	**Process / Units**	**SCC**	**Hours**	**Max Throughput**	**PM EF**	**PM_{10} EF**	**$PM_{2.5}$ EF**	**PM**	**PM_{10}**	**$PM_{2.5}$**	**PM Outlet Grain Loading**	**Flow Rate**	**Control Device**	**Control Device**	**Control Efficiency**	**PM**		**PM_{10}**	**$PM_{2.5}$**
			(hrs/yr)	*(tons/hr)*	*(lb/ton)*	*(lb/ton)*	*(lb/ton)*	*(tons/yr)*	*(tons/yr)*	*(tons/yr)*	*(gr/dscf)*	*(dscfm)*	*description*	*Model #*		*(lb/hr)*	*(tons/yr)*	*(tons/yr)*	*(tons/yr)*
19EL	No.2 Dryer 19EL1	3-02-005-27	8,760	60.0	2.20E-01	5.50E-02	9.40E-03	57.82	14.45	2.47	NA	NA	Screen-Kleen	NA	NA	13.20	57.82	14.45	2.47
3EL	Silo bin vents 3EL1	3-02-005-40	8,760	900.0	2.50E-02	6.30E-03	1.10E-03	98.55	24.83	4.34	NA	NA	oil dust suppressant	NA	NA	22.50	98.55	24.83	4.34
4EL	Silo direct loadout 4EL1	3-02-005-40	8,760	270.0	2.50E-02	6.30E-03	1.10E-03	29.57	7.45	1.30	NA	NA	oil dust suppressant	NA	NA	6.75	29.57	7.45	1.30
7EL1	south west receiving conveyor	3-02-005-30	8,760	360.0	6.10E-02	3.40E-02	5.80E-03	96.18	53.61	9.15	NA	NA	oil dust suppressant	NA	NA	21.96	96.18	53.61	9.15
8EL1	north west receiving conveyor	3-02-005-30	8,760	360.0	6.10E-02	3.40E-02	5.80E-03	96.18	53.61	9.15	NA	NA	oil dust suppressant	NA	NA	21.96	96.18	53.61	9.15
				Subtotal for Grain Elevator (EL)				**378.30**	**153.96**	**26.40**						**86.37**	**378.30**	**153.96**	**26.40**
				Total for Grain Elevator (EL)				**19,690.06**	**19,465.72**	**9,966.95**						**91.43**	**400.45**	**176.11**	**40.32**

Grain Elevator (EL) - AP-42 Emission Factors: Table 9.9.1-1, unless otherwise specified

Methodology:

For units that do not employ a control device: Unrestricted $PM/PM_{10}/PM_{2.5}$ (tons/yr) = Throughput (tons/hr) x EF (lb/ton) x 8760 hr/yr x 1 ton/2000lb

Controlled $PM/PM_{10}/PM_{2.5}$ (tons/yr) = Unrestricted PM/PM10 /PM2.5 (tons/yr)

For units that employ a control device: Unrestricted $PM/PM_{10}/PM_{2.5}$ (tons/yr) = Controlled Emission Rate (tons/yr) / Control Efficiency (%)

Controlled PM/PM10 /PM2.5 (ton/yr) = Flow rate (dscfm) x Outlet Grain Loading (gr/dscf) x 1 lb/7000 grains x 60 minutes/hr x 8760 hr/yr x 1 ton/2000 lb

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

1) Equipment with controls that creates an artificial air flow

				Emission Factors			Unrestricted Emissions			Controlled Emissions								
Stack ID	Process / Units	Hours	Max Throughput	PM EF	PM_{10} EF	$PM_{2.5}$ EF	PM	PM_{10}	$PM_{2.5}$	PM Outlet Grain Loading	Flow Rate	Control Device	Control Device	Control Efficiency	PM		PM_{10}	$PM_{2.5}$
		(hrs/yr)	*(tons/hr)*	*(lb/ton)*	*(lb/ton)*	*(lb/ton)*	*(tons/yr)*	*(tons/yr)*	*(tons/yr)*	*(gr/dscf)*	*(dscfm)*	*ID#*	*Model #*	*%*	*(lb/hr)*	*(tons/yr)*	*(tons/yr)*	*(tons/yr)*
9EX	No. 2 Leg Aspiration 9EX1	8,760	125.0	na	na	na	11.26	11.26	11.26	0.003	1,000.00	fabric filter	96AVS16	99.0%	0.03	0.11	0.11	0.11
	Leg No. 2	8,760																
	Mixing Conveyor	8,760																
	Bin Drag	8,760																
12EX	Loadout Bin Aspiration 12EX1	8,760	540.0	na	na	na	95.73	95.73	95.73	0.003	8,500.00	fabric filter	96AVR80	99.0%	0.22	0.96	0.96	0.96
6EX	Truck Meal Loadout 6EX1	8,760	150.0	na	na	na	116.56	116.56	116.56	0.003	51,744.00	fabric filter	RF12376	95.0%	1.33	5.83	5.83	5.83
6EX	Rail Meal Loadout 6EX1	8,760																
10EX	No. 3 Leg Aspiration 10EX1	8,760	333.0	na	na	na	22.53	22.53	22.53	0.003	2,000.00	fabric filter	96AVS16	99.0%	0.05	0.23	0.23	0.23
	Leg No. 3	8,760																
	Tunnel Drag	8,760																
	Meal Loadout Drag	8,760																
11EX	Kaolin Bin 11EX1	8,760	15.0	na	na	na	11.26	11.26	11.26	0.003	1,000.00	fabric filter	96AVS16	99.0%	0.03	0.11	0.11	0.11
22EX	Millfeed Storage Bin 22EX	8,760	156.3	na	na	na	5.63	5.63	5.63	0.003	500.00	fabric filter	Fabric Filter	99.0%	0.01	0.06	0.06	0.06
32EX	Pelletizer/Pellet Cooler 32EX1	8,760	10.0	na	na	na	6.94	6.94	6.94	0.006	6,160.00	cyclone	Cyclone	80.0%	0.32	1.39	1.39	1.39
32EX2	Enclosed Conveyor 32EX2	8,760																
	Subtotal for Milling & Extraction (EX)						**162.91**	**162.91**	**162.91**						**1.74**	**7.61**	**7.61**	**7.61**

2) Equipment with controls that does not creates an artificial air flow

					Emission Factors			Unrestricted Emissions			Controlled Emissions								
Stack ID	Process / Units	SCC	Hours	Max Throughput	PM EF	PM_{10} EF	$PM_{2.5}$ EF	PM	PM_{10}	$PM_{2.5}$	PM Outlet Grain Loading	Flow Rate	Control Device	Control Device	Control Efficiency	PM		PM_{10}	$PM_{2.5}$
			(hrs/yr)	*(tons/hr)*	*(lb/ton)*	*(lb/ton)*	*(lb/ton)*	*(tons/yr)*	*(tons/yr)*	*(tons/yr)*	*(gr/dscf)*	*(dscfm)*	*ID#*	*Model #*	*%*	*(lb/hr)*	*(tons/yr)*	*(tons/yr)*	*(tons/yr)*
1EX	B Flake Aspiration 1EX1	3-02-008-18	8,760	93.1	0.15	0.08	0.08	13.97	13.97	13.97	0.003	12,000.00	fabric filter	DC Vox Fabric 1EX	99.0%	0.31	1.35	1.35	1.35
	Flaking Roll #1	3-02-008-18	8,760																
	Flaking Roll #2	3-02-008-18	8,760																
	Flaking Roll #3	3-02-008-18	8,760																
	Flaking Roll #4	3-02-008-18	8,760																
	Flaking Roll #5	3-02-008-18	8,760																
	Flaking Roll #6	3-02-008-18	8,760																
	B Flake N/S Drag	3-02-008-18	8,760																
	Flaking #14 1EX2	3-02-008-18	8,760																
	Flaking Roll #14	3-02-008-18	8,760																
	Flaking Roll Discharge #14	3-02-008-18	8,760																
3EX	A Flake Aspiration 3EX1	3-02-008-88	8,760	48.8	0.15	0.08	0.08	7.32	7.32	7.32	0.012	6,870.00	cyclone	Cyclone 3EX2	80.0%	0.70	3.07	3.07	3.07
	Flaking Roll #9	3-02-008-18	8,760																
	Flaking Roll #10	3-02-008-18	8,760																
	Flaking Roll #11	3-02-008-18	8,760																
	Flaking Roll #12	3-02-008-18	8,760																
	Flaking Roll #13	3-02-008-18	8,760																
	A Flake N/S Drag	3-02-008-18	8,760																
	A Flake E/W Drag	3-02-008-18	8,760																
	North Run Around Drag 3EX2	3-02-008-18	8,760																
4EX	Hull whole bean processing 4EX1	3-02-005-30	8,760	156.3	6.10E-02	3.40E-02	5.80E-03	9.53	9.53	9.53	0.006	33,300.00	fabric filter	Cyclone 144RJ120	99.0%	1.80	7.88	7.88	7.88
	Whole Bean Scale	3-02-005-30	8,760																
	A Whole Bean Leg	3-02-005-30	8,760																
	A Surge Bin	3-02-005-30	8,760																
	Whole Bean Drag	3-02-005-30	8,760																
	B Surge Bin	3-02-005-30	8,760																
	Run Around Rework Screw 4EX2	3-02-005-30	8,760																
	Hull Refining/Grinding 4EX3	3-02-005-30	8,760																
	Hull Refining Screw Conveyor	3-02-005-30	8,760																
	Hull Refining	3-02-005-30	8,760																
	Hull Grinding	3-02-005-30	8,760																
5EX	Dehulling 5EX1	3-02-007-85	8,760	156.3	0.36	0.36	0.36	56.27	56.27	56.27	0.003	39,100.00	fabric filter	Cyclone 144RJ120	99.0%	1.11	4.84	4.84	4.84
	Screen Aspiration 5EX3	3-02-007-85	8,760																
7EX	Soybean Meal Sizing/Grinding 7EX	3-02-007-93	8,760	176.0	0.32	0.32	0.32	56.85	56.85	56.85	0.003	20,000.00	fabric filter	Baghouse 96AVS64	99.0%	0.51	2.25	2.25	2.25
	Meal Screener 7EX1	3-02-007-93	8,760																
	Meal Grinder 7EX2	3-02-007-93	8,760																
	Meal Grinder 7EX3	3-02-007-93	8,760																
	Meal Grinder 7EX4	3-02-007-93	8,760																
	Meal Grinder 7EX5	3-02-007-93	8,760																
	Conveyors	3-02-007-93	8,760																

2) Equipment with controls that does not creates an artificial air flow

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

					Emission Factors			Unrestricted Emissions			Controlled Emissions								
Stack ID	**Process / Units**	**SCC**	**Hours**	**Max Throughput**	**PM EF**	**PM_{10} EF**	**$PM_{2.5}$ EF**	**PM**	**PM_{10}**	**$PM_{2.5}$**	**PM Outlet Grain Loading**	**Flow Rate**	**Control Device**	**Control Device**	**Control Efficiency**	**PM**		**PM_{10}**	**$PM_{2.5}$**
			(hrs/yr)	*(tons/hr)*	*(lb/ton)*	*(lb/ton)*	*(lb/ton)*	*(tons/yr)*	*(tons/yr)*	*(tons/yr)*	*(gr/dscf)*	*(dscfm)*	*ID#*	*Model #*	*%*	*(lb/hr)*	*(tons/yr)*	*(tons/yr)*	*(tons/yr)*
17EX	B Flake Aspiration 17EX2	3-02-008-18	8,760	156.3	0.15	0.08	0.08	23.45	23.45	23.45	0.018	2,250.00	cyclone	Cyclone	80.0%	0.35	1.52	1.52	1.52
	Flaking Roll #8	3-02-008-18	8,760																
	B Flake E/W Drag	3-02-008-18	8,760																
33EX	Hot Dehulling 5EX2	3-02-007-86	8,761	156.3	0.20	0.20	0.20	136.92	136.92	136.92	NA	NA	water knock out box	NA	NA	31.26	136.92	136.92	136.92
	Flake Drag Aspiration Fan 15EX		8,760	NA	NA	NA	NA	NA	NA	NA	NA	NA		Air Break Fan	NA	NA	5.00	5.00	5.00
23EX	Meal Storage 23EX1	3-02-005-40	8,760	125.0	2.50E-02	6.30E-03	1.10E-03	3.13	1.58E-04	6.93E-06	NA	NA	fabric filter	bin vent filter	NA	0.71	3.13	1.58E-04	6.93E-06
29EX	Pelletizer Loadout Bin 29EX1		8,760	10.0	2.50E-02	6.30E-03	1.10E-03	0.25	1.58E-04	6.93E-06	NA	NA	bin vent filter	bin vent filter	NA	0.06	0.25	1.58E-04	6.93E-06
internal	Outside Conditioner 31EX1	3-02-007-87	8,760	156.3	0.10	0.06	0.02	68.46	41.08	15.49	NA	NA	filter bag (internal)	NA	NA	15.63	68.46	41.08	15.49
internal	Outside Conditioner 31EX2	3-02-007-87	8,760																
		Subtotal for Milling & Extraction (EX)						**376.13**	**345.38**	**319.78**						**52.44**	**234.67**	**203.91**	**178.32**

3) Equipment without controls

					Emission Factors			Unrestricted Emissions			Controlled Emissions								
Stack ID	**Process / Units**	**SCC**	**Hours**	**Max Throughput**	**PM EF**	**PM_{10} EF**	**$PM_{2.5}$ EF**	**PM**	**PM_{10}**	**$PM_{2.5}$**	**PM Outlet Grain Loading**	**Flow Rate**	**Control Device**	**Control Device**	**Control Efficiency**	**PM**		**PM_{10}**	**$PM_{2.5}$**
			(hrs/yr)	*(tons/hr)*	*(lb/ton)*	*(lb/ton)*	*(lb/ton)*	*(tons/yr)*	*(tons/yr)*	*(tons/yr)*	*(gr/dscf)*	*(dscfm)*	*ID#*	*Model #*	*%*	*(lb/hr)*	*(tons/yr)*	*(tons/yr)*	*(tons/yr)*
16EX	16EX	3-02-019-16	8,760	93.0	0.06	0.03	0.01	24.85	13.85	2.36	NA	NA	NA	NA	NA	5.67	24.85	13.85	2.36
	Belt to Storage Bowls 16EX1	3-02-019-16	8,760																
	Large Storage Bowl 16EX2	3-02-019-16	8,760																
	Small Storage Bowl 16EX3	3-02-019-16	8,760																
18EX	Whole Bean Bins 18EX1	3-02-019-20	8,760	156.3	0.06	0.03	0.01	41.76	23.28	3.97	NA	NA	NA	NA	NA	9.53	41.76	23.28	3.97
		Subtotal for Milling & Extraction (EX)						**66.61**	**37.13**	**6.33**						**15.21**	**66.61**	**37.13**	**6.33**
		Total for Milling & Extraction (EX)						**605.66**	**545.42**	**489.03**						**69.38**	**308.88**	**248.64**	**192.26**

Milling & Extraction (EX) - AP-42 Emission factors:Table 9.11.1-1 (Vegetable Oil Processing), unless otherwise specified

Methodology:

For units that do not employ a control device:

Unrestricted $PM/PM_{10}/PM_{2.5}$ (tons/yr) = Throughput (tons/hr) x EF (lb/ton) x 8760 hr/yr x 1 ton/2000lb
Controlled $PM/PM_{10}/PM_{2.5}$ (tons/yr) = Unrestricted PM/PM10 /PM2.5 (tons/yr)

For units that employ a control device:

Unrestricted $PM/PM_{10}/PM_{2.5}$ (tons/yr) = Controlled Emission Rate (tons/yr) / Control Efficiency (%)
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
Controlled emisions $PM_{2.5}$ = 37.7% of PM_{10} controlled emissions. This was developed using the EPA PM calculator (http://www.epa.gov/ttnchie1/software/pmcalc/).

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

					Unrestricted Particulate Emissions						Controlled Particulate Emissions									VOC/HAP Emissions				
Year Installed	Stack ID	Process / Units	SCC	Max Throughput	PM EF	PM_{10} EF	$PM_{2.5}$ EF	PM	PM_{10}	$PM_{2.5}$	PM Outlet Grain Loading	Flow Rate	PM Control Device	PM Control Device	PM Control Efficiency	PM		PM_{10}	$PM_{2.5}$	VOC / HAP EF	Potential to Emit VOC / HAP	VOC / HAP Control	VOC / HAP Control Efficiency	Controlled VOC / HAP
				(tons/hr)	(lb/ton)	(lb/ton)	(lb/ton)	(tons/yr)	(tons/yr)	(tons/yr)	(gr/dscf)	(dscfm)	description	ID #	%	(lb/hr)	(tons/yr)	(tons/yr)	(tons/yr)	(lb/ton)	(tons/yr)	ID #	%	(tons/yr)
	24EXA	Hexane Extraction System (Total Hexane Usage) 24EX	3-02-019-99	105.08	*hexane from oil use*			*Throughput = VOC in*			NA	NA	NA	NA	NA	NA	NA	NA	NA	130.7 ppm	120.31	vent system to mineral oil absorber	99%	4.35
				0.058	*direct hexane*			*Throughput = VOC in*			NA	NA	NA	NA	NA	NA	NA	NA	NA	61.96% n-hexane	315			
1996	24EX	A Unit 13EXa A pre-DT		109.40	NA	NA	NA	1,671.83	1,671.83	630.28	0.0095	37,500	mineral oil absorber	mineral oil absorber	80%	3.05	13.37	13.37	5.04	NA	NA			
1980		A Unit 13EXb A DT											mineral oil absorber	mineral oil absorber										
1980		A Unit 13EXc A Meal Dryer	3-02-007-89										cyclone	cyclone										
1996		B Unit 14EXa B pre-DT		109.40	NA	NA	NA	1,671.83	1,671.83	630.28	0.0095	37,500	mineral oil absorber	mineral oil absorber	80%	3.05	13.37	13.37	5.04	NA	NA			
1980		B Unit 14EXb B DT											mineral oil absorber	mineral oil absorber										
1980		B Unit 14EXc B Meal Dryer	3-02-007-89										cyclone	cyclone										
1996		Meal Cooler 21EX	3-02-007-90	110.00	NA	NA	NA	320.99	320.99	121.01	0.0036	19,000	cyclone	cyclone	80%	0.59	2.57	2.57	0.97	NA	NA			
													cyclone	cyclone										
1995		EAST Hexane Storage Tank 24EX4A		--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	--	0.83			
2005		WEST Hexane Storage Tank 24EX4B		--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	--	0.78			
< 1980		Wastewater System 24EX5		7.36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.19 ppm	0.01			
1975		Refined Hot Oil Well 24EX6		24.26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	74.8 ppm	15.89			
		Hexane Losses from transfer to meal		97.34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	138 ppm	117.67			
		Hexane Losses from Oil Received		7.74	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	130.7 ppm	8.86			
< 1980		Sampling/ Hexane Unloading Port 19EX		--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	--	120.00			
< 1980		Oil Tanks (non-deodorized oil) 24EX8		--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	--	1.61E+00			
		Subtotal for Hexane Extraction System 24EX						3,665	3,665	1,382						6.69	29.32	29.32	11.05		435.07			4.35

All PM emissions equal PM_{10} and $PM_{2.5}$ emissions.
Unrestricted Particulate Emission factor is from AP-42, Chapter 9.11 - Vegetable Oil Processing, Section 9.11.1.3, Table 9.11.1-1 (11/95).
All VOC is HAP Hexane. VOC/HAPs emission factors based on 2011 Emission Report.
Max rate of the plant of 3,750 tons/day

Methodology:

For units that do not employ a control device: Unrestricted $PM/PM_{10}/PM_{2.5}$ (tons/yr) = Throughput (tons/hr) x EF (lb/ton) x 8760 hr/yr x 1 ton/2000lb
Controlled $PM/PM_{10}/PM_{2.5}$ (tons/yr) = Unrestricted PM/PM10 /PM2.5 (tons/yr)

For units that employ a control device: Unrestricted $PM/PM_{10}/PM_{2.5}$ (tons/yr) = Controlled Emission Rate (tons/yr) / Control Efficiency (%)
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
Controlled emisions $PM_{2.5}$ = 37.7% of PM_{10} controlled emissions. This was developed using the EPA PM calculator (http://www.epa.gov/ttnchie1/software/pmcalc/).

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

Natural Gas Combustion <100 MMBtu/hr (Boilers & Dryers)

Unit	ID#	Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Date Installed	SCC
#2 Geka Boiler	110EO	14.0	122.6	2002	10200602
#3 Steam Generator	108EO	14.0	122.6	1994	10200602
No. 2 Dryer*		7.0	61.3	1995	30200527 & 10200603
Hydrogen Generator Furnace	107EO1	25.2	220.8	1992	
No. 1 Dryer (Berico)*	16EL1	7.0	61.3	1986	30200527 & 10200603
No. 4 Dryer*	17EL1	7.0	61.3	1960s	30200527 & 10200603
No. 5 Dryer*	17EL1	7.0	61.3	1960s	30200527 & 10200603
natural gas boiler	9SP1	99.0	867.2	2012	
		180.2	1,579		

	Pollutant						
	CO	NO_X	PM	PM_{10}	$PM_{2.5}$	SO_2	VOC
Emission Factor in lb/MMCF	*84*	*100.0*	1.9	7.6	7.6	*0.6*	*5.5*
	130.0	*32.0*					
#2 Geka Boiler 110EO PTE (ton/yr)	5.15	6.13	0.12	0.47	0.47	0.04	0.34
#3 Steam Generator 108EO PTE (ton/yr)	5.15	6.13	0.12	0.47	0.47	0.04	0.34
No. 2 Dryer* PTE (ton/yr)	3.99	3.07	*	*	*	0.02	0.17
Hydrogen Generator Furnace 107EO1 PTE (ton/yr)	9.27	11.04	0.21	0.84	0.84	0.07	0.61
No. 1 Dryer (Berico)* 16EL1 PTE (ton/yr)	3.99	3.07	*	*	*	0.02	0.17
No. 4 Dryer* 17EL1 PTE (ton/yr)	3.99	3.07	*	*	*	0.02	0.17
No. 5 Dryer* 17EL1 PTE (ton/yr)	3.99	3.07	*	*	*	0.02	0.17
natural gas boiler 9SP1 PTE (ton/yr)	36.42	13.88	0.82	3.30	3.30	0.26	2.38
Total PTE (tons/yr)	71.94	49.44	1.27	5.07	5.07	0.47	4.34

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	n-Hexane	Toluene
Emission Factor in lb/MMCF	*2.1E-03*	*1.2E-03*	*7.5E-02*	*1.80*	*3.4E-03*
#2 Geka Boiler 110EO PTE (ton/yr)	1.3E-04	7.4E-05	4.6E-03	0.11	2.1E-04
#3 Steam Generator 108EO PTE (ton/yr)	1.3E-04	7.4E-05	4.6E-03	0.11	2.1E-04
No. 2 Dryer* PTE (ton/yr)	6.4E-05	3.7E-05	2.3E-03	0.06	1.0E-04
Hydrogen Generator Furnace 107EO1 PTE (ton/yr)	2.3E-04	1.3E-04	8.3E-03	0.20	3.8E-04
No. 1 Dryer (Berico)* 16EL1 PTE (ton/yr)	6.4E-05	3.7E-05	2.3E-03	0.06	1.0E-04
No. 4 Dryer* 17EL1 PTE (ton/yr)	6.4E-05	3.7E-05	2.3E-03	0.06	1.0E-04
No. 5 Dryer* 17EL1 PTE (ton/yr)	6.4E-05	3.7E-05	2.3E-03	0.06	1.0E-04
natural gas boiler 9SP1 PTE (ton/yr)	9.1E-04	5.2E-04	3.3E-02	0.78	1.5E-03
Total PTE (tons/yr)	1.7E-03	9.5E-04	5.9E-02	1.42	2.7E-03

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMCF	*5.0E-04*	*1.1E-03*	*1.4E-03*	*3.8E-04*	*2.1E-03*
#2 Geka Boiler 110EO PTE (ton/yr)	3.1E-05	6.7E-05	8.6E-05	2.3E-05	1.3E-04
#3 Steam Generator 108EO PTE (ton/yr)	3.1E-05	6.7E-05	8.6E-05	2.3E-05	1.3E-04
No. 2 Dryer* PTE (ton/yr)	1.5E-05	3.4E-05	4.3E-05	1.2E-05	6.4E-05
Hydrogen Generator Furnace 107EO1 PTE (ton/yr)	5.5E-05	1.2E-04	1.5E-04	4.2E-05	2.3E-04
No. 1 Dryer (Berico)* 16EL1 PTE (ton/yr)	1.5E-05	3.4E-05	4.3E-05	1.2E-05	6.4E-05
No. 4 Dryer* 17EL1 PTE (ton/yr)	1.5E-05	3.4E-05	4.3E-05	1.2E-05	6.4E-05
No. 5 Dryer* 17EL1 PTE (ton/yr)	1.5E-05	3.4E-05	4.3E-05	1.2E-05	6.4E-05
natural gas boiler 9SP1 PTE (ton/yr)	2.2E-04	4.8E-04	6.1E-04	1.6E-04	9.1E-04
Total PTE (tons/yr)	3.9E-04	8.7E-04	1.1E-03	3.0E-04	1.7E-03
Total HAPs:	1.49				

	GHGs			
	CO_2	CH_4	N_2O	CO_2e
Emission Factor in lb/MMCF	*120,000*	*2.3*	*2.2*	
	1	*21*	*310*	*= GWP*
#2 Geka Boiler 110EO PTE (ton/yr)	7,358	0.14	0.13	7,403
#3 Steam Generator 108EO PTE (ton/yr)	7,358	0.14	0.13	7,403
No. 2 Dryer* PTE (ton/yr)	3,679	0.07	0.07	3,702
Hydrogen Generator Furnace 107EO1 PTE (ton/yr)	13,245	0.25	0.24	13,326
No. 1 Dryer (Berico)* 16EL1 PTE (ton/yr)	3,679	0.07	0.07	3,702
No. 4 Dryer* 17EL1 PTE (ton/yr)	3,679	0.07	0.07	3,702
No. 5 Dryer* 17EL1 PTE (ton/yr)	3,679	0.07	0.07	3,702
natural gas boiler 9SP1 PTE (ton/yr)	52,034	1.00	0.95	52,351
Total PTE (tons/yr)	94,713	1.82	1.74	95,290

Notes

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
PM emission factor is filterable PM only. PM_{10} emission factor is filterable and condensable PM_{10} combined.
$PM_{2.5}$ emission factor is filterable and condensable $PM_{2.5}$ combined.
Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32
The N_2O Emission Factor for uncontrolled is 2.2. The N_2O Emission Factor for low NO_X burner is 0.64.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
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
CO_2e (tons/yr) = CO_2 Potential Emission ton/yr x CO_2 GWP (1) + CH_4 Potential Emission ton/yr x CH_4 GWP (21) + N_2O Potential Emission ton/yr x N_2O GWP (310).
The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.
The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x
*The dryers are direct fired. The PM, PM10, and PM2.5 emssions are calculated with its respected grain elevator.

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Reviewer: Julie Alexander
Date: May 09, 2013

Storage Tanks

Distillate Fuel Oil No. 2 Storage Tanks:

Tank	Number of tanks	Volume (gal)	Throughput (gal)	Standing Losses (lb/yr)	Working Losses (lb/yr)	Total Losses (lb/year)	Tanks VOC/HAP Emissions (tons/yr)
Lagoon	1	200	786	1.04E-01	1.64E-02	1.20E-01	6.02E-05
Steam and Power		300	3170	0.00E+00	6.60E-02	0.00E+00	0.00E+00
Elevator	1	250	2636	1.04E-01	5.49E-02	1.59E-01	7.95E-05
EO South Tank Farm	1	500	6422	2.04E-01	1.34E-01	3.37E-01	1.69E-04
Fire Protection	1	500	302	2.11E-01	6.29E-03	2.17E-01	1.09E-04
Fire Protection	2	550	302	2.22E-01	6.25E-03	4.57E-01	2.28E-04
						Total VOC/HAP Emissions from Diesel Tanks	6.45E-04

Gasoline Storage Tank:

Tank	Number of tanks	Volume (gal)	Standing Losses (lb/yr)	Working Losses (lb/yr)	Total Losses (lb/year)	Tanks VOC/HAP Emissions (tons/yr)
M&R	1	5564	2.30E+02	4.62E+01	276.2551549	1.38E-01
					Total VOC/HAP Emissions from Gasoline Tank	1.38E-01

Total VOC/HAP Emissions: 0.14 ton/yr

Hexane Storahe Tank:

Tank	Number of tanks	Volume (gal)	Standing Losses (lb/yr)	Working Losses (lb/yr)	Total Losses (lb/year)	Tanks VOC/HAP Emissions (tons/yr)
WEST Hexane	1	17,094	5.15E+02	1.04E+03	1550.50	7.75E-01
EAST Hexane	1	22,950	6.28E+02	1.04E+03	1663.47	8.32E-01
					Total VOC/HAP Emissions from Hexane Tanks	1.61E+00

The Hexane Emissions from the storage tanks are routed to the stack for the Hexane Extraction System (24EXA), and the emission factors for this Tank information was provided by the source

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Address City IN Zip: **1200 N. 2nd Street, Decatur, Indiana 46733**
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Date: **May 09, 2013**

Cooling Towers

	Extraction	Edible Oil	Refined Oil
	0.005%	0.006%	0.007%
Density (lbs/gal) =	8.35	8.35	8.35
Total Dissolved Solids (ppm) =	1800	1800	1200
Circulating Water Flow (gal/min) =	2,350	2,350	1,950

	Unrestricted PTE			
	ton/yr	*ton/yr*	*ton/yr*	*TOTAL*
PM	0.11	0.13	0.08	0.31
PM_{10}	0.09	0.11	0.07	0.27
$PM_{2.5}$	0.09	0.11	0.07	0.27

Emission factor are based on the research paper, *Calculating Realistic PM_{10} Emissions from Cooling Towers*.

PM_{10} emissions are estimated based on the assumption that 85% of PM is PM_{10}.

$PM_{2.5}$ emissions are estimated based on the assumption that 85% of PM is $PM_{2.5}$.

Appendix A: Emission Calculations

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

Vehicle Refueling Operations (Gasoline)

Storage Capacity:	1,300	gallons
Maximum Daily Throughput Capacity:	1,300	gal/day
Maximum Monthly Throughput Capacity:	39,542	gal/month
Maximum Annual Throughput Capacity:	474,500	gal/yr
	30.42	turnovers/month
	365	turnovers/year

Emission Factors (AP 42 Section 5.2, "Transportation and Marketing of Petroleum Liquids", 6/08):

Displacement Losses (uncontrolled)	11.0	lb/ 1000 gal
Displacement Losses (controlled)	1.1	lb/ 1000 gal
Spillage	0.7	lb/ 1000 gal

VOC Emissions:

Displacement Losses (uncontrolled)	2.61	ton/yr
Spillage	0.17	ton/yr
Total Uncontrolled VOC:	**2.78**	**ton/yr**

Notes:
Emission Factors for VOC is also for total organic emissions because the methane and ethane content of gasoline evaporative emissions is negligible.
This gasoline tank is not equipped with vapor recovery; therefore, all emissions are uncontrolled.

Methodology:
VOC Emissions (ton/yr) = Emission Factor (lb/1000 gal) x Annual Throughput (gal/yr) / 1000 / 2000 lb/ton

Vehicle Refueling Operations (NonGasoline)

Storage Capacity:	10,500	gallons
Maximum Daily Throughput Capacity:	10,500	gal/day
Maximum Monthly Throughput Capacity:	23,000	gal/month
Maximum Annual Throughput Capacity:	276,000	gal/yr
Maximum No. of Turnovers	2.19	turnovers/month
	26	turnovers/year

Emission Factors (AP 42 Section 5.2, "Transportation and Marketing of Petroleum Liquids", 6/08):

Displacement Losses (uncontrolled)	11.0	lb/ 1000 gal
Displacement Losses (controlled)	1.1	lb/ 1000 gal
Spillage	0.7	lb/ 1000 gal

VOC Emissions:

Displacement Losses (uncontrolled)	1.52	ton/yr
Spillage	0.10	ton/yr
Total Uncontrolled VOC:	**1.61**	**ton/yr**

Notes:
Emission Factors for VOC is also for total organic emissions because the methane and ethane content is negligible.
This tank is not equipped with vapor recovery; therefore, all emissions are uncontrolled.

Methodology:
VOC Emissions (ton/yr) = Emission Factor (lb/1000 gal) x Annual Throughput (gal/yr) / 1000 / 2000 lb/ton

Total Uncontrolled V ***4.39 ton/yr***

Appendix A: Emission Calculations

Company Name: **Bunge North America (East), LLC**
Address City IN Zip: **1200 N. 2nd Street, Decatur, Indiana 46733**
Permit Number: **T001-31996-00005**
Reviewer: **Julie Alexander**
Date: **May 09, 2013**

Degreasing Operations

145 gal/yr, total no control

Material	Density lbs/gal	Vapor Pressure	Weight Organic %	Potential VOC tons/yr
Crystal Clean 142+ Mineral Spirits	6.7	< 1.0 mmHg @ 20 C; <0.1 psia @ 38 C	100%	0.49

Composition of Material: 100% aliphatic petroleum distillates (CAS No. 64742-47-8)
There are No HAP emissions from this material.
Potential VOC Before Controls (tons/yr) = Density (lbs/gal) x % VOC x Material Usage (gal/yr) x (1 ton/2000 lbs)

Appendix A: Emission Calculations
Paved/Unpaved Roads

.

Company Name: Bunge North America (East), LLC
Address City IN Zip: 1200 N. 2nd Street, Decatur, Indiana 46733
Permit Number: T001-31996-00005
Reviewer: Julie Alexander
Date: May 09, 2013

Fugitive Emissions
Paved Roads

According to AP-42, Chapter 13.2.1 - Paved Roads (1/11), the particulate emission factors for paved roads can be estimated from the following equation:

$EF = [k\ (sL)^{0.91}(W)^{1.02}]$ 0.798 PM 0.1596 PM_{10} 0.03918 $PM_{2.5}$

where: EF = Emission Factor lbs/VMT
k = Particle Size Multiplier for Paved Road Equation
0.011 PM 0.0022 PM_{10} 0.00054 $PM_{2.5}$
sL = Road Surface Silt Loading (grams per square meter (g/m2)) 2.9 (g/m^2) (AP-42, Table 13.2.1-3)
W = average weight (tons) of vehicles traveling the road. 25.8

Vehicle Type	Average Vehicle Weight* *tons*	Maximum Trips* *trips/day*	Total Trip Number* *trips/yr*	Round Trip Distance* *miles/trip*	Vehicle Mile Traveled (VMT) *miles/yr*	PM Emissions *lb/hr*	PM_{10} Emissions *lb/hr*	$PM_{2.5}$ Emissions *lb/hr*	PM Emissions *ton/yr*	PM_{10} Emissions *ton/yr*	$PM_{2.5}$ Emissions *ton/yr*
Elevator Truck Dumps	28.5	93.0	33,945	0.50	16,973	1.546	0.309	0.076	6.77	1.35	0.33
Trucks to Bowls	28.5	3.0	1,095	0.30	329	0.030	0.006	0.001	0.13	0.03	0.01
Extr Meal LO	25.5	47.0	17,155	1.00	17,155	1.563	0.313	0.077	6.85	1.37	0.34
RO Oil Rcvd	22.5	9.0	3,285	0.35	1,142	0.104	0.021	0.005	0.46	0.09	0.02
EO Oil Shipped	24.0	24.0	8,760	0.60	5,256	0.479	0.096	0.024	2.10	0.42	0.10
Total	**25.8**				**40,854**	**3.72**	**0.74**	**0.18**	**16.30**	**3.26**	**0.80**

* This information is provided by the source.

Methodology
Component Vehicle Weight = Ave. Vehicle Weight (tons) x Traffic Component (%)
(Note that the summation of the component vehicle weight equals the Mean Vehicle Weight.)
VMT (miles/yr) = Round Trip Distance (miles/trip) x Total Trip Numbers (trips/yr)
Potential to Emit (tons/yr) = VMT (miles/yr) x Emission Factors (lb/mile) / 2000 lb/ton

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Christine Thomas
Bunge North America (East), LLC
1200 N 2nd Street
Decatur, IN 46733

DATE: October 24, 2013

FROM: Matt Stuckey, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
Part 70 Operating Permit Renewal
001-31996-00005

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:
Keith Sanders – Facility Manager
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 6/13/2013

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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

October 24, 2013

TO: Decatur Public Library

From: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: Bunge North America (East), LLC
Permit Number: 001-31996-00005

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 6/13/2013

Mail Code 61-53

IDEM Staff	GHOTOPP 10/24/2013 Bunge North America (East), LLC 001-31996-00005 Final			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**	

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		Christine Thomas Bunge North America (East), LLC 1200 N 2nd St Decatur IN 46733 (Source CAATS) via confirmed delivery									
2		Keith Sanders Facility Mgr Bunge North America (East), LLC 1200 N 2nd St Decatur IN 46733 *(RO CAATS)*									
3		Adams County Commissioners 313 West Jefferson Street Decatur IN 46733 *(Local Official)*									
4		Adams County Health Department County Svcs Complex, 313 W. Jefferson # 314 Decatur IN 46733-1673 *(Health Department)*									
5		Decatur Public Library 128 S 3rd St Decatur IN 46733-1691 *(Library)*									
6		Decatur City Council and Mayors Office 225 W. Monroe St. Decatur IN 46733 *(Local Official)*									
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