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

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: June 9, 2008

RE: Cargill, Inc. / 089-25259-00203

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

Notice of Decision: Approval – Effective Immediately

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

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

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

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

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

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

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

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

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

Enclosures
FNTV-PMOD.doc 3/27/08

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www.idem.IN.gov

Mr. Shawn Peters
Cargill, Inc.
308 6th Ave. SE
Cedar Rapids, IA 52401

June 9, 2008

Re: 089-25259-00203
Significant Permit Modification to
Part 70 No.: T 089-7994-00203

Dear Mr. Peters:

Cargill, Inc. was issued a Part 70 Operating Permit T 089-7994-00203 on June 28, 2004 for a wet corn milling facility. A letter requesting changes to this permit was received on September 4, 2007. Pursuant to the provisions of 326 IAC 2-7-12 a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

Cargill, Inc. has applied to modernize their grind operation and to convert their Beta Cyclodextrin (BCD) Area to an Alternate Carbohydrate Area.

All other conditions of the permit shall remain unchanged and in effect. Please find attached the entire Part 70 Operating Permit as modified.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Kristen Layton, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251, or call at (800) 451-6027, and ask for Kristen Layton or extension 3-3031, or dial (317) 233-3031.

Original signed by,

Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Attachments
KRL
cc: File – Lake County
U.S. EPA, Region V
Lake County Health Department
Hammond Department of Environmental Management
Northwest Regional Office
Air Compliance Section Inspector Compliance Data Section
Administrative and Development

Thomas M. McDermott, Jr.
Mayor

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
CITY OF HAMMOND
RONALD L. NOVAK
Director

PART 70 OPERATING PERMIT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
and

HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
AIR POLLUTION CONTROL DIVISION

CARGILL, INC.
1100 INDIANAPOLIS BOULEVARD
HAMMOND, INDIANA 46320

(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.: T089-7994-00203	
Issued By: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: June 28, 2004
Issued By: Ronald L. Novak, Director Hammond Department of Environmental Management	Expiration Date: June 28, 2009

Administrative Amendment: 089-19797-00203	Issuance Date: November 17, 2004
Administrative Amendment: 089-20933-00203	Issuance Date: April 1, 2005
Administrative Amendment: 089-21610-00203	Issuance Date: August 22, 2005
Significant Permit Modification: 089-22333-00203	Issuance Date: October 24, 2006
Administrative Amendment: 089-23792-00203	Issuance Date: November 14, 2006
Administrative Amendment: 089-24595-00203	Issuance Date: May 23, 2007

Significant Permit Modification: 089-25259-00203	
Original signed by: _____ Matthew Stuckey, Branch Chief Permits Branch Office of Air Quality	Issuance Date: June 9, 2008 Expiration Date: June 28, 2009

5925 Calumet Avenue
Hammond. IN 46320
219. 853.6306
fax: 219 853 6343

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Certification
Emergency Occurrence Report
Quarterly Natural Gas Fired Boiler Certification
Quarterly Deviation and Compliance Monitoring Report

SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates Wet Corn Milling Facility.

Source Address:	1100 Indianapolis Boulevard Hammond, Indiana 46320
Mailing Address:	1100 Indianapolis Boulevard Hammond, Indiana 46320-1094
General Source Phone Number:	(219) 659-2000
SIC Code:	2046 – Wet Corn Milling
County Location:	Lake
Source Location Status:	Nonattainment for ozone under the 8-hour standard Nonattainment for PM2.5 Attainment for PM10, NOx, CO, SO2 and Lead
Source Status:	Part 70 Permit Program Major Source, under PSD or Emission Offset Rules; Major Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

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

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

I. Biogas Flare

(a) Biogas Flare (Unit ID 800-05-E), installed July 1995. Biogas is generated in the wastewater treatment plant by anaerobic reaction. The biogas flare converts the hydrogen sulfide (H_2S) in the biogas to sulfur dioxide (SO_2). It is used when the biogas stream is not being diverted to a plant process burner for energy recovery, which is the normal scenario. The biogas flare exhausts to stack ID S800-05-E.

II. Alternate Carbohydrate Area

(b) Alternate Carbohydrate Mill Feed Hopper (Unit 127-30-B), installed in May 1993 and repurposed in 2008. Particulate emissions are controlled by dust collector (CE127-30-B) that exhausts to stack S127-30-B.

(c) No. 1 and No. 2 Alternate Carbohydrate Storage Bins (Unit ID 127-28-B and 127-29-B), installed in May 1993 and repurposed in 2008. Carbohydrate is pneumatically conveyed to these hoppers equipped with bag filter dust collectors (CE127-28-B and CE127-29-B) that exhaust to stacks S127-28-B and S127-29-B.

(d) No. 1 and No. 2 Vacuum Cleaner Systems (Unit ID 127-21-B and 127-22-B), installed in May 1993. These systems are for building dust. Particulate emissions are controlled by dust collectors that exhaust to stacks S127-21-B and S127-22-B.

III. Grind and Feedhouse Area

(e) Gluten Dryer System (Unit ID 121-01-G), installed March 1995. Gluten meal is fed to a natural and bio gas-fired ring dryer. Particulate emissions are controlled by wet scrubber (CE121-01-G) that exhausts to stack S121-01-G.

(f) No. 2 Gluten Dryer (Unit ID 121A-01-G), approved for construction in 2008. Gluten meal is fed to a 17 MMBtu/hr natural and bio gas-fired ring dryer at a maximum throughput of 19,700 lb/hr. Particulate emissions are controlled by two (2) wet scrubbers operating in series, one venturi-type followed by one tray-type scrubber (collectively identified as Unit ID CE121A-01-G) that exhausts to stack S121A-01-G.

(g) One (1) Germ Dryer/Cooler (Unit ID 203-01-G), approved for construction in 2008. Corn germ is fed to a 30 MMBtu/hr natural and bio gas-fired germ dryer and cooler at a maximum throughput of 38,600 lb/hr. Particulate emissions are controlled by one (1) wet scrubber (Unit ID CE203-01-G) that exhausts to stack S203-01-G.

(h) No. 1 Bran Bunker (Unit ID 89-06-G), approved for construction in 2008, with a maximum throughput rate of 107,433 tons per year, using a bin vent filter (Unit ID CE089-06-G) with an outlet grain loading of 0.01 gr/dscf as control, and exhausting to stack S89-06-G.

(i) No. 2 Bran Bunker (Unit ID 89-07-G), approved for construction in 2008, with a maximum throughput rate of 107,433 tons per year, using a bin vent filter (Unit ID CE89-07-G) with an outlet grain loading of 0.01 gr/dscf as control, and exhausting to stack S89-07-G.

(j) One (1) Bran Conveyor System (Unit ID 89-08-G), approved for construction in 2008, with a maximum throughput rate of 107,433 tons per year, using existing scrubber CE89-01-G (constructed in 1995) as control, and exhausting to stack S89-01-G.

(k) One (1) Bran Preweigh Hopper (Unit ID 89-09-G), approved for construction in 2008, with a maximum throughput rate of 107,433 tons per year, using a bin vent filter (Unit ID CE89-09-G) with an outlet grain loading of 0.01 gr/dscf as control, and exhausting to stack S89-09-G.

(l) Fiber Drying Equipment (Unit ID 89-01-G), installed October 1995. Wet fiber is fed to this natural and bio gas-fired dryer. Particulate matter is controlled by a scrubber (CE89-01-G) that exhausts to stack S89-01-G.

(m) Germ Dryer/Cooler (Unit ID 124A-01-G), installed November 1994. Corn germ is fed to this natural and bio gas-fired germ dryer and cooler. Particulate emissions are controlled by four (1) scrubber (CE124A-01-G) that exhaust to stack S124A-01-G.

(n) Central Vacuum Loadout (Unit ID 200-07-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-07-G) that exhausts to stack S200-07-G.

(o) Germ Tank 1310 (Unit ID 200-01-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-01-G) that exhausts to stack S200-01-G.

(p) Gluten Tank 1410 (Unit ID 200-02-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-02-G) that exhausts to stack S200-02-G.

(q) Corn Screenings Silo (Unit ID 200-06-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-06-G) that exhausts to stack S200-06-G.

(r) Gluten Tank 1010 (Unit ID 200-04-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-04-G) that exhausts to stack S200-04-G.

(s) Germ Tank 1110 (Unit ID 200-03-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-03-G) that exhausts to stack S200-03-G.

(t) Bulk Loadout (Unit ID 200-05-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-05-G) that exhausts to stack S200-05-G.

(u) Corn Dump Pit (Unit ID 140-05-G), installed December 1995. Particulate emissions are controlled by filter baghouse (CE140-05-G) that exhausts to stack S140-05-G.

(v) Corn Elevator Conveying (Unit ID 140-07-G), installed December 1995. Material is transferred from corn belt 1 to corn belt 2. Particulate emissions are controlled by a filter baghouse (CE140-07-G) that exhausts to stack S140-07-G.

(w) Corn Receiving and Storage, installed December 1995. This system includes six Storage Bins, each with its own bin vent for control of particulate emissions:

(1) Bin #1: Unit ID 140-01-G
(2) Bin #2: Unit ID 140-02-G
(3) Bin #3: Unit ID 140-03-G
(4) Bin #4: Unit ID 140-04-G
(5) Bin #5: Unit ID 33-01-G
(6) Bin #6: Unit ID 33-02-G

(x) Gravity Take-up Conveyor (Corn Scale) (Unit ID 140-06-G), installed December 1995. Corn is transferred from corn belt 2 to corn belt 3. Particulate emissions are controlled by baghouse (CE140-06-G) that exhausts to stack S140-06-G.

(y) Corn Cleaner (Unit ID 33-03-G), installed December 1995. Corn passes through mechanical cleaners. Particular emissions are controlled by a filter baghouse (CE33-03-G) that exhausts to stack S33-03-G.

(z) Corn Screenings System (Unit ID 30-16-G), installed July 1976. This system includes a dirt storage silo equipped with bag filter collector (CE30-16-G) that exhausts to stack S30-16-G.

IV. Utility Area

The Utility area includes the following boilers used to supply steam for plant processes. A small rental, natural gas fired boiler is used when all boilers are down for maintenance.

(aa) Boiler No. 1 (Unit ID 10-01-U), Combustion Engineering Model VP10R, installed in 1960, with a maximum rate of 96 MMBtu/hr heat input and natural gas-fired only. This unit exhausts through stack S10-01-U.

(bb) Boiler No. 2 (Unit ID 10-02-U), Erie City Model 19M, installed in 1966, with a maximum rate of 160 MMBtu/hr heat input and natural gas-fired only. This unit exhausts through stack S10-02-U.

(cc) Boiler No. 6 (Unit ID 10-03-U), Combustion Engineering Model VU-50, installed in 1956, with a maximum rate of 200 MMBtu/hr heat input and natural gas-fired with a fuel oil #6 secondary capability. This unit exhausts through stack S10-03-U.

(dd) Natural gas-fired Package Boiler #1 (Unit ID 89-03-U), installed in 2006, with a maximum heat input capacity of 274 million Btu/hr, and exhausting to stack S89-03-U. Under NSPS 40 CFR 60 Subpart Db, Package Boiler #1 is a steam-generating unit with a heat input capacity greater than 100 million Btu/hr.

(ee) Boiler No. 7 (Unit ID 10-04-U), Combustion Engineering Model VU, installed in 1944, with a maximum rate of 120 MMBtu/hr heat input and natural gas-fired with a fuel oil #6 secondary capability. This unit also exhausts through stack S10-03-U.

(ff) Boiler No. 8 (Unit ID 10-05-U), Combustion Engineering Model VU, installed in 1937, with a maximum rate of 120 MMBtu/hr heat input and natural gas-fired with a fuel oil #6 secondary capability. This unit exhausts through stack S10-05-U.

(gg) Boiler No. 10 (Unit ID 10-06-U), Combustion Engineering Model VU, installed in 1937, with a maximum rate of 120 MMBtu/hr heat input and natural gas-fired with a fuel oil #6 secondary capability. This unit also exhausts through stack S10-05-U.

V. Refinery Area

(hh) Corn Syrup Solids Manufacturing System #2 (Unit ID 18-03-R), installed July 1992. Corn syrup solids are fed through a cooling tunnel, milled, screened, and dropped to a receiver for packing. Particulate emissions are controlled by a jet pulse dust collector (CE18-03-R) that exhausts to stack S18-03-R.

(ii) Corn Syrup Spray Dryer #4 (Unit ID 100-03-R), installed April 1992. Corn syrup is fed to a dryer. The solids are sent through cyclones to a packing area. Particulate emissions are controlled by a wet scrubber (CE100-03-R) that exhausts to stack S100-03-R.

(jj) Corn Syrup Spray Dryer/Cooler System #3 (Unit ID 100-01-R), installed July 1987. Corn syrup is fed to a dryer. The solids are sent through cyclones to a packing area. Particulate emissions are controlled by a wet venturi scrubber (CE100-01-R) that exhausts through stack S100-01-R.

(kk) Activated Carbon Regeneration Furnace #2 (Unit ID 104-01-R), installed July 1995. Spent carbon is regenerated in this natural gas-fired furnace. Emissions

are controlled by a venturi scrubber and an impingement furnace scrubber (CE104-01-R) that exhaust through stack S104-01-R.

(ll) Soda Ash Tank (Unit ID 104-02-R), installed July 1995. Particulate emissions from loading this tank are controlled by a venturi scrubber (CE104-02-R) that exhausts to stack S104-02-R.

(mm) Filter Aid Hopper (Unit ID 104-03-R), installed July 1995. This hopper is equipped with a jet pulse baghouse (CE104-03-R) that exhausts to stack S104-03-R.

(nn) Sodium Bisulfite Bag Dump (Unit ID 104-05-R), installed July 1995. This unit is controlled by a jet pulse baghouse (CE104-05-R) that exhausts to stack S104-05-R.

(oo) Diatomaceous Earth Unloading (Unit ID 104-08-R), installed November 1998. Diatomaceous earth (filter aid) is unloaded from railcar to Silo. Particulate emissions are controlled by a Bin Vent Filter (DC2312) that exhausts to stack S104-08-R.

(pp) Citric Acid Dump Station (Unit ID 104-09-R), installed November 1998. Citric Acid is added during the production of corn syrup. Particulate emissions are controlled by a built-in dust collector (CE104-09-R) that exhausts to stack S104-09-R.

VI. Starch Production Area

(qq) Batch Scale Hopper #1 (Unit ID 34-01-S), installed January 1991. Starch is pneumatically conveyed to a hopper. Particulate emissions are controlled by a bag filter dust collector (CE34-01-S) that exhausts to stack S34-01-S.

(rr) Dextrin Starch Reactor #1 (Unit ID 34-02-S), installed January 1991. Dried corn starch is fed to a reactor heated by steam from the plant boilers. Particulate emissions are controlled by a bag filter dust collector (CE34-02-S) that exhausts to stack S34-02-S.

(ss) Dextrin Starch Cooler #1 (Unit ID 34-03-S), installed January 1991. Roasted corn starch is fed to a cooler and transferred to a hopper for storage. Particulate emissions are controlled by a bag filter dust collector (CE34-03-S) that exhausts to stack S34-03-S.

(tt) Surge Hopper #1 (Unit ID 34-05-S), installed January 1991. Starch is pneumatically conveyed to a hopper. Particulate emissions are controlled by a bag filter dust collector (CE34-05-S) that exhausts to stack S34-05-S.

(uu) Dextrin Feed Hoppers #1 and #2 (System #1) (Unit IDs 34-06-S and 34-07-S), installed April 1993. Starch is gravity conveyed to these hoppers. Particulate emissions are controlled by bag filter dust collectors (CE34-06-S and CE34-07-S) that exhaust to stacks S34-06-S and S34-07-S.

(vv) Batch Scale Hopper #2 (Unit ID 34B-13-S), installed October 1993. Starch is pneumatically conveyed to a hopper. Particulate emissions are controlled by a bag filter dust collector (CE34B-13-S) that exhausts to stack S34B-13-S.

(ww) Dextrin Starch Reactor #2 (Unit ID 34B-04-S), installed October 1993. Dried corn starch is fed to a reactor heated by steam from the plant boilers. Particulate

emissions are controlled by a bag filter dust collector (CE34B-04-S) that exhausts to stack S34B-04-S.

(xx) Dextrin Starch Cooler #2 (Unit ID 34B-01-S), installed October 1993. Roasted corn starch is fed to a cooler and transferred to a hopper for storage. Particulate emissions are controlled by dust collector (CE34B-01-S) that exhausts to stack S34B-01-S.

(yy) Surge Hopper #2 (Unit ID 34B-03-S), installed October 1993. Starch is pneumatically conveyed to a hopper. Particulate emissions are controlled by a bag filter dust collector (CE34B-03-S) that exhausts to stack S34B-03-S.

(zz) Dextrin Feed Hoppers #3 and #4 (System #2) (Unit IDs 34B-05-S and 34B-06-S), installed October 1993. Starch is gravity conveyed to these hoppers. Particulate emissions are controlled by bag filter dust collectors (CE34B-05-S and CE34B-06-S) that exhaust to stacks S34B-05-S and S34B-06-S.

(aaa) Dextrin Bulk Loading Equipment (Unit ID 48-09-S), installed before 1977. Starch is pneumatically conveyed to this hopper. Particulate emissions are controlled by a bag filter dust collector (CE48-09-S) that exhausts to stack S48-09-S.

(bbb) Starch Ring Dryer #2 (Unit ID 59-03-S), installed November 1993. Starch is fed to this natural gas-fired ring dryer. Dried starch is collected with six cyclones in series. Particulate emissions are controlled by a wet scrubber (CE59-03-S) that exhausts to stack S59-03-S.

(ccc) Starch Milling Systems #1 and #2 (Unit IDs 59-01-S and 59-02-S), installed July 1976. Dried corn starch is milled and transferred to storage. Particulate emissions are controlled by bag filter dust collectors (CE59-01-S and CE59-02-S) that exhaust to stacks S59-01-S and S59-02-S.

(ddd) Starch Ring Dryer #3 (Unit ID 125-01-S), installed May 1980. Corn starch is fed to this natural gas-fired ring dryer. Dried starch is collected with six cyclones in series. Particulate emissions are controlled by a wet scrubber (CE125-01-S) that exhausts to stack S125-01-S.

(eee) Special Starch Process with Starch Ring Dryer #4 (Unit ID 128-01-S), installed December 1993. Corn starch is fed to this natural gas-fired dryer. Dried starch is collected with six cyclones in series. Particulate emissions are controlled by wet scrubber (CE128-01-S) that exhausts to stack S128-01-S.

(fff) Reactors #2 through #8 (Unit IDs 128-07-S through 128-13-S), installed November 1988 (2-4) and December 1991 (5-8). Corn starch and propylene oxide are reacted through Reactors 2, 3, 4, and 7 only. When propylene oxide is used in the starch reaction, VOC emissions are controlled by a thermal oxidizer that exhausts to stack S128-14-S.

(ggg) Sodium Sulfate Storage Bin (Unit ID 128-25-S), installed October 2000. Particulate emissions are controlled by a bin vent dust collector (FA1900), that exhausts to stack S128-25-S.

(hhh) Sodium Sulfate Weigh Bin (Unit ID 128-26-S), installed October 2000. Particulate emissions are controlled by a bin vent dust collector (FA1950), that exhausts to stack S128-26-S.

(iii) Cornstarch Storage Bins #20 through #36 (Unit IDs 120-01-S through 120-17-S), installed July 1990. Corn starch is pneumatically conveyed to these storage

bins. Particulate emissions are controlled by bag filter dust collectors that exhaust to stacks S120-01-S through S120-17-S.

(jjj) Waxy Cornstarch Bulk Storage Bins #95 through #98 (Unit IDs 126-01-S through 126-04-S), replaced in January 1996. Waxy cornstarch is conveyed to these bins. Particulate emissions are controlled by dust collectors (CE126-01-S through CE126-04-S) that exhaust to stacks S126-01-S through S126-04-S.

(kkk) Cornstarch Blending Systems #1 through #4 (Unit IDs 130-01-S through 130-04-S), installed April 1988. Cornstarch is blended and moved to the warehouse for packing. Particulate emissions are controlled by bag filter dust collectors (CE130-01-S through 130-04-S) that exhaust to stacks S130-01-S through S130-04-S.

(lll) Dextrin Blender (Unit ID 130-05-S), installed October 1993. Cornstarch is blended and moved to the warehouse for packing. Particulate emissions are controlled by a bag filter dust collector (CE130-05-S) that exhausts to stack S130-05-S.

(mmm) One (1) 28,000 gallon horizontal propylene oxide tank (Unit ID 93-18-S), installed in 1988, with 95% efficient vapor recovery (liquid nitrogen condenser). This tank also provides propylene oxide to other starch processes.

VII. Starch Warehouse Area

(nnn) Channel 2 Receiver (Unit ID 93-32-W), installed September 2000. Particulate emissions are controlled by a filter dust collector that exhausts to stack S93-32-W.

(ooo) Channel 3 Receiver (Unit ID 93-33-W), installed September 2000. Particulate emissions are controlled by a filter dust collector that exhausts to stack S93-33-W.

(ppp) Channel 4 Receiver (Unit ID 93-34-W), installed September 2000. Particulate emissions are controlled by a filter dust collector that exhausts to stack S93-34-W.

(qqq) Channel 6 Receiver (Unit ID 93-35-W), installed September 2000. Particulate emissions are controlled by a filter dust collector that exhausts to stack S93-35-W.

(rrr) Channel 4/6 Packing (Unit ID 93-37-W), installed September 2000. Particulate emissions are controlled by a filter dust collector that exhausts to stack S93-37-W.

(sss) Channel 2/3 Packing (Unit ID 93-36-W), installed September 2000. Particulate emissions are controlled by a filter dust collector that exhausts to stack S93-36-W.

(ttt) Central Vacuum System (Unit ID 93-38-W), installed October 2000. Particulate emissions are controlled by a filter dust collector that exhausts to stack S93-38-W.

(uuu) Dried Corn Syrup Conveying System (Unit ID 93-04-W), installed July 1976. Particulate emissions are controlled by a baghouse (CE93-04-W) that exhausts to stack S93-04-W.

(vvv) Corn Syrup Solids Conveying System (Unit ID 93-05-W), installed July 1976. Particulate emissions are controlled by a baghouse (CE93-05-W) that exhausts to stack S93-05-W.

(www) Frodex Semi-bulk Packing System (Unit ID 93-08-W), installed September 1989. Particulate emissions are controlled by a baghouse (CE93-08-W) that exhausts to stack S93-08-W.

(xxx) Corn Starch Bag Dumping Stations #1 and #2 (Unit IDs 93-09-W and 93-10-W), installed April 1988. Particulate emissions are controlled by bag filter dust collectors (CE93-09-W and CE93-10-W) that exhaust to stacks S93-09-W and S93-10-W.

(yyy) Starch Bulk Loading (Unit ID 93-14-W), installed April 1995. Particulate emissions are controlled by a baghouse (CE93-14-W) that exhausts to stack S93-14-W.

(zzz) Starch Bulk Loading Vacuum Cleanup System (Unit ID 93-15-W), installed February 1994. Cleanup for cornstarch spills. Particulate emissions are controlled by bag filter dust collector (CE93-15-W) that exhausts to stack S93-15-W.

(aaaa) Starch Mixing and Bulk Bagging Systems #1 and #2 (Unit IDs 93-16-W and 93-17-W), installed August 1995. Particulate emissions are controlled by baghouses (CE93-16-W and CE93-17-W) that exhaust to stacks S93-16-W and S93-17-W.

(bbbb) P.G. Starch Receiver (Unit ID 93-18-W), installed September 1999. Starch is received from P.G. starch roll dryers for packaging. Particulate emissions are controlled by a dust collector (CE93-18-W) that exhausts to stack S93-18-W.

(cccc) P.G. Starch Packing (Unit ID 93-39-W), installed January 2000. Particulate emissions are controlled by a dust collector (CE93-39-W) that exhausts to stack S93-39-W.

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

This source also consists of insignificant activities with potential uncontrolled emissions below the exemption levels specified in 326 IAC 2-1.1-3(d)(1), including these defined in 326 IAC 2-7-1(21).

1. Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour [326 IAC 6-1-2].

2. Fuel oil-fired combustion sources with heat input equal to or less than 2 million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight [326 IAC 6-1-2].

3. Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu/hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour.

4. Combustion source flame safety purging on startup.

5. 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.

6. A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.

7. VOC and HAP storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.

8. VOC and HAP vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.

9. Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.

10. Machining where an aqueous cutting coolant continuously floods the machining interface.

11. Cleaners and solvents characterized as follows:

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

    B) having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 20°C (68°F); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

12. The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6-1-2]

13. Closed loop heating and cooling systems.

14. Structural steel and bridge fabricating activities using 80 tons or less of welding consumables.

15. Solvent recycling systems with batch capacity less than or equal to 100 gallons.

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

17. Operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs.

18. Noncontact cooling tower systems with forced and induced draft cooling tower system not regulated under a NESHAP.

19. Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

20. Heat exchanger cleaning and repair.

21. Process vessel degassing and cleaning to prepare for internal repairs.

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

23. Asbestos abatement projects regulated by 326 IAC 14-10.

24. Purging of gas lines and vessels that is regulated 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.

25. 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.

26. Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

27. On-site fire and emergency response training approved by the department.

28. Diesel emergency generators not exceeding 1600 horsepower.

29. Stationary fire pumps.

30. Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6-1-2]

31. Filter or coalesce media changeout.

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

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

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because it is a major source, as defined in 326 IAC 2-7-1(22).

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 2-1.1-9.9]

(a) This permit (T089-7994-00203) 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.

(b) If IDEM, OAQ and HDEM, 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]

(a) 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, Hammond Department of Environmental Management, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

(b) Unless otherwise stated, all terms and conditions in this permit that are local requirements, including any provisions designed to limit the source's potential to emit, are enforceable by the Hammond Department of Environmental Management.

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, and HDEM within a reasonable time, any information that IDEM, OAQ, and HDEM may request in writing to determine whether

cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, and HDEM copies of records required to be kept by this permit.

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

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

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.

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

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

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 of each year to:

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

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

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, and HDEM 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, and HDEM may require to determine the compliance status of the source.

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

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

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, 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 Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

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

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

(c) To the extent the Permittee is required by 40 CFR 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, and HDEM within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

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

(HDEM)
Telephone Number: 219-853-6306
Facsimile Number: 219-853-6343

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

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

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

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

(A) A description of the emergency;

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

(C) Corrective actions taken.

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

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

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

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

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ and HDEM may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.

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

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

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed in 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, or HDEM 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, or HDEM 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, or HDEM has issued the modification. [326 IAC 2-7-12(b)(8)]

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

(a) All terms and conditions of permits established prior to T089-7994-00203 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 combined permit, all previous registrations and permits are superseded by this combined new source review and 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 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

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

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

and

Hammond Department of Environmental Management
5925 Calumet Avenue
Hammond, Indiana 46320

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

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

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

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

(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 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, or HDEM 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, or HDEM 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, or HDEM at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, or HDEM may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-4]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and HDEM 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(40) and 326 IAC 2-7-1(21). The renewal application does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

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

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

(b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]

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

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

(B) 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, and HDEM on or before the date it is due.

(c) Right to Operate After Application for Renewal [326 IAC 2-7-3]
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, and HDEM take final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, and HDEM**,** any additional information identified as being needed to process the application.

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

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

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

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

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

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

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

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

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

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

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

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

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

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

(3) The changes do not result in emissions which exceed the emissions allowable under 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
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

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 which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

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

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

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

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

(3) Any change in emissions; and

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

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

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade increases and decreases in emissions in 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.

(f) This condition does not apply to emission trades of SO_2 or NO_X under 326 IAC 21 or 326 IAC 10-4.

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

(a) A modification, construction, or reconstruction is governed by 326 IAC 2 and 326 IAC 2-7-10.5.

(b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2 and/or 326 IAC 2-3 (for sources located in NA areas).

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

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

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

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

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

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

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

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

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

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit

responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

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

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

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

(a) The Permittee shall pay annual fees to IDEM, OAQ, and HDEM 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, or HDEM 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 (BLT)), to determine the appropriate permit fee.

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

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

SECTION C SOURCE OPERATION CONDITIONS

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

C.1 Opacity [326 IAC 5-1]

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

(a) Opacity shall not exceed an average of twenty percent (20%) 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.2 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.3 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

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

C.4 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.5 Lake County: Fugitive Particulate Matter [326 IAC 6.8-10]

Pursuant to 326 IAC 6.8-10 (Lake County: Fugitive Particulate Matter), the particulate matter emissions from source wide activities shall meet the following requirements:

(a) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%).

(b) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%).

(c) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%).

(d) The opacity of fugitive particulate emissions from continuous transfer of material onto and out of storage piles shall not exceed ten percent (10%) on a three (3) minute average.

(e) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average.

(f) There shall be a zero (0) percent frequency of visible emission observations of a material during the inplant transportation of material by truck or rail at any time.

(g) The opacity of fugitive particulate emissions from the inplant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%).

(h) There shall be a zero (0) percent frequency of visible emission observations from a building enclosing all or part of the material processing equipment, except from a vent in the building.

(i) The PM_{10} emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.

(j) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%).

(k) Any facility or operation not specified in 326 IAC 6.8-10-3 shall meet a twenty percent (20%), three (3) minute average opacity standard.

The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the Fugitive Dust Control Plan.

C.6 Lake County: Particulate Matter Contingency Measures [326 IAC 6.8-11]

The Permittee shall comply with the applicable provisions of 326 IAC 6.8-11 (Lake County: Particulate Matter Contingency Measures).

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

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

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

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

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

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

(A) Asbestos removal or 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
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

(f) Demolition and renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 60.145(a).

(g) Indiana Accredited 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 Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos Inspector is not federally enforceable.

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

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

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

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

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

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

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

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

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

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

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

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

C.11 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

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

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

and

Hammond Department of Environmental Management
5925 Calumet Avenue
Hammond, Indiana 46320

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

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

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

C.12 Lake County: Continuous Compliance Plan [326 IAC 6.8-8]

Pursuant to 326 IAC 6.8-8 (Lake County: Continuous Compliance Plan), the Permittee shall submit to IDEM and HDEM, and maintain at the source a copy of the Continuous Compliance Plan. The Permittee shall perform the inspections, monitoring, and record keeping requirements as specified in 326 IAC 6.8-8-7. The Permittee shall update the CCP, as needed, retain a copy on site, and make the updated CCP available for inspection as specified in 326 IAC 6.8-8-8.

C.13 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

(a) Where required by Section D of this permit, the Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment.

(b) In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.

(c) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to the rule or permit condition that requires the monitoring equipment to be installed and operated.

C.14 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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

C.15 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.16 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 prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on February 26, 1991.

(b) Upon direct notification by IDEM, OAQ, or HDEM, 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.17 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 source must comply with the applicable requirements of 40 CFR 68.

C.18 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

(1) initial inspection and evaluation;

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

(3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

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

(1) monitoring results;

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

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

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

(e) The Permittee shall maintain the following records:

(1) monitoring data;

(2) monitor performance data, if applicable; and

(3) corrective actions taken.

C.19 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

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

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

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

C.20 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]

(a) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

(1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

(2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) (“Regulated pollutant, which is used only for purposes of Section 19 of this rule”) from the source, for purposes of Part 70 fee assessment.

This 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

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

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

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

C.21 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. 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 or HDEM makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or HDEM within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

(c) If there is a reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A), 40 CFR 51.165 (a)(6)(vi)(B), 40 CFR 51.166 (r)(6)(vi)(a), and/or 40 CFR 51.166 (r)(6)(vi)(b)) that a “project” (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a “major modification” (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the “projected actual emissions” (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

(1) Before beginning actual construction of the “project” (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, document and maintain the following records:

(A) A description of the project.
(B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
(C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
(i) Baseline actual emissions;
(ii) Projected actual emissions;
(iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1(mm)(2)(A)(iii); and
(iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.

(d) If there is a reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A) and/or 40 CFR 51.166 (r)(6)(vi)(a)) that a “project” (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a “major modification” (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the “projected actual emissions” (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

(1) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and

(2) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.22 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-3]

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

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

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

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

(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, and HDEM on or before the date it is due.

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

(f) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C- General Record Keeping Requirements for any “project” (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ and HDEM:

(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record

Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant; and

(2) The emissions differ from the preconstruction projection as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(ii).

(g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:

(1) The name, address, and telephone number of the major stationary source.

(2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C- General Record Keeping Requirements.

(3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).

(4) Any other information that the Permittee deems fit to include in this report.

Reports required in this part shall be submitted to:

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

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

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

Stratospheric Ozone Protection

C.23 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 the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

(b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: **I. Biogas Flare**

Biogas Flare (Unit ID 800-05-E), installed July 1995. Biogas is generated in the wastewater treatment plant by anaerobic reaction. The biogas flare converts the hydrogen sulfide (H_2S) in the biogas to sulfur dioxide (SO_2). It is used when the biogas stream is not being diverted to a plant process burner for energy recovery, which is the normal scenario. The biogas flare exhausts to stack ID S800-05-E.

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

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

D.1.1 Emission Limitations and Standards [326 IAC 2-2]

Any change or modification to the Biogas Flare which increases the potential to emit (PTE) of Hydrogen Sulfide (H_2S) to above ten (10) tons per year, shall require prior approval of the IDEM-OAQ and HDEM. Compliance with this limitation renders 326 IAC 2-2 not applicable.

Compliance Determination Requirements

D.1.2 Compliance Determination Requirements

To determine compliance with Condition D.1.1, the biogas stream from anaerobic reaction shall be diverted to an active plant process burner or to the biogas flare at all times that a biogas stream is being generated.

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

D.1.3 Flame Presence

The Permittee shall monitor and record once per shift the flame presence for the Biogas Flare during each shift of operation that the biogas stream is venting to the flare. The flame presence shall be determined using either a thermal sensor or flame detector at the point of the flame.

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

D.1.4 Record Keeping Requirements

(a) To document compliance with Condition D.1.3, the Permittee shall maintain a daily record of the flame presence. The Permittee shall include in its daily record when a flame presence notation is not taken and the reason for the lack of a flame presence notation (e.g. the process did not operate that day).

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: **II. Alternate Carbohydrate Area**

(a) Alternate Carbohydrate Mill Feed Hopper (Unit 127-30-B), installed in May 1993 and repurposed in 2008. Particulate emissions are controlled by dust collector (CE127-30-B) that exhausts to stack S127-30-B.

(b) No. 1 and No. 2 Alternate Carbohydrate Storage Bins (Unit ID 127-28-B and 127-29-B), installed in May 1993 and repurposed in 2008. Carbohydrate is pneumatically conveyed to these hoppers equipped with bag filter dust collectors (CE127-28-B and CE127-29-B) that exhaust to stacks S127-28-B and S127-29-B.

(c) No. 1 and No. 2 Vacuum Cleaner Systems (Unit ID 127-21-B and 127-22-B), installed in May 1993. These systems are for building dust. Particulate emissions are controlled by dust collectors that exhaust to stacks S127-21-B and S127-22-B.

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

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

D.2.1 PM/PM10 PSD and Nonattainment NSR Minor Limit [326 IAC 2-2] [326 IAC 2-1.1-5]

In order to make the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable, the PM and PM10 emissions from the following operations shall not exceed the emissions limits listed in the table below:

Unit	Unit ID	PM/PM10 Emission Limit (lb/hr)
No. 1 Alternate Carbohydrate Storage Bin	127-28-B	0.18
No. 2 Alternate Carbohydrate Storage Bin	127-29-B	0.18
Alternate Carbohydrate Mill Feed Hopper	127-30-B	0.028

Compliance with these limits in conjunction with the PM and PM10 limits in Condition D.3.1, will ensure that the PM emissions from Significant Source Modification No. 089-25241-00203 are less than 25 tons per twelve (12) consecutive month period and PM10 emissions from Significant Source Modification No. 089-25241-00203 are less than 15 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) are rendered not applicable.

D.2.2 Particulate Matter less than 10 microns in diameter (PM10) [326 IAC 6.8-2]

Pursuant to 326 IAC 6.8-2 (Lake County: PM10 Emission Requirements), formerly 326 IAC 6-1-10.1, emissions of particulate matter less than ten microns in diameter (PM10) shall not exceed the emissions limits listed in the table below:

Unit ID	PM10 Limit (gr/dscf)	PM10 Limit (lbs/hr)
Alternate Carbohydrate Mill Feed Hopper (127-30-B)	0.01	0.028
No. 1 & No. 2 Alternate Carbohydrate Storage Bins (127-28-B) & (127-29-B)	0.01 each	0.18 each
Vacuum Cleaners #1 & #2 (127-21-B) & (127-22-B)	0.01 each	0.031 each

D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for each Alternate Carbohydrate Area control device.

Compliance Determination Requirements

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

In order to demonstrate compliance with Conditions D.2.1 and D.2.2, the Permittee shall perform PM and PM10 testing for the No. 1 and No. 2 Alternate Carbohydrate Storage Bins (127-28-B & 127-29-B) and the Alternate Carbohydrate Mill Feed Hopper (127-30-B), 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. Testing shall be conducted in accordance with Section C - Performance Testing. PM-10 includes filterable and condensible PM-10.

D.2.5 Particulate Matter [326 IAC 6.8-2] [326 IAC 2-7-6(6)] [326 IAC 2-2] [326 IAC 2-1.1-5]

(a) In order to comply with D.2.1 and D.2.2, the bag filter dust collectors for PM and PM10 control shall be in operation and control emissions from their associated facilities at all times that the facilities are in operation.

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

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

D.2.6 Parametric Monitoring (Dust Collectors)

The Permittee shall record the total static pressure drop across all baghouses or dust collectors used in conjunction with each Alternate Carbohydrate facility at least once per day when the associated facilities are in operation. When for any one reading, the pressure drop across the dust collector is outside the following ranges or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

Unit ID	Control Equipment	Pressure Drop Range (“H_2O)
Alternate Carbohydrate Mill Feed Hopper (127-30-B)	Dust Collector	0.1 - 6
No. 1 &No. 2 Alternate Carbohydrate Storage (127-28-B) & (127-29-B)	Dust Collector	0.1 – 6 each
Vacuum Cleaners #1 & #2 (127-21-B) & (127-22-B)	Dust Collector	0.1 – 6 each

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 HDEM and shall be calibrated at least once every six (6) months.

D.2.7 Broken or Failed Bag Detection

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

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

D.2.8 Visible Emissions Notations

(a) Visible emission notations of each Alternate Carbohydrate stack exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

D.2.9 Record Keeping Requirements

(a) To document compliance with Condition D.2.6, the Permittee shall maintain a daily record of the pressure drops across the baghouses controlling the 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).

(b) To document compliance with Condition D.2.8, the Permittee shall maintain a daily record of visible emission notations of the Alternate Carbohydrate Area facility 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) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: III. Grind and Feedhouse Area

(e) Gluten Dryer System (Unit ID 121-01-G), installed March 1995. Gluten meal is fed to a natural and bio gas-fired ring dryer. Particulate emissions are controlled by wet scrubber (CE121-01-G) that exhausts to stack S121-01-G.

(f) No. 2 Gluten Dryer (Unit ID 121A-01-G), approved for construction in 2008. Gluten meal is fed to a 17 MMBtu/hr natural and bio gas-fired ring dryer at a maximum throughput of 19,700 lb/hr. Particulate emissions are controlled by two (2) wet scrubbers operating in series, one venturi-type followed by one tray-type scrubber (collectively identified as Unit ID CE121A-01-G) that exhausts to stack S121A-01-G.

(g) One (1) Germ Dryer/Cooler (Unit ID 203-01-G), approved for construction in 2008. Corn germ is fed to a 30 MMBtu/hr natural and bio gas-fired germ dryer and cooler at a maximum throughput of 38,600 lb/hr. Particulate emissions are controlled by one (1) wet scrubber (Unit ID CE203-01-G) that exhausts to stack S203-01-G.

(h) No. 1 Bran Bunker (Unit ID 89-06-G), approved for construction in 2008, with a maximum throughput rate of 107,433 tons per year, using a bin vent filter (Unit ID CE089-06-G) with an outlet grain loading of 0.01 gr/dscf as control, and exhausting to stack S89-06-G.

(i) No. 2 Bran Bunker (Unit ID 89-07-G), approved for construction in 2008, with a maximum throughput rate of 107,433 tons per year, using a bin vent filter (Unit ID CE89-07-G) with an outlet grain loading of 0.01 gr/dscf as control, and exhausting to stack S89-07-G.

(j) One (1) Bran Conveyor System (Unit ID 89-08-G), approved for construction in 2008, with a maximum throughput rate of 107,433 tons per year, using existing scrubber CE89-01-G (constructed in 1995) as control, and exhausting to stack S89-01-G.

(k) One (1) Bran Preweigh Hopper (Unit ID 89-09-G), approved for construction in 2008, with a maximum throughput rate of 107,433 tons per year, using a bin vent filter (Unit ID CE89-09-G) with an outlet grain loading of 0.01 gr/dscf as control, and exhausting to stack S89-09-G.

(l) Fiber Drying Equipment (Unit ID 89-01-G), installed October 1995. Wet fiber is fed to this natural and bio gas-fired dryer. Particulate matter is controlled by a scrubber (CE89-01-G) that exhausts to stack S89-01-G.

(m) Germ Dryer/Cooler (Unit ID 124A-01-G), installed November 1994. Corn germ is fed to this natural and bio gas-fired germ dryer and cooler. Particulate emissions are controlled by one (1) scrubber (CE124A-01-G) that exhaust to stack S124A-01-G.

(n) Central Vacuum Loadout (Unit ID 200-07-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-07-G) that exhausts to stack S200-07-G.

(o) Germ Tank 1310 (Unit ID 200-01-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-01-G) that exhausts to stack S200-01-G.

(p) Gluten Tank 1410 (Unit ID 200-02-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-02-G) that exhausts to stack S200-02-G.

(q) Corn Screenings Silo (Unit ID 200-06-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-06-G) that exhausts to stack S200-06-G.

(r) Gluten Tank 1010 (Unit ID 200-04-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-04-G) that exhausts to stack S200-04-G.

(s) Germ Tank 1110 (Unit ID 200-03-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-03-G) that exhausts to stack S200-03-G.

(t) Bulk Loadout (Unit ID 200-05-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-05-G) that exhausts to stack S200-05-G.

(u) Corn Dump Pit (Unit ID 140-05-G), installed December 1995. Particulate emissions are controlled by filter baghouse (CE140-05-G) that exhausts to stack S140-05-G.

(v) Corn Elevator Conveying (Unit ID 140-07-G), installed December 1995. Material is transferred from corn belt 1 to corn belt 2. Particulate emissions are controlled by a filter baghouse (CE140-07-G) that exhausts to stack S140-07-G.

(w) Corn Receiving and Storage, installed December 1995. This system includes six Storage Bins, each with its own bin vent for control of particulate emissions:

(1) Bin #1: Unit ID 140-01-G
(2) Bin #2: Unit ID 140-02-G
(3) Bin #3: Unit ID 140-03-G
(4) Bin #4: Unit ID 140-04-G
(5) Bin #5: Unit ID 33-01-G
(6) Bin #6: Unit ID 33-02-G

(x) Gravity Take-up Conveyor (Corn Scale) (Unit ID 140-06-G), installed December 1995. Corn is transferred from corn belt 2 to corn belt 3. Particulate emissions are controlled by baghouse (CE140-06-G) that exhausts to stack S140-06-G.

(y) Corn Cleaner (Unit ID 33-03-G), installed December 1995. Corn passes through mechanical cleaners. Particular emissions are controlled by a filter baghouse (CE33-03-G) that exhausts to stack S33-03-G.

(z) Corn Screenings System (Unit ID 30-16-G), installed July 1976. This system includes a dirt storage silo equipped with bag filter collector (CE30-16-G) that exhausts to stack S30-16-G.

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

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

D.3.1 PM/PM10 PSD and Nonattainment NSR Minor Limit [326 IAC 2-2] [326 IAC 2-1.1-5]

In order to make the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable:

(a) The PM and PM10 emissions from the following operations shall not exceed the emissions limits listed in the tables below:

Unit	Unit ID	Control Device ID	PM/PM10 Emission Limit (lb/hr)
Corn Screening System	30-16-G	CE30-16-G	0.06
Storage Bin No. 5 (Grind 1)	33-01-G	CE33-01-G	0.171
Storage Bin No. 6 (Grind 2)	33-02-G	CE33-02-G	0.171
Corn Cleaner	33-03-G	CE33-03-G	0.21
Fiber Dryer & Bran Conveyor System	89-01-G / 89-08-G	CE-89-01-G	4.891
No. 1 Gluten Dryer	121-01-G	CE121-01-G	3.0
Storage Bin #3	140-03-G	CE140-03-G	0.343
Storage Bin #4	140-04-G	CE140-04-G	0.343
Storage Bin #1	140-01-G	CE140-01-G	0.343
Storage Bin #2	140-02-G	CE140-02-G	0.343
Corn Dump Pit	140-05-G	CE140-05-G	1.286
Gravity Take-Up Conveyor	140-06-G	CE140-06-G	0.154
Corn Elevator Conveying	140-07-G	CE140-07-G	0.086
Germ Tank 1310	200-01-G	CE200-01-G	0.05

Unit	Unit ID	Control Device ID	PM/PM10 Emission Limit (lb/hr)
Gluten Tank 1410	200-02-G	CE200-02-G	0.05
Germ Tank 1110	200-03-G	CE200-03-G	0.05
Gluten Tank 1010	200-04-G	CE200-04-G	0.05
Bulk Loadout	200-05-G	CE200-05-G	1.21
Corn Screening Silo	200-06-G	CE200-06-G	0.02
Central Vacuum Loadout	200-07-G	CE200-07-G	0.02
No. 1 Bran Bunker	89-06-G	CE89-06-G	0.006
No. 2 Bran Bunker	89-07-G	CE89-07-G	0.006
Bran Preweigh Hopper	89-09-G	CE89-09-G	0.006
No. 2 Gluten Dryer	121A-01-G	CE121A-01-G	2.4
Germ Dryer/Cooler	203-01-G	CE203-01-G	2.81

(b) Pursuant to 326 IAC 2-2 (PSD), the following units shall be removed from operation once the modification permitted under SSM 089-25241-00203 has been constructed:

(1) Rotary Feed Dryer (89-03-G)
(2) Dry Feed Transfer (89-05-G)
(3) Germ Storage Silo (121-14-G)
(4) Waxy Feed Drum Dryer (124-01-G)
(5) Waxy Feed Mill Equipment (124-22-G)
(6) Wet Feed Transfer (124-23-G)
(7) Hammermill No. 1 (201-01-G)
(8) Hammermill No. 2 (201-02-G)
(9) Pellet Cooler No. 1 (201-03-G)
(10) Pellet Cooler No. 2 (201-04-G)
(11) Loose Feed Bin Vent (201-05-G)
(12) Central Vacuum Pelletizing (201-06-G)
(13) Receiver 1st Stage Germ Dryer (21A-01-G)
(14) 1st Stage Germ Dryer (21A-02-G)
(15) Receiver 2nd Stage Germ Dryer (51A-01-G)
(16) 2nd Stage Germ Dryer (51A-02-G)

Removal of these units shall reduce the PM/PM10 emissions by 34.46 tons per twelve (12) consecutive month period. The shutdown of these units shall be permanent.

(c) The existing Germ Dryer/Cooler (124A-01-G) shall be shutdown and removed from the source no later than 180 days after the startup of the new Germ Dryer/Cooler (Unit ID 203-01-G). Removal of this unit shall reduce PM/PM10 emissions by 5.65 tons per twelve (12) consecutive month period. The shutdown and removal of this unit shall be permanent.

Compliance with these limits in conjunction with the PM and PM10 limits in Condition D.2.1, will ensure that the PM emissions from Significant Source Modification No. 089-25241-00203 are less than 25 tons per twelve (12) consecutive month period and PM10 emissions from Significant Source Modification No. 089-25241-00203 are less than 15 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) are rendered not applicable for PM/PM10 for Significant Source Modification No. 089-25241-00203.

D.3.2 VOC Emission Offset [326 IAC 2-3]

(a) Pursuant to 326 IAC 2-3 (Emission Offset), the following units shall be removed from operation once the modification permitted under SSM 089-25241-00203 has been constructed:

(1) Rotary Feed Dryer (89-03-G)
(2) Waxy Feed Drum Dryer (124-01-G)
(3) 1st Stage Germ Dryer (21A-02-G)
(4) 2nd Stage Germ Dryer (51A-02-G)

Removal of these units shall reduce the controlled VOC emissions by 14.59 tons per twelve (12) consecutive month period. The shutdown of these units shall be permanent.

(b) The existing Germ Dryer/Cooler (124A-01-G) shall be shutdown and removed from the source no later than 180 days after the startup of the new Germ Dryer/Cooler (Unit ID 203-01-G). Removal of this unit shall reduce the controlled VOC emissions by 1.89 tons per twelve (12) consecutive month period. The shutdown and removal of this unit shall be permanent.

Compliance with these requirements will ensure that the VOC emissions from Significant Source Modification No. 089-25241-00203, are less than twenty-five (25) tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-3 (EO) are rendered not applicable for VOC for Significant Source Modification No. 089-25241-00203.

D.3.3 Particulate Matter less than 10 microns in diameter (PM10) [326 IAC 6.8-2]

Pursuant to 326 IAC 6.8-2 (Lake County: PM10 Emission Requirements), formerly 326 IAC 6-1-10.1, emissions of particulate matter less than ten microns in diameter (PM10) shall not exceed the following:

Unit ID	PM10 Limit (gr/dscf)	PM10 Limit (lbs/hr)
Gluten Dryer System (121-01-G)	0.03	3.0
Fiber Drying Equipment (89-01-G)	0.01	4.5
Germ Dryer/Cooler (124A-01-G)	0.02	1.872
Corn Dump Pit (140-05-G)	0.01	1.286
Corn Elevator Conveying (140-07-G)	0.01	0.086
Corn Receiving and Storage Bins 1, 2, 3, & 4	0.02 each	0.343 each
Corn Receiving and Storage Day Tanks 5 & 6	0.02 each	0.171 each
Gravity Take-up Conveyor (140-06-G)	0.01	0.154
Corn Cleaner (33-03-G)	0.01	0.21
Corn Screenings System (30-16-G)	0.01	0.06

D.3.4 Particulate Matter less than 10 microns in diameter (PM10) [326 IAC 6.8-1-2(h)]

Pursuant to Significant Source Modification 089-14389-00203, issued September 2001, and 326 IAC 6.8-1-2(h) (Nonattainment Area Particulate Limitations), formerly 326 IAC 6-1-2(h), emissions of particulate matter less than ten (10) microns in diameter (PM10) from the following units shall not exceed the following limitations:

Unit ID	PM10 Limit (gr/dscf)	PM10 Limit (lbs/hr)
Central Vacuum Loadout (200-07-G)	0.005	0.02
Germ Tank 1310 (200-01-G)	0.005	0.05
Gluten Tank 1410 (200-02-G),	0.005	0.05
Corn Screenings Silo (200-06-G)	0.005	0.02
Gluten Tank 1010 (200-04-G)	0.005	0.05
Germ Tank 1110 (200-03-G)	0.005	0.05
Bulk Loadout (200-05-G)	0.005	1.21

D.3.5 Particulate Matter less than 10 Microns in Diameter (PM10) [326 IAC 6.8-1-2]

Pursuant to Significant Source Modification 089-25241-00203 and 326 IAC 6.8-1-2 (Nonattainment Area Particulate Limitations), formerly 326 IAC 6-1-2(h), emissions of particulate matter less than ten (10) microns in diameter (PM10) from the following units shall not exceed the following limitations:

Summary of Process Weight Rate Limits		
Unit ID	PM10 Limit (gr/dscf)	PM10 Limit (lbs/hr)
No. 2 Gluten Dryer (121A-01-G)	0.03	3.0
Germ Dryer/Cooler (203-01-G)	0.03	3.0
No. 1 Bran Bunker (89-06-G)	0.03	3.0
No. 2 Bran Bunker (89-07-G)	0.03	3.0
Bran Conveyor System (89-08-G)	0.03	3.0
Bran Preweigh Hopper (89-09-G)	0.03	3.0

D.3.6 VOC Emissions [326 IAC 2-3] [326 IAC 8-1-6] [326 IAC 2-7-6(3)] [326 IAC 2-7-15]

The IDEM, OAQ has information that indicates that some emission units in this section are subject to the requirements of 326 IAC 2-3 (Emission Offset) and/or 326 IAC 8-1-6 (New facilities, general reduction requirements (BACT)). Therefore, the Permit Shield provided by Condition B.12 of this permit does not apply to those emission units with regards to 326 IAC 2-3 and 326 IAC 8-1-6. The IDEM, OAQ will promptly reopen this permit using the provisions of 326 IAC 2-7-9 (Permit Reopening) to include detailed requirements necessary to comply with 326 IAC 2-3 or 326 IAC 8-1-6 and a schedule for achieving compliance with such requirements.

D.3.7 VOC Emissions [326 IAC 8-7] [326 IAC 2-7-6(3)] [326 IAC 2-7-15]

The IDEM, OAQ has information that indicates that some emission units in this section are subject to the requirements of 326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark and Floyd Counties). Therefore, the Permit Shield provided by Condition B.12 of this permit does not apply to those emission units with regards to 326 IAC 8-7. On February 27, 1995, the source submitted to IDEM, OAQ a Reasonably Achievable Control Technology (RACT) plan pursuant to 326 IAC 8-7-2. A revised RACT plan was requested and submitted by the source on August 22, 2003. The IDEM, OAQ is currently reviewing the RACT plan submitted. The IDEM, OAQ will promptly reopen this permit using the provisions of 326 IAC 2-7-9 (Permit Reopening) to include detailed requirements necessary to comply with 326 IAC 8-7 and a schedule for achieving compliance with such requirements.

D.3.8 SO_2 Emissions [326 IAC 2-3] [326 IAC 2-7-6(3)] [326 IAC 2-7-15]

The IDEM, OAQ has information that indicates that some emission units in this section are subject to the requirements of 326 IAC 2-3 (Emission Offset). Therefore, the Permit Shield

provided by Condition B.12 of this permit does not apply to those emission units with regards to 326 IAC 2-3. The IDEM, OAQ will promptly reopen this permit using the provisions of 326 IAC 2-7-9 (Permit Reopening) to include detailed requirements necessary to comply with 326 IAC 2-3 and a schedule for achieving compliance with such requirements.

D.3.9 SO2 Emissions [326 IAC 7-4.1]

Pursuant to 326 IAC 7-4.1 (Lake County Sulfur Dioxide Emission Limitations), the sulfur dioxide emission rate from these units shall not exceed the following:

(a) SO2 emissions from the stack serving the No. 2 Gluten Dryer (121A-01-G) shall not exceed 0.3 lb/MMBtu.

(b) SO2 emissions from the stack serving the Germ Dryer/ Cooler (203-01-G) shall not exceed 0.3 lb/MMBtu.

D.3.10 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for each Grind and Feedhouse Area facility control device.

Compliance Determination Requirements

D.3.11 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) Within 36 months of the issuance of Part 70 Operating Permit Number T089-7994-00203, in order to demonstrate compliance with Conditions D.3.1 and D.3.3, the Permittee shall perform PM and PM-10 testing on the following units utilizing methods as approved by the Commissioner.

Gluten Ring Dryer

These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C-Performance Testing. PM-10 includes filterable and condensible PM-10.

(b) In order to demonstrate compliance with Conditions D.3.1 and D.3.5, the Permittee shall perform PM and PM10 testing for the No. 2 Gluten Dryer (121A-01-G) and the Germ Dryer/Cooler (203-01-G), 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. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM-10 includes filterable and condensible PM-10.

(c) In order to demonstrate compliance with Conditions D.3.1, the Permittee shall perform PM and PM10 testing for the Scrubber (CE89-01-G) controlling the Fiber Dryer (89-01-G) and the Bran Conveying System (89-08-G), 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. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM-10 includes filterable and condensible PM-10.

(d) In order to demonstrate compliance with Condition D.3.9, the Permittee shall perform SO2 testing for the No. 2 Gluten Dryer (121A-01-G) and the Germ Dryer/Cooler (203-01-G), 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. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

(e) In order to demonstrate compliance with Conditions D.3.1 and D.3.5, the Permittee shall perform PM and PM10 testing for the No. 1 and No. 2 Bran Bunker (89-06-G and 89-07-G) and the Bran Preweigh Hopper (89-09-G), 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. Testing shall be conducted in accordance with Section C - Performance Testing. PM-10 includes filterable and condensible PM-10.

D.3.12 Particulate Matter [326 IAC 6-1-10.1(d)] [326 IAC 6-1-2] [326 IAC 2-7-6(6)] [326 IAC 2-2] [326 IAC 2-1.1-5]

(a) In order to comply with D.3.1, D.3.3, D.3.4, and D.3.5, the control devices for PM and PM10 control shall be in operation and control emissions from their associated facilities at all times that the facilities are in operation.

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

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

D.3.13 Visible Emissions Notations

(a) Visible emission notations of each Grind and Feedhouse facility stack exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.3.14 Parametric Monitoring (Dust Collectors)

The Permittee shall record the total static pressure drop across each particulate control device used in the Grind and Feedhouse Area at least once per day when the associated system is in operation. When for any one reading, the pressure drop across the control device is outside any of the following ranges or a range established during the latest stack test, the Permittee shall take

reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

Unit ID	Control Equipment	Pressure Drop Range (inches of water)
Central Vacuum Loadout (200-07-G)	Dust Collector	0.1 - 6
Germ Tank 1310 (200-01-G)	Dust Collector	0.1 - 6
Gluten Tank 1410 (200-02-G)	Dust Collector	0.1 - 6
Corn Screenings Silo (200-06-G)	Dust Collector	0.1 - 6
Gluten Tank 1010 (200-04-G)	Dust Collector	0.1 - 6
Germ Tank 1110 (200-03-G)	Dust Collector	0.1 - 6
Bulk Loadout (200-05-G)	Dust Collector	0.1 - 6
Corn Dump Pit (140-05-G)	Dust Collector	0.1 - 6
Corn Elevator Conveying (140-07-G)	Dust Collector	0.1 - 6
Gravity Take-up Conveyor (140-06-G)	Dust Collector	0.1 - 6
Corn Cleaner (33-03-G)	Dust Collector	0.1 - 6
Corn Screenings System (30-16-G)	Dust Collector	0.1 - 6
No. 1 and No. 2 Bran Bunkers (89-06-G)	Bin Vent	0.1-6
No. 2 Bran Bunker (89-07-G)	Bin Vent	0.1-6
Bran Preweigh Hopper (89-09-G)	Bin Vent	0.1-6

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 HDEM and shall be calibrated at least once every six (6) months.

D.3.15 Parametric Monitoring (Scrubbers)

The Permittee shall record the recirculation liquid flow rate and total static pressure drop across each scrubber used in the Grind and Feedhouse Area, at least once per day when the associated system is in operation. When for any one reading, the pressure drop across a scrubber is outside the following ranges or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

Unit ID	Control Equipment	Pressure Drop Range (inches of water)
Gluten Ring Dryer System (121-01-G)	Wet Scrubber	12 -19
No. 2 Gluten Dryer (121A-01-G)	Wet Scrubber	12-19
Germ Dryer/Cooler (203-01-G)	Wet Scrubber	6-12
Bran conveyor System (89-08-G)	Scrubber	0.1-6
Fiber Drying Equipment (89-01-G)	Scrubber	0.1 - 6
Germ Dryer/Cooler (124A-01-G)	Scrubber	6-12

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

D.3.16 Broken or Failed Bag Detection

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

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

D.3.17 Scrubber Failure Detection

In the event that a scrubber's failure has been observed:

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

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

D.3.18 Record Keeping Requirements

(a) To document compliance with Condition D.3.13, the Permittee shall maintain a daily record of visible emission notations of the Grind and Feedhouse Area Facility 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).

(b) To document compliance with Condition D.3.14 and D.3.15, the Permittee shall maintain a daily record of the pressure drop readings and the scrubber recirculation liquid flow rates. The Permittee shall include in its daily record when a pressure drop reading or scrubber recirculation flow rate is not taken and the reason for the lack of a pressure drop reading or scrubber recirculation flow rate (e.g. the process did not operate that day).

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: **IV. Utility Area**

The Utility area includes the following boilers used to supply steam for plant processes. A rental, natural gas-fired boiler is used when all boilers are down for maintenance.

(a) Boiler No. 1 (Unit ID 10-01-U), Combustion Engineering Model VP10R, installed in 1960, with a maximum rate of 96 MMBtu/hr heat input and natural gas-fired only. This unit exhausts through stack S10-01-U.

(b) Boiler No. 2 (Unit ID 10-02-U), Erie City Model 19M, installed in 1966, with a maximum rate of 160 MMBtu/hr heat input and natural gas-fired only. This unit exhausts through stack S10-02-U.

(c) Boiler No. 6 (Unit ID 10-03-U), Combustion Engineering Model VU-50, installed in 1956, with a maximum rate of 200 MMBtu/hr heat input and natural gas-fired with a fuel oil #6 secondary capability. This unit exhausts through stack S10-03-U.

(d) Natural gas-fired Package Boiler #1 (Unit ID 89-03-U), installed in 2006, with a maximum heat input capacity of 274 million Btu/hr, and exhausting to stack S89-03-U. Under NSPS 40 CFR 60 Subpart Db, Package Boiler #1 is a steam-generating unit with a heat input capacity greater than 100 million Btu/hr.

(e) Boiler No. 7 (Unit ID 10-04-U), Combustion Engineering Model VU, installed in 1944, with a maximum rate of 120 MMBtu/hr heat input and natural gas-fired with a fuel oil #6 secondary capability. This unit also exhausts through stack S10-03-U.

(f) Boiler No. 8 (Unit ID 10-05-U), Combustion Engineering Model VU, installed in 1937, with a maximum rate of 120 MMBtu/hr heat input and natural gas-fired with a fuel oil #6 secondary capability. This unit exhausts through stack S10-05-U.

(g) Boiler No. 10 (Unit ID 10-06-U), Combustion Engineering Model VU, installed in 1937, with a maximum rate of 120 MMBtu/hr heat input and natural gas-fired with a fuel oil #6 secondary capability. This unit also exhausts through stack S10-05-U.

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

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

D.4.1 Particulate Matter less than 10 microns in diameter (PM10) [326 IAC 6.8]

Pursuant to 326 IAC 6.8-6 (Lake County: Combustion Sources; Natural Gas), section 4, Boilers #1 and #2 shall fire natural gas only and emissions of particulate matter less than ten microns in diameter (PM10) shall be limited to the following.

Unit ID	PM10 Limit (lbs/MMBtu)	PM10 Limit (lbs/hr)
Boiler #1 (10-01-U)	0.003	0.288
Boiler #2 (10-02-U)	0.003	0.468

D.4.2 Particulate Matter less than 10 microns in diameter (PM10) [326 IAC 6.8]

Pursuant to 326 IAC 6.8-2 (Lake County: PM10 Emission Requirements), section 8, emissions of particulate matter less than ten microns in diameter (PM10) shall be limited to the following.

Unit ID	PM10 Limit
Stack Serving Boilers 6 & 7	30.3 lbs/hr
Stack Serving Boilers 8 & 10	22.7 lbs/hr

D.4.3 Particulate Matter Limitations for Lake County [326 IAC 6.8]

Pursuant to 326 IAC 6.8-1-2(b)(3), Package Boiler #1 shall burn natural gas only and particulate matter emissions shall not exceed 0.01 grains per dry standard cubic foot (dscf).

D.4.4 Sulfur Dioxide (SO2) [326 IAC 7-4-1.1]

Pursuant to 326 IAC 7-4-1.1 (Lake County Sulfur Dioxide Emission Limitations) sulfur dioxide emissions are limited to 2.07 lbs/MMBtu (each) for boilers 6, 7, 8, and 10 (784 lbs/hr total).

D.4.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for each Utility Area Boiler.

Compliance Determination Requirements

D.4.6 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 3-7-4]

Compliance with Condition D.4.4 shall be determined utilizing one of the following options:

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions from boilers 6, 7, 8, and 10 do not exceed (2.07) pound per million Btu heat input (each) by:

(1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, or;

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boilers using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

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

D.4.7 Operational Requirements [326 IAC 2-7-5(1)]

(a) Compliance with the particulate matter limitation in Condition D.4.3 for Package Boiler #1 shall be determined by the combustion of natural gas only.

(b) Boilers #1, #2, #6, #7, #8, and #10 shall cease operation and be permanently decommissioned when Package Boiler #1 becomes operational.

(c) Upon cessation of operation Boilers #1, #2, #6, #7, #8, and #10, Conditions D.4.1, D.4.2, D.4.4, D.4.6, D.4.8, D.4.9, and D.4.10(a) will not be applicable.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC2-7-5(1)]

D.4.8 Visible Emissions Notations

(a) Visible emission notations of each boiler stack exhaust shall be performed once per day (when burning fuel oil) during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

(e) A continuous opacity monitor may be used to perform the visible emission notations provided the calibration and maintenance procedures for the monitor have been approved by the IDEM-OAQ or the HDEM. A trained employee shall record whether emissions are normal or abnormal (when burning fuel oil).

(f) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

D.4.9 Record Keeping Requirements

(a) In accordance with 326 IAC 7-4-1.1(c)(1)(B)(i) and in order to document compliance with Condition D.4.4, the Permittee shall maintain records of the following for each hour in which any boiler operates on fuel oil.

(1) Average sulfur content

(2) Fuel oil usage

(3) Boiler operating load

(b) To document compliance with Condition D.4.8, the Permittee shall maintain a daily record of the visible emission notations (while burning fuel oil) of the boiler 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) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.4.10 Reporting Requirements

(a) In accordance with 326 IAC 7-2-1(c)(3) and 326 IAC 7-4-1.1(c)(1)(B)(ii), the Permittee shall submit a report to the department within thirty (30) days after the end of each calendar quarter. The report shall also contain the records required in Condition D.4.9 for Boilers 6, 7, 8, and 10, while burning fuel oil, including a calculation of the total sulfur dioxide emissions from all boilers for each hour.

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

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

D.4.11 General Provisions Relating to the NSPS for Industrial-Commercial-Institutional Steam Generating Units [40 CFR 60.40b, Subpart Db] [326 IAC 12-1] [40 CFR 60, Subpart A]

Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1-1 for Package Boiler #1 as specified in 40 CFR 60.40b, Subpart Db in accordance with the schedule in 40 CFR 60.40b, Subpart Db.

D.4.12 NSPS for Industrial-Commercial-Institutional Steam Generating Units Requirements [40 CFR 60.40b, Subpart Db] [326 IAC 12-1]

Pursuant to 40 CFR 60.40b, Subpart Db, the Permittee shall comply with the provisions of 40 CFR 60.40b, Subpart Db (included as attachment A of this permit), which are incorporated by reference as 326 IAC 12-1, for Package Boiler #1 as specified as follows:

(1) 40 CFR 60.40 (a) and (j)
(2) 40 CFR 60.41
(3) 40 CFR 60.44 (a)(1), (h), and (i)
(4) 40 CFR 60.46 (a) and (e)(1)
(5) 40 CFR 60.48 (b)(1), (c), (d), (e)(2)(3), and (f)
(6) 40 CFR 60.49 (a)(1)(3), (b), (d), (g), (i), (o), (v), and (w)

D.4.13 One Time Deadlines Relating to NSPS 60.40b, Subpart Db

(a) Pursuant to §60.46b(e), the Permittee must conduct the initial performance test for Package Boiler #1 no later than 180 days after the initial start-up.

(b) Pursuant to §60.48b(e), the Permittee must install the NOx CEM prior to the performance test.

SECTION D.5 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: **V. Refinery Area**

(a) Corn Syrup Solids Manufacturing System #2 (Unit ID 18-03-R), installed July 1992. Corn syrup solids are fed through a cooling tunnel, milled, screened, and dropped to a receiver for packing. Particulate emissions are controlled by a jet pulse dust collector (CE18-03-R) that exhausts to stack S18-03-R.

(b) Corn Syrup Spray Dryer #4 (Unit ID 100-03-R), installed April 1992. Corn syrup is fed to a dryer. The solids are sent through cyclones to a packing area. Particulate emissions are controlled by a wet scrubber (CE100-03-R) that exhausts to stack S100-03-R.

(c) Corn Syrup Spray Dryer/Cooler System #3 (Unit ID 100-01-R), installed July 1987. Corn syrup is fed to a dryer. The solids are sent through cyclones to a packing area. Particulate emissions are controlled by a wet venturi scrubber (CE100-01-R) that exhausts through stack S100-01-R.

(d) Activated Carbon Regeneration Furnace #2 (Unit ID 104-01-R), installed July 1995. Spent carbon is regenerated in this natural gas-fired furnace. Emissions are controlled by a venturi scrubber and an impingement furnace scrubber (CE104-01-R) that exhaust through stack S104-01-R.

(e) Soda Ash Tank (Unit ID 104-02-R), installed July 1995. Particulate emissions from loading this tank are controlled by a venturi scrubber (CE104-02-R) that exhausts to stack S104-02-R.

(f) Filter Aid Hopper (Unit ID 104-03-R), installed July 1995. This hopper is equipped with a jet pulse baghouse (CE104-03-R) that exhausts to stack S104-03-R.

(c) Sodium Bisulfite Bag Dump (Unit ID 104-05-R), installed July 1995. This unit is controlled by a jet pulse baghouse (CE104-05-R) that exhausts to stack S104-05-R.

(d) Diatomaceous Earth Unloading (Unit ID 104-08-R), installed November 1998. Diatomaceous earth (filter aid) is unloaded from railcar to Silo. Particulate emissions are controlled by a Bin Vent Filter (DC2312) that exhausts to stack S104-08-R.

(i) Citric Acid Dump Station (Unit ID 104-09-R), installed November 1998. Citric Acid is added during the production of corn syrup. Particulate emissions are controlled by a dust collector (CE104-09-R) that exhausts to stack S104-09-R.

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

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

D.5.1 Particulate Matter less than 10 microns in diameter (PM10) [326 IAC 6.8-2]

Pursuant to 326 IAC 6.8-2 (Lake County: PM10 Emission Requirements), formerly 326 IAC 6-1-10.1, emissions of particulate matter less than ten microns in diameter (PM10) shall be limited to the following:

	Unit ID	PM10 Limit	PM10 Limit
(a)	Corn Syrup Solids Mfg System #2 (18-03-R)	0.01	0.30
(b)	Corn Syrup Spray Dryer #4 (100-03-R)	0.01	4.2
(c)	Corn Syrup Spray Dryer/Cooler System #3 (100-01-R)	0.015	4.96
(d)	Activated Carbon Regeneration Furnace #2 (104-01-R)	0.015	0.728

	Unit ID	PM10 Limit	PM10 Limit
(e)	Soda Ash Tank (104-02-R)	0.02	0.154
(f)	Filter Aid Hopper (104-03-R)	0.02	0.044
(g)	Sodium Bisulfite Bag Dump (104-05-R)	0.02	0.080

D.5.2 Particulate Matter less than 10 microns in diameter (PM10) [326 IAC 6.8-1-2(h)]

Pursuant to CP 089-1230-00203, issued November 1998, and 326 IAC 6.8-1-2(h) (Nonattainment Area Particulate Limitations), formerly 326 IAC 6-1-2(h), emissions of particulate matter less than ten microns in diameter (PM10) shall be limited to the following:

	Unit ID	PM10 Limit	PM10 Limit
(h)	Diatomaceous Earth Unloading Silo (104-08-R)	0.01	0.064
(i)	Citric Acid Dump Station (104-09-R)	0.01	0.026

D.5.3 VOC Emissions [326 IAC 2-3] [326 IAC 8-1-6] [326 IAC 2-7-6(3)] [326 IAC 2-7-15]

The IDEM, OAQ has information that indicates that some emission units in this section are subject to the requirements of 326 IAC 2-3 (Emission Offset) and/or 326 IAC 8-1-6 (New facilities, general reduction requirements (BACT)). Therefore, the Permit Shield provided by Condition B.12 of this permit does not apply to those emission units with regards to 326 IAC 2-3 and 326 IAC 8-1-6. The IDEM, OAQ will promptly reopen this permit using the provisions of 326 IAC 2-7-9 (Permit Reopening) to include detailed requirements necessary to comply with 326 IAC 2-3 or 326 IAC 8-1-6 and a schedule for achieving compliance with such requirements.

D.5.4 VOC Emissions [326 IAC 8-7] [326 IAC 2-7-6(3)] [326 IAC 2-7-15]

The IDEM, OAQ has information that indicates that some emission units in this section are subject to the requirements of 326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark and Floyd Counties). Therefore, the Permit Shield provided by Condition B.12 of this permit does not apply to those emission units with regards to 326 IAC 8-7. On February 27, 1995, the source submitted to IDEM, OAQ a Reasonably Achievable Control Technology (RACT) plan pursuant to 326 IAC 8-7-2. A revised RACT plan was requested and submitted by the source on August 22, 2003. The IDEM, OAQ is currently reviewing the RACT plan submitted. The IDEM, OAQ will promptly reopen this permit using the provisions of 326 IAC 2-7-9 (Permit Reopening) to include detailed requirements necessary to comply with 326 IAC 8-7 and a schedule for achieving compliance with such requirements.

D.5.5 CO Emissions [326 IAC 2-2] [326 IAC 2-7-6(3)] [326 IAC 2-7-15]

The IDEM, OAQ has information that indicates that some emission units in this section are subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration). Therefore, the Permit Shield provided by Condition B.12 of this permit does not apply to those emission units with regards to 326 IAC 2-2 (PSD). The IDEM, OAQ will promptly reopen this permit using the provisions of 326 IAC 2-7-9 (Permit Reopening) to include detailed requirements necessary to comply with 326 IAC 2-2 (PSD) and a schedule for achieving compliance with such requirements.

D.5.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for each Refinery Area facility control device.

Compliance Determination Requirements

D.5.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within 36 months of the issuance of this permit, in order to demonstrate compliance with Condition D.5.1, the Permittee shall perform PM-10 testing on the following units utilizing methods as approved by the Commissioner.

(a) Corn Syrup Spray Dryer #4
(b) Corn Syrup Spray Dryer/Cooler #3

These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C-Performance Testing.

D.5.8 Particulate Matter less than 10 microns in diameter (PM10)

(a) In order to comply with D.5.1 and D.5.2, the control devices for PM10 control shall be in operation and control emissions from each facility at all times that the facility is in operation.

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

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

D.5.9 Visible Emissions Notations

(a) Visible emission notations of each Refinery Area facility stack exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.5.10 Parametric Monitoring (Dust Collectors)

The Permittee shall record the total static pressure drop across the control device used in conjunction with each Refinery Area facility as listed below, at least once per day, when the associated facility is in operation. When for any one reading, the pressure drop across the

baghouse or dust collector is outside any of the following ranges or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

	Unit ID	Control Equipment	Pressure Drop Range (inches of water)
(a)	Corn Syrup Solids Mfg System #2 (18-03-R)	Dust Collector	5 - 15
(f)	Filter Aid Hopper (104-03-R)	Dust Collector	0.1 - 6
(g)	Sodium Bisulfite Bag Dump (104-05-R)	Dust Collector	0.1 - 6
(h)	Diatomaceous Earth Unloading Silo (104-08-R)	Bin Vent Filter	0.1 - 6
(i)	Citric Acid Dump Station (Unit ID 104-09-R).	Dust Collector	0.1 - 6

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 HDEM and shall be calibrated at least once every six (6) months.

D.5.11 Parametric Monitoring (Scrubbers)

The Permittee shall record the recirculation liquid flow rate and total static pressure drop across each scrubber used in the Refinery Area, at least once per day when the associated system is in operation. When for any one reading, the pressure drop across a scrubber is outside the following ranges or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

	Unit ID	Control Equipment	Pressure Drop Range (inches of water)
(b)	Corn Syrup Spray Dryer #4 (100-03-R)	Wet Scrubber	1.0 – 8.0
(c)	Corn Syrup Spray Dryer/Cooler System #3 (100-01-R)	Wet Scrubber	0.1 - 6
(d)	Activated Carbon Regeneration Furnace #2 (104-01-R)	Wet Scrubber	TBD
(e)	Soda Ash Tank (104-02-R)	Wet Scrubber	0.25 – 0.5

D.5.12 Broken or Failed Bag Detection

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

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

D.5.13 Scrubber Failure Detection

In the event that a scrubber's failure has been observed:

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

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

D.5.14 Record Keeping Requirements

(a) To document compliance with Condition D.5.9, the Permittee shall maintain a daily record of the visible emission notations of the Refinery Area Facility 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).

(b) To document compliance with Conditions D.5.10 and D.5.11, the Permittee shall maintain a daily record of the pressure drop readings and the scrubber recirculation liquid flow rates. The Permittee shall include in its daily record when a pressure drop reading or scrubber recirculation flow rate is not taken and the reason for the lack of a pressure drop reading or scrubber recirculation flow rate (e.g. the process did not operate that day).

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.6 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: **VI. Starch Production Area**

(a) Batch Scale Hopper #1 (Unit ID 34-01-S), installed January 1991. Starch is pneumatically conveyed to a hopper. Particulate emissions are controlled by a bag filter dust collector (CE34-01-S) that exhausts to stack S34-01-S.

(b) Dextrin Starch Reactor #1 (Unit ID 34-02-S), installed January 1991. Dried cornstarch is fed to a reactor heated by steam from the plant boilers. Particulate emissions are controlled by a bag filter dust collector (CE34-02-S) that exhausts to stack S34-02-S.

(c) Dextrin Starch Cooler #1 (Unit ID 34-03-S), installed January 1991. Roasted cornstarch is fed to a cooler and transferred to a hopper for storage. Particulate emissions are controlled by a bag filter dust collector (CE34-03-S) that exhausts to stack S34-03-S.

(d) Surge Hopper #1 (Unit ID 34-05-S), installed January 1991. Starch is pneumatically conveyed to a hopper. Particulate emissions are controlled by a bag filter dust collector (CE34-05-S) that exhausts to stack S34-05-S.

(e) Dextrin Feed Hoppers #1 and #2 (System #1) (Unit IDs 34-06-S and 34-07-S), installed April 1993. Starch is gravity conveyed to these hoppers. Particulate emissions are controlled by bag filter dust collectors (CE34-06-S and CE34-07-S) that exhaust to stacks S34-06-S and S34-07-S.

(f) Batch Scale Hopper #2 (Unit ID 34B-13-S), installed October 1993. Starch is pneumatically conveyed to a hopper. Particulate emissions are controlled by a bag filter dust collector (CE34B-13-S) that exhausts to stack S34B-13-S.

(g) Dextrin Starch Reactor #2 (Unit ID 34B-04-S), installed October 1993. Dried cornstarch is fed to a reactor heated by steam from the plant boilers. Particulate emissions are controlled by a bag filter dust collector (CE34B-04-S) that exhausts to stack S34B-04-S.

(h) Dextrin Starch Cooler #2 (Unit ID 34B-01-S), installed October 1993. Roasted cornstarch is fed to a cooler and transferred to a hopper for storage. Particulate emissions are controlled by a bag filter dust collector (CE34B-01-S) that exhausts to stack S34B-01-S.

(i) Surge Hopper #2 (Unit ID 34B-03-S), installed October 1993. Starch is pneumatically conveyed to a hopper. Particulate emissions are controlled by a bag filter dust collector (CE34B-03-S) that exhausts to stack S34B-03-S.

(j) Dextrin Feed Hoppers #3 and #4 (System #2) (Unit IDs 34B-05-S and 34B-06-S), installed October 1993. Starch is gravity conveyed to these hoppers. Particulate emissions are controlled by dust collectors (CE34B-05-S and CE34B-06-S) that exhaust to stacks S34B-05-S and S34B-06-S.

(k) Dextrin Bulk Loading Equipment (Unit ID 48-09-S), installed before 1977. Starch is pneumatically conveyed to this hopper. Particulate emissions are controlled by a bag filter dust collector (CE48-09-S) that exhausts to stack S48-09-S.

(l) Starch Ring Dryer #2 (Unit ID 59-03-S), installed November 1993. Starch is fed to this natural gas-fired ring dryer. Dried starch is collected with six cyclones in series. Particulate emissions are controlled by a wet scrubber (CE59-03-S) that exhausts to stack S59-03-S.

(m) Starch Milling Systems #1 and #2 (Unit IDs 59-01-S and 59-02-S), installed July 1976. Dried cornstarch is milled and transferred to storage. Particulate emissions are controlled by bag filter dust collectors (CE59-01-S and CE59-02-S) that exhaust to stacks S59-01-S and S59-02-S.

(n) Starch Ring Dryer #3 (Unit ID 125-01-S), installed May 1980. Corn starch is fed to this natural gas-fired ring dryer. Dried starch is collected with six cyclones in series. Particulate emissions are controlled by a wet scrubber (CE125-01-S) that exhausts to stack S125-01-S.

(o) Special Starch Process with Starch Ring Dryer #4 (Unit ID 128-01-S), installed December 1993. Corn starch is fed to this natural gas-fired ring dryer. Dried starch is collected with six cyclones in series. Particulate emissions are controlled by wet scrubber (CE128-01-S) that exhausts to stack S128-01-S.

(p) Reactors #2 through 8 (Unit IDs 128-07-S through 128-13-S) installed November 1988 (2-4) and December 1991 (5-8). Corn starch and propylene oxide are reacted through Reactors 2, 3, 4, and 7 only. When propylene oxide is used in the starch reaction, VOC emissions are controlled by a thermal oxidizer that exhausts to stack S128-14-S.

(q) Sodium Sulfate Storage Bin (Unit ID 128-25-S), installed October 2000. Particulate emissions are controlled by a bin vent dust collector (FA1900) that exhausts to stack S128-25-S.

(r) Sodium Sulfate Weigh Bin (Unit ID 128-26-S), installed October 2000. Particulate emissions are controlled by a bin vent dust collector (FA1950) that exhausts to stack S128-26-S.

(s) Cornstarch Storage Bins #20 through #36 (Unit IDs 120-01-S through 120-17-S), installed July 1990. Cornstarch is pneumatically conveyed to these storage bins. Particulate emissions are controlled by bin vent dust collectors that exhaust to stacks S120-01-S through S120-17-S.

(t) Waxy Cornstarch Bulk Storage Bins #95 through #98 (Unit IDs 126-01-S through 126-04-S), replaced in January 1996. Waxy corn starch is conveyed to these bins. Particulate emissions are controlled by dust collectors (CE126-01-S through CE126-04-S) that exhaust to stacks S126-01-S through S126-04-S.

(u) Cornstarch Blending Systems #1 through #4 (Unit IDs 130-01-S through 130-04-S), installed April 1988. Corn starch is blended and moved to the warehouse for packing. Particulate emissions are controlled by bag filter dust collectors (CE130-01-S through CE130-04-S) that exhaust to stacks S130-01-S through S130-04-S.

(v) Dextrin Blender (Unit ID 130-05-S), installed October 1993. Corn starch is blended and moved to the warehouse for packing. Particulate emissions are controlled by a dust collector (CE130-05-S) that exhausts to stack S130-05-S.

(w) One (1) 28,000 gallon horizontal propylene oxide tank (Unit ID 93-18-S), installed 1988, with 95% efficient vapor recovery (liquid nitrogen condenser). This tank also provides propylene oxide for other starch processes.

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

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

D.6.1 Particulate Matter less than 10 microns in diameter (PM10) [326 IAC 6.8-2]

Pursuant to 326 IAC 6.8-2 (Lake County: PM10 Emission Requirements, formerly 326 IAC 6-1-10.1, emissions of particulate matter less than ten microns in diameter (PM10) shall be limited to the following.

	Unit ID	PM10 Limit	PM10 Limit
(a)	Batch Scale Hopper #1 (34-01-S)	0.01	0.04
(b)	Dextrin Starch Reactor #1 (34-02-S)	0.01	0.180
(c)	Dextrin Starch Cooler #1 (34-03-S)	0.01	0.042
(d)	Surge Hopper #1 (34-05-S)	0.01	0.11
(e)	Dextrin Feed Hoppers #1 and #2 (34-06-S & 34-07-S)	0.01 each	0.030 each
(f)	Batch Scale Hopper #2 (34B-13-S)	0.01	0.067
(g)	Dextrin Starch Reactor #2 (34B-04-S)	0.01	0.179
(h)	Dextrin Starch Cooler #2 (34B-01-S)	0.01	0.042
(i)	Surge Hopper #2 (34B-03-S)	0.01	0.114
(j)	Dextrin Feed Hoppers #3 and #4 (34B-05-S & 34B-06-S)	0.01 each	0.030 each
(k)	Dextrin Bulk Loading Equipment (48-09-S)	0.01	0.26
(l)	Starch Ring Dryer #2 (59-03-S)	0.006	3.50
(m)	Starch Milling Systems #1 and #2 (59-01-S and 59-02-S)	0.01 each	0.43 each
(n)	Starch Ring Dryer #3 (125-01-S)	0.006	3.50
(o)	Special Starch Process / Starch Ring Dryer #4 (128-01-S)	0.01	3.5
(s)	Cornstarch Storage Bins 20-36 (120-01-S to 120-17-S)	0.01 each	0.56 each
(t)	Waxy Cornstarch Storage Bins 95-98 (126-01-S to 126-04-S)	0.01 each	0.16 each
(u)	Cornstarch Blending Systems 1-4 (130-01-S to 130-04-S)	0.01	0.42
(v)	Dextrin Blender (130-05-S)	0.01	0.248

D.6.2 Particulate Matter less than 10 microns in diameter (PM10) [326 IAC 6.8-1-2(h)]

Pursuant to CP 089-01531-00203, issued November 1999, and 326 IAC 6.8-1-2(h) (Non-attainment Area Particulate Limitations), formerly 326 IAC 6-1-2(h), emissions of particulate matter less than ten microns in diameter (PM10) shall be limited to the following.

	Unit ID	PM10 Limit (gr/dscf)	PM10 Limit (lbs/hr)
(q)	Sodium Sulfate Storage Bin (128-25-S)	0.005	0.03
(r)	Sodium Sulfate Weigh Bin (128-26-S)	0.005	0.03

D.6.3 VOC Emissions [326 IAC 2-3] [326 IAC 8-1-6] [326 IAC 2-7-6(3)] [326 IAC 2-7-15]

The IDEM, OAQ has information that indicates that some emission units in this section are subject to the requirements of 326 IAC 2-3 (Emission Offset) and/or 326 IAC 8-1-6 (New facilities, general reduction requirements (BACT)). Therefore, the Permit Shield provided by Condition B.12 of this permit does not apply to those emission units with regards to 326 IAC 2-3 and 326 IAC 8-1-6. The IDEM, OAQ will promptly reopen this permit using the provisions of 326 IAC 2-7-9 (Permit Reopening) to include detailed requirements necessary to comply with 326 IAC 2-3 or 326 IAC 8-1-6 and a schedule for achieving compliance with such requirements.

D.6.4 VOC Emissions [326 IAC 8-7] [326 IAC 2-7-6(3)] [326 IAC 2-7-15]

The IDEM, OAQ has information that indicates that some emission units in this section are subject to the requirements of 326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark and Floyd Counties). Therefore, the Permit Shield provided by Condition B.12 of this permit does not apply to those emission units with regards to 326 IAC 8-7. On February 27, 1995, the source submitted to IDEM, OAQ a Reasonably Achievable Control Technology (RACT) plan pursuant to 326 IAC 8-7-2. A revised RACT plan was requested and submitted by the source on August 22, 2003. The IDEM, OAQ is currently reviewing the RACT plan submitted.

The IDEM, OAQ will promptly reopen this permit using the provisions of 326 IAC 2-7-9 (Permit Reopening) to include detailed requirements necessary to comply with 326 IAC 8-7 and a schedule for achieving compliance with such requirements.

D.6.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for each Starch Production Area facility control device.

Compliance Determination Requirements

D.6.6 Testing Requirements (PM10) [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within 36 months of the issuance of this permit, in order to demonstrate compliance with Condition D.6.1, the Permittee shall perform PM-10 testing on the following units utilizing methods as approved by the Commissioner.

(1) Starch Ring Dryer #2
(2) Starch Ring Dryer #3
(3) Special Starch Process w/ Starch Ring Dryer #4

These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C-Performance Testing.

D.6.7 Volatile Organic Compounds (VOC) [326 IAC 2-1.1-5] [326 IAC 8-7-9] [326 IAC 8-7-10]

The thermal oxidizer for VOC control for Reactors 2, 3, 4, and 7 shall be installed, calibrated, maintained, and operated, at a minimum, according to the manufacturer's specifications and recommendations.

D.6.8 Particulate Matter less than 10 microns in diameter (PM10)

(a) In order to comply with D.6.1 and D.6.2, the control devices for PM10 control shall be in operation and control emissions from each facility at all times that the facility is in operation.

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

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

D.6.9 Visible Emissions Notations

(a) Visible emission notations of each Starch Production Area facility stack exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.6.10 Parametric Monitoring (Dust Collectors and Scrubbers)

The Permittee shall record the total static pressure drop across the control device used in conjunction with each Starch Production Area facility as listed below, at least once per day when the associated facility is in operation. When for any one reading, the pressure drop across the baghouse or dust collector is outside any of the following ranges or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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 HDEM and shall be calibrated at least once every six (6) months.

	Unit ID	Control Equipment	Pressure Drop Range
(a)	Batch Scale Hopper #1 (34-01-S)	Dust Collector	0.1 - 6
(b)	Dextrin Starch Reactor #1 (34-02-S)	Dust Collector	0.1 - 6
(c)	Dextrin Starch Cooler #1 (34-03-S)	Dust Collector	0.1 - 6
(d)	Surge Hopper #1 (34-05-S)	Dust Collector	0.1 - 6
(e)	Dextrin Feed Hoppers #1 and #2 (34-06-S & 34-07-S)	Dust Collectors	0.1 – 6 each
(f)	Batch Scale Hopper #2 (34B-13-S)	Dust Collector	0.1 - 6
(g)	Dextrin Starch Reactor #2 (34B-04-S)	Dust Collector	0.1 - 6
(h)	Dextrin Starch Cooler #2 (34B-01-S)	Dust Collector	0.1 - 6
(i)	Surge Hopper #2 (34B-03-S),	Dust Collector	0.1 - 6
(j)	Dextrin Feed Hoppers #3 and #4 (34B-05-S & 34B-06-S)	Dust Collector	0.1 – 6 each
(k)	Dextrin Bulk Loading Equipment (48-09-S)	Dust Collector	0.1 - 6
(l)	Starch Ring Dryer #2 (59-03-S)	Wet Scrubber	1.0 – 11.0
(m)	Starch Milling Systems #1 and #2 (59-01-S and 59-02-S)	Dust Collectors	0.1 - 6 each
(n)	Starch Ring Dryer #3 (125-01-S)	Wet Scrubber	5 - 17
(o)	Special Starch Process / Starch Ring Dryer #4 (128-01-S)	Wet Scrubber	0.1 - 10
(q)	Sodium Sulfate Storage Bin (128-25-S)	Dust Collector	0.1 - 6
(r)	Sodium Sulfate Weigh Bin (128-26-S)	Dust Collector	0.1 - 6
(s)	Cornstarch Storage Bins 20-36 (120-01-S to 120-17-S)	Dust Collectors	0.1 - 6 each
(t)	Waxy Cornstarch Storage Bins 95-98 (126-01-S to 126-04-S)	Dust Collectors	0.1 - 6 each
(u)	Cornstarch Blending Systems 1-4 (130-01-S to130-04-S)	Dust Collectors	0.1 - 6 each
(v)	Dextrin Blender (130-05-S)	Dust Collector	0.1 - 6

D.6.11 Parametric Monitoring (Thermal Oxidizer) [326 IAC 2-1.1-5] [326 IAC 8-7-9] [326 IAC 8-7-10]

The thermal oxidizer for VOC control shall be in operation when propylene oxide is being added to special starch Reactors 2, 3, 4, and 7. The thermal oxidizer shall maintain a minimum operating temperature of 1300 °F and a maximum flow rate of 1000 cubic feet per minute (acfm).

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature. The flow of propylene oxide shall be automatically interrupted when that temperature falls below 1300 °F or the temperature established during the most recent compliant stack test.

(b) 100% of the vapors, when using propylene oxide in starch Reactors 2, 3, 4, and 7, shall be captured and shall pass through the Thermal Oxidizer.

(c) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the reading is outside the above-mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

D.6.12 Broken or Failed Bag Detection

In the event that bag failure has been observed:

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

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

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

D.6.13 Record Keeping Requirements

(a) To document compliance with Condition D.6.9, the Permittee shall maintain a daily record of visible emission notations of the Starch Production Area 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).

(b) To document compliance with Condition D.6.10, the Permittee shall maintain a daily record of the pressure drop readings. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(c) To document compliance with Condition D.6.11, the Permittee shall maintain a daily record of the thermal oxidizer temperature. The Permittee shall include in its daily record

when a thermal oxidizer temperature reading is not taken and the reason for the lack of thermal oxidizer temperature reading (e.g. the process did not operate that day).

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.7 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: **VII. Starch Warehouse Area**

(a) Channel 2 Receiver (Unit ID 93-32-W), installed September 2000. Particulate emissions are controlled by a filter dust collector that exhausts to stack S93-32-W.

(b) Channel 3 Receiver (Unit ID 93-33-W), installed September 2000. Particulate emissions are controlled by a filter dust collector that exhausts to stack S93-33-W.

(c) Channel 4 Receiver (Unit ID 93-34-W), installed September 2000. Particulate emissions are controlled by a filter dust collector that exhausts to stack S93-34-W.

(d) Channel 6 Receiver (Unit ID 93-35-W), installed September 2000. Particulate emissions are controlled by a filter dust collector that exhausts to stack S93-35-W.

(e) Channel 4/6 Packing (Unit ID 93-37-W), installed September 2000. Particulate emissions are controlled by a filter dust collector that exhausts to stack S93-37-W.

(f) Channel 2/3 Packing (Unit ID 93-36-W), installed September 2000. Particulate emissions are controlled by a filter dust collector that exhausts to stack S93-36-W.

(g) Central Vacuum System (Unit ID 93-38-W), installed October 2000. Particulate emissions are controlled by a filter dust collector that exhausts to stack S93-38-W.

(h) Dried Corn Syrup Conveying System (Unit ID 93-04-W), installed July 1976. Particulate emissions are controlled by a baghouse (CE93-04-W) that exhausts to stack S93-04-W.

(i) Corn Syrup Solids Conveying System (Unit ID 93-05-W), installed July 1976. Particulate emissions are controlled by a baghouse (CE93-05-W) that exhausts to stack S93-05-W.

(j) Frodex Semi-bulk Packing System (Unit ID 93-08-W), installed September 1989. Particulate emissions are controlled by a baghouse (CE93-08-W) that exhausts to stack S93-08-W.

(k) Cornstarch Bag Dumping Stations #1 and #2 (Unit IDs 93-09-W and 93-10-W), installed April 1988. Particulate emissions are controlled by bag filter dust collectors (CE93-09-W and CE93-10-W) that exhaust to stacks S93-09-W and S93-10-W.

(l) Starch Bulk Loading (Unit ID 93-14-W), installed April 1995. Particulate emissions are controlled by a baghouse (CE93-14-W) that exhausts to stack S93-14-W.

(m) Starch Bulk Loading Vacuum Cleanup System (Unit ID 93-15-W), installed February 1994. Cleanup for cornstarch spills. Particulate emissions are controlled by bag filter dust collector (CE93-15-W) that exhausts to stack S93-15-W.

(n) Starch Mixing and Bulk Bagging Systems #1 and #2 (Unit IDs 93-16-W and 93-17-W), installed August 1995. Particulate emissions are controlled by baghouses (CE93-16-W and CE93-17-W) that exhaust to stacks S93-16-W and S93-17-W.

(o) P.G. Starch Receiver (Unit ID 93-18-W), installed September 1999. Particulate emissions are controlled by dust collector (CE93-18-W) that exhausts to stack S93-18-W.

(p) P.G. Starch Packing (Unit ID 93-39-W), installed January 2000. Particulate emissions are controlled by a dust collector (CE93-39-W) that exhausts to stack S93-39-W.

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

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

D.7.1 Particulate Matter less than 10 microns in diameter (PM10) [326 IAC 6.8-1-2(h)]

Pursuant to Minor Source Modification 089-12593-00203, issued September 2000, and 326 IAC 6.8-1-2(h) (Non-attainment Area Particulate Limitations), formerly 326 IAC 6-1-2(h), emissions of particulate matter less than ten (10) microns in diameter (PM10) from the following units shall be limited to the following:

	Unit ID	PM10 Limit (gr/dscf)	PM10 Limit (lbs/hr)
(a)	Channel 2 Receiver (93-32-W)	0.005	0.10
(b)	Channel 3 Receiver (93-33-W)	0.005	0.10
(c)	Channel 4 Receiver (93-34-W)	0.005	0.10
(d)	Channel 6 Receiver (Dextrin) (93-35-W)	0.005	0.10
(e)	Channel 4/6 Packing (Dextrin)(93-37-W)	0.005	0.51
(f)	Channel 2/3 Packing (93-36-W)	0.005	0.51
(g)	Central Vacuum System (93-38-W)	0.005	0.02
(o)	P.G. Starch Receiver (93-18-W)	0.01	0.343
(p)	P.G. Starch Packing (Unit ID 93-39-W)	0.01	0.13

D.7.2 Particulate Matter less than 10 microns in diameter (PM10) [326 IAC 6.8-2]

Pursuant to 326 IAC 6.8-2 (Lake County PM10 Emission Requirements), formerly 326 IAC 6-1-10.1, emissions of particulate matter less than ten microns in diameter (PM10) from the following units shall be limited to the following:

	Unit ID	PM10 Limit (gr/dscf)	PM10 Limit (lbs/hr)
(h)	Dried Corn Syrup (Frodex) Conveying System (93-04-W)	0.01	0.069
(i)	Corn Syrup Solids Conveying System (93-05-W)	0.01	0.066
(j)	Frodex Semi-bulk Packing System (93-08-W)	0.01	0.083
(k)	Cornstarch Bag Dump Stations 1 & 2 (93-09-W and 93-10-W)	0.01 each	0.10 each
(l)	Starch Bulk Loading (93-14-W)	0.01	0.273
(m)	Starch Bulk Loading Vacuum Cleanup System (93-15-W)	0.01	0.021
(n)	Starch Mixing and Bulk Bagging System #1 (93-16-W)	0.01	0.130
(n)	Starch Mixing and Bulk Bagging System #2 (93-17-W)	0.01	0.264

D.7.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for each Starch Warehouse Area facility control device.

Compliance Determination Requirements

D.7.4 Particulate Matter less than 10 microns in diameter (PM10) [326 IAC 6.8-2]

(a) In order to comply with D.7.1 and D.7.2, the control devices for PM10 control shall be in operation and control emissions from each facility at all times that the facility is in operation.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also

include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

D.7.5 Visible Emissions Notations

(a) Visible emission notations of each Starch Warehouse Area facility stack exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.7.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across the control device used in conjunction with each Starch Warehouse Area facility as listed below, at least once per day when the associated facility is in operation. When for any one reading, the pressure drop across the baghouse or dust collector is outside any of the following ranges or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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 HDEM and shall be calibrated at least once every six (6) months.

	Unit ID	Control Equipment	Pressure Drop Range (inches of water)
(a)	Channel 2 Receiver (93-32-W)	Dust Collector	0.1 - 6
(b)	Channel 3 Receiver (93-33-W)	Dust Collector	0.1 - 6
(c)	Channel 4 Receiver (93-34-W)	Dust Collector	0.1 - 6
(d)	Channel 6 Receiver (Dextrin) (93-35-W)	Dust Collector	0.1 - 6
(e)	Channel 4/6 Packing (Dextrin) (93-37-W)	Dust Collector	0.1 - 6
(f)	Channel 2/3 Packing (93-36-W)	Dust Collector	0.1 - 6
(g)	Central Vacuum System (93-38-W)	Dust Collector	0.1 - 6
(h)	Dried Corn Syrup (Frodex) Conveying System (93-04-W)	Dust Collector	0.1 - 6
(i)	Corn Syrup Solids Conveying System (93-05-W)	Dust Collector	0.1 - 6
(j)	Frodex Semi-bulk Packing System (93-08-W)	Dust Collector	0.1 - 6
(k)	Cornstarch Bag Dump Stations 1 & 2 (93-09-W and 93-10-W)	Dust Collectors	0.1 - 6 each

	Unit ID	Control Equipment	Pressure Drop Range (inches of water)
(l)	Starch Bulk Loading (93-14-W)	Dust Collector	0.1 - 6
(m)	Starch Bulk Loading Vacuum Cleanup System (93-15-W)	Dust Collector	0.1 - 6
(n)	Starch Mix and Bulk Bag Systems 1 & 2 (93-16-W and 93-17-W)	Dust Collectors	0.1 - 6 each
(o)	P.G. Starch Receiver (93-18-W)	Dust Collector	0.1 - 6
(p)	P.G. Starch Packing (Unit ID 93-39-W)	Dust Collector	0.1 - 6

D.7.7 Broken or Failed Bag Detection

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

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

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

D.7.8 Record Keeping Requirements

(a) To document compliance with Condition D.7.5, the Permittee shall maintain a daily record of the visible emission notations of the Starch Warehouse 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).

(b) To document compliance with Condition D.7.6, the Permittee shall maintain a daily record of the pressure drop readings. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
and
HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

PART 70 OPERATING PERMIT
CERTIFICATION

Source Name:	Cargill, Inc.
Source Address:	1100 Indianapolis Boulevard Hammond, Indiana 46320
Mailing Address:	1100 Indianapolis Boulevard Hammond, Indiana 46320-1094
Part 70 Permit No.:	T089-7994-00203

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 BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865

and

HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

5925 Calumet Avenue
Hammond, Indiana 46320

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name:	Cargill, Inc.
Source Address:	1100 Indianapolis Boulevard Hammond, Indiana 46320
Mailing Address:	1100 Indianapolis Boulevard Hammond, Indiana 46320-1094
Part 70 Permit No.:	T089-7994-00203

This form consists of 2 pages **Page 1 of 2**

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

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

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

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

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

Form Completed By: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
and
HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

PART 70 OPERATING PERMIT
QUARTERLY NATURAL GAS FIRED BOILER CERTIFICATION

Source Name:	Cargill, Inc.
Source Address:	1100 Indianapolis Boulevard Hammond, Indiana 46320
Mailing Address:	1100 Indianapolis Boulevard Hammond, Indiana 46320-1094
Part 70 Permit No.:	T089-7994-00203

__ Natural Gas Only
__ Alternate Fuel burned

From: _____ To: _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
Signature:
Printed Name:
Title/Position:
Phone:
Date:

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
and
HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Cargill, Inc.
Source Address: 1100 Indianapolis Boulevard
Hammond, Indiana 46320
Mailing Address: 1100 Indianapolis Boulevard
Hammond, Indiana 46320-1094
Part 70 Permit No.: T089-7994-00203

Months: _____ to _____ Year: _____

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".	
__ 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:	

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: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Attachment A

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

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

§ 60.40b Applicability and delegation of authority.

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

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

(1) Coal-fired affected facilities having a heat input capacity between 29 and 73 MW (100 and 250 MMBtu/hr), inclusive, are subject to the particulate matter (PM) and nitrogen oxides (NO_X) standards under this subpart.

(2) Coal-fired affected facilities having a heat input capacity greater than 73 MW (250 MMBtu/hr) and meeting the applicability requirements under subpart D (Standards of performance for fossil-fuel-fired steam generators; §60.40) are subject to the PM and NO_Xstandards under this subpart and to the sulfur dioxide (SO_2) standards under subpart D (§60.43).

(3) Oil-fired affected facilities having a heat input capacity between 29 and 73 MW (100 and 250 MMBtu/hr), inclusive, are subject to the NO_Xstandards under this subpart.

(4) Oil-fired affected facilities having a heat input capacity greater than 73 MW (250 MMBtu/hr) and meeting the applicability requirements under subpart D (Standards of performance for fossil-fuel-fired steam generators; §60.40) are also subject to the NO_Xstandards under this subpart and the PM and SO_2standards under subpart D (§60.42 and §60.43).

(c) Affected facilities that also meet the applicability requirements under subpart J (Standards of performance for petroleum refineries; §60.104) are subject to the PM and NO_Xstandards under this subpart and the SO_2standards under subpart J (§60.104).

(d) Affected facilities that also meet the applicability requirements under subpart E (Standards of performance for incinerators; §60.50) are subject to the $NO_X$and PM standards under this subpart.

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

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

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

(1) Section 60.44b(f).

(2) Section 60.44b(g).

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

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

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

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

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

§ 60.41b Definitions.

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

Annual capacity factor means the ratio between the actual heat input to a steam generating unit from the fuels listed in §60.42b(a), §60.43b(a), or §60.44b(a), as applicable, during a calendar year and the potential heat input to the steam generating unit had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility in a calendar year.

Byproduct/waste means any liquid or gaseous substance produced at chemical manufacturing plants, petroleum refineries, or pulp and paper mills (except natural gas, distillate oil, or residual oil) and combusted in a steam generating unit for heat recovery or for disposal. Gaseous substances with carbon dioxide (CO_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, coal-oil mixtures, coke oven gas, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

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

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

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

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

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

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

Dry flue gas desulfurization technology means a SO_2control system that is located downstream of the steam generating unit and removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline reagent and water, whether introduced separately or as a premixed slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline slurries or solutions used in dry flue gas desulfurization technology include but are not limited to lime and sodium.

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

Emerging technology means any SO_2control system that is not defined as a conventional technology under this section, and for which the owner or operator of the facility has applied to the Administrator and received approval to operate as an emerging technology under §60.49b(a)(4).

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

Fluidized bed combustion technology means combustion of fuel in a bed or series of beds (including but not limited to bubbling bed units and circulating bed units) of limestone aggregate (or other sorbent materials) in which these materials are forced upward by the flow of combustion air and the gaseous products of combustion.

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

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

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

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

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

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

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

High heat release rate means a heat release rate greater than 730,000 J/sec-m^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).

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

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

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

Potential sulfur dioxide emission rate means the theoretical SO_2emissions (nanograms per joule (ng/J) or lb/MMBtu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

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

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

Pulverized coal-fired steam generating unit means a steam generating unit in which pulverized coal is introduced into an air stream that carries the coal to the combustion chamber of the steam generating unit where it is fired in suspension. This includes both conventional pulverized coal-fired and micropulverized

coal-fired steam generating units. Residual oil means crude oil, fuel oil numbers 1 and 2 that have a nitrogen content greater than 0.05 weight percent, and all fuel oil numbers 4, 5 and 6, as defined by the American Society of Testing and Materials in ASTM D396 (incorporated by reference, see §60.17).

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

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

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

Very low sulfur oil means for units constructed, reconstructed, or modified on or before February 28, 2005, an oil that contains no more than 0.5 weight percent sulfur or that, when combusted without SO_2emission control, has a SO_2emission rate equal to or less than 215 ng/J (0.5 lb/MMBtu) heat input. For units constructed, reconstructed, or modified after February 28, 2005, *very low sulfur oil* means an oil that contains no more than 0.3 weight percent sulfur or that, when combusted without SO_2emission control, has a SO_2emission rate equal to or less than 140 ng/J (0.32 lb/MMBtu) heat input.

Wet flue gas desulfurization technology means a SO_2control system that is located downstream of the steam generating unit and removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gas with an alkaline slurry or solution and forming a liquid material. This definition applies to devices where the aqueous liquid material product of this contact is subsequently converted to other forms. Alkaline reagents used in wet flue gas desulfurization technology include, but are not limited to, lime, limestone, and sodium.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of PM or SO_2.

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

§ 60.42b Standard for sulfur dioxide (SO2).

(a) Except as provided in paragraphs (b), (c), (d), or (k) of this section, on and after the date on which the performance test is completed or required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts coal or oil shall cause to be discharged into the atmosphere any gases that contain SO_2in excess of 87 ng/J (0.20 lb/MMBtu) or 10 percent (0.10) of the potential SO_2emission rate (90 percent reduction) and the emission limit determined according to the following formula:

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

Where:

E_s= SO_2emission limit, in ng/J or lb/MMBtu heat input;

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

K_b= 340 ng/J (or 0.80 lb/MMBtu);

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

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

Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels or heat derived from exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

(b) On and after the date on which the performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts coal refuse alone in a fluidized bed combustion steam generating unit shall cause to be discharged into the atmosphere any gases that contain SO_2in excess of 87 ng/J (0.20 lb/MMBtu) or 20 percent (0.20) of the potential SO_2emission rate (80 percent reduction) and 520 ng/J (1.2 lb/MMBtu) heat input. If coal or oil is fired with coal refuse, the affected facility is subject to paragraph (a) or (d) of this section, as applicable.

(c) On and after the date on which the performance test is completed or is required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that combusts coal or oil, either alone or in combination with any other fuel, and that uses an emerging technology for the control of SO_2emissions, shall cause to be discharged into the atmosphere any gases that contain SO_2in excess of 50 percent of the potential SO_2emission rate (50 percent reduction) and that contain SO_2in excess of the emission limit determined according to the following formula:

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

Where:

E_s= SO_2emission limit, in ng/J or lb/MM Btu heat input;

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

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

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

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

Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels, or from the heat input derived from exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

(d) On and after the date on which the performance test is completed or required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005 and listed in paragraphs (d)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere any gases that contain SO_2in excess of 520 ng/J (1.2 lb/MMBtu) heat input if the affected facility combusts coal, or 215 ng/J (0.5 lb/MMBtu) heat input if the affected facility combusts oil other than very low sulfur oil. Percent reduction requirements are not applicable to affected facilities under paragraphs (d)(1), (2), (3) or (4) of this section.

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

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

(3) Affected facilities combusting coal or oil, alone or in combination with any fuel, in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat entering the steam generating unit is from combustion of coal and oil in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from the exhaust gases entering the duct burner; or

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

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

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

(g) Except as provided in paragraph (i) of this section and §60.45b(a), the SO_2emission limits and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(h) Reductions in the potential SO_2emission rate through fuel pretreatment are not credited toward the percent reduction requirement under paragraph (c) of this section unless:

(1) Fuel pretreatment results in a 50 percent or greater reduction in potential SO_2emissions and

(2) Emissions from the pretreated fuel (without combustion or post-combustion SO_2control) are equal to or less than the emission limits specified in paragraph (c) of this section.

(i) An affected facility subject to paragraph (a), (b), or (c) of this section may combust very low sulfur oil or natural gas when the SO_2control system is not being operated because of malfunction or maintenance of the SO_2control system.

(j) Percent reduction requirements are not applicable to affected facilities combusting only very low sulfur oil. The owner or operator of an affected facility combusting very low sulfur oil shall demonstrate that the oil meets the definition of very low sulfur oil by: (1) Following the performance testing procedures as described in §60.45b(c) or §60.45b(d), and following the monitoring procedures as described in §60.47b(a) or §60.47b(b) to determine SO_2emission rate or fuel oil sulfur content; or (2) maintaining fuel records as described in §60.49b(r).

(k)(1) Except as provided in paragraphs (k)(2), (k)(3), and (k)(4) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, natural gas, a mixture of these fuels, or a mixture of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that contain SO_2in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 8 percent (0.08) of the potential SO_2emission rate (92 percent reduction) and 520 ng/J (1.2 lb/MMBtu) heat input.

(2) Units firing only very low sulfur oil and/or a mixture of gaseous fuels with a potential SO_2emission rate of 140 ng/J (0.32 lb/MMBtu) heat input or less are exempt from the SO_2emissions limit in paragraph 60.42b(k)(1).

(3) Units that are located in a noncontinental area and that combust coal or oil shall not discharge any gases that contain SO_2in excess of 520 ng/J (1.2 lb/MMBtu) heat input if the affected facility combusts coal, or 215 ng/J (0.50 lb/MMBtu) heat input if the affected facility combusts oil.

(4) As an alternative to meeting the requirements under paragraph (k)(1) of this section, modified facilities that combust coal or a mixture of coal with other fuels shall not cause to be discharged into the atmosphere any gases that contain SO_2in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO_2emission rate (90 percent reduction) and 520 ng/J (1.2 lb/MMBtu) heat input.

§ 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.

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

(h)(1) Except as provided in paragraphs (h)(2), (h)(3), (h)(4), and (h)(5) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 13 ng/J (0.030 lb/MMBtu) heat input,

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

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

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

(3) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005, and that combusts over 30 percent wood (by heat input) on an annual basis and has a maximum heat input capacity of 73 MW (250 MMBtu/h) or less shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 43 ng/J (0.10 lb/MMBtu) heat input.

(4) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005, and that combusts over 30 percent wood (by heat input) on an annual basis and has a maximum heat input capacity greater than 73 MW (250 MMBtu/h) shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 37 ng/J (0.085 lb/MMBtu) heat input.

(5) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, an owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.3 weight percent sulfur, coke oven gas, a mixture of these fuels, or either fuel (or a mixture of these fuels) in combination with other fuels not subject to a PM standard under §60.43b and not using a post-combustion technology (except a wet scrubber) to reduce SO_2or PM emissions is not subject to the PM limits under §60.43b(h)(1).

§ 60.44b Standard for nitrogen oxides (NOX).

(a) Except as provided under paragraphs (k) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that is subject to the provisions of this section and that combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO_X(expressed as NO_2) in excess of the following emission limits:

Fuel/steam generating unit type	Nitrogen oxide emission limits (expressed as NO_2) heat input	
	ng/J	lb/MMBTu
(1) Natural gas and distillate oil, except (4):		
(i) Low heat release rate	43	0.10
(ii) High heat release rate	86	0.20
(2) Residual oil:		
(i) Low heat release rate	130	0.30
(ii) High heat release rate	170	0.40
(3) Coal:		

(i) Mass-feed stoker	210	0.50
(ii) Spreader stoker and fluidized bed combustion	260	0.60
(iii) Pulverized coal	300	0.70
(iv) Lignite, except (v)	260	0.60
(v) Lignite mined in North Dakota, South Dakota, or Montana and combusted in a slag tap furnace	340	0.80
(vi) Coal-derived synthetic fuels	210	0.50
(4) Duct burner used in a combined cycle system:		
(i) Natural gas and distillate oil	86	0.20
(ii) Residual oil	170	0.40

(b) Except as provided under paragraphs (k) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts mixtures of coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO_Xin 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 (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts coal or oil, or a mixture of these fuels with natural gas, and wood, municipal-type solid waste, or any other fuel shall cause to be discharged into the atmosphere any gases that contain NO_Xin excess of the emission limit for the coal or oil, or mixtures of these fuels with natural gas combusted in the affected facility, as determined pursuant to paragraph (a) or (b) of this section, unless the affected facility has an annual capacity factor for coal or oil, or mixture of these fuels with natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, or a mixture of these fuels with natural gas.

(d) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that simultaneously

combusts natural gas with wood, municipal-type solid waste, or other solid fuel, except coal, shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO_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 of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less for natural gas.

(e) Except as provided under paragraph (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts coal, oil, or natural gas with byproduct/waste shall cause to be discharged into the atmosphere any gases that contain NO_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:

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

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, distillate oil and gaseous byproduct/waste, J (MMBtu);

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

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

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

H_c= Heat input from combustion of coal, J (MMBtu).

(f) Any owner or operator of an affected facility that combusts byproduct/waste with either natural gas or oil may petition the Administrator within 180 days of the initial startup of the affected facility to establish a NO_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 comes first, no owner or operator of an affected facility that commenced

construction or reconstruction after July 9, 1997 shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO_X (expressed as NO_2) in excess of the following limits:

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

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

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

Where:

E_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.

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

(a) The SO_2 emission standards under §60.42b apply at all times. Facilities burning coke oven gas alone or in combination with any other gaseous fuels or distillate oil and complying with the fuel based limit under §60.42b(d) or §60.42b(k)(2) are allowed to exceed the limit 30 operating days per calendar year for by-product plant maintenance.

(b) In conducting the performance tests required under §60.8, the owner or operator shall use the methods and procedures in appendix A (including fuel certification and sampling) of this part or the methods and procedures as specified in this section, except as provided in §60.8(b). Section 60.8(f) does not apply to this section. The 30-day notice required in §60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.

(c) The owner or operator of an affected facility shall conduct performance tests to determine compliance with the percent of potential SO_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 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 continuous emission monitoring system (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 (E_{ao}^o). The Eho° is computed using the following formula:

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

Where:

E_{ho}^o = Adjusted hourly SO_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 E_{ao}^o from paragraph (b)(3)(i) of this section and an adjusted average SO_2 inlet rate (E_{ai}^o) using the following formula:

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

To compute E_{ai}^o , an adjusted hourly SO_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 hourly SO_2 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 (b)(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 under paragraph (b)(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 under Method 19 of appendix A of this part.

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

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

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

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

(f) For the initial performance test required under §60.8, compliance with the SO_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 combusts very low sulfur oil is not subject to the compliance and performance testing requirements of this section if the owner or operator obtains fuel receipts as described in §60.49b(r).

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

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

(a) The PM emission standards and opacity limits under §60.43b apply at all times except during periods of startup, shutdown, or malfunction. The NO_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 3B of appendix A of this part is used for gas analysis when applying Method 5 or 17 of appendix A of this part.

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

(i) Method 5 of appendix A of this part shall be used at affected facilities without wet flue gas desulfurization (FGD) systems; and

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

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

(3) Method 1 of appendix A of this part is used to select the sampling site and the number of traverse sampling points. The sampling time for each run is at least 120 minutes and the minimum sampling volume

is 1.7 dscm (60 dscf) except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

(4) For Method 5 of appendix A of this part, the temperature of the sample gas in the probe and filter holder is monitored and is maintained at 160±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 under §60.8, whichever date comes first, the owner or operator of an affected facility which combusts coal or which combusts residual oil having a nitrogen content greater than 0.30 weight percent shall determine compliance with the NO_X emission standards under §60.44b on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO_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, or residual oil having a nitrogen content of 0.30 weight percent or less shall upon request determine compliance with the NO_X standards under §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 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 under paragraph §60.43b(h)(5) shall follow the applicable procedures under §60.49b(r).

(j) In place of PM testing with EPA Reference Method 5, 5B, or 17 of appendix A of this part, an owner or operator may elect to install, calibrate, maintain, and operate a CEMS for monitoring PM emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor PM emissions instead of conducting performance testing using EPA Method 5, 5B, or 17 of appendix A of this part shall comply with the requirements specified in paragraphs (j)(1) through (j)(13) of this section.

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

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

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

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

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

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

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

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

(ii) [Reserved]

(8) The 1-hour arithmetic averages required under paragraph (j)(7) of this section shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the boiler operating day daily arithmetic average

emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under §60.13(e)(2) of subpart A of this part.

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

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

(11) During the correlation testing runs of the CEMS required by Performance Specification 11 in appendix B of this part, PM and O_2(or CO_2) data shall be collected concurrently (or within a 30-to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (j)(7)(i) of this section.

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

(ii) For O_2(or CO_2), EPA reference Method 3, 3A, or 3B of appendix A of this part, as applicable shall be used.

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

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

§ 60.47b Emission monitoring for sulfur dioxide.

(a) Except as provided in paragraphs (b), (f), and (h) of this section, the owner or operator of an affected facility subject to the SO_2 standards under §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 less than 100 ppm, the daily calibration error test and calibration adjustment procedures described in sections 2.1.1 and 2.1.3 of

appendix B to part 75 of this chapter may be followed instead of the CD assessment procedures in Procedure 1, section 4.1 of appendix F to this part. If this option is selected, the data validation and out-of-control provisions in sections 2.1.4 and 2.1.5 of appendix B to part 75 of this chapter shall be followed instead of the excessive CD and out-of-control criteria in Procedure 1, section 4.3 of appendix F to this part. For the purposes of data validation under this subpart, the excessive CD and out-of-control criteria in Procedure 1, section 4.3 of appendix F to this part shall apply to SO_2 and NO_X span values less than 100 ppm;

(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).

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

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

(b) Except as provided under paragraphs (g), (h), and (i) of this section, the owner or operator of an affected facility subject to a NO_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 continuous monitoring system for measuring opacity shall be between 60 and 80 percent.

(2) For affected facilities combusting coal, oil, or natural gas, the span value for NO_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, 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 of §60.44b(a)(4) 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), or (5) of this section is not required to install or operate a COMS for measuring opacity if:

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

(2) The affected facility burns only liquid (excluding residual oil) or gaseous fuels with potential SO_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.

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

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

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

(C) At a minimum, valid 1-hour CO emissions averages must be obtained for at least 90 percent of the operating hours on a 30-day rolling average basis. At least two data points per hour must be used to calculate each 1-hour average.

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

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

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

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

(5) The affected facility burns only gaseous fuels or fuel oils that contain less than or equal to 0.30 weight percent sulfur and operates according to a written site-specific monitoring plan approved by the appropriate delegated permitting authority. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard.

(k) Owners or operators complying with the PM emission limit by using a PM CEMS monitor instead of monitoring opacity must calibrate, maintain, and operate a CEMS, and record the output of the system, for PM emissions discharged to the atmosphere as specified in §60.46b(j). The CEMS specified in paragraph §60.46b(j) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

§ 60.49b Reporting and recordkeeping requirements.

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

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

(2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §§60.42b(d)(1), 60.43b(a)(2), (a)(3)(iii), (c)(2)(ii), (d)(2)(iii), 60.44b(c), (d), (e), (i), (j), (k), 60.45b(d), (g), 60.46b(h), or 60.48b(i);

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

(4) Notification that an emerging technology will be used for controlling emissions of SO_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 of §60.44b who seeks to demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions under the provisions of §60.48b(g)(2) shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored under §60.48b(g)(2) and the records to be maintained

under §60.49b(j). This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected facility. If the plan is approved, the owner or operator shall maintain records of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan. The plan shall:

(1) Identify the specific operating conditions to be monitored and the relationship between these operating conditions and NO_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(j).

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

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

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

(g) Except as provided under paragraph (p) of this section, the owner or operator of an affected facility subject to the NO_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 under §60.43b(e) or to the operating parameter monitoring requirements under §60.13(i)(1).

(2) Any affected facility that is subject to the NO_X standard of §60.44b, and that:

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

(ii) Has a heat input capacity of 73 MW (250 MMBtu/hr) or less and is required to monitor NO_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;

(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 under §60.42(b) for which the minimum amount of data required under §60.47b(f) were not obtained during the reporting period, the following information is reported to the Administrator in addition to that required under paragraph (k) of this section:

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

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

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

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

(n) If a percent removal efficiency by fuel pretreatment (*i.e.* , $\%R_f$) 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 under §60.42b(j)(2) or §60.42b(k)(2) shall obtain and maintain at the affected facility fuel receipts from the fuel supplier that certify that the oil meets the definition of distillate oil as defined in §60.41b and the applicable sulfur limit. For the purposes of this section, the distillate oil need not meet the fuel nitrogen content specification in the definition of distillate oil. Reports shall be submitted to the Administrator certifying that only very low sulfur oil meeting this definition and/or pipeline quality natural gas was combusted in the affected facility during the reporting period; or

(2) The owner or operator of an affected facility who elects to demonstrate compliance based on fuel analysis in §60.42b or §60.43b shall develop and submit a site-specific fuel analysis plan to the Administrator for review and approval no later than 60 days before the date you intend to demonstrate compliance. Each fuel analysis plan shall include a minimum initial requirement of weekly testing and each analysis report shall contain, at a minimum, the following information:

(i) The potential sulfur emissions rate of the representative fuel mixture in ng/J heat input;

(ii) The method used to determine the potential sulfur emissions rate of each constituent of the mixture. For distillate oil and natural gas a fuel receipt or tariff sheet is acceptable;

(iii) The ratio of different fuels in the mixture; and

(iv) The owner or operator can petition the Administrator to approve monthly or quarterly sampling in place of weekly sampling.

(s) Facility specific NO_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.

Indiana Department of Environmental Management
Office of Air Quality
and Hammond Department of Environmental Management
Air Pollution Control Division

Technical Support Document (TSD) for a Part 70 Significant Source and Significant Permit Modification

Source Description and Location

Source Name:	Cargill, Inc.
Source Location:	1100 Indianapolis Blvd., Hammond, IN 46320
County:	Lake
SIC Code:	2046
Operation Permit No.:	T089-7994-00203
Operation Permit Issuance Date:	June 28, 2004
Significant Source Modification No.:	089-25241-00203
Significant Permit Modification No.:	089-25259-00203
Permit Reviewer:	Kristen Layton

Existing Approvals

The source was issued Part 70 Operating Permit No. T089-7994-00203 on June 28, 2004. The source has since received the following approvals:

Permit Type	Permit Number	Issuance Date
Administrative Amendment	089-19797-00203	November 17, 2004
Administrative Amendment	089-20933-00203	April 1, 2005
Administrative Amendment	089-21610-00203	August 22, 2005
Significant Source Modification	089-22309-00203	September 6, 2006
Significant Permit Modification	089-22333-00203	October 24, 2006
Administrative Amendment	089-23792-00203	November 14, 2006
Administrative Amendment	089-24595-00203	May 23,2007

County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM_{10}	Attainment
$PM_{2.5}$	Basic nonattainment
SO_2	Attainment
NO_2	Attainment
8-hour Ozone	Moderate nonattainment
CO	Attainment
Lead	Attainment

(a) 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.

(1) On December 22, 2006 the United States Court of Appeals, District of Columbia issued a decision which served to partially vacate and remand the U.S. EPA's final rule for implementation of the eight-hour National Ambient Air quality Standard for ozone. *South Coast Air Quality Mgmt. Dist. v. EPA*, 472 F.3d 882 (D.C. Cir., December 22, 2006), *rehearing denied* 2007 U.S. App. LEXIS 13748 (D.C. Cir., June 8, 2007). The U.S. EPA has instructed IDEM to issue permits in accordance with its interpretation of the *South Coast* decision as follows: Gary-Lake-Porter County was previously designated as a severe non-attainment area prior to revocation of the one-hour ozone standard, therefore, pursuant to the anti-backsliding provisions of the Clean Air Act, any new or existing source must be subject to the major source applicability cut-offs and offset ratios under the area's previous one-hour standard designation. This means that a source must achieve the Lowest Achievable Emission Rate (LAER) if it exceeds 25 tons per year of VOC emissions and must offset any increase in VOC emissions by a decrease of 1.3 times that amount.

On January 26, 1996 in 40 CFR 52.777(i), the U.S. EPA granted a waiver of the requirements of Section 182(f) of the CAA for Lake and Porter Counties, including the lower NOx threshold for nonattainment new source review. Therefore, VOC emissions alone are considered when evaluating the rule applicability relating to the 1-hour ozone standards. Therefore, VOC emissions were reviewed pursuant to the requirements for nonattainment new source review. See the State Rule Applicability for the source section.

(2) VOC and NOx emissions are considered when evaluating the rule applicability relating to the 8-hour ozone standard. Lake County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability – Entire Source section.

(b) U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Lake County as nonattainment for $PM_{2.5}$. On March 7, 2005 the Indiana Attorney General's Office, on behalf of IDEM, filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's guidance to regulate PM_{10} emissions as a surrogate for $PM_{2.5}$ emissions pursuant to the requirements of Non-attainment New Source Review.

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

(d) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

(e) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

Source Status

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Pollutant	**Emissions** (ton/yr)
PM	Greater than 100
PM_{10}	Greater than 100
SO_2	Greater than 100
VOC	Greater than 100
CO	Greater than 250
NO_X	Greater than 250

(a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

(b) This existing source is a major stationary source, under Emission Offset (326 IAC 2-3), because VOC, a nonattainment regulated pollutant, is emitted at a rate of twenty-five tons per year or more.

(c) This existing source is a major stationary source, under nonattainment new source review rules (326 IAC 2-1.1-5) since PM10 (a surrogate for PM2.5) is emitted at a rate of 100 tons per year or more.

(c) These emissions are based upon the Technical Support Document for Administrative Amendment No. 089-24595-00203.

The table below summarizes the potential to emit HAPs for the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

HAPs	**Potential To Emit** (ton/yr)
Propylene oxide	Greater than 10
Hydrochloric Acid	Less than 10
Toluene	Less than 10
Formaldehyde	Less than 10
Acetaldehyde	Less than 10
Total	Greater than 25

This existing source is a major source of HAPs, as defined in 40 CFR 63.41, because HAP emissions are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2006 OAQ emission data.

Pollutant	**Actual Emissions** (ton/yr)
PM	Not Reported
PM_{10}	104
SO_2	61
VOC	127
CO	137
NO_X	133
Total HAPs	Not reported

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Cargill, Inc. on September 4, 2007, relating to the following changes in process operation and the construction and operation of new units. The following is a list of the proposed modifications:

(1) The following units have been removed from the grind and feedhouse area at the facility:

(a) First Stage Germ Dryer Receiver (Unit ID 21A-01-G), installed May 1978. Corn germ is pneumatically transferred to a germ dryer. Particulate emissions are controlled by a cyclone (CE21A-01-G) that exhausts to stack S21A-01-G.

(b) First Stage Germ Dryer (Unit ID 21A-02-G), installed May 1978. Corn germ is fed to this dryer heated with steam from plant boilers. Particulate emissions are controlled by a cyclone and wet roto-clone in series (CE21A-02-G) that exhaust to stack S21A-02-G.

(c) Second Stage Germ Dryer Receiver (Unit ID 51A-01-G), installed May 1978. Corn germ from the first stage dryer is pneumatically conveyed to the second stage dryer. Particulate emissions are controlled by a cyclone (CE51A-01-G) that exhausts to stack S51A-01-G.

(d) Second Stage Germ Dryer (Unit ID 51A-02-G), installed October 1995. Corn germ is fed to this dryer heated by steam from plant boilers. Particulate emissions are controlled by a cyclone and wet scrubber in series (CE51A-02-G) that exhausts to stack S51A-02-G.

(e) Rotary Feed Dryer (Unit ID 89-03-G), installed October 1995. Wet feed is fed to this natural and bio gas-fired dryer. Particulate emissions are controlled by four (4) recirculating cyclones. VOC emissions are controlled by thermal oxidizer (CE89-03-TO) that normally exhausts to the Fiber Dryer Furnace but can exhaust to its own stack S89-03-G.

(f) Corn Screenings to Grind 1 Feed Transfer (Unit ID 89-05-G), installed July 2000. Particulate emissions are controlled by a dust collector (CE89-05-G) that exhausts to stack S89-05-G.

(g) Waxy Feed Drum Dryer (Unit ID 124-01-G), installed March 1980. Waxy corn fiber is fed to a rotary drum dryer. Particulate emissions are controlled by a wet scrubber (CE124-01-G) that exhausts to stack S124-01-G.

(h) Germ Storage Silo (Unit ID 121-14-G), installed May 1996. Corn germ is pneumatically conveyed to this storage silo. Particulate emissions are controlled by a dust collector (CE121-14-G) that exhausts to stack S121-14-G.

(i) Waxy Feed Mill Equipment (Unit ID 124-22-G), installed July 1976. Waxy corn fiber is milled and fed to a hopper equipped with a Flex-Kleen Bag Filter Collector (CE124-22-G). This system exhausts to stack S124-22-G.

(j) Corn Screenings to Grind 2 Feed Transfer (Unit ID 124-23-G), installed July 2000. Particulate emissions are controlled by a dust collector (CE124-23-G) that exhausts to stack S124-23-G.

(k) Loose Feed Bin (Unit ID 201-05-G), installed October 2000. Particulate emissions are controlled by a bin vent (CE201-05-G) that exhausts to stack S201-05-G.

(l) Hammermill #1 (Unit ID 201-01-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE201-01-G) that exhausts to stack S201-01-G.

(m) Hammermill #2 (Unit ID 201-02-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE201-02-G) that exhausts to stack S201-02-G.

(n) Pellet Cooler #1 (Unit ID 201-03-G), installed October 2000. Particulate emissions are controlled by a cyclone (CE201-03-G) that exhausts to stack S201-03-G.

(o) Pellet Cooler #2 (Unit ID 201-04-G), installed October 2000. Particulate emissions are controlled by a cyclone (CE201-04-G) that exhausts to stack S201-04-G.

(p) Central Vacuum Pelletizing (Unit ID 201-06-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE201-06-G) that exhausts to stack S201-06-G.

(2) The Beta Cyclodextrin (BCD) Area will now be used as an Alternate Carbohydrate Area. The following units will not be modified, but will be used for the new material and repurposed as follows:

(a) ~~BCD Mill Feed Hopper (Unit ID 127-25-B)~~ **Alternate Carbohydrate Mill Feed Hopper (Unit 127-30-B)**, installed May 1993 **and repurposed in 2008**. Particulate emissions are controlled by dust collector ~~(CE127-25-B)~~ **(CE127-30-B)** that exhausts to stack ~~S127-25-B~~ **S127-30-B**.

(b) No. 1 and No. 2 **Alternate Carbohydrate Storage Bins (Unit ID 127-28-B and 127-29-B),** ~~BCD Storage Hoppers (Unit ID 127-23-B and 127-24-B),~~ installed in May 1993 **and repurposed in 2008**. **Carbohydrate** ~~BCD~~ is pneumatically conveyed to these hoppers equipped with bag filter dust collectors **(CE127-28-B and CE127-29-B)** that exhaust to stacks ~~S127-23-B and S127-24-B~~ **S127-28-B and S127-29-B**.

(3) The following is a list of proposed emission units and pollution control devices:

(a) No. 2 Gluten Dryer (Unit ID 121A-01-G), approved for construction in 2008. Gluten meal is fed to a 17 MMBtu/hr natural and bio gas-fired ring dryer at a maximum throughput of 19,700 lb/hr. Particulate emissions are controlled by two (2) wet scrubbers operating in series, one venturi-type followed by one tray-type scrubber (collectively identified as Unit ID CE121A-01-G) that exhausts to stack S121A-01-G.

(b) One (1) Germ Dryer/Cooler (Unit ID 203-01-G), approved for construction in 2008. Corn germ is fed to a 30 MMBtu/hr natural and bio gas-fired germ dryer and cooler at a maximum throughput of 38,600 lb/hr. Particulate emissions are controlled by one (1) wet scrubber (Unit ID CE203-01-G) that exhausts to stack S203-01-G.

(c) No. 1 Bran Bunker (Unit ID 89-06-G), approved for construction in 2008, with a maximum throughput rate of 107,433 tons per year, using a bin vent filter (Unit ID CE089-06-G) with an outlet grain loading of 0.01 gr/dscf as control, and exhausting to stack S89-06-G.

(d) No. 2 Bran Bunker (Unit ID 89-07-G), approved for construction in 2008, with a maximum throughput rate of 107,433 tons per year, using a bin vent filter (Unit ID CE89-07-G) with an outlet grain loading of 0.01 gr/dscf as control, and exhausting to stack S89-07-G.

(d) One (1) Bran Conveyor System (Unit ID 89-08-G), approved for construction in 2008, with a maximum throughput rate of 107,433 tons per year, using existing scrubber CE89-01-G (constructed in 1995) as control, and exhausting to stack S89-01-G.

(e) One (1) Bran Preweigh Hopper (Unit ID 89-09-G), approved for construction in 2008, with a maximum throughput rate of 107,433 tons per year, using a bin vent filter (Unit ID CE89-09-G) with an outlet grain loading of 0.01 gr/dscf as control, and exhausting to stack S89-09-G.

(4) The Germ Dryer/Cooler (Unit ID 124A-01-G), installed November 1994 will be shutdown and removed from the source within 180 days of the startup of the new Germ Dryer/Cooler (Unit ID 203-01-G).

(5) The source requests all updates be made to the B and C Conditions of the permit.

(6) The source requests IDEM, OAQ evaluate the product cyclones associated with gluten dryers (121-01-G and 121A-01-G) and germ dryers (124A-01-G and 203-01-G) for an integral part of the process determination.

(7) Reactor #1 (Unit ID 128-06-S) be removed from the source and permit.

“Integral Part of the Process” Determination

The Permittee has submitted the following information to justify why the cyclones associated with the gluten dryers (121-01-G and 121A-01-G) and germ dryers (124A-01-G and 203-01-G) should be considered an integral part of the process:

(a) The cyclones were not installed for the purpose of particulate control; they are only present to provide product separation from the exhaust of the dryer.

(b) The cyclones pull exhaust from the dryers and feed it into the wet scrubbers (used for control). If the cyclones are not in operation, then exhaust can not be directed to the wet scrubbers without a physical bypass being added to the system. No alternate method of operation is possible. The dryers could not operate without the cyclones and are, therefore, integral to the process.

IDEM, OAQ has evaluated the information submitted and agrees that the cyclones associated with the gluten dryers (121-01-G and 121A-01-G) and germ dryers (124A-01-G and 203-01-G) should be considered an integral part of the drying process. Therefore, the permitting level will be determined using the potential to emit after the cyclones.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (^{0}F)
S121A-01-G	121A-01-G	TBD	TBD	TBD	TBD
S203-01-G	203-01-G	TBD	TBD	TBD	TBD
S89-06-G	89-06-G	TBD	TBD	TBD	TBD
S89-07-G	89-07-G	TBD	TBD	TBD	TBD
S89-01-G	89-08-G, 89-01-G	105	7.00	3,439	176
S89-09-G	89-09-G	TBD	TBD	TBD	TBD

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

Permit Level Determination – Part 70

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency."

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

PTE Change of the BCD Modified Process			
Pollutant	**PTE Before Modification** (ton/yr)	**PTE After Modification** (ton/yr)	**Net Difference** (ton/yr)
PM	8,497.2	8,497.2	0
PM_{10}	8,497.2	8,497.2	0
SO_2	-	-	-
VOC	-	-	-
CO	-	-	-
NO_X	-	-	-
HAPs	-	-	-

PTE Change due to the Grind Modernization Modification			
Pollutant	**PTE New Emission Units** (ton/yr)	**Increase to PTE of Modified Emission Units** (ton/yr)	**Total PTE for New and Modified Units** (ton/yr)
PM	1,890.57	-	1,890.57
PM_{10}	1,890.57	-	1,890.57
SO_2	121.39	-	121.39
VOC	16.17	-	16.17
CO	21.48	-	21.48
NO_X	20.59	-	20.59
HAPs	0.65	-	0.65

Total PTE Change due to both Modifications			
Pollutant	**PTE New Emission Units** (ton/yr)	**Increase to PTE of Modified Emission Units** (ton/yr)	**Total PTE for New and Modified Units** (ton/yr)
PM	1,890.57	0	1,890.57
PM_{10}	1,890.57	0	1,890.57
SO_2	121.39	-	121.39
VOC	16.17	-	16.17
CO	21.48	-	21.48
NO_X	20.59	-	20.59
HAPs	0.65	-	0.65

This source modification is subject to 326 IAC 2-7-10.5(f)(4), "any modification with a potential to emit greater than or equal to twenty-five (25) tons per year of particulate matter (PM) or particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM10) and sulfur dioxide (SO2)." Additionally, the modification will be incorporated into the Part 70 Operating Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12(d), because it does involve a case-by-case determination of an emission limitation and significant changes to existing monitoring, reporting, and recordkeeping requirements.

Permit Level Determination – PSD or Emission Offset

The tables below summarize the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 source and permit modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

The USEPA consent decree or settlement reached with Cargill, Inc. was to implement a program of enforceable emissions reductions of SO2, CO, NOx, and VOCs from its corn processing and oilseeds processing plants by at least 40,000 tons per year. Some of the units in this modification are part of this consent decree. Emissions from these units were calculated pursuant to the requirements of the consent decree.

Emissions (ton/yr)						
Process / Emission Unit	**PM**	**PM_{10}**	**SO_2**	**VOC**	**CO**	**NO_X**
PTE (New Units)						
No. 2 Gluten Dryer	10.51	10.51	7.03	7.01	16.08	7.45
Germ Dryer/Cooler (new)	12.31	12.31	17.25	9.16	5.40	13.14
No. 1 Bran Bunker	0.03	0.03	-	-	-	-
No. 2 Bran Bunker	0.03	0.03	-	-	-	-
Bran Conveyor System	1.40	1.40	-	-	-	-
Bran Preweigh Hopper	0.03	0.03	-	-	-	-
PTE	**24.30**	**24.30**	**24.28**	**16.17**	**21.48**	**20.59**
Actual to Projected Actual (Grind Area Units Increased Utilization)						
Baseline	29.88	29.88	7.09	36.13	128.62	28.10
Projected Actuals	51.04	51.04	10.29	32.60	81.13	41.61
Emissions Increases (ATPA)	**21.16**	**21.16**	**3.20**	**<0**	**<0**	**13.51**
Actual to Projected Actual (BCD Area Modified Units)						
Baseline	1.13	1.13	-	-	-	-
Projected Actuals	1.70	1.70	-	-	-	-
Emissions Increases (ATPA)	**0.57**	**0.57**	**-**	**-**	**-**	**-**
Hybrid Test						
Total PTE New Units	24.30	24.30	24.28	16.17	21.48	20.59
Total Emissions Increase from ATPA	21.73	21.73	3.20	<0	<0	13.51
Hybrid Test Emissions Increase	**46.02**	**46.02**	**27.48**	**16.17**	**21.48**	**34.10**
PSD Significant Threshold	**25**	**15**	**40**	**40**	**100**	**40**

For any pollutant for which the emissions from the Hybrid Test in the above table are above the PSD Significant Threshold, a Contemporaneous Netting Analysis was conducted as shown in the table below in order to limit the emissions increases from this project to below the PSD Significant Threshold.

The Permittee has provided information as part of the application for this approval that based on Actual to Projected Actual test in 326 IAC 2-2-2 this modification at a major stationary source will not be major for Prevention of Significant Deterioration under 326 IAC 2-2-1. IDEM, OAQ has not reviewed this information and will not be making any determination in this regard as part of this approval. The applicant will be required to keep records and report in accordance with Source obligation in 326 IAC 2-2-8.

Netting Emissions (ton/yr)		
Process/ Emission Unit	**PM**	**PM_{10}**
PTE of New Units		
No. 2 Gluten Dryer	10.51	10.51
Germ Dryer/Cooler (new)	12.31	12.31
No. 1 Bran Bunker	0.03	0.03
No. 2 Bran Bunker	0.03	0.03
Bran Conveyor System	1.40	1.40
Bran Preweigh Hopper	0.03	0.03
PTE	**24.30**	**24.30**
Actual to Future Allowables (Existing Units)		
Baseline Grind Area	29.88	29.88
Baseline BCD Area	1.13	1.13

Netting Emissions (ton/yr)		
Process/ Emission Unit	**PM**	**PM_{10}**
Total Baseline	**31.01**	**31.01**
Future Allowables Grind Area	51.04	51.04
Future Allowables BCD Area	1.70	1.70
Total Future Allowables	**52.74**	**52.74**
Actual to Future Allowables	**21.73**	**21.73**
Contemporaneous Netting		
PTE + Actual to Future Allowables	46.02	46.02
Gluten Dryer Modification (11/2004)	2.22	2.22
Germ & Gluten Storage Tanks Control Unit Modification (08/2005)	0.21	0.21
Boiler Modifications, including a Temporary Boiler (11/2006)	4.70	7.20
BCD Dryer, BCD Reactor, HPCD Reactor Shutdown (05/2007)	-0.58	-0.58
Grind Modernization (Units Shutdown Prior to Permit Issuance)	-34.46	-34.46
Emissions Increases of the Project - Upon Issuance	**18.11**	**20.61**
Existing Germ Dryer/Cooler (Shutdown required by permit within 180 days after issuance)	-5.65	-5.65
Emissions Increase of the Project	**12.46**	**14.96**
PSD Significant Threshold	**25**	**15**

De Minimis Analysis (ton/yr)	
Process/Emission Unit	**VOC**
Emissions Increase Upon Issuance (Grind and BCD Area Modification)	24.10
Grind Modernization (Units Shutdown Prior to Permit Issuance)	-18.95
Gluten Dryer Modification (11/2004)	0.14
Germ & Gluten Storage Tanks Control Unit Modification (08/2005)	-
Boiler Modifications, including a Temporary Boiler (11/2006)	3.40
BCD Dryer, BCD Reactor, HPCD Reactor Shutdown (05/2007)	-0.95
Emissions Increases of the Project - Upon Issuance	**7.74**
Existing Germ Dryer/Cooler (Shutdown required by permit within 180 days after issuance)	-2.45
Emissions Increase for the Project	**5.29**
Emission Offset Threshold	**25**

(a) Lake County has been designated as nonattainment for PM2.5 in 70 FR 943 dated January 5, 2005. According to the April 5, 2005 EPA memo titled “Implementation of New Source Review Requirements in PM2.5 Nonattainment Areas” authored by Steve Page, Director of OAQPS, until EPA promulgates the PM2.5 major NSR regulations, states should assume that a major stationary

source's PM10 emissions represent PM2.5 emissions. IDEM will use the PM10 nonattainment major NSR program as a surrogate to address the requirements of nonattainment major NSR for the PM2.5 NAAQS. A significant emissions increase would be a net emissions increase or the potential of fifteen (15) tons per year or greater of PM10. Cargill, Inc. has limited the potential to emit of PM10 from the modification to less than fifteen (15) tons per year. Therefore, assuming that PM10 emissions represent PM2.5 emissions, 326 IAC 2-1.1-5 does not apply for PM2.5.

(b) Since this source is considered a major PSD source and a major source under Nonattainment NSR with an unrestricted potential to emit of this modification greater than twenty-five (25) tons of PM per year, fifteen (15) tons of PM_{10} per year, this source has elected to limit the potential to emit of this modification. In conjunction with the Contemporaneous Netting evaluation conducted by the source, the following limits will ensure the increases are less than significant threshold levels:

(1) Particulate Matter (PM) and Particulate Matter with aerodynamic diameter of less than or equal to 10 micrometers (PM10)

(A) The PM and PM10 emissions from the following operations shall not exceed the emissions limits listed in the tables below:

Unit	Unit ID	PM/PM10 Emission Limit (lb/hr)
No. 1 Alternate Carbohydrate Storage Bin	127-28-B	0.18
No. 2 Alternate Carbohydrate Storage Bin	127-29-B	0.18
Alternate Carbohydrate Mill Feed Hopper	127-30-B	0.028

Unit	Unit ID	Control Device ID	PM/PM10 Emission Limit (lb/hr)
Corn Screening System	30-16-G	CE30-16-G	0.06
Storage Bin No. 5 (Grind 1)	33-01-G	CE33-01-G	0.171
Storage Bin No. 6 (Grind 2)	33-02-G	CE33-02-G	0.171
Corn Cleaner	33-03-G	CE33-03-G	0.21
Fiber Dryer & Bran Conveyor System	89-01-G / 89-08-G	CE-89-01-G	4.891
No. 1 Gluten Dryer	121-01-G	CE121-01-G	3.0
Storage Bin #3	140-03-G	CE140-03-G	0.343
Storage Bin #4	140-04-G	CE140-04-G	0.343
Storage Bin #1	140-01-G	CE140-01-G	0.343
Storage Bin #2	140-02-G	CE140-02-G	0.343
Corn Dump Pit	140-05-G	CE140-05-G	1.286
Gravity Take-Up Conveyor	140-06-G	CE140-06-G	0.154
Corn Elevator Conveying	140-07-G	CE140-07-G	0.086
Germ Tank 1310	200-01-G	CE200-01-G	0.05
Gluten Tank 1410	200-02-G	CE200-02-G	0.05
Germ Tank 1110	200-03-G	CE200-03-G	0.05
Gluten Tank 1010	200-04-G	CE200-04-G	0.05
Bulk Loadout	200-05-G	CE200-05-G	1.21
Corn Screening Silo	200-06-G	CE200-06-G	0.02
Central Vacuum Loadout	200-07-G	CE200-07-G	0.02
No. 1 Bran Bunker	89-06-G	CE89-06-G	0.006
No. 2 Bran Bunker	89-07-G	CE89-07-G	0.006
Bran Preweigh Hopper	89-09-G	CE89-09-G	0.006
No. 2 Gluten Dryer	121A-01-G	CE121A-01-G	2.4

Unit	Unit ID	Control Device ID	PM/PM10 Emission Limit (lb/hr)
Germ Dryer/Cooler	203-01-G	CE203-01-G	2.81

(B) Pursuant to 326 IAC 2-2 (PSD), the following units shall be removed from operation once the modification permitted under SSM 089-25241-00203 has been constructed:

(1) Rotary Feed Dryer (89-03-G)
(2) Dry Feed Transfer (89-05-G)
(3) Germ Storage Silo (121-14-G)
(4) Waxy Feed Drum Dryer (124-01-G)
(5) Waxy Feed Mill Equipment (124-22-G)
(6) Wet Feed Transfer (124-23-G)
(7) Hammermill No. 1 (201-01-G)
(8) Hammermill No. 2 (201-02-G)
(9) Pellet Cooler No. 1 (201-03-G)
(10) Pellet Cooler No. 2 (201-04-G)
(11) Loose Feed Bin Vent (201-05-G)
(12) Central Vacuum Pelletizing (201-06-G)
(13) Receiver 1st Stage Germ Dryer (21A-01-G)
(14) 1st Stage Germ Dryer (21A-02-G)
(15) Receiver 2nd Stage Germ Dryer (51A-01-G)
(16) 2nd Stage Germ Dryer (51A-02-G)

Removal of these units shall reduce the PM/PM10 emissions by 34.46 tons per twelve (12) consecutive month period. The shutdown of these units shall be permanent.

(C) The existing Germ Dryer/Cooler (124A-01-G) shall be shutdown and removed from the source no later than 180 days after the startup of the new Germ Dryer/Cooler (Unit ID 203-01-G). Removal of this unit shall reduce PM/PM10 emissions by 5.65 tons per twelve (12) consecutive month period. The shutdown and removal of this unit shall be permanent.

Compliance with these PM and PM10 limits will ensure that the PM emissions from Significant Source Modification No. 089-25241-00203 are less than 25 tons per twelve (12) consecutive month period and PM10 emissions from Significant Source Modification No. 089-25241-00203 are less than 15 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) are rendered not applicable for PM/PM10 for Significant Source Modification No. 089-25241-00203.

(c) Since this source is considered a major Emission Offset source and the unrestricted potential to emit of this modification is greater than twenty-five (25) tons of VOC per year, this source has elected to limit the potential to emit of this modification. These limits, in conjunction with the De Minimis evaluation conducted by the source, will ensure the increases are less than significant threshold levels, are as follows:

(1) VOC Emission Offset

(A) Pursuant to 326 IAC 2-3 (Emission Offset), the following units shall be removed from operation once the modification permitted under SSM 089-25241-00203 has been constructed:

(1) Rotary Feed Dryer (89-03-G)

(2) Waxy Feed Drum Dryer (124-01-G)
(3) 1st Stage Germ Dryer (21A-02-G)
(4) 2nd Stage Germ Dryer (51A-02-G)

Removal of these units shall reduce the controlled VOC emissions by 18.95 tons per twelve (12) consecutive month period. The shutdown of these units shall be permanent.

(B) The existing Germ Dryer/Cooler (124A-01-G) shall be shutdown and removed from the source no later than 180 days after the startup of the new Germ Dryer/Cooler (Unit ID 203-01-G). Removal of this unit shall reduce the controlled VOC emissions by 2.45 tons per twelve (12) consecutive month period. The shutdown and removal of this unit shall be permanent.

Federal Rule Applicability Determination

The following federal rules are applicable to the source due to this modification:

NSPS:

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification. However, on June 13, 2007 the New Source Performance Standard for Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60, Subpart Db) was updated. The updated version of 40 CFR 60, Subpart Db was incorporated in the Part 70 Operating Permit as Attachment A as part of this modification.

NESHAP:

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) applicable to this proposed modification. However, the One (1) Natural gas-fired Package Boiler #1 (constructed in 2006) would have been subject to the requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. However, on June 8, 2007, the United States Court of appeals for the District of Columbia Circuit (in NRDC v. EPA, no. 04-1386) vacated in its entirety the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. Additionally, since the state rule at 326 IAC 20-95 incorporated the requirements of the NESHAP 40 CFR 63, Subpart DDDDD by reference, the requirements of 326 IAC 20-95 are no longer effective. Therefore, the requirements of 40 CFR 63, Subpart DDDDD and 326 IAC 20-95 have been removed from the permit and the unit description changed.

CAM:

(c) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:

(1) has a potential to emit before controls equal to or greater than the Part 70 major source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each new or modified emission unit involved:

CAM Applicability Analysis PM/PM10							
Emission Unit	**Control Device Used**	**Emission Limitation** (Y/N)	**Uncontrolled PTE** (ton/yr)	**Controlled PTE** (ton/yr)	**Part 70 Major Source Threshold** (ton/yr)	**CAM Applicable** (Y/N)	**Large Unit** (Y/N)
121A-01-G	Scrubber	Y	1,568.96	10.51	100	Y	N
203-01-G	Scrubber	Y	238.99	12.31	100	Y	N
89-06-G	Bin Vent	Y	23.27	0.03	100	N	N
89-07-G	Bin Vent	Y	23.27	0.03	100	N	N
89-08-G	Scrubber	Y	12.81	1.40	100	N	N
89-09-G	Bin Vent	Y	23.27	0.03	100	N	N
127-28-B	Baghouse	Y	3,942	0.79	100	Y	N
127-29-B	Baghouse	Y	3,942	0.79	100	Y	N
127-30-B	Baghouse	Y	613.20	0.12	100	Y	N

CAM Applicability Analysis VOC							
Emission Unit	**Control Device Used**	**Emission Limitation** (Y/N)	**Uncontrolled PTE** (ton/yr)	**Controlled PTE** (ton/yr)	**Part 70 Major Source Threshold** (ton/yr)	**CAM Applicable** (Y/N)	**Large Unit** (Y/N)
121A-01-G	None	N	7.01	7.01	100	N	N
203-01-G	None	N	9.16	9.16	100	N	N

CAM Applicability Analysis SO2							
Emission Unit	**Control Device Used**	**Emission Limitation** (Y/N)	**Uncontrolled PTE** (ton/yr)	**Controlled PTE** (ton/yr)	**Part 70 Major Source Threshold** (ton/yr)	**CAM Applicable** (Y/N)	**Large Unit** (Y/N)
121A-01-G	Scrubber	Y	35.16	7.03	100	N	N
203-01-G	Scrubber	Y	86.24	17.25	100	N	N

CAM Applicability Analysis NOx							
Emission Unit	**Control Device Used**	**Emission Limitation** (Y/N)	**Uncontrolled PTE** (ton/yr)	**Controlled PTE** (ton/yr)	**Part 70 Major Source Threshold** (ton/yr)	**CAM Applicable** (Y/N)	**Large Unit** (Y/N)
121A-01-G	None	N	7.45	7.45	100	N	N
203-01-G	None	N	13.14	13.14	100	N	N

CAM Applicability Analysis CO							
Emission Unit	**Control Device Used**	**Emission Limitation** (Y/N)	**Uncontrolled PTE** (ton/yr)	**Controlled PTE** (ton/yr)	**Part 70 Major Source Threshold** (ton/yr)	**CAM Applicable** (Y/N)	**Large Unit** (Y/N)
121A-01-G	None	N	16.08	16.08	100	N	N
203-01-G	None	N	5.40	5.40	100	N	N

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to Units 121A-01-G, 203-01-G, 127-28-B, 127-29-B, and 127-30-B for PM/PM10 upon issuance of the Title V Renewal. A CAM plan must be submitted as part of the Renewal application.

State Rule Applicability Determination

The following state rules are applicable to the source due to the modification:

326 IAC 2-2 and 2-3 (PSD and Emission Offset)
PSD and Emission Offset applicability is discussed under the Permit Level Determination – PSD and Emission Offset section.

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

(a) Opacity shall not exceed an average of forty percent (20%) 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.

Pursuant to 326 IAC 6.8-8 (Lake County: Continuous Compliance Plan)
The Permittee shall submit to IDEM and HDEM, and maintain at the source a copy of the Continuous Compliance Plan. The Permittee shall perform the inspections, monitoring, and record keeping requirements as specified in 326 IAC 6.8-8-7. The Permittee shall update the CCP, as needed, retain a copy on site, and make the updated CCP available for inspection as specified in 326 IAC 6.8-8-8.

326 IAC 6.8-10 (Fugitive Dust Emissions)
The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

326 IAC 2-7-5(13)(Preventive Maintenance Plan)
Pursuant to 326 IAC 2-5-5(13), a Preventive Maintenance Plan, is required for the emission units and the emission control devices.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The operation of the Alternate Carbohydrate Area 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.

The operation of the Grind and Feedhouse Area 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 6.8-1-2 (Lake County: PM10 Emission Requirements)
Pursuant to 326 IAC 6.8-2, emissions of particulate matter less than ten microns in diameter (PM10) shall be limited by the following:

Compliance with these limits shall be achieved by operating the associated baghouses and scrubbers at all times the units are in operation.

Summary of Process Weight Rate Limits		
Unit ID	**PM10 Limit (gr/dscf)**	**PM10 Limit (lbs/hr)**
No. 2 Gluten Dryer (121A-01-G)	0.03	3.0
Germ Dryer/Cooler (203-01-G)	0.03	3.0

Summary of Process Weight Rate Limits		
Unit ID	**PM10 Limit (gr/dscf)**	**PM10 Limit (lbs/hr)**
No. 1 Bran Bunker (89-06-G)	0.03	3.0
No. 2 Bran Bunker (89-07-G)	0.03	3.0
Bran Conveyor System (89-08-G)	0.03	3.0
Bran Preweigh Hopper (89-09-G)	0.03	3.0
No. 1 Alt. Carbohydrate Bin (127-28-B) (formerly 127-23-B)	0.01	0.18
No. 2 Alt. Carbohydrate Bin (127-29-B) (formerly 127-24-B)	0.01	0.18
Alt. Carbohydrate Mill Feed Hopper (127-30-B) (formerly 127-30-B)	0.01	0.028

326 IAC 7-4.1 (Lake County Sulfur Dioxide Emission Limitations)
Pursuant to 326 IAC 7-4.1 (Lake county Sulfur Dioxide Emission Limitations), the sulfur dioxide emission rate from these units shall not exceed the following:

(a) SO2 emissions from the stack serving the No. 2 Gluten Dryer (121A-01-G) shall not exceed 0.3 lb/MMBtu.

(b) SO2 emissions from the stack serving the Germ Dryer/ Cooler (203-01-G) shall not exceed 0.3 lb/MMBtu.

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)
The No. 2 Gluten Dryer (121A-01-G) and the Germ Dryer/Cooler (203-01-G) will be constructed after January 1, 1980 and shall collectively emit less than twenty-five (25) tons of VOC per year. Therefore, 326 IAC 8-1-6 does 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 and Monitoring Requirements applicable to this modification are as follows:

Alternate Carbohydrate Area:

(1) Testing Requirements

In order to demonstrate compliance with Conditions D.2.1 and D.2.2, the Permittee shall perform PM and PM10 testing for the No. 1 and No. 2 Alternate Carbohydrate Storage (127-28-B & 127-29-B) and the Alternate Carbohydrate Mill Feed Hopper (127-30-B), 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. Testing shall be conducted in accordance with Section C - Performance Testing. PM-10 includes filterable and condensible PM-10.

(2) Particulate Matter

(a) In order to comply with Conditions D.2.1 and D.2.2, the bag filter dust collectors for PM and PM10 control shall be in operation and control emissions from their associated facilities at all times that the facilities are in operation.

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

(3) Parametric Monitoring (Dust Collectors)

The Permittee shall record the total static pressure drop across all baghouses or dust collectors used in conjunction with each Alternate Carbohydrate facility at least once per day when the associated facilities are in operation. When for any one reading, the pressure drop across the dust collector is outside the following ranges or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

Unit ID	Control Equipment	Pressure Drop Range (“H_2O)
Alternate Carbohydrate Mill Feed Hopper (127-30-B)	Dust Collector	0.1 - 6
No. 1 &No. 2 Alternate Carbohydrate Storage (127-28-B) & (127-29-B)	Dust Collector	0.1 – 6 each
Vacuum Cleaners #1 & #2 (127-21-B) & (127-22-B)	Dust Collector	0.1 – 6 each

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 HDEM and shall be calibrated at least once every six (6) months.

(4) Broken or Failed Bag Detection

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

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

(5) Visible Emissions Notations

(a) Visible emission notations of each Alternate Carbohydrate and HPCD particulate stack exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

These compliance determination and monitoring conditions are necessary because the dust collectors for the No. 1 and No. 2 Alternate Carbohydrate Storage Bins and the Alternate Carbohydrate Mill Feed Hopper must operate properly to ensure compliance with 326 IAC 2-2 (PSD), 326 IAC 2-1.1-5 (Nonattainment NSR), 326 IAC 6.8-2 (Lake County: PM10 Emission Requirements), and 326 IAC 2-7 (Part 70).

Grind and Feedhouse Area:

(1) Testing Requirements

(a) Within 36 months of the issuance of Part 70 Operating Permit Number 089-7994-00203, in order to demonstrate compliance with Conditions D.3.1 and D.3.3, the Permittee shall perform PM and PM-10 testing on the following units utilizing methods as approved by the Commissioner.

Gluten Ring Dryer

These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing. PM-10 includes filterable and condensible PM-10.

(b) In order to demonstrate compliance with Conditions D.3.1 and D.3.5, the Permittee shall perform PM and PM10 testing for the No. 2 Gluten Dryer (121A-01-G) and the Germ Dryer/Cooler (203-01-G), 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. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM-10 includes filterable and condensible PM-10.

(c) In order to demonstrate compliance with Conditions D.3.1, the Permittee shall perform PM and PM10 testing for the Scrubber (CE89-01-G) controlling the Fiber Dryer (89-01-G) and the Bran Conveying System (89-08-G), 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. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM-10 includes filterable and condensible PM-10.

(d) In order to demonstrate compliance with Condition D.3.9, the Permittee shall perform SO2 testing for the No. 2 Gluten Dryer (121A-01-G) and the Germ Dryer/Cooler (203-01-G), 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. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

(e) In order to demonstrate compliance with Conditions D.3.1 and D.3.5, the Permittee shall perform PM and PM10 testing for the No. 1 and No. 2 Bran Bunker (89-06-G and 89-07-G) and the Bran Preweigh Hopper (89-09-G), 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. Testing shall be conducted in accordance with Section C - Performance Testing. PM-10 includes filterable and condensible PM-10.

(2) Particulate Matter

(a) In order to comply with D.3.1, D.3.3, D.3.4, and D.3.5, the control devices for PM and PM10 control shall be in operation and control emissions from their associated facilities at all times that the facilities are in operation.

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

(3) Visible Emissions Notations

(a) Visible emission notations of each Grind and Feedhouse facility stack exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

(4) Parametric Monitoring (Dust Collectors)

The Permittee shall record the total static pressure drop across each particulate control device used in the Grind and Feedhouse Area at least once per day when the associated system is in operation. When for any one reading, the pressure drop across the control device is outside any of the following ranges or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

Unit ID	Control Equipment	Pressure Drop Range (inches of water)
Central Vacuum Loadout (200-07-G)	Dust Collector	0.1 - 6
Germ Tank 1310 (200-01-G)	Dust Collector	0.1 - 6
Gluten Tank 1410 (200-02-G)	Dust Collector	0.1 - 6
Corn Screenings Silo (200-06-G)	Dust Collector	0.1 - 6
Gluten Tank 1010 (200-04-G)	Dust Collector	0.1 - 6
Germ Tank 1110 (200-03-G)	Dust Collector	0.1 - 6
Bulk Loadout (200-05-G)	Dust Collector	0.1 - 6
Corn Dump Pit (140-05-G)	Dust Collector	0.1 - 6
Corn Elevator Conveying (140-07-G)	Dust Collector	0.1 - 6
Gravity Take-up Conveyor (140-06-G)	Dust Collector	0.1 - 6
Corn Cleaner (33-03-G)	Dust Collector	0.1 - 6
Corn Screenings System (30-16-G)	Dust Collector	0.1 - 6
No. 1 and No. 2 Bran Bunkers (89-06-G)	Bin Vent	0.1-6
No. 2 Bran Bunker (89-07-G)	Bin Vent	0.1-6
Bran Preweigh Hopper (89-09-G)	Bin Vent	0.1-6

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 HDEM and shall be calibrated at least once every six (6) months.

(5) Parametric Monitoring (Scrubbers)

The Permittee shall record the recirculation liquid flow rate and total static pressure drop across each scrubber used in the Grind and Feedhouse Area, at least once per day when

the associated system is in operation. When for any one reading, the pressure drop across a scrubber is outside the following ranges or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

Unit ID	Control Equipment	Pressure Drop Range (inches of water)
Gluten Ring Dryer System (121-01-G)	Wet Scrubber	12 -19
No. 2 Gluten Dryer (121A-01-G)	Wet Scrubber	8-14
Germ Dryer/Cooler (203-01-G)	Wet Scrubber	6-12
Bran conveyor System (89-08-G)	Scrubber	0.1-6
Fiber Drying Equipment (89-01-G)	Scrubber	0.1 - 6
Germ Dryer/Cooler (124A-01-G)	Scrubber	6-12

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

(6) Broken or Failed Bag Detection

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

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

(7) Scrubber Failure Detection

In the event that a scrubber's failure has been observed:

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

These compliance determination and monitoring conditions are necessary because the scrubber, dust collectors, and bin vent filters in the Grind and Feedhouse Area must operate properly to ensure compliance with 326 IAC 2-2 (PSD), 326 IAC 2-1.1-5 (Nonattainment NSR), 326 IAC 6.8

(Particulate Matter Limitations for Lake County), 326 IAC 7-4.1 (Lake county Sulfur Dioxide Emission Limitations), 326 IAC 2-3 (Emission Offset), 326 IAC 8-1-6 (BACT), and 326 IAC 2-7 (Part 70).

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T089-7994-00203. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

(1) To clarify the permit term and the term of the conditions, original Conditions B.2 – Permit Term, B.13 – Prior Permits Superseded, and B.16 – Permit Renewal have been modified. Additionally, a new Section B condition, B.3 – Term of Conditions has been added.

B.2 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.9]

(a) This permit (T089-7994-00203) 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.

(b) If IDEM, OAQ and HDEM, 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.13 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of ~~previous~~ permits **established prior to T089-7994-00203 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.**

~~by this permit.~~

(b) **Provided that all terms and conditions are accurately reflected in this combined permit,** ~~A~~**a**ll previous registrations and permits are superseded by this **combined new source review and part 70 operating** permit.

B.16 Permit Renewal [326 IAC 2-7-4]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and HDEM 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(40) and 326 IAC 2-7-1(21). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

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

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

(b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]

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

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

(B) 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, and HDEM on or before the date it is due.

~~(2) If IDEM, OAQ, and HDEM, upon receiving a timely and complete 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.~~

(c) Right to Operate After Application for Renewal [326 IAC 2-7-3]
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, and HDEM take final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, and HDEM**,** any additional information identified as being needed to process the application.

~~(d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]
If IDEM, OAQ, and HDEM fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.~~

(2) IDEM has rearranged the permit conditions such that original Condition B.5 – Termination of Right to Operate is now Condition B.14. Section B, the Table of Contents, and all D Sections have been updated to reflect this change.

~~B.4~~**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).

(3) IDEM has determined that the Permittee is not required to keep records of all preventive maintenance. However, where the Permittee seeks to demonstrate that an emergency has occurred, the Permittee must provide, upon request records of preventive maintenance in order to establish that the lack of proper maintenance did not cause or contribute to the deviation. Therefore, IDEM has amended original Condition B.11 – Emergency Provisions.

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;

(1) 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, and HDEM within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

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

(HDEM)
Telephone Number: 219-853-6306
Facsimile Number: 219-853-6343

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

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

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

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

(A) A description of the emergency;

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

(C) Corrective actions taken.

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

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

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

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

(e) **The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However,** IDEM, OAQ and HDEM may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.

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

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

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

(4) For clarification purposes, Condition B.19 – Operational Flexibility has been revised.

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), (c), or (e), without a prior permit revision, if each of the following conditions is met:

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

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

(3) The changes do not result in emissions which exceed the emissions allowable under 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
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

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 which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

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

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

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

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

(3) Any change in emissions; and

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

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

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade increases and decreases in emissions in 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.

(f) This condition does not apply to emission trades of SO_2 or NO_X under 326 IAC 21 or 326 IAC 10-4.

(5) Condition B.20 - Source modification Requirement has been updated for clarification purposes as follows:

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

(a) A modification, construction, or reconstruction is governed by 326 IAC 2 and 326 IAC 2-7-10.5.

(b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2 and/or 326 IAC 2-3 (for sources located in NA areas).

(6) The last sentence of original Condition C.2 – Open Burning, was deleted because the provisions of 326 IAC 326 IAC 4-1-3 (a)(2)(A) and (B) are federally enforceable and are included in Indiana's State Implementation Plan (SIP).

C.2 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. ~~326 IAC 4-1-3(a)(2)(A) and (B) are not federally enforceable.~~

(7) In order to avoid duplication of requirements which may be included in D sections, Condition C.7 – Operation of Equipment has been removed from the permit.

~~C.7 Operation of Equipment [326 IAC 2-7-6(6)]~~

~~Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.~~

(8) Per the request of the Permittee, for clarification purposes, Condition C.14 - Maintenance of Continuous Emission Monitoring Equipment has been modified as follows:

C.14 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

(a) **Where required by Section D of this permit, t**~~T~~he Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment.

(b) In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.

(c) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to the rule or permit condition that requires the monitoring equipment to be installed and operated.

(9) IDEM realizes that the specifications of original Condition C.16 – Pressure Gauge and Other Instrument Specifications, can only be practically applied to analog units, and has therefore clarified the condition to state that the condition only applies to analog units. Upon further review, IDEM has also determined that the accuracy of the instruments is not nearly as important as whether the instrument has a range that is appropriate for the normal expected reading of the parameter. Therefore, the language in original Condition C.16 has been revised. The Section D conditions that refer to this condition have been revised to reflect the new condition title.

~~C.16 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]~~

~~(a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.~~

~~(b) Whenever a condition in this permit requires the measurement of a temperature, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.~~

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

C.16 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.

(10) IDEM has reconsidered the requirement to develop and follow a Compliance Response Plan (original Condition C.19). The Permittee will still be required to take reasonable response steps when a compliance monitoring parameter is determined to be out of range or abnormal. Replacing the requirement to develop and follow a Compliance Response Plan with a requirement to take reasonable response steps will ensure that the control equipment is returned to proper operation as soon as practicable, while still allowing the Permittee the flexibility to respond to situations that were not anticipated. Therefore, original Condition C.19 for the "Compliance Response Plan" has been replaced by Condition C.19 for the "Response to Excursions or Exceedances". The Section D conditions that refer to this condition have been revised to reflect the new condition title.

~~C.19 Compliance Response Plan – Preparation, Implementation, Records, and Reports [326 IAC 2-7-5] [326 IAC 2-7-6]~~

~~(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. If a Permittee is required to have an Operation, Maintenance, and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shut-down, and Malfunction (SSM) Plan) under 40 CFR 60/63, such plan shall be deemed to satisfy the requirements for a CRP for those compliance monitoring conditions. A CRP shall be submitted to IDEM, OAQ and HDEM upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:~~

~~(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.~~

~~(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance, and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shut-down, and Malfunction (SSM) Plan) and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan or Operation, Maintenance, and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shut-down, and Malfunction (SSM) Plan) to include such response steps taken.~~

~~The OMM Plan (or Parametric Monitoring and SMM Plan) shall be submitted within the time frames specified by the applicable 40 CFR 60/63 requirement.~~

~~(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:~~

~~(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance, and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shut-down, and Malfunction (SSM) Plan); or~~

~~(2) If none of the reasonable response steps listed in the Compliance Response Plan or Operation, Maintenance, and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shut-down, and Malfunction (SSM) Plan) is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.~~

~~(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be ten (10) days or more until the unit or device will be shut down, then the permittee shall promptly notify the IDEM-OAQ of the expected date of the shut down. The notification shall also include the status of the applicable compliance monitoring parameter with respect to normal, and the results of the response actions taken up to the time of notification.~~

~~(4) Failure to take reasonable response steps shall be considered a deviation from the permit.~~

~~(c) The Permittee is not required to take any further response steps for any of the following reasons:~~

~~(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.~~

~~(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.~~

~~(3) An automatic measurement was taken when the process was not operating.~~

~~(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.~~

~~(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B - Deviations from Permit Requirements and Conditions.~~

~~(e) The Permittee shall record all instances when, in accordance with Section D, response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.~~

~~(f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.~~

C.19 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

(1) initial inspection and evaluation;

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

(3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

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

(1) monitoring results;

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

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

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

(e) The Permittee shall maintain the following records:

(1) monitoring data;

(2) monitor performance data, if applicable; and

(3) corrective actions taken.

(11) On January 22, 2008 U.S. EPA promulgated a rule to address the remand, by the U.S. Court of Appeals for the District of Columbia on June 25, 2005, of the reasonable possibility provisions of the December 31, 2002 major NSR reform rule. IDEM has agreed, with U.S. EPA, to interpret "reasonable possibility" in 326 IAC 2-2 and 326 IAC 2-3 consistent with the January 22, 2008 U.S. EPA rule. To implement this interpretation, IDEM is revising Section C - General Record Keeping Requirements and Section C - General Reporting Requirements.

C.22 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. 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 or HDEM makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or HDEM within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

(c) If there is **a reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A), 40 CFR 51.165 (a)(6)(vi)(B), 40 CFR 51.166 (r)(6)(vi)(a), and/or 40 CFR 51.166 (r)(6)(vi)(b)) that** a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit**, other than projects** at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) **may result in significant emissions increase** and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

(1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, document and maintain the following records:

(A) A description of the project.
(B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
(C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
(i) Baseline actual emissions;
(ii) Projected actual emissions;
(iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1(mm)(2)(A)(iii);

and

(iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.

(d) If there is a reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A) and/or 40 CFR 51.166 (r)(6)(vi)(a)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

(~~2~~**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

(~~3~~**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.22 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-3]

...

(f) If the Permittee is required to comply with the recordkeeping provisions of ~~(c)~~ **(d)** in Section C- General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ and HDEM:

(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant; and

(2) The emissions differ from the preconstruction projection as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(ii).

(g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:

(1) The name, address, and telephone number of the major stationary source.

(2) The annual emissions calculated in accordance with ~~(c)(2) and (3)~~ **(d)(1) and (2)** in Section C- General Record Keeping Requirements.

(3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).

(4) Any other information that the Permittee deems fit to include in this report.

Reports required in this part shall be submitted to:

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

and

Hammond Department of Environmental Management
5925 Calumet Avenue, Room 304
Hammond, Indiana 46320

...

(12) Section A.2 - Emission Units and Pollution Control Equipment Summary has been modified to reflect the modification, removal, and addition of units to the source as follows:

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

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

I. Biogas Flare

...

II. ~~Beta Cyclodextrin (BCD) Area~~ Alternate Carbohydrate Area

(b) ~~BCD Mill Feed Hopper (Unit ID 127-25-B)~~ **Alternate Carbohydrate Mill Feed Hopper (Unit 127-30-B)**, installed May 1993 **and repurposed in 2007**. Particulate emissions are controlled by dust collector ~~(CE127-25-B)~~ **(CE127-30-B)** that exhausts to stack ~~S127-25-B~~ **S127-30-B**.

(c) No. 1 and No. 2 **Alternate Carbohydrate Storage Bins (Unit ID 127-28-B and 127-29-B),** ~~BCD Storage Hoppers (Unit ID 127-23-B and 127-24-B),~~ installed in May 1993 **and repurposed in 2008**. **Carbohydrate** ~~BCD~~ is pneumatically conveyed to these hoppers equipped with bag filter dust collectors **(CE127-28-B and CE127-29-B)** that exhaust to stacks ~~S127-23-B and S127-24-B~~ **S127-28-B and S127-29-B**.

(d) No. 1 and No. 2 Vacuum Cleaner Systems (Unit ID 127-21-B and 127-22-B), installed in May 1993. These systems are for building dust. Particulate emissions are controlled by dust collectors that exhaust to stacks S127-21-B and S127-22-B.

III. Grind and Feedhouse Area

(e) Gluten Dryer System (Unit ID 121-01-G), installed March 1995. Gluten meal is fed to a natural and bio gas-fired ring dryer. Particulate emissions are controlled by wet scrubber (CE121-01-G) that exhausts to stack S121-01-G.

(f) No. 2 Gluten Dryer (Unit ID 121A-01-G), approved for construction in 2008. Gluten meal is fed to a 17 MMBtu/hr natural and bio gas-fired ring dryer at a maximum throughput of 19,700 lb/hr. Particulate emissions are controlled by two (2) wet scrubbers operating in series, one venturi-type followed by one tray-type scrubber (collectively identified as Unit ID CE121A-01-G) that exhausts to stack S121A-01-G.

(g) One (1) Germ Dryer/Cooler (Unit ID 203-01-G), approved for construction in 2008. Corn germ is fed to a 30 MMBtu/hr natural and bio gas-fired germ dryer and cooler at a maximum throughput of 38,600 lb/hr. Particulate emissions are controlled by one (1) wet scrubber (Unit ID CE203-01-G) that exhausts to stack S203-01-G.

(h) No. 1 Bran Bunker (Unit ID 89-06-G), approved for construction in 2008, with a maximum throughput rate of 107,433 tons per year, using a bin vent filter (Unit ID CE089-06-G) with an outlet grain loading of 0.01 gr/dscf as control, and exhausting to stack S89-06-G.

(i) No. 2 Bran Bunker (Unit ID 89-07-G), approved for construction in 2008, with a maximum throughput rate of 107,433 tons per year, using a bin vent filter (Unit ID CE89-07-G) with an outlet grain loading of 0.01 gr/dscf as control, and exhausting to stack S89-07-G.

(j) One (1) Bran Conveyor System (Unit ID 89-08-G), approved for construction in 2008, with a maximum throughput rate of 107,433 tons per year, using existing scrubber CE89-01-G (constructed in 1995) as control, and exhausting to stack S89-01-G.

(k) One (1) Bran Preweigh Hopper (Unit ID 89-09-G), approved for construction in 2008, with a maximum throughput rate of 107,433 tons per year, using a bin vent filter (Unit ID CE89-09-G) with an outlet grain loading of 0.01 gr/dscf as control, and exhausting to stack S89-09-G.

~~(f) First Stage Germ Dryer Receiver (Unit ID 21A-01-G), installed May 1978. Corn germ is pneumatically transferred to a germ dryer. Particulate emissions are controlled by a cyclone (CE21A-01-G) that exhausts to stack S21A-01-G.~~

~~(g) First Stage Germ Dryer (Unit ID 21A-02-G), installed May 1978. Corn germ is fed to this dryer heated with steam from plant boilers. Particulate emissions are controlled by a cyclone and wet roto-clone in series (CE21A-02-G) that exhaust to stack S21A-02-G.~~

~~(h) Second Stage Germ Dryer Receiver (Unit ID 51A-01-G), installed May 1978. Corn germ from the first stage dryer is pneumatically conveyed to the second stage dryer. Particulate emissions are controlled by a cyclone (CE51A-01-G) that exhausts to stack S51A-01-G.~~

~~(i) Second Stage Germ Dryer (Unit ID 51A-02-G), installed October 1995. Corn germ is fed to this dryer heated by steam from plant boilers. Particulate emissions are controlled by a cyclone and wet scrubber in series (CE51A-02-G) that exhausts to stack S51A-02-G.~~

(l) Fiber Drying Equipment (Unit ID 89-01-G), installed October 1995. Wet fiber is fed to this natural and bio gas-fired dryer. Particulate matter is controlled by a scrubber (CE89-01-G) that exhausts to stack S89-01-G.

~~(l) Rotary Feed Dryer (Unit ID 89-03-G), installed October 1995. Wet feed is fed to this natural and bio gas-fired dryer. Particulate emissions are controlled by four (4) recirculating cyclones. VOC emissions are controlled by thermal oxidizer (CE89-03-TO) that normally exhausts to the Fiber Dryer Furnace but can exhaust to its own stack S89-03-G.~~

~~(m) Corn Screenings to Grind 1 Feed Transfer (Unit ID 89-05-G), installed July 2000. Particulate emissions are controlled by a dust collector (CE89-05-G) that exhausts to stack S89-05-G.~~

~~(n) Waxy Feed Drum Dryer (Unit ID 124-01-G), installed March 1980. Waxy corn fiber is fed to a rotary drum dryer. Particulate emissions are controlled by a wet scrubber (CE124-01-G) that exhausts to stack S124-01-G.~~

~~(o) Germ Storage Silo (Unit ID 121-14-G), installed May 1996. Corn germ is pneumatically conveyed to this storage silo. Particulate emissions are controlled by a dust collector (CE121-14-G) that exhausts to stack S121-14-G.~~

(m) Germ Dryer/Cooler (Unit ID 124A-01-G), installed November 1994. Corn germ is fed to this natural and bio gas-fired germ dryer and cooler. Particulate emissions are controlled by ~~four (4) cyclones~~ **one (1) scrubber** (CE124A-01-G) that exhaust to stack S124A-01-G.

~~(p) Waxy Feed Mill Equipment (Unit ID 124-22-G), installed July 1976. Waxy corn fiber is milled and fed to a hopper equipped with a Flex-Kleen Bag Filter Collector (CE124-22-G). This system exhausts to stack S124-22-G.~~

~~(q) Corn Screenings to Grind 2 Feed Transfer (Unit ID 124-23-G), installed July 2000. Particulate emissions are controlled by a dust collector (CE124-23-G) that exhausts to stack S124-23-G.~~

~~(r) Loose Feed Bin (Unit ID 201-05-G), installed October 2000. Particulate emissions are controlled by a bin vent (CE201-05-G) that exhausts to stack S201-05-G.~~

~~(s) Hammermill #1 (Unit ID 201-01-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE201-01-G) that exhausts to stack S201-01-G.~~

~~(t) Hammermill #2 (Unit ID 201-02-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE201-02-G) that exhausts to stack S201-02-G.~~

~~(u) Pellet Cooler #1 (Unit ID 201-03-G), installed October 2000. Particulate emissions are controlled by a cyclone (CE201-03-G) that exhausts to stack S201-03-G.~~

~~(v) Pellet Cooler #2 (Unit ID 201-04-G), installed October 2000. Particulate emissions are controlled by a cyclone (CE201-04-G) that exhausts to stack S201-04-G.~~

~~(w) Central Vacuum Pelletizing (Unit ID 201-06-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE201-06-G) that exhausts to stack S201-06-G.~~

(n) Central Vacuum Loadout (Unit ID 200-07-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-07-G) that exhausts to stack S200-07-G.

(o) Germ Tank 1310 (Unit ID 200-01-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-01-G) that exhausts to stack S200-01-G.

(p) Gluten Tank 1410 (Unit ID 200-02-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-02-G) that exhausts to stack S200-02-G.

(q) Corn Screenings Silo (Unit ID 200-06-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-06-G) that exhausts to stack S200-06-G.

(r) Gluten Tank 1010 (Unit ID 200-04-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-04-G) that exhausts to stack S200-04-G.

(s) Germ Tank 1110 (Unit ID 200-03-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-03-G) that exhausts to stack S200-03-G.

(t) Bulk Loadout (Unit ID 200-05-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-05-G) that exhausts to stack S200-05-G.

(u) Corn Dump Pit (Unit ID 140-05-G), installed December 1995. Particulate emissions are controlled by filter baghouse (CE140-05-G) that exhausts to stack S140-05-G.

(v) Corn Elevator Conveying (Unit ID 140-07-G), installed December 1995. Material is transferred from corn belt 1 to corn belt 2. Particulate emissions are controlled by a filter baghouse (CE140-07-G) that exhausts to stack S140-07-G.

(w) Corn Receiving and Storage, installed December 1995. This system includes six Storage Bins, each with its own bin vent for control of particulate emissions:

(1) Bin #1: Unit ID 140-01-G
(2) Bin #2: Unit ID 140-02-G
(3) Bin #3: Unit ID 140-03-G
(4) Bin #4: Unit ID 140-04-G
(5) Bin #5: Unit ID 33-01-G
(6) Bin #6: Unit ID 33-02-G

(x) Gravity Take-up Conveyor (Corn Scale) (Unit ID 140-06-G), installed December 1995. Corn is transferred from corn belt 2 to corn belt 3. Particulate emissions are controlled by baghouse (CE140-06-G) that exhausts to stack S140-06-G.

(y) Corn Cleaner (Unit ID 33-03-G), installed December 1995. Corn passes through mechanical cleaners. Particular emissions are controlled by a filter baghouse (CE33-03-G) that exhausts to stack S33-03-G.

(z) Corn Screenings System (Unit ID 30-16-G), installed July 1976. This system includes a dirt storage silo equipped with bag filter collector (CE30-16-G) that exhausts to stack S30-16-G.

IV. Utility Area

...

(dd) Natural gas-fired Package Boiler #1 (Unit ID 89-03-U), installed in 2006, with a maximum heat input capacity of 274 million Btu/hr, and exhausting to stack S89-03-U. Under NSPS 40 CFR 60 Subpart Db, Package Boiler #1 is a steam-generating unit with a heat input capacity greater than 100 million Btu/hr. ~~Under NESHAP 40 CFR 63 Subpart DDDDD, Package Boiler #1 is an industrial boiler in the large gaseous fuel subcategory.~~

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V. Refinery Area

...

VI. Starch Production Area

...

(fff) Reactors ~~#1~~ #**2** through #8 (Unit IDs ~~128-06-S~~ **128-07-S** through 128-13-S), installed November 1988 (~~1~~ **2**-4) and December 1991 (5-8). Corn starch and propylene oxide are reacted through Reactors 2, 3, 4, and 7 only. When propylene oxide is used in the starch reaction, VOC emissions are controlled by a thermal oxidizer that exhausts to stack S128-14-S.

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VII. Starch Warehouse Area

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(13) Section D – PMP Required Routine Control Device Inspections
IDEM has determined that it is the Permittee's responsibility to include routine control device inspection requirements in the applicable preventive maintenance plan. Since the Permittee is in the best position to determine the appropriate frequency of control device inspections and the details regarding which components of the control device should be inspected, the conditions requiring control device inspections have been removed from the permit. In addition, the requirement to keep records of the inspections has been removed Conditions D.2.8, D.3.21, D.5.16, D.6.14, and D.7.9.

~~D.2.5 Baghouse (Dust Collector) Inspections~~

~~An inspection shall be performed each calendar quarter of all bags controlling these processes. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.~~

~~D.3.15 Baghouse (Dust Collector) Inspections~~

~~An inspection shall be performed each calendar quarter of all bags that control particulate emissions. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.~~

~~D.5.14 Scrubber Inspections~~

~~An inspection shall be performed each calendar quarter of all scrubbers used as control devices. Defective scrubber parts shall be replaced. A record shall be kept of the results of the inspection and any corrective actions taken.~~

~~D.6.12 Baghouse (Dust Collector) Inspections~~

~~An inspection shall be performed each calendar quarter of all bags that control particulate emissions. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.~~

~~D.7.7 Baghouse (Dust Collector) Inspections~~

~~An inspection shall be performed each calendar quarter of all bags that control particulate emissions. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.~~

(14) Section D – Broken or Failed Bag Detection
Paragraph (a) of the Section D – Broken or Failed Baghouse conditions (original Conditions D.2.6, D.3.16, D.5.13, D.6.13, and D.3.14) have been deleted and replaced with a condition specific to single compartment baghouses which control emissions from continuously operating processes.

Section D – Batch Mode Processes and Baghouse/Scrubber/Cyclone/Filter Failure
Paragraph (b) of the Section D – Broken or Failed Baghouse conditions (original Conditions D.2.6, D.3.16, D.5.13, D.6.13, and D.3.14) have been revised for those processes that operate in batch mode. The condition required an emission unit to be shut down immediately in case of baghouse failure. However, IDEM is aware there can be safety issues with shutting down a process in the middle of a batch. IDEM also realizes that in some situations, shutting down an emissions unit mid-process can cause equipment damage. Therefore, since it is not always possible to shut down a process with material remaining in the equipment, IDEM has revised the condition to state that in the case of baghouse failure, the feed to the process must be shut off immediately, and the process shall be shut down as soon as practicable.

For example Condition D.2.6:

D.2.6 Broken or Failed Bag Detection

~~In the event that bag failure has been observed:~~

~~(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 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.~~

~~(b) For single compartment baghouses, if failure is indicated by a significant drop in the pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, or dust traces, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).~~

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

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

(15) Section D – Multi-Compartment Baghouses Responses
For multi-compartment baghouses, the permit will not specify what actions the Permittee needs to take in response to a broken bag. Therefore, a requirement has been added to the Section D – Particulate Control conditions (original Conditions D.2.3, D.3.9, D.5.8, D.6.8, and D.7.4) requiring the Permittee to notify IDEM if a broken bag is detected and the control device will not be repaired for more than ten (10) days. This notification allows IDEM to take any appropriate actions if the emission unit will continue to operate for a long period of time while the control device is not operating in optimum condition.

For example Condition D.2.3:

D.2.3 Particulate Matter less than 10 microns in diameter (PM10) [326 IAC 6.8-2] **[326 IAC 2-7-6(6)]**

(a) In order to comply with D.2.1, the bag filter dust collectors for PM10 control shall be in operation and control emissions from their associated facilities at all times that the facilities are in operation.

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

(16) The last paragraph of Visible Emissions Notations (Conditions D.2.7, D.3.12, D.4.8, D.5.9, D.6.9, and D.7.5) has been modified to reflect the replacement of Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports with C - Response to Excursions or Exceedances. Upon further review, IDEM, OAQ has for clarification purposes removed from part (a) the language "when exhausting to the atmosphere" for sources who do not have the ability to vent indoors.

For example Condition D.2.7:

D.2.7 Visible Emissions Notations

(a) Visible emission notations of each Refinery Area facility stack exhaust shall be performed once per day during normal daylight operations ~~when exhausting to the atmosphere~~. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

~~(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.~~

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

(17) The New Source Performance Standard for Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60, Subpart Db) was updated on June 13, 2007. The old version of 40 CFR 60, Subpart Db has been removed from Condition D.4.12 and the new version has been incorporated as Attachment A.

D.4.12 NSPS for Industrial-Commercial-Institutional Steam Generating Units Requirements [40 CFR 60.40b, Subpart Db] [326 IAC 12-1]

Pursuant to 40 CFR 60.40b, Subpart Db, the Permittee shall comply with the provisions of 40 CFR 60.40b, Subpart Db, which are incorporated by reference as 326 IAC 12-1, for Package Boiler #1 as specified as follows:

Pursuant to 40 CFR 60.40b, Subpart Db, the Permittee shall comply with the provisions of 40 CFR 60.40b, Subpart Db **(included as attachment A of this permit)**, which are incorporated by reference as 326 IAC 12-1, for Package Boiler #1 as specified as follows:

(1) 40 CFR 60.40b (a) and (j)
(2) 40 CFR 60.41b
(3) 40 CFR 60.44b (a)(1), (h), and (i)
(4) 40 CFR 60.46b (a) and (e)(1)
(5) 40 CFR 60.48b (b)(1), (c), (d), (e)(2)(3), and (f)
(6) 40 CFR 60.49b (a)(1)(3), (b), (d), (g), (i), (o), (v), and (w)

~~**§ 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 MW (100 million Btu/hour).~~

~~(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).~~

~~**§ 60.44b Standard for nitrogen oxides.**~~

~~(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 of this part, 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 nitrogen oxides (expressed as NO2) in excess of the following emission limits:~~

~~Fuel/Steam generating unit type~~	~~Nitrogen oxide emission limits ng/J(lb/million Btu) (expressed as NO2) Heat input~~
~~(1) Natural gas and distillate oil, except (4):~~	
~~(i) Low heat release rate~~	~~43 (0.10)~~

~~(h) For purposes of paragraph (i) of this section, the nitrogen oxide 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.~~

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

~~(a) The particulate matter emission standards and opacity limits under §60.43b apply at all times except during periods of startup, shutdown, or malfunction. The nitrogen oxides emission standards under §60.44b apply at all times.~~

~~(c) Compliance with the nitrogen oxides 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.~~

~~(e) To determine compliance with the emission limits for nitrogen oxides 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 nitrogen oxides under §60.48(b).~~

~~(1) For the initial compliance test, nitrogen oxides 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 nitrogen oxides 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.~~

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

~~(b) Except as provided under paragraphs (g), (h), and (i) of this section, the owner or operator of an affected facility shall comply with either paragraphs (b)(1) or (b)(2) of this section.~~

~~(1) Install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring nitrogen oxides emissions discharged to the atmosphere;~~

~~(c) The continuous monitoring systems required under paragraph (b) of this section shall be operated and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.~~

~~(d) The 1-hour average nitrogen oxides emission rates measured by the continuous nitrogen oxides monitor required by paragraph (b) of this section and required under §60.13(h) shall be expressed in ng/J or lb/million Btu 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(b). At least 2 data points must be used to calculate each 1-hour average.~~

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

~~(2) For affected facilities combusting coal, oil, or natural gas, the span value for nitrogen oxides is determined as follows:~~

~~Fuel~~	~~Span values for nitrogen oxides (PPM)~~
~~Natural gas.....~~	~~500~~

~~(f) When nitrogen oxides emission data are not obtained because of continuous monitoring~~

~~system breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7, Method 7A, 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.~~

~~§ 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,~~

~~(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,~~

~~(b) The owner or operator of each affected facility subject to the sulfur dioxide, particulate matter, and/or nitrogen oxides 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. 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.~~

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

~~(g) Except as provided under paragraph (p) of this section, the owner or operator of an affected facility subject to the nitrogen oxides 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 nitrogen oxides emission rates (expressed as NO2) (ng/J or lb/million Btu heat input) measured or predicted.~~

~~(3) The 30-day average nitrogen oxides emission rates (ng/J or lb/million Btu 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 nitrogen oxides emission rates are in excess of the nitrogen oxides 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 continuous monitoring system.~~

~~(9) Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system 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.~~

~~(i) The owner or operator of any affected facility subject to the continuous monitoring requirements for nitrogen oxides under §60.48(b) shall submit reports containing the information recorded under paragraph (g) of this section.~~

~~(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.~~

~~(v) The owner or operator of an affected facility may submit electronic quarterly reports for SO2 and/or NOX 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.~~

(18) The One (1) Natural gas-fired Package Boiler #1 (constructed in 2006) would have been subject to the requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. However, on June 8, 2007, the United States Court of appeals for the District of Columbia Circuit (in NRDC v. EPA, no. 04-1386) vacated in its entirety the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. Additionally, since the state rule at 326 IAC 20-95 incorporated the requirements of the NESHAP 40 CFR 63, Subpart DDDDD by reference, the requirements of 326 IAC 20-95 are no longer effective. Therefore, the requirements of 40 CFR 63, Subpart DDDDD and 326 IAC 20-95 have been removed from the permit and the unit description changed.

(a) Natural gas-fired Package Boiler #1 (Unit ID 89-03-U), installed in 2006, with a maximum heat input capacity of 274 million Btu/hr, and exhausting to stack S89-03-U. Under NSPS 40 CFR 60 Subpart Db, Package Boiler #1 is a steam-generating unit with a heat input capacity greater than 100 million Btu/hr. ~~Under NESHAP 40 CFR 63 Subpart DDDDD, Package Boiler #1 is an industrial boiler in the large gaseous fuel subcategory.~~

~~National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]~~

~~D.4.14 General Provisions Relating to NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR 63.7565, Subpart DDDDD] [326 IAC 20-1] [40 CFR 63, Subpart A]~~

~~Pursuant to 40 CFR 63.7565, the Permittee shall comply with the provisions of 40 CFR 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1 for Package Boiler #1 as specified in Table 10 of 40 CFR 63, Subpart DDDDD in accordance with the schedule in 40 CFR 63, Subpart DDDDD.~~

~~D.4.15 NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters Requirements [40 CFR 63.7480, Subpart DDDDD]~~

~~Pursuant to 40 CFR 63, Subpart DDDDD, the Permittee shall comply with the provisions of 40 CFR 63, Subpart DDDDD, for Package Boiler #1 as specified as follows:~~

~~§ 63.7480 What is the purpose of this subpart?~~

~~This subpart establishes national emission limits and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limits and work practice standards.~~

~~§ 63.7485 Am I subject to this subpart?~~

~~You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler or process heater as defined in §63.7575 that is located at, or is part of, a major source of HAP as defined in §63.2 or §63.761 (40 CFR part 63, subpart HH, National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities), except as specified in §63.7491.~~

~~§ 63.7490 What is the affected source of this subpart?~~

~~(a) This subpart applies to new, reconstructed, or existing affected sources as described in paragraphs (a)(1) and (2) of this section.~~

~~(2) The affected source of this subpart is each new or reconstructed industrial, commercial, or institutional boiler or process heater located at a major source as defined in §63.7575.~~

~~(b) A boiler or process heater is new if you commence construction of the boiler or process heater after January 13, 2003, and you meet the applicability criteria at the time you commence construction.~~

~~§ 63.7495 When do I have to comply with this subpart?~~

~~(a) If you have a new or reconstructed boiler or process heater, you must comply with this subpart by November 12, 2004 or upon startup of your boiler or process heater, whichever is later.~~

~~(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.~~

~~§ 63.7499 What are the subcategories of boilers and process heaters?~~

~~The subcategories of boilers and process heaters are large solid fuel, limited use solid fuel, small solid fuel, large liquid fuel, limited use liquid fuel, small liquid fuel, large gaseous fuel, limited use gaseous fuel, and small gaseous fuel. Each subcategory is defined in §63.7575.~~

~~§ 63.7500 What emission limits, work practice standards, and operating limits must I meet?~~

~~(a) You must meet the requirements in paragraphs (a)(1) and (2) of this section.~~

~~(1) You must meet each emission limit and work practice standard in Table 1 to this subpart that applies to your boiler or process heater, except as provided under §63.7507.~~

~~(b) As provided in §63.6(g), EPA may approve use of an alternative to the work practice standards in this section.~~

~~§ 63.7505 What are my general requirements for complying with this subpart?~~

~~(a) You must be in compliance with the emission limits (including operating limits) and the work practice standards in this subpart at all times, except during periods of startup, shutdown, and malfunction.~~

~~(b) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i).~~

~~(c) You can demonstrate compliance with any applicable emission limit using fuel analysis if the emission rate calculated according to §63.7530(d) is less than the applicable emission limit. Otherwise, you must demonstrate compliance using performance testing.~~

~~(d) If you demonstrate compliance with any applicable emission limit through performance testing, you must develop a site-specific monitoring plan according to the requirements in paragraphs (d)(1) through (4) of this section. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under §63.8(f).~~

~~(1) For each continuous monitoring system (CMS) required in this section, you must develop and submit to the EPA Administrator for approval a site-specific monitoring plan that addresses paragraphs (d)(1)(i) through (iii) of this section. You must submit this site-specific monitoring plan at least 60 days before your initial performance evaluation of your CMS.~~

~~(i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (*e.g.*, on or downstream of the last control device);~~

~~(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and~~

~~(iii) Performance evaluation procedures and acceptance criteria (*e.g.*, calibrations).~~

~~(2) In your site-specific monitoring plan, you must also address paragraphs (d)(2)(i) through (iii) of this section.~~

~~(i) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1), (c)(3), and (c)(4)(ii);~~

~~(ii) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and~~

~~(iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c), (e)(1), and (e)(2)(i).~~

~~(3) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.~~

~~(4) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.~~

~~(e) If you have an applicable emission limit or work practice standard, you must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6(e)(3).~~

~~§ 63.7510 What are my initial compliance requirements and by what date must I conduct them?~~

~~(a) For affected sources that elect to demonstrate compliance with any of the emission limits of this subpart through performance testing, your initial compliance requirements include conducting~~

~~performance tests according to §63.7520 and Table 5 to this subpart, conducting a fuel analysis for each type of fuel burned in your boiler or process heater according to §63.7521 and Table 6 to this subpart, establishing operating limits according to §63.7530 and Table 7 to this subpart, and conducting CMS performance evaluations according to §63.7525.~~

~~(c) For affected sources that have an applicable work practice standard, your initial compliance requirements depend on the subcategory and rated capacity of your boiler or process heater. If your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBtu per hour, your initial compliance demonstration is conducting a performance test for carbon monoxide according to Table 5 to this subpart. If your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 MMBtu per hour or greater, your initial compliance demonstration is conducting a performance evaluation of your continuous emission monitoring system for carbon monoxide according to §63.7525(a).~~

~~(g) If your new or reconstructed affected source commences construction or reconstruction after November 12, 2004, you must demonstrate initial compliance with the promulgated emission limits and work practice standards no later than 180 days after startup of the source.~~

~~§ 63.7525 What are my monitoring, installation, operation, and maintenance requirements?~~

~~(a) If you have an applicable work practice standard for carbon monoxide, and your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 MMBtu per hour or greater, you must install, operate, and maintain a continuous emission monitoring system (CEMS) for carbon monoxide according to the procedures in paragraphs (a)(1) through (6) of this section by the compliance date specified in §63.7495.~~

~~(1) Each CEMS must be installed, operated, and maintained according to Performance Specification (PS) 4A of 40 CFR part 60, appendix B, and according to the site-specific monitoring plan developed according to §63.7505(d).~~

~~(2) You must conduct a performance evaluation of each CEMS according to the requirements in §63.8 and according to PS 4A of 40 CFR part 60, appendix B.~~

~~(3) Each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.~~

~~(4) The CEMS data must be reduced as specified in §63.8(g)(2).~~

~~(5) You must calculate and record a 30-day rolling average emission rate on a daily basis. A new 30-day rolling average emission rate is calculated as the average of all of the hourly CO emission data for the preceding 30 operating days.~~

~~(6) For purposes of calculating data averages, you must not use data recorded during periods of monitoring malfunctions, associated repairs, out-of-control periods, required quality assurance or control activities, or when your boiler or process heater is operating at less than 50 percent of its rated capacity. You must use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out of control and data are not available for required calculations constitutes a deviation from the monitoring requirements.~~

~~(c) If you have an operating limit that requires the use of a CMS, you must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the procedures in paragraphs (c)(1) through (5) of this section by the compliance date specified in §63.7495.~~

~~(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation to have a valid hour of data.~~

~~(2) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation at all times that the unit is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.~~

~~(3) For purposes of calculating data averages, you must not use data recorded during monitoring malfunctions, associated repairs, out of control periods, or required quality assurance or control activities. You must use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out-of-control and data are not available for required calculations constitutes a deviation from the monitoring requirements.~~

~~(4) Determine the 3-hour block average of all recorded readings, except as provided in paragraph (c)(3) of this section.~~

~~(5) Record the results of each inspection, calibration, and validation check.~~

~~(d) If you have an operating limit that requires the use of a flow measurement device, you must meet the requirements in paragraphs (c) and (d)(1) through (4) of this section.~~

~~(1) Locate the flow sensor and other necessary equipment in a position that provides a representative flow.~~

~~(2) Use a flow sensor with a measurement sensitivity of 2 percent of the flow rate.~~

~~(3) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.~~

~~(4) Conduct a flow sensor calibration check at least semiannually.~~

~~(e) If you have an operating limit that requires the use of a pressure measurement device, you must meet the requirements in paragraphs (c) and (e)(1) through (6) of this section.~~

~~(1) Locate the pressure sensor(s) in a position that provides a representative measurement of the pressure.~~

~~(2) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.~~

~~(3) Use a gauge with a minimum tolerance of 1.27 centimeters of water or a transducer with a minimum tolerance of 1 percent of the pressure range.~~

~~(4) Check pressure tap pluggage daily.~~

~~(5) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.~~

~~(6) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.~~

~~§ 63.7535 How do I monitor and collect data to demonstrate continuous compliance?~~

~~(a) You must monitor and collect data according to this section and the site-specific monitoring plan required by §63.7505(d).~~

~~(b) Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) at all times that the affected source is operating.~~

~~(c) You may not use data recorded during monitoring malfunctions, associated repairs, or required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system. Boilers and process heaters that have an applicable carbon monoxide work practice standard and are required to install and operate a CEMS, may not use data recorded during periods when the boiler or process heater is operating at less than 50 percent of its rated capacity.~~

~~§ 63.7540 How do I demonstrate continuous compliance with the emission limits and work practice standards?~~

~~(a) You must demonstrate continuous compliance with each emission limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that applies to you according to the methods specified in Table 8 to this subpart and paragraphs (a)(1) through (10) of this section.~~

~~(10) If you have an applicable work practice standard for carbon monoxide, and you are required to install a CEMS according to §63.7525(a), then you must meet the requirements in paragraphs (a)(10)(i) through (iii) of this section.~~

~~(i) You must continuously monitor carbon monoxide according to §§63.7525(a) and 63.7535.~~

~~(ii) Maintain a carbon monoxide emission level below your applicable carbon monoxide work practice standard in Table 1 to this subpart at all times except during periods of startup, shutdown, malfunction, and when your boiler or process heater is operating at less than 50 percent of rated capacity.~~

~~(iii) Keep records of carbon monoxide levels according to §63.7555(b).~~

~~(b) You must report each instance in which you did not meet each emission limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that apply to you. You must also report each instance during a startup, shutdown, or malfunction when you did not meet each applicable emission limit, operating limit, and work practice standard. These instances are deviations from the emission limits and work practice standards in this subpart. These deviations must be reported according to the requirements in §63.7550.~~

~~(c) During periods of startup, shutdown, and malfunction, you must operate in accordance with the SSMP as required in §63.7505(e).~~

~~(d) Consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the EPA Administrator's satisfaction that you were operating in accordance with your SSMP. The EPA Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e).~~

~~§ 63.7545 What notifications must I submit and when?~~

~~(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h) that apply to you by the dates specified.~~

~~(c) As specified in §63.9(b)(4) and (b)(5), if you startup your new or reconstructed affected source on or after November 12, 2004, you must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source.~~

~~§ 63.7550 What reports must I submit and when?~~

~~(a) You must submit each report in Table 9 to this subpart that applies to you.~~

~~(b) Unless the EPA Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 9 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.~~

~~(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for your source in §63.7495.~~

~~(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.7495.~~

~~(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.~~

~~(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.~~

~~(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.~~

~~(c) The compliance report must contain the information required in paragraphs (c)(1) through (11) of this section.~~

~~(1) Company name and address.~~

~~(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.~~

~~(3) Date of report and beginning and ending dates of the reporting period.~~

~~(4) The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel and the total fuel usage amount with units of measure.~~

~~(5) A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during this test, if applicable.~~

~~(6) A signed statement indicating that you burned no new types of fuel. Or, if you did burn a new type of fuel, you must submit the calculation of chlorine input, using Equation 5 of §63.7530, that demonstrates that your source is still within its maximum chlorine input level established during the previous performance testing (for sources that demonstrate compliance through performance testing) or you must submit the calculation of HCl emission rate using Equation 9 of §63.7530 that demonstrates that your source is still meeting the emission limit for HCl emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel, you must submit the calculation of TSM input, using Equation 6 of §63.7530, that demonstrates that your source is still within its maximum TSM input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of TSM emission rate using Equation 10 of §63.7530 that demonstrates that your source is still meeting the emission limit for TSM emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel, you must submit the calculation of mercury input, using Equation 7 of §63.7530, that demonstrates that your source is still within its maximum mercury input level established during the previous performance testing (for sources that demonstrate compliance through~~

~~performance testing), or you must submit the calculation of mercury emission rate using Equation 11 of §63.7530 that demonstrates that your source is still meeting the emission limit for mercury emissions (for boilers or process heaters that demonstrate compliance through fuel analysis).~~

~~(7) If you wish to burn a new type of fuel and you can not demonstrate compliance with the maximum chlorine input operating limit using Equation 5 of §63.7530, the maximum TSM input operating limit using Equation 6 of §63.7530, or the maximum mercury input operating limit using Equation 7 of §63.7530, you must include in the compliance report a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel.~~

~~(8) The hours of operation for each boiler and process heater that is subject to an emission limit for each calendar month within the semiannual reporting period. This requirement applies only to limited use boilers and process heaters.~~

~~(9) If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in §63.10(d)(5)(i).~~

~~(10) If there are no deviations from any emission limits or operating limits in this subpart that apply to you, and there are no deviations from the requirements for work practice standards in this subpart, a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.~~

~~(11) If there were no periods during which the CMSs, including CEMS, COMS, and CPMS, were out of control as specified in §63.8(c)(7), a statement that there were no periods during which the CMSs were out of control during the reporting period.~~

~~(e) For each deviation from an emission limitation and operating limit or work practice standard in this subpart occurring at an affected source where you are using a CMS to comply with that emission limit, operating limit, or work practice standard, you must include the information in paragraphs (c) (1) through (10) of this section and the information required in paragraphs (e) (1) through (12) of this section. This includes periods of startup, shutdown, and malfunction and any deviations from your site-specific monitoring plan as required in §63.7505(d).~~

~~(1) The date and time that each malfunction started and stopped and description of the nature of the deviation (*i.e.*, what you deviated from).~~

~~(2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.~~

~~(3) The date, time, and duration that each CMS was out of control, including the information in §63.8(c)(8).~~

~~(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.~~

~~(5) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.~~

~~(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.~~

~~(7) A summary of the total duration of CMSs downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.~~

~~(8) An identification of each parameter that was monitored at the affected source for which there was a deviation, including opacity, carbon monoxide, and operating parameters for wet scrubbers and other control devices.~~

~~(9) A brief description of the source for which there was a deviation.~~

~~(10) A brief description of each CMS for which there was a deviation.~~

~~(11) The date of the latest CMS certification or audit for the system for which there was a deviation.~~

~~(12) A description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation.~~

~~(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 9 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.~~

~~(g) If you operate a new gaseous fuel unit that is subject to the work practice standard specified in Table 1 to this subpart, and you intend to use a fuel other than natural gas or equivalent to fire the affected unit, you must submit a notification of alternative fuel use within 48 hours of the declaration of a period of natural gas curtailment or supply interruption, as defined in §63.7575. The notification must include the information specified in paragraphs (g)(1) through (5) of this section.~~

~~(1) Company name and address.~~

~~(2) Identification of the affected unit.~~

~~(3) Reason you are unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began.~~

~~(4) Type of alternative fuel that you intend to use.~~

~~(5) Dates when the alternative fuel use is expected to begin and end.~~

~~§ 63.7555 What records must I keep?~~

~~(a) You must keep records according to paragraphs (a)(1) through (3) of this section.~~

~~(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in §63.10(b)(2)(xiv).~~

~~(2) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.~~

~~(3) Records of performance tests, fuel analyses, or other compliance demonstrations, performance evaluations, and opacity observations as required in §63.10(b)(2)(viii).~~

~~(b) For each CEMS, CPMS, and COMS, you must keep records according to paragraphs (b)(1) through (5) of this section.~~

~~(1) Records described in §63.10(b)(2) (vi) through (xi).~~

~~(3) Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in §63.8(d)(3).~~

~~(4) Request for alternatives to relative accuracy test for CEMS as required in §63.8(f)(6)(i).~~

~~(5) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.~~

~~(c) You must keep the records required in Table 8 to this subpart including records of all monitoring data and calculated averages for applicable operating limits such as opacity, pressure drop, carbon monoxide, and pH to show continuous compliance with each emission limit, operating limit, and work practice standard that applies to you.~~

~~(d) For each boiler or process heater subject to an emission limit, you must also keep the records in paragraphs (d)(1) through (5) of this section.~~

~~(1) You must keep records of monthly fuel use by each boiler or process heater, including the type(s) of fuel and amount(s) used.~~

~~§ 63.7560 In what form and how long must I keep my records?~~

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

~~(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.~~

~~(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records off site for the remaining 3 years.~~

~~§ 63.7565 What parts of the General Provisions apply to me?~~

~~Table 10 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.~~

~~§ 63.7570 Who implements and enforces this subpart?~~

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

~~(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities listed in paragraphs (b)(1) through (5) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency, however, the U.S. EPA retains oversight of this subpart and can take enforcement actions, as appropriate.~~

~~(1) Approval of alternatives to the non-opacity emission limits and work practice standards in §63.7500(a) and (b) under §63.6(g).~~

~~(2) Approval of alternative opacity emission limits in §63.7500(a) under §63.6(h)(9).~~

~~(3) Approval of major change to test methods in Table 5 to this subpart under §63.7(e)(2)(ii) and (f) and as defined in §63.90.~~

~~(4) Approval of major change to monitoring under §63.8(f) and as defined in §63.90.~~

~~(5) Approval of major change to recordkeeping and reporting under §63.10(f) and as defined in §63.90.~~

~~§ 63.7575 What definitions apply to this subpart?~~

~~Terms used in this subpart are defined in the CAA, in §63.2 (the General Provisions), and in this section as follows:~~

~~*Annual capacity factor* means the ratio between the actual heat input to a boiler or process heater from the fuels burned during a calendar year, and the potential heat input to the boiler or process heater had it been operated for 8,760 hours during a year at the maximum steady state design heat input capacity.~~

~~*Boiler* means an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water. Waste heat boilers are excluded from this definition.~~

~~*Deviation.* (1) Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:~~

~~(i) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard;~~

~~(ii) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or~~

~~(iii) Fails to meet any emission limit, operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless or whether or not such failure is permitted by this subpart.~~

~~(2) A deviation is not always a violation. The determination of whether a deviation constitutes a violation of the standard is up to the discretion of the entity responsible for enforcement of the standards.~~

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

~~*Fossil fuel* means natural gas, petroleum, coal, and any form of solid, liquid, or gaseous fuel derived from such materials.~~

~~*Fuel type* means each category of fuels that share a common name or classification. Examples include, but are not limited to, bituminous coal, subbituminous coal, lignite, anthracite, biomass, construction/demolition material, salt water laden wood, creosote treated wood, tires, residual oil. Individual fuel types received from different suppliers are not considered new fuel types except for construction/demolition material.~~

~~*Gaseous fuel* includes, but is not limited to, natural gas, process gas, landfill gas, coal derived gas, refinery gas, and biogas. Blast furnace gas is exempted from this definition.~~

~~*Heat input* means heat derived from combustion of fuel in a boiler or process heater and does not include the heat input from preheated combustion air, recirculated flue gases, or exhaust gases from other sources such as gas turbines, internal combustion engines, kilns, etc.~~

~~*Industrial boiler* means a boiler used in manufacturing, processing, mining, and refining or any other industry to provide steam, hot water, and/or electricity.~~

~~*Large gaseous fuel subcategory* includes any watertube boiler or process heater that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply emergencies, has a rated capacity of greater than 10 MMBtu per hour heat input, and has an annual capacity factor of greater than 10 percent.~~

~~*Natural gas* means:~~

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

~~(2) Liquid petroleum gas, as defined by the American Society for Testing and Materials in ASTM D1835–03a, "Standard Specification for Liquid Petroleum Gases" (incorporated by reference, see §63.14(b)).~~

~~*Period of natural gas curtailment or supply interruption* means a period of time during which the supply of natural gas to an affected facility is halted for reasons beyond the control of the facility. An increase in the cost or unit price of natural gas does not constitute a period of natural gas curtailment or supply interruption.~~

~~*Responsible official* means responsible official as defined in 40 CFR 70.2.~~

~~*Temporary boiler* means any gaseous or liquid fuel boiler that is designed to, and is capable of, being carried or moved from one location to another. A temporary boiler that remains at a location for more than 180 consecutive days is no longer considered to be a temporary boiler. Any temporary boiler that replaces a temporary boiler at a location and is intended to perform the same or similar function will be included in calculating the consecutive time period.~~

~~*Watertube boiler* means a boiler in which water passes through the tubes and hot gases of combustion pass over the outside surfaces of the tubes.~~

~~*Work practice standard* means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.~~

~~Subpart DDDDD Applicable Tables~~

~~Table 1 to Subpart DDDDD of Part 63—Emission Limits and Work Practice Standards~~

~~As stated in § 63.7500, you must comply with the following applicable emission limits and work practice standards:~~

~~If your boiler or process heater is in this subcategory . . .~~	~~For the following pollutants . . .~~	~~You must meet the following emission limits and work practice standards~~
~~7. New or reconstructed large gaseous fuel.~~	~~Carbon Monoxide.....~~	~~400 ppm by volume on a dry basis corrected to 3 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater,~~

~~Table 8 to Subpart DDDDD of Part 63—Demonstrating Continuous Compliance~~

~~As stated in § 63.7540, you must show continuous compliance with the emission limitations for affected sources according to the following:~~

~~If you must meet the following operating limits or work practice standards . . .~~	~~You must demonstrate continuous compliance by . . .~~
~~7. Fuel Pollutant Content.....~~	~~b. Keeping monthly records of fuel use according to §63.7540(a).~~

~~Table 9 to Subpart DDDDD of Part 63—Reporting Requirements~~

~~As stated in § 63.7550, you must comply with the following requirements for reports:~~

~~You must submit a(n)~~	~~The report must contain . . .~~	~~You must submit the report . . .~~
~~1. Compliance report....~~	~~a. Information required in § 63.7550(c)(1) through (11); and~~	~~Semiannually according to the requirements in § 63.7550(b).~~
	~~b. If there are no deviations from any emission limitation(emission limit and operating limit)that applies to you and there are no deviations from the requirements for work practice standards in Table 8 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period.~~ ~~If there were no periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out of control as specified in § 63.8(c)(7), a statement that there were no periods during which the CMSs were out of control during the reporting period; and~~	
	~~c. If you have a deviation from any emission limitation (emission limit and operating limit) or work practice standard during the reporting period, the report must contain the information in § 63.7550(d).~~ ~~If there were periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control, as specified in 63.8(c)(7), the report~~	

		~~must contain the information in § 63.7550(e); and~~	
		~~d. If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in § 63.10(d)(5)(i)~~	
~~2. An immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard.~~	~~a. Actions taken for the event; and~~	~~i. By fax or telephone within 2 working days after starting actions inconsistent with the plan; and~~	
	~~b. The information in § 63.10(d)(5)(ii)~~	~~ii. By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority.~~	

~~Table 10 to Subpart DDDDD of Part 63—Applicability of General Provisions to Subpart DDDDD~~

~~As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:~~

~~Citation~~	~~Subject~~	~~Brief description~~	~~Applicable~~
~~§ 63.1.....~~	~~Applicability...~~	~~Initial Applicability Determination; Applicability After Standard Established; Permit Requirements; Extensions, Notifications.~~	~~Yes.~~
~~§ 63.2.....~~	~~Definitions.....~~	~~Definitions for Part 63 standards.~~	~~Yes.~~
~~§ 63.3.....~~	~~Units and Abbreviations...~~	~~Units and abbreviations for part 63 standards.~~	~~Yes.~~
~~§ 63.4.....~~	~~Prohibited Activities.....~~	~~Prohibited Activities; Compliance date; Circumvention, Severability.~~	~~Yes.~~
~~§ 63.5.....~~	~~Construction/ Reconstruction.~~	~~Applicability; applications; approvals.~~	~~Yes.~~
~~§ 63.6(a).....~~	~~Applicability...~~	~~GP apply unless compliance extension;~~	~~Yes.~~

~~§ 63.6(b)(1)-(4)~~	~~Compliance Dates for New and Reconstructed sources.~~	~~Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for 112(f).~~	~~Yes.~~
~~§ 63.6(b)(5)....~~	~~Notification...~~	~~Must notify if commenced construction or reconstruction after proposal.~~	~~Yes.~~
~~§ 63.6(e)(1)-(2)~~	~~Operation & Maintenance.~~	~~Operate to minimize emissions at all times; and Correct malfunctions as soon as practicable; and Operation and maintenance requirements independently enforceable; information Administrator will use to determine if operation and maintenance requirements were met.~~	~~Yes.~~
~~§ 63.6(e)(3)....~~	~~Startup,Shutdown, and Malfunction Plan (SSMP).~~	~~Requirement for SSM and startup, shutdown, malfunction plan; and content of SSMP.~~	~~Yes.~~
~~§ 63.6(f)(1)....~~	~~Compliance Except During SSM.~~	~~Comply with emission standards at all times except during SSM.~~	~~Yes.~~
~~§ 63.6(f)(2)-(3)~~	~~Methods for Determining Compliance.~~	~~Compliance based on performance test, operation and maintenance plans, records, inspection.~~	~~Yes.~~
~~§ 63.6(g)(1)-(3)~~	~~Alternative.... Standard~~	~~Procedures for getting an alternative standard.~~	~~Yes.~~
~~§ 63.6(i)(1)-(14)~~	~~Compliance..... Extension~~	~~Procedures and criteria for Administrator to grant compliance extension.~~	~~Yes.~~
~~§ 63.6(j).....~~	~~Presidential Compliance Exemption.~~	~~President may exempt source category from requirement to comply with rule.~~	~~Yes.~~
~~§ 63.8(a)(1)....~~	~~Applicability of Monitoring Requirements.~~	~~Subject to all monitoring requirements in standard.~~	~~Yes.~~
~~§ 63.8(a)(2)....~~	~~Performance Specifications~~	~~Performance Specifications in appendix B of part 60 apply.~~	~~Yes.~~
~~§ 63.8(b)(1)(i)-(ii)~~	~~Monitoring.....~~	~~Must conduct monitoring according to standard unless Administrator approves alternative.~~	~~Yes.~~
~~§ 63.8(b)(2)-(3)~~	~~Multiple Effluents and Multiple Monitoring Systems. it is~~	~~Specific requirements for installing monitoring systems; and must install on each effluent before it is combined and before released to the atmosphere unless Administrator approves otherwise; and if more than one monitoring~~	~~Yes.~~

		~~system on an emission point, must report all monitoring system results, unless one monitoring system is a backup.~~	
~~§ 63.8(c)(1)....~~	~~Monitoring System Operation and Maintenance.~~	~~Maintain monitoring system in a manner consistent with good air pollution control practices.~~	~~Yes.~~
~~§ 63.8(c)(1)(i)~~	~~Routine and Predictable SSM.~~	~~Maintain and operate CMS according to § 63.6(e)(1).~~	~~Yes.~~
~~§ 63.8(c)(1)(ii)~~	~~SSM not in SSMP~~	~~Must keep necessary parts available for routine repairs of CMSs.~~	~~Yes.~~
~~§ 63.8(c)(1)(iii)~~	~~Compliance with Operation and Maintenance Requirements.~~	~~Must develop and implement an SSMP for CMSs.~~	~~Yes.~~
~~§ 63.8(c)(2)-(3)~~	~~Monitoring System Installation.~~	~~Must install to get representative emission and parameter measurements; and must verify operational status before or at performance test.~~	~~Yes.~~
~~§ 63.8(c)(7)-(8)~~	~~Continuous Monitoring Systems Requirements.~~	~~Out-of-control periods, including reporting.~~	~~Yes.~~
~~§ 63.8(d)....~~	~~Continuous Monitoring Systems Quality Control.~~	~~Requirements for continuous monitoring systems quality control, including calibration, etc.; and must keep quality control plan on record for the life of the affected source. Keep old versions for 5 years after revisions.~~	~~Yes.~~
~~§ 63.8(e)....~~	~~Continuous monitoring systems Performance Evaluation.~~	~~Notification, performance evaluation test plan, reports.~~	~~Yes.~~
~~§ 63.8(f)(1)-(5)~~	~~Alternative Monitoring Method.~~	~~Procedures for Administrator to approve alternative monitoring.~~	~~Yes.~~
~~§ 63.9(a)....~~	~~Notification Requirements.~~	~~Applicability and State Delegation.~~	~~Yes.~~
~~§ 63.9(b)(1)-(5)~~	~~Initial Notifications~~	~~Submit notification 120 days after effective date; and Notification of intent to construct/reconstruct; and Notification of commencement of construct/reconstruct; Notification of startup; and Contents of each.~~	~~Yes.~~
~~§ 63.9(c)....~~	~~Request for Compliance Extension.~~	~~Can request if cannot comply by date or if installed BACT/LAER.~~	~~Yes.~~

~~§ 63.9(g)....~~	~~Additional Notifications When Using Continuous Monitoring Systems.~~	~~Notification of performance evaluation; and notification using continuous opacity monitoring system data; and notification that exceeded criterion for relative accuracy.~~	~~Yes.~~
~~§ 63.9(h)(1)-(6)~~	~~Notification of Compliance Status.~~	~~Contents; and due 60 days after end of performance test or other compliance demonstration, and when to submit to Federal vs. State authority.~~	~~Yes.~~
~~§ 63.9(i)....~~	~~Adjustment of Submittal Deadlines.~~	~~Procedures for Administrator to approve change in when notifications must be submitted.~~	~~Yes.~~
~~§ 63.9(j)....~~	~~Change in Previous Information.~~	~~Must submit within 15 days after the change.~~	~~Yes.~~
~~§ 63.10(a)....~~	~~Recordkeeping/ Reporting~~	~~Applies to all, unless compliance extension; and when to submit to Federal vs. State authority; and procedures for owners of more than 1 source.~~	~~Yes.~~
~~§ 63.10(b)(1)~~	~~Recordkeeping/ Reporting~~	~~General Requirements; and keep all records readily available and keep for 5 years.~~	~~Yes.~~
~~§ 63.10(b)(2) (i)-(v)~~	~~Records related to Startup, Shutdown, and Malfunction.~~	~~Occurrence of each of operation (process, equipment); and occurrence of each malfunction of air pollution equipment; and maintenance of air pollution control equipment; and actions during startup, shutdown, and malfunction.~~	~~Yes.~~
~~§ 63.10(b)(2) (vi) and (x-xi)~~	~~Continuous monitoring systems Records.~~	~~Malfunctions, inoperative, out-of-control; and calibration checks; and adjustments, maintenance.~~	~~Yes.~~
~~§ 63.10(b)(2)... (vii) (ix)~~	~~Records.....~~	~~Measurements to demonstrate compliance with emission limitations; and performance test, performance evaluation, and visible emission observation results; and measurements to determine conditions of performance tests and performance evaluations.~~	~~Yes.~~
~~§ 63.10(b)(2)(xii)~~	~~Records...~~	~~Records when under waiver.~~	~~Yes.~~
~~§ 63.10(b)(2)(xiv)~~	~~Records...~~	~~All documentation supporting Initial Notification and Notification of Compliance Status.~~	~~Yes.~~
~~§ 63.10(b)(3)~~	~~Records...~~	~~Applicability Determinations.~~	~~Yes.~~
~~§ 63.10(c)(1), (5) (8),(10) (15)~~	~~Records...~~	~~Additional Records for continuous monitoring systems.~~	~~Yes.~~

~~§ 63.10(d)(1)...~~	~~General Reporting Requirements.~~	~~Requirement to report.....~~	~~Yes.~~
~~§ 63.10(d)(2)...~~	~~Report of Performance Test Results.~~	~~When to submit to Federal or State authority.~~	~~Yes.~~
~~§ 63.10(d)(4)...~~	~~Progress Reports~~	~~Must submit progress reports on schedule if under compliance extension.~~	~~Yes.~~
~~§ 63.10(d)(5)...~~	~~Startup, Shutdown, and Malfunction Reports.~~	~~Contents and submission...~~	~~Yes.~~
~~§ 63.10(e)(1)(2)~~	~~Additional continuous monitoring systems Reports.~~	~~Must report results for each CEM on a unit; and written copy of performance evaluation; and 3 copies of continuous opacity monitoring system performance evaluation.~~	~~Yes.~~
~~§ 63.10(f)...~~	~~Waiver for Recordkeeping/ Reporting.~~	~~Procedures for Administrator to waive.~~	~~Yes.~~
~~§ 63.12....~~	~~Delegation~~	~~State authority to enforce standards.~~	~~Yes.~~
~~§ 63.13....~~	~~Addresses~~	~~Addresses where reports, notifications, and requests are sent.~~	~~Yes.~~
~~§ 63.14....~~	~~Incorporation by Reference~~	~~Test methods incorporated by reference.~~	~~Yes.~~
~~§ 63.15....~~	~~Availability of Information.~~	~~Public and confidential Information.~~	~~Yes.~~

~~D.4.16 One Time Deadlines Relating to NESHAP 63.7480, Subpart DDDDD~~

~~The Permittee shall comply with the following requirements by the dates listed:~~

~~Requirement~~	~~Rule Cite~~	~~Affected Facility~~	~~Deadline~~
~~Compliance with the Subpart~~	~~40 CFR 63.7495(a)~~	~~Package Boiler #1~~	~~Upon startup~~
~~Develop and submit to the EPA for approval a site-specific monitoring plan.~~	~~40 CFR 63.7505(d)(1)~~	~~Package Boiler #1~~	~~at least 60 days before the initial performance evaluation of the CMS~~
~~Demonstrate initial compliance with the emission limits and work practice standards~~	~~40 CFR 63.7510(g)~~	~~Package Boiler #1~~	~~no later than 180 days after startup~~
~~Submit all of the notifications in §§63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h) that apply by the dates specified.~~	~~40 CFR 63.7545(a)~~	~~Package Boiler #1~~	~~Dates specified in the above Table 10 to Subpart DDDDD of Part 63, applicable General Provisions.~~
~~Submit Initial Notification~~	~~40 CFR 63.7545(c)~~	~~Package Boiler #1~~	~~not later than 15 days~~

			~~after the actual startup~~

(19) Section D.2 has been modified to reflect the repurposing of the BCD Area to an Alternate Carbohydrate Area as follows:

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: II. ~~Beta Cyclodextrin (BCD) Area~~ Alternate Carbohydrate Area

(a) ~~BCD Mill Feed Hopper (Unit ID 127-25-B)~~ **Alternate Carbohydrate Mill Feed Hopper (Unit 127-30-B)**, installed May 1993 **and repurposed in 2008**. Particulate emissions are controlled by dust collector ~~(CE127-25-B)~~ **(CE127-30-B)** that exhausts to stack ~~S127-25-B~~ **S127-30-B**.

(b) No. 1 and No. 2 **Alternate Carbohydrate Storage Bins (Unit ID 127-28-B and 127-29-B),** ~~BCD Storage Hoppers (Unit ID 127-23-B and 127-24-B),~~ installed in May 1993 **and repurposed in 2008**. **Carbohydrate** ~~BCD~~ is pneumatically conveyed to these hoppers equipped with bag filter dust collectors **(CE127-28-B and CE127-29-B)** that exhaust to stacks ~~S127-23-B and S127-24-B~~ **S127-28-B and S127-29-B**.

(c) No. 1 and No. 2 Vacuum Cleaner Systems (Unit ID 127-21-B and 127-22-B), installed in May 1993. These systems are for building dust. Particulate emissions are controlled by dust collectors that exhaust to stacks S127-21-B and S127-22-B.

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

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

D.2.1 PM/PM10 PSD and Nonattainment NSR Minor Limit [326 IAC 2-2] [326 IAC 2-1.1-5]

In order to make the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable, the PM and PM10 emissions from the following operations shall not exceed the emissions limits listed in the table below:

Unit	Unit ID	PM/PM10 Emission Limit (lb/hr)
No. 1 Alternate Carbohydrate Storage Bin	127-28-B	0.18
No. 2 Alternate Carbohydrate Storage Bin	127-29-B	0.18
Alternate Carbohydrate Mill Feed Hopper	127-30-B	0.028

Compliance with these limits in conjunction with the PM and PM10 limits in Condition D.3.1, will ensure that the PM emissions from Significant Source Modification No. 089-25241-00203 are less than 25 tons per twelve (12) consecutive month period and PM10 emissions from Significant Source Modification No. 089-25241-00203 are less than 15 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) are rendered not applicable.

D.2.~~1~~**2** Particulate Matter less than 10 microns in diameter (PM10) [326 IAC 6.8-2]

Pursuant to 326 IAC 6.8-2 (Lake County: PM10 Emission Requirements), formerly 326 IAC 6-1-10.1, emissions of particulate matter less than ten microns in diameter (PM10) shall ~~be limited to the following.~~ **not exceed the emissions limits listed in the table below:**

Unit ID	PM10 Limit (gr/dscf)	PM10 Limit (lbs/hr)
~~BCD Mill Feed Hopper (127-25-B)~~ Alternate Carbohydrate Mill Feed Hopper (127-30-B)	0.01	0.028
~~BCD Storage Hoppers #1 & #2 (127-23-B) & (127-24-B)~~ No. 1 & No. 2 Alternate Carbohydrate Storage Bins (127-28-B) & (127-29-B)	0.01 each	0.18 each
~~BCD~~ Vacuum Cleaners #1 & #2 (127-21-B) & (127-22-B)	0.01 each	0.031 each

D.2.~~2~~**3** Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for each ~~BCD Area~~ **Alternate Carbohydrate Area** control device.

Compliance Determination Requirements

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

In order to demonstrate compliance with Conditions D.2.1 and D.2.2, the Permittee shall perform PM and PM10 testing for the No. 1 and No. 2 Alternate Carbohydrate Storage Bins (127-28-B & 127-29-B) and the Alternate Carbohydrate Mill Feed Hopper (127-30-B), 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. Testing shall be conducted in accordance with Section C - Performance Testing. PM-10 includes filterable and condensible PM-10.

D.2.~~3~~**5** Particulate Matter ~~less than 10 microns in diameter (PM10)~~ [326 IAC 6.8-2] **[326 IAC 2-7-6(6)] [326 IAC 2-2] [326 IAC 2-1.1-5]**

(a) In order to comply with D.2.1 **and D.2.2**, the bag filter dust collectors for **PM and** PM10 control shall be in operation and control emissions from their associated facilities at all times that the facilities are in operation.

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

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

D.2.~~4~~**6** Parametric Monitoring (Dust Collectors)

The Permittee shall record the total static pressure drop across all baghouses or dust collectors used in conjunction with each ~~BCD~~ **Alternate Carbohydrate** facility at least once per day when the associated facilities are in operation. When for any one reading, the pressure drop across the

dust collector is outside the following ranges or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedances**. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

Unit ID	Control Equipment	Pressure Drop Range (“H_2O)
~~BCD Mill Feed Hopper (127-25-B)~~ Alternate Carbohydrate Mill Feed Hopper (127-30-B)	Dust Collector	0.1 - 6
~~BCD Storage Hoppers #1 & #2 (127-23-B) & (127-24-B)~~ No. 1 &No. 2 Alternate Carbohydrate Storage (127-28-B) & (127-29-B)	Dust Collector	0.1 – 6 each
~~BCD~~ Vacuum Cleaners #1 & #2 (127-21-B) & (127-22-B)	Dust Collector	0.1 – 6 each

The instrument used for determining the pressure shall comply with Section C - ~~Pressure Gauge and Other~~ Instrument Specifications, of this permit, shall be subject to approval by IDEM-OAQ and HDEM and shall be calibrated at least once every six (6) months ~~or in accordance with the manufacturer's specifications provided those specifications are available on site with the Preventive Maintenance Plan~~.

~~D.2.5 Baghouse (Dust Collector) Inspections~~

~~An inspection shall be performed each calendar quarter of all bags controlling these processes. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.~~

D.2.~~6~~**7** Broken or Failed Bag Detection

~~In the event that bag failure has been observed:~~

~~(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 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.~~

~~(b) For single compartment baghouses, if failure is indicated by a significant drop in the pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, or dust traces, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).~~

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

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

D.2.~~7~~**8** Visible Emissions Notations

(a) Visible emission notations of each ~~BCD~~ **Alternate Carbohydrate** ~~and HPCD particulate~~ stack exhaust shall be performed once per day during normal daylight operations ~~when exhausting to the atmosphere~~. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

~~(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.~~

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

D.2.~~8~~**9** Record Keeping Requirements

(a) To document compliance with Condition ~~D.2.4~~ **D.2.6**, the Permittee shall maintain a daily record of the pressure drops across the baghouses controlling the 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).

~~(b) To document compliance with Condition D.2.5, the Permittee shall maintain records of the results of the inspections.~~

(~~c~~**b**) To document compliance with Condition ~~D.2.7~~ **D.2.8**, the Permittee shall maintain a daily record of visible emission notations of the ~~BCD~~ **Alternate Carbohydrate** Area facility 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).

(~~d~~**c**) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

(20) Section D.3 has been modified to reflect the addition of new units and removal of existing units as follows:

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: III. Grind and Feedhouse Area

(e) Gluten Dryer System (Unit ID 121-01-G), installed March 1995. Gluten meal is fed to a natural and bio gas-fired ring dryer. Particulate emissions are controlled by wet scrubber (CE121-01-G) that exhausts to stack S121-01-G.

(f) No. 2 Gluten Dryer (Unit ID 121A-01-G), approved for construction in 2008. Gluten meal is fed to a 17 MMBtu/hr natural and bio gas-fired ring dryer at a maximum throughput of 19,700 lb/hr. Particulate emissions are controlled by two (2) wet scrubbers operating in series, one venturi-type followed by one tray-type scrubber (collectively identified as Unit ID CE121A-01-G) that exhausts to stack S121A-01-G.

(g) One (1) Germ Dryer/Cooler (Unit ID 203-01-G), approved for construction in 2008. Corn germ is fed to a 30 MMBtu/hr natural and bio gas-fired germ dryer and cooler at a maximum throughput of 38,600 lb/hr. Particulate emissions are controlled by one (1) wet scrubber (Unit ID CE203-01-G) that exhausts to stack S203-01-G.

(h) No. 1 Bran Bunker (Unit ID 89-06-G), approved for construction in 2008, with a maximum throughput rate of 107,433 tons per year, using a bin vent filter (Unit ID CE089-06-G) with an outlet grain loading of 0.01 gr/dscf as control, and exhausting to stack S89-06-G.

(i) No. 2 Bran Bunker (Unit ID 89-07-G), approved for construction in 2008, with a maximum throughput rate of 107,433 tons per year, using a bin vent filter (Unit ID CE89-07-G) with an outlet grain loading of 0.01 gr/dscf as control, and exhausting to stack S89-07-G.

(j) One (1) Bran Conveyor System (Unit ID 89-08-G), approved for construction in 2008, with a maximum throughput rate of 107,433 tons per year, using existing scrubber CE89-01-G (constructed in 1995) as control, and exhausting to stack S89-01-G.

(k) One (1) Bran Preweigh Hopper (Unit ID 89-09-G), approved for construction in 2008, with a maximum throughput rate of 107,433 tons per year, using a bin vent filter (Unit ID CE89-09-G) with an outlet grain loading of 0.01 gr/dscf as control, and exhausting to stack S89-09-G.

~~(f) First Stage Germ Dryer Receiver (Unit ID 21A-01-G), installed May 1978. Corn germ is pneumatically transferred to a germ dryer. Particulate emissions are controlled by a cyclone (CE21A-01-G) that exhausts to stack S21A-01-G.~~

~~(g) First Stage Germ Dryer (Unit ID 21A-02-G), installed May 1978. Corn germ is fed to this dryer heated with steam from plant boilers. Particulate emissions are controlled by a cyclone and wet roto-clone in series (CE21A-02-G) that exhaust to stack S21A-02-G.~~

~~(h) Second Stage Germ Dryer Receiver (Unit ID 51A-01-G), installed May 1978. Corn germ from the first stage dryer is pneumatically conveyed to the second stage dryer. Particulate emissions are controlled by a cyclone (CE51A-01-G) that exhausts to stack S51A-01-G.~~

~~(i) Second Stage Germ Dryer (Unit ID 51A-02-G), installed October 1995. Corn germ is fed to this dryer heated by steam from plant boilers. Particulate emissions are controlled by a cyclone and wet scrubber in series (CE51A-02-G) that exhausts to stack S51A-02-G.~~

(l) Fiber Drying Equipment (Unit ID 89-01-G), installed October 1995. Wet fiber is fed to this natural and bio gas-fired dryer. Particulate matter is controlled by a scrubber (CE89-01-G) that exhausts to stack S89-01-G.

~~(l) Rotary Feed Dryer (Unit ID 89-03-G), installed October 1995. Wet feed is fed to this natural and bio gas-fired dryer. Particulate emissions are controlled by four (4) recirculating cyclones. VOC emissions are controlled by thermal oxidizer (CE89-03-TO) that normally exhausts to the Fiber Dryer Furnace but can exhaust to its own stack S89-03-G.~~

~~(m) Corn Screenings to Grind 1 Feed Transfer (Unit ID 89-05-G), installed July 2000. Particulate emissions are controlled by a dust collector (CE89-05-G) that exhausts to stack S89-05-G.~~

~~(n) Waxy Feed Drum Dryer (Unit ID 124-01-G), installed March 1980. Waxy corn fiber is fed to a rotary drum dryer. Particulate emissions are controlled by a wet scrubber (CE124-01-G) that exhausts to stack S124-01-G.~~

~~(o) Germ Storage Silo (Unit ID 121-14-G), installed May 1996. Corn germ is pneumatically conveyed to this storage silo. Particulate emissions are controlled by a dust collector (CE121-14-G) that exhausts to stack S121-14-G.~~

(m) Germ Dryer/Cooler (Unit ID 124A-01-G), installed November 1994. Corn germ is fed to this natural and bio gas-fired germ dryer and cooler. Particulate emissions are controlled by ~~four (4) cyclones~~ **one (1) scrubber** (CE124A-01-G) that exhaust to stack S124A-01-G.

~~(p) Waxy Feed Mill Equipment (Unit ID 124-22-G), installed July 1976. Waxy corn fiber is milled and fed to a hopper equipped with a Flex-Kleen Bag Filter Collector (CE124-22-G). This system exhausts to stack S124-22-G.~~

~~(q) Corn Screenings to Grind 2 Feed Transfer (Unit ID 124-23-G), installed July 2000. Particulate emissions are controlled by a dust collector (CE124-23-G) that exhausts to stack S124-23-G.~~

~~(r) Loose Feed Bin (Unit ID 201-05-G), installed October 2000. Particulate emissions are controlled by a bin vent (CE201-05-G) that exhausts to stack S201-05-G.~~

~~(s) Hammermill #1 (Unit ID 201-01-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE201-01-G) that exhausts to stack S201-01-G.~~

~~(t) Hammermill #2 (Unit ID 201-02-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE201-02-G) that exhausts to stack S201-02-G.~~

~~(u) Pellet Cooler #1 (Unit ID 201-03-G), installed October 2000. Particulate emissions are controlled by a cyclone (CE201-03-G) that exhausts to stack S201-03-G.~~

~~(v) Pellet Cooler #2 (Unit ID 201-04-G), installed October 2000. Particulate emissions are controlled by a cyclone (CE201-04-G) that exhausts to stack S201-04-G.~~

~~(w) Central Vacuum Pelletizing (Unit ID 201-06-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE201-06-G) that exhausts to stack S201-06-G.~~

(n) Central Vacuum Loadout (Unit ID 200-07-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-07-G) that exhausts to stack S200-07-G.

(o) Germ Tank 1310 (Unit ID 200-01-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-01-G) that exhausts to stack S200-01-G.

(p) Gluten Tank 1410 (Unit ID 200-02-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-02-G) that exhausts to stack S200-02-G.

(q) Corn Screenings Silo (Unit ID 200-06-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-06-G) that exhausts to stack S200-06-G.

(r) Gluten Tank 1010 (Unit ID 200-04-G), installed October 2000. Particulate emissions are controlled by a dust

collector (CE200-04-G) that exhausts to stack S200-04-G.

(s) Germ Tank 1110 (Unit ID 200-03-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-03-G) that exhausts to stack S200-03-G.

(t) Bulk Loadout (Unit ID 200-05-G), installed October 2000. Particulate emissions are controlled by a dust collector (CE200-05-G) that exhausts to stack S200-05-G.

(u) Corn Dump Pit (Unit ID 140-05-G), installed December 1995. Particulate emissions are controlled by filter baghouse (CE140-05-G) that exhausts to stack S140-05-G.

(v) Corn Elevator Conveying (Unit ID 140-07-G), installed December 1995. Material is transferred from corn belt 1 to corn belt 2. Particulate emissions are controlled by a filter baghouse (CE140-07-G) that exhausts to stack S140-07-G.

(w) Corn Receiving and Storage, installed December 1995. This system includes six Storage Bins, each with its own bin vent for control of particulate emissions:

(1) Bin #1: Unit ID 140-01-G
(2) Bin #2: Unit ID 140-02-G
(3) Bin #3: Unit ID 140-03-G
(4) Bin #4: Unit ID 140-04-G
(5) Bin #5: Unit ID 33-01-G
(6) Bin #6: Unit ID 33-02-G

(x) Gravity Take-up Conveyor (Corn Scale) (Unit ID 140-06-G), installed December 1995. Corn is transferred from corn belt 2 to corn belt 3. Particulate emissions are controlled by baghouse (CE140-06-G) that exhausts to stack S140-06-G.

(y) Corn Cleaner (Unit ID 33-03-G), installed December 1995. Corn passes through mechanical cleaners. Particular emissions are controlled by a filter baghouse (CE33-03-G) that exhausts to stack S33-03-G.

(z) Corn Screenings System (Unit ID 30-16-G), installed July 1976. This system includes a dirt storage silo equipped with bag filter collector (CE30-16-G) that exhausts to stack S30-16-G.

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

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

D.3.1 PM/PM10 PSD and Nonattainment NSR Minor Limit [326 IAC 2-2] [326 IAC 2-1.1-5]

In order to make the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable:

(a) The PM and PM10 emissions from the following operations shall not exceed the emissions limits listed in the tables below:

Unit	Unit ID	Control Device ID	PM/PM10 Emission Limit (lb/hr)
Corn Screening System	30-16-G	CE30-16-G	0.06
Storage Bin No. 5 (Grind 1)	33-01-G	CE33-01-G	0.171
Storage Bin No. 6 (Grind 2)	33-02-G	CE33-02-G	0.171
Corn Cleaner	33-03-G	CE33-03-G	0.21
Fiber Dryer & Bran Conveyor System	89-01-G / 89-08-G	CE-89-01-G	4.891
No. 1 Gluten Dryer	121-01-G	CE121-01-G	3.0
Storage Bin #3	140-03-G	CE140-03-G	0.343
Storage Bin #4	140-04-G	CE140-04-G	0.343
Storage Bin #1	140-01-G	CE140-01-G	0.343

Unit	Unit ID	Control Device ID	PM/PM10 Emission Limit (lb/hr)
Storage Bin #2	140-02-G	CE140-02-G	0.343
Corn Dump Pit	140-05-G	CE140-05-G	1.286
Gravity Take-Up Conveyor	140-06-G	CE140-06-G	0.154
Corn Elevator Conveying	140-07-G	CE140-07-G	0.086
Germ Tank 1310	200-01-G	CE200-01-G	0.05
Gluten Tank 1410	200-02-G	CE200-02-G	0.05
Germ Tank 1110	200-03-G	CE200-03-G	0.05
Gluten Tank 1010	200-04-G	CE200-04-G	0.05
Bulk Loadout	200-05-G	CE200-05-G	1.21
Corn Screening Silo	200-06-G	CE200-06-G	0.02
Central Vacuum Loadout	200-07-G	CE200-07-G	0.02
No. 1 Bran Bunker	89-06-G	CE89-06-G	0.006
No. 2 Bran Bunker	89-07-G	CE89-07-G	0.006
Bran Preweigh Hopper	89-09-G	CE89-09-G	0.006
No. 2 Gluten Dryer	121A-01-G	CE121A-01-G	2.4
Germ Dryer/Cooler	203-01-G	CE203-01-G	2.81

(b) Pursuant to 326 IAC 2-2 (PSD), the following units shall be removed from operation once the modification permitted under SSM 089-25241-00203 has been constructed:

(1) Rotary Feed Dryer (89-03-G)
(2) Dry Feed Transfer (89-05-G)
(3) Germ Storage Silo (121-14-G)
(4) Waxy Feed Drum Dryer (124-01-G)
(5) Waxy Feed Mill Equipment (124-22-G)
(6) Wet Feed Transfer (124-23-G)
(7) Hammermill No. 1 (201-01-G)
(8) Hammermill No. 2 (201-02-G)
(9) Pellet Cooler No. 1 (201-03-G)
(10) Pellet Cooler No. 2 (201-04-G)
(11) Loose Feed Bin Vent (201-05-G)
(12) Central Vacuum Pelletizing (201-06-G)
(13) Receiver 1st Stage Germ Dryer (21A-01-G)
(14) 1st Stage Germ Dryer (21A-02-G)
(15) Receiver 2nd Stage Germ Dryer (51A-01-G)
(16) 2nd Stage Germ Dryer (51A-02-G)

Removal of these units shall reduce the PM/PM10 emissions by 34.46 tons per twelve (12) consecutive month period. The shutdown of these units shall be permanent.

(c) The existing Germ Dryer/Cooler (124A-01-G) shall be shutdown and removed from the source no later than 180 days after the startup of the new Germ Dryer/Cooler (Unit ID 203-01-G). Removal of this unit shall reduce PM/PM10 emissions by 5.65 tons per twelve (12) consecutive month period. The shutdown and removal of this unit shall be permanent.

Compliance with these limits in conjunction with the PM and PM10 limits in Condition D.2.1, will ensure that the PM emissions from Significant Source Modification No. 089-25241-00203 are less than 25 tons per twelve (12) consecutive month period and PM10 emissions from Significant Source Modification No. 089-25241-00203 are less than 15 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) are rendered not applicable for PM/PM10

for Significant Source Modification No. 089-25241-00203.

D.3.2 VOC Emission Offset [326 IAC 2-3]

(a) Pursuant to 326 IAC 2-3 (Emission Offset), the following units shall be removed from operation once the modification permitted under SSM 089-25241-00203 has been constructed:

(1) Rotary Feed Dryer (89-03-G)
(2) Waxy Feed Drum Dryer (124-01-G)
(3) 1st Stage Germ Dryer (21A-02-G)
(4) 2nd Stage Germ Dryer (51A-02-G)

Removal of these units shall reduce the controlled VOC emissions by 14.59 tons per twelve (12) consecutive month period. The shutdown of these units shall be permanent.

(b) The existing Germ Dryer/Cooler (124A-01-G) shall be shutdown and removed from the source no later than 180 days after the startup of the new Germ Dryer/Cooler (Unit ID 203-01-G). Removal of this unit shall reduce the controlled VOC emissions by 1.89 tons per twelve (12) consecutive month period. The shutdown and removal of this unit shall be permanent.

Compliance with these requirements will ensure that the VOC emissions from Significant Source Modification No. 089-25241-00203, are less than twenty-five (25) tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-3 (EO) are rendered not applicable for VOC for Significant Source Modification No. 089-25241-00203.

D.3.~~1~~**3** Particulate Matter less than 10 microns in diameter (PM10) [326 IAC 6.8-2]

Pursuant to 326 IAC 6.8-2 (Lake County: PM10 Emission Requirements), formerly 326 IAC 6-1-10.1, emissions of particulate matter less than ten microns in diameter (PM10) shall ~~be limited to~~ **not exceed** the following:

	Unit ID	PM10 Limit (gr/dscf)	PM10 Limit (lbs/hr)
~~(a)~~	Gluten Dryer System (121-01-G)	0.03	3.0
~~(b)~~	~~First Stage Germ Dryer Receiver (21A-01-G)~~	~~0.015~~	~~0.12~~
~~(c)~~	~~First Stage Germ Dryer Exhaust (21A-02-G)~~	~~0.01~~	~~0.67~~
~~(d)~~	~~Second Stage Germ Dryer Receiver (51A-01-G)~~	~~0.02~~	~~0.19~~
~~(e)~~	~~Second Stage Germ Dryer Exhaust (51A-02-G)~~	~~0.015~~	~~1.01~~
~~(f)~~	Fiber Drying Equipment (89-01-G)	0.01	4.5
~~(g)~~	~~Rotary Feed Dryer (89-03-G)~~	~~0.03~~	~~4.5~~
~~(i)~~	~~Waxy Feed Drum Dryer (124-01-G)~~	~~0.03~~	~~11.12~~
~~(j)~~	~~Germ Storage Silo (121-14-G)~~	~~0.01~~	~~0.1~~
~~(k)~~	Germ Dryer/Cooler (124A-01-G)	0.02	1.872
~~(l)~~	~~Waxy Feed Mill Equipment (124-22-G)~~	~~0.01~~	~~0.051~~
~~(aa)~~	Corn Dump Pit (140-05-G)	0.01	1.286
~~(bb)~~	Corn Elevator Conveying (140-07-G)	0.01	0.086
~~(cc)~~	Corn Receiving and Storage Bins 1, 2, 3, & 4	0.02 each	0.343 each
~~(cc)~~	Corn Receiving and Storage Day Tanks 5 & 6	0.02 each	0.171 each
~~(dd)~~	Gravity Take-up Conveyor (140-06-G)	0.01	0.154
~~(ee)~~	Corn Cleaner (33-03-G)	0.01	0.21

~~(ff)~~	Corn Screenings System (30-16-G)	0.01	0.06

D.3.~~2~~**4** Particulate Matter less than 10 microns in diameter (PM10) [326 IAC 6.8-1-2(h)]

Pursuant to Significant Source Modification 089-14389-00203, issued September 2001, and 326 IAC 6.8-1-2(h) (Nonattainment Area Particulate Limitations), formerly 326 IAC 6-1-2(h), emissions of particulate matter less than ten (10) microns in diameter (PM10) from the following units shall not exceed the following limitations:

	Unit ID	PM10 Limit (gr/dscf)	PM10 Limit (lbs/hr)
~~(h)~~	~~Dry Feed Transfer (89-05-G)~~	~~0.01~~	~~0.09~~
~~(m)~~	~~Corn Screen to Grind 2 Wet Feed Transfer~~	~~0.01~~	~~0.086~~
~~(n)~~	~~Loose Feed Bin (201-05-G)~~	~~0.005~~	~~0.02~~
~~(o)~~	~~Hammermill #1 (201-01-G)~~	~~0.005~~	~~0.15~~
~~(p)~~	~~Hammermill #2 (201-02-G)~~	~~0.005~~	~~0.15~~
~~(q)~~	~~Pellet Cooler #1 (Unit ID 201-03-G~~	~~0.015~~	~~1.66~~
~~(r)~~	~~Pellet Cooler #2 (Unit ID 201-04-G~~	~~0.015~~	~~1.66~~
~~(s)~~	~~Central Vacuum Pelletizing (201-06-G)~~	~~0.005~~	~~0.02~~
~~(t)~~	Central Vacuum Loadout (200-07-G)	0.005	0.02
~~(u)~~	Germ Tank 1310 (200-01-G)	0.005	0.05
~~(v)~~	Gluten Tank 1410 (200-02-G),	0.005	0.05
~~(w)~~	Corn Screenings Silo (200-06-G)	0.005	0.02
~~(x)~~	Gluten Tank 1010 (200-04-G)	0.005	0.05
~~(y)~~	Germ Tank 1110 (200-03-G)	0.005	0.05
~~(z)~~	Bulk Loadout (200-05-G)	0.005	1.21

D.3.5 Particulate Matter less than 10 Microns in Diameter (PM10) [326 IAC 6.8-1-2]

Pursuant to Significant Source Modification 089-25241-00203 and 326 IAC 6.8-1-2 (Nonattainment Area Particulate Limitations), formerly 326 IAC 6-1-2(h), emissions of particulate matter less than ten (10) microns in diameter (PM10) from the following units shall not exceed the following limitations:

Summary of Process Weight Rate Limits		
Unit ID	PM10 Limit (gr/dscf)	PM10 Limit (lbs/hr)
No. 2 Gluten Dryer (121A-01-G)	0.03	3.0
Germ Dryer/Cooler (203-01-G)	0.03	3.0
No. 1 Bran Bunker (89-06-G)	0.03	3.0
No. 2 Bran Bunker (89-07-G)	0.03	3.0
Bran Conveyor System (89-08-G)	0.03	3.0
Bran Preweigh Hopper (89-09-G)	0.03	3.0

D.3.~~3~~**6** VOC Emissions [326 IAC 2-3] [326 IAC 8-1-6] [326 IAC 2-7-6(3)] [326 IAC 2-7-15]

The IDEM, OAQ has information that indicates that some emission units in this section are subject to the requirements of 326 IAC 2-3 (Emission Offset) and/or 326 IAC 8-1-6 (New facilities, general reduction requirements (BACT)). Therefore, the Permit Shield provided by Condition B.12 of this permit does not apply to those emission units with regards to 326 IAC 2-3 and 326 IAC 8-1-6. The IDEM, OAQ will promptly reopen this permit using the provisions of 326 IAC 2-7-9 (Permit

Reopening) to include detailed requirements necessary to comply with 326 IAC 2-3 or 326 IAC 8-1-6 and a schedule for achieving compliance with such requirements.

D.3.~~4~~**7** VOC Emissions [326 IAC 8-7] [326 IAC 2-7-6(3)] [326 IAC 2-7-15]

The IDEM, OAQ has information that indicates that some emission units in this section are subject to the requirements of 326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark and Floyd Counties). Therefore, the Permit Shield provided by Condition B.12 of this permit does not apply to those emission units with regards to 326 IAC 8-7. On February 27, 1995, the source submitted to IDEM, OAQ a Reasonably Achievable Control Technology (RACT) plan pursuant to 326 IAC 8-7-2. A revised RACT plan was requested and submitted by the source on August 22, 2003. The IDEM, OAQ is currently reviewing the RACT plan submitted. The IDEM, OAQ will promptly reopen this permit using the provisions of 326 IAC 2-7-9 (Permit Reopening) to include detailed requirements necessary to comply with 326 IAC 8-7 and a schedule for achieving compliance with such requirements.

D.3.~~5~~**8** SO_2 Emissions [326 IAC 2-3] [326 IAC 2-7-6(3)] [326 IAC 2-7-15]

The IDEM, OAQ has information that indicates that some emission units in this section are subject to the requirements of 326 IAC 2-3 (Emission Offset). Therefore, the Permit Shield provided by Condition B.12 of this permit does not apply to those emission units with regards to 326 IAC 2-3. The IDEM, OAQ will promptly reopen this permit using the provisions of 326 IAC 2-7-9 (Permit Reopening) to include detailed requirements necessary to comply with 326 IAC 2-3 and a schedule for achieving compliance with such requirements.

~~D.3.6 Volatile Organic Compounds [326 IAC 8-1-6]~~

~~Pursuant to Significant Source Modification 089-14389-00203, issued September 2001, and 326 IAC 8-1-6, the Thermal Oxidizer for the Rotary Feed Dryer shall achieve a 90% reduction of VOC emissions.~~

D.3.9 SO2 Emissions [326 IAC 7-4.1]

Pursuant to 326 IAC 7-4.1 (Lake County Sulfur Dioxide Emission Limitations), the sulfur dioxide emission rate from these units shall not exceed the following:

(a) SO2 emissions from the stack serving the No. 2 Gluten Dryer (121A-01-G) shall not exceed 0.3 lb/MMBtu.

(b) SO2 emissions from the stack serving the Germ Dryer/ Cooler (203-01-G) shall not exceed 0.3 lb/MMBtu.

D.3.~~7~~**10** Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for each Grind and Feedhouse Area facility control device.

Compliance Determination Requirements

D.3.~~8~~**11** Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) Within 36 months of the issuance of ~~this~~ **Part 70 Operating P**~~p~~ermit **Number T089-7994-00203**, in order to demonstrate compliance with Conditions D.3.1 **and D.3.3**, the Permittee shall perform **PM and** PM-10 testing on the following units utilizing methods as approved by the Commissioner.

~~(a)~~ Gluten Ring Dryer
~~(b) Fiber Drying Equipment/Rotary Feed Dryer System~~

These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C-Performance Testing. **PM-10 includes filterable and condensible PM-10.**

(b) **In order to demonstrate compliance with Conditions D.3.1 and D.3.5, the Permittee shall perform PM and PM10 testing for the No. 2 Gluten Dryer (121A-01-G) and the Germ Dryer/Cooler (203-01-G), 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. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM-10 includes filterable and condensible PM-10.**

(c) **In order to demonstrate compliance with Conditions D.3.1, the Permittee shall perform PM and PM10 testing for the Scrubber (CE89-01-G) controlling the Fiber Dryer (89-01-G) and the Bran Conveying System (89-08-G), 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. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM-10 includes filterable and condensible PM-10.**

(d) **In order to demonstrate compliance with Condition D.3.9, the Permittee shall perform SO2 testing for the No. 2 Gluten Dryer (121A-01-G) and the Germ Dryer/Cooler (203-01-G), 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. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.**

(e) **In order to demonstrate compliance with Conditions D.3.1 and D.3.5, the Permittee shall perform PM and PM10 testing for the No. 1 and No. 2 Bran Bunker (89-06-G and 89-07-G) and the Bran Preweigh Hopper (89-09-G), 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. Testing shall be conducted in accordance with Section C - Performance Testing. PM-10 includes filterable and condensible PM-10.**

D.3.~~9~~**12** Particulate Matter ~~less than 10 microns in diameter (PM10)~~ [326 IAC 6-1-10.1(d)] [326 IAC 6-1-2~~(h)~~] **[326 IAC 2-7-6(6)] [326 IAC 2-2] [326 IAC 2-1.1-5]**

(a) In order to comply with D.3.1**,** ~~and D.3.2~~ **D.3.3, D.3.4, and D.3.5**, the control devices for **PM and** PM10 control shall be in operation and control emissions from their associated facilities at all times that the facilities are in operation.

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

~~D.3.10 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]~~

~~The thermal oxidizer for VOC control shall be in operation and control emissions from the Rotary Feed Dryer at all times that the facility is in operation. The thermal oxidizer shall maintain a minimum operating temperature of 1200°F and a maximum flow rate of 35,000 acfm.~~

~~D.3.11 Parametric Monitoring (Thermal Oxidizer) [326 IAC 8-1-6]~~

~~(a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature. The thermal oxidizer shall maintain a minimum operating temperature of 1200°F and a maximum flow rate of 35,000 acfm.~~

~~(b) During normal operation, 100% of the gas stream from the Rotary Feed Dryer shall be captured and shall pass through the Thermal Oxidizer.~~

~~(c) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the reading is outside the above-mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.~~

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

D.3.~~12~~**13** Visible Emissions Notations

(a) Visible emission notations of each Grind and Feedhouse facility stack exhaust shall be performed once per day during normal daylight operations ~~when exhausting to the atmosphere~~. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

~~(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.~~

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.3.~~13~~**14**Parametric Monitoring (Dust Collectors)

The Permittee shall record the total static pressure drop across each particulate control device used in the Grind and Feedhouse Area at least once per day when the associated system is in operation. When for any one reading, the pressure drop across the control device is outside any of the following ranges or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedances**.

A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

Unit ID	Control Equipment	Pressure Drop Range (inches of water)
Central Vacuum Loadout (200-07-G)	Dust Collector	0.1 - 6
Germ Tank 1310 (200-01-G)	Dust Collector	0.1 - 6
Gluten Tank 1410 (200-02-G)	Dust Collector	0.1 - 6
Corn Screenings Silo (200-06-G)	Dust Collector	0.1 - 6
Gluten Tank 1010 (200-04-G)	Dust Collector	0.1 - 6
Germ Tank 1110 (200-03-G)	Dust Collector	0.1 - 6
Bulk Loadout (200-05-G)	Dust Collector	0.1 - 6
Corn Dump Pit (140-05-G)	Dust Collector	0.1 - 6
Corn Elevator Conveying (140-07-G)	Dust Collector	0.1 - 6
Gravity Take-up Conveyor (140-06-G)	Dust Collector	0.1 - 6
Corn Cleaner (33-03-G)	Dust Collector	0.1 - 6
Corn Screenings System (30-16-G)	Dust Collector	0.1 - 6
No. 1 and No. 2 Bran Bunkers (89-06-G)	Bin Vent	0.1-6
No. 2 Bran Bunker (89-07-G)	Bin Vent	0.1-6
Bran Preweigh Hopper (89-09-G)	Bin Vent	0.1-6

The instrument used for determining the pressure shall comply with Section C - ~~Pressure Gauge and Other~~ Instrument Specifications, of this permit, shall be subject to approval by IDEM-OAQ and HDEM and shall be calibrated at least once every six (6) months ~~or in accordance with the manufacturer's specifications provided those specifications are available on site with the Preventive Maintenance Plan~~.

D.3.~~14~~**15** Parametric Monitoring (Scrubbers)

The Permittee shall record the recirculation liquid flow rate and total static pressure drop across each scrubber used in the Grind and Feedhouse Area, at least once per day when the associated system is in operation. When for any one reading, the pressure drop across a scrubber is outside the following ranges or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedances**. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

	Unit ID	Control Equipment	Pressure Drop Range (inches of water)
~~(a)~~	Gluten Ring Dryer System (121-01-G)	Wet Scrubber	12 -19
	No. 2 Gluten Dryer (121A-01-G)	Wet Scrubber	12-19
	Germ Dryer/Cooler (203-01-G)	Wet Scrubber	6-12
	Bran conveyor System (89-08-G)	Scrubber	0.1-6
~~(b)~~	~~First Stage Germ Dryer Receiver (21A-01-G)~~	~~Cyclone~~	~~N/A~~
~~(c)~~	~~First Stage Germ Dryer Exhaust (21A-02-G)~~	~~Cyclone and Roto-clone~~	~~N/A~~
~~(d)~~	~~Second Stage Germ Dryer Receiver (51A-01-G)~~	~~Cyclone~~	~~N/A~~

	Unit ID	Control Equipment	Pressure Drop Range (inches of water)
~~(e)~~	~~Second Stage Germ Dryer Exhaust (51A-02-G)~~	~~Scrubber~~	~~TBD~~
~~(f)~~	Fiber Drying Equipment (89-01-G)	Scrubber	0.1 - 6
~~(g)~~	~~Rotary Feed Dryer (89-03-G)~~	~~4 Cyclones~~	~~N/A~~
~~(h)~~	~~Dry Feed Transfer (89-05-G)~~	~~Dust Collector~~	~~0.1 - 6~~
~~(i)~~	~~Waxy Feed Drum Dryer (124-01-G)~~	~~Wet Scrubber~~	~~TBD~~
~~(j)~~	~~Germ Storage Silo (121-14-G)~~	~~Dust Collector~~	~~0.1 - 6~~
~~(k)~~	Germ Dryer/Cooler (124A-01-G)	~~4 Cyclones~~ Scrubber	~~N/A~~ 6-12
~~(l)~~	~~Waxy Feed Mill Equipment (124-22-G)~~	~~Dust Collector~~	~~0.1 - 6~~
~~(m)~~	~~Corn Screen to G2 Wet Feed Transfer (124-23-G)~~	~~Dust Collector~~	~~0.1 - 6~~
~~(n)~~	~~Loose Feed Bin Vent (201-05-G)~~	~~Bin Vent Filter~~	~~0.1 - 6~~
~~(o)~~	~~Hammermill #1 (201-01-G)~~	~~Dust Collector~~	~~0.1 - 6~~
~~(p)~~	~~Hammermill #2 (201-02-G)~~	~~Dust Collector~~	~~0.1 - 6~~
~~(q)~~	~~Pellet Cooler #1 (201-03-G)~~	~~Cyclone~~	~~N/A~~
~~(r)~~	~~Pellet Cooler #2 (201-04-G)~~	~~Cyclone~~	~~N/A~~
~~(s)~~	~~Central Vacuum Pelletizing (201-06-G)~~	~~Dust Collector~~	~~0.1 - 6~~
~~(t)~~	~~Central Vacuum Loadout (200-07-G)~~	~~Dust Collector~~	~~0.1 - 6~~
~~(u)~~	~~Germ Tank 1310 (200-01-G)~~	~~Dust Collector~~	~~0.1 - 6~~
~~(v)~~	~~Gluten Tank 1410 (200-02-G)~~	~~Dust Collector~~	~~0.1 - 6~~
~~(w)~~	~~Corn Screenings Silo (200-06-G)~~	~~Dust Collector~~	~~0.1 - 6~~
~~(x)~~	~~Gluten Tank 1010 (200-04-G)~~	~~Dust Collector~~	~~0.1 - 6~~
~~(y)~~	~~Germ Tank 1110 (200-03-G)~~	~~Dust Collector~~	~~0.1 - 6~~
~~(z)~~	~~Bulk Loadout (200-05-G)~~	~~Dust Collector~~	~~0.1 - 6~~
~~(aa)~~	~~Corn Dump Pit (140-05-G)~~	~~Dust Collector~~	~~0.1 - 6~~
~~(bb)~~	~~Corn Elevator Conveying (140-07-G)~~	~~Dust Collector~~	~~0.1 - 6~~
~~(cc)~~	~~Corn Receiving and Storage Silos (6)~~	~~Bin Vents~~	~~NA~~
~~(dd)~~	~~Gravity Take-up Conveyor (140-06-G)~~	~~Dust Collector~~	~~0.1 - 6~~
~~(ee)~~	~~Corn Cleaner (33-03-G)~~	~~Dust Collector~~	~~0.1 - 6~~
~~(ff)~~	~~Corn Screenings System (30-16-G)~~	~~Dust Collector~~	~~0.1 - 6~~

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

~~D.3.15 Baghouse (Dust Collector) Inspections~~

~~An inspection shall be performed each calendar quarter of all bags that control particulate emissions. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.~~

D.3.16 Broken or Failed Bag Detection

~~In the event that bag failure has been observed:~~

~~(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response~~

~~steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 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.~~

~~(b) For single compartment baghouses, if failure is indicated by a significant drop in the pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, or dust traces, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).~~

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

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

~~D.3.17 Cyclone Inspections~~

~~An inspection shall be performed each calendar quarter of all cyclones used as control devices.~~

~~D.3.18 Cyclone Failure Detection~~

~~In the event that cyclone failure has been observed:~~

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

~~D.3.19 Scrubber Inspections~~

~~An inspection shall be performed each calendar quarter of all scrubbers used as control devices. Defective scrubber parts shall be replaced. A record shall be kept of the results of the inspection and any corrective actions taken.~~

D.3.~~20~~**17**Scrubber Failure Detection

In the event that a scrubber's failure has been observed:

~~(a) The affected unit will be shut down immediately until the failed unit has been replaced.~~

~~(b) Based on the confirmed findings of an inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.~~

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

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

D.3.~~21~~**18**Record Keeping Requirements

(a) To document compliance with Condition ~~D.3.12~~ **D.3.13**, the Permittee shall maintain a daily record of visible emission notations of the Grind and Feedhouse Area Facility 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).

(b) To document compliance with Condition ~~D.3.13~~ **D.3.14** and ~~D.3.14~~ **D.3.15**, the Permittee shall maintain a daily record of the pressure drop readings and the scrubber recirculation liquid flow rates. The Permittee shall include in its daily record when a pressure drop reading or scrubber recirculation flow rate is not taken and the reason for the lack of a pressure drop reading or scrubber recirculation flow rate (e.g. the process did not operate that day).

~~(c) To document compliance with Condition D.3.11, the Permittee shall record the thermal oxidizer operating temperature once per day when the unit is operating. The Permittee shall include in its daily record when an operating temperature reading is not taken and the reason for the lack of operating temperature reading (e.g. the process did not operate that day). The Permittee shall also have a record of the operating temperature used to demonstrate compliance during the most recent compliance stack test.~~

~~(d) To document compliance with Condition D.3.15, D.3.17, and D.3.19, the Permittee shall maintain records of the results of the inspections.~~

(~~e~~**c**) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

(21) Conditions D.5.10 and D.5.11 have been modified to split the table in Condition D.5.11 between the two conditions for clarification purposes as follows:

D.5.10 Parametric Monitoring (Dust Collectors)

The Permittee shall record the total static pressure drop across the control device used in conjunction with each Refinery Area facility as listed below, at least once per day, when the associated facility is in operation. When for any one reading, the pressure drop across the baghouse or dust collector is outside any of the following ranges or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedances**. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

	Unit ID	**Control Equipment**	**Pressure Drop Range (inches of water)**
(a)	**Corn Syrup Solids Mfg System #2 (18-03-R)**	**Dust Collector**	**5 - 15**
(f)	**Filter Aid Hopper (104-03-R)**	**Dust Collector**	**0.1 - 6**
(g)	**Sodium Bisulfite Bag Dump (104-05-R)**	**Dust Collector**	**0.1 - 6**
(h)	**Diatomaceous Earth Unloading Silo (104-08-R)**	**Bin Vent Filter**	**0.1 - 6**
(i)	**Citric Acid Dump Station (Unit ID 104-09-R).**	**Dust Collector**	**0.1 - 6**

The instrument used for determining the pressure shall comply with Section C - ~~Pressure Gauge and Other~~ Instrument Specifications, of this permit, shall be subject to approval by IDEM-OAQ and HDEM and shall be calibrated at least once every six (6) months ~~or in accordance with the manufacturer's specifications provided those specifications are available on site with the Preventive Maintenance Plan~~.

D.5.11 Parametric Monitoring (Scrubbers)

The Permittee shall record the recirculation liquid flow rate and total static pressure drop across each scrubber used in the Refinery Area, at least once per day when the associated system is in operation. When for any one reading, the pressure drop across a scrubber is outside the following ranges or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedances**. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

	Unit ID	Control Equipment	Pressure Drop Range (inches of water)
~~(a)~~	~~Corn Syrup Solids Mfg System #2 (18-03-R)~~	~~Dust Collector~~	~~5 - 15~~
(b)	Corn Syrup Spray Dryer #4 (100-03-R)	Wet Scrubber	1.0 – 8.0
(c)	Corn Syrup Spray Dryer/Cooler System #3 (100-01-R)	Wet Scrubber	0.1 - 6
(d)	Activated Carbon Regeneration Furnace #2 (104-01-R)	Wet Scrubber	TBD
(e)	Soda Ash Tank (104-02-R)	Wet Scrubber	0.25 – 0.5
~~(f)~~	~~Filter Aid Hopper (104-03-R)~~	~~Dust Collector~~	~~0.1 - 6~~
~~(g)~~	~~Sodium Bisulfite Bag Dump (104-05-R)~~	~~Dust Collector~~	~~0.1 - 6~~
~~(h)~~	~~Diatomaceous Earth Unloading Silo (104-08-R)~~	~~Bin Vent Filter~~	~~0.1 - 6~~
~~(i)~~	~~Citric Acid Dump Station (Unit ID 104-09-R).~~	~~Dust Collector~~	~~0.1 - 6~~

(22) The language in Condition D.5.15 has been updated for clarification purposes as follows:

D.5.1~~5~~**3** Scrubber Failure Detection

In the event that a scrubber's failure has been observed:

~~(a) The affected unit will be shut down immediately until the failed unit has been replaced.~~

~~(b) Based on the confirmed findings of an inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.~~

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

(23) Section D.6 has been modified to reflect the removal of Reactor #1 (128-06-S) as follows:

SECTION D.6 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: **VI. Starch Production Area**

...

(i) Reactors ~~#1~~ **#2** through 8 (Unit IDs ~~128-06-S~~ **128-07-S** through 128-13-S) installed November 1988 (~~1~~ **2**-4) and December 1991 (5-8). Corn starch and propylene oxide are reacted through Reactors 2, 3, 4, and 7 only. When propylene oxide is used in the starch reaction, VOC emissions are controlled by a thermal oxidizer that exhausts to stack S128-14-S.

...

(24) Per the request of the Permittee, the descriptive term small has been removed from the Facility Description box for Section D.4 as follows:

Facility Description [326 IAC 2-7-5(15)]: **IV. Utility Area**

The Utility area includes the following boilers used to supply steam for plant processes. A ~~small~~ rental, natural gas-fired boiler is used when all boilers are down for maintenance.

...

(25) Upon further review, IDEM, OAQ has determined it is necessary for instruments used to determine the pressure drop across control devices need to be calibrated at least once every six (6) months. Condition D.7.6 has been updated as follows:

D.7.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across the control device used in conjunction with each Starch Warehouse Area facility as listed below, at least once per day when the associated facility is in operation. When for any one reading, the pressure drop across the baghouse or dust collector is outside any of the following ranges or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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 HDEM and shall be calibrated at least once every six (6) months ~~or in accordance with the manufacturer's specifications provided those specifications are available on site with the Preventive Maintenance Plan.~~

...

Conclusion and Recommendation

The construction and operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 089-25241-00203 and Significant Permit Modification No. 089-25259-00203. The staff recommend to the Commissioner that this Part 70 Significant Source and Significant Permit Modification be approved.

Appendix A: Emissions Calculations
Summary

Company Name: Cargill, Inc.
Address City IN Zip: 1100 Indianapolis Blvd., Hammond, IN 46320
Significant Source Modification No.: 089-25241-00203
Significant Permit Modification No.: 089-25259-00203
Reviewer: Kristen Layton
Date: February 20, 2008

PROJECT EMISSION SUMMARIES, NETTING ANALYSIS, AND DE MINIMIS ANALYSIS

	Emissions (ton/yr)					
Process/Emission Unit	**PM**	**PM_{10}**	**SO_2**	**VOC**	**CO**	**NO_x**
PTE (New Units)						
No. 2 Gluten Dryer	10.51	10.51	7.03	7.01	16.08	7.45
Germ Dryer/Cooler (new)	12.31	12.31	17.25	9.16	5.40	13.14
No. 1 Bran Bunker	0.03	0.03	-	-	-	-
No. 2 Bran Bunker	0.03	0.03	-	-	-	-
Bran Conveyor System	1.40	1.40	-	-	-	-
Bran Preweigh Hopper	0.03	0.03	-	-	-	-
PTE	**24.30**	**24.30**	**24.28**	**16.17**	**21.48**	**20.59**
Actual to Projected Actual (Grind Area Units Increased Utilization)						
Baseline	29.88	29.88	7.09	36.13	128.62	28.10
Projected Actuals	51.04	51.04	10.29	32.60	81.13	41.61
Emissions Increase (ATPA)	**21.16**	**21.16**	**3.20**	**<0**	**<0**	**13.51**
Actual to Projected Actual (BCD Area Modified Units)						
Baseline	1.13	1.13	-	-	-	-
Projected Actuals	1.70	1.70	-	-	-	-
Emissions Increase (ATPA)	**0.57**	**0.57**	**-**	**-**	**-**	**-**
Hybrid Test						
Total PTE New Units	24.30	24.30	24.28	16.17	21.48	20.59
Total Emissions Increase from ATPA	21.72	21.72	3.20	<0	<0	13.51
Hybrid Test Emissions Increase	**46.02**	**46.02**	**27.48**	**16.17**	**21.48**	**34.10**
PSD Significant Threshold	**25**	**15**	**40**	**40**	**100**	**40**

Cargill, Inc. - Hammond
PROJECT EMISSION SUMMARIES, NETTING ANALYSIS, AND DE MINIMIS ANALYSIS

Netting Emissions (ton/yr)		
Process / Emission Unit	**PM**	**PM_{10}**
PTE of New Units		
No. 2 Gluten Dryer	10.51	10.51
Germ Dryer/Cooler (new)	12.31	12.31
No. 1 Bran Bunker	0.03	0.03
No. 2 Bran Bunker	0.03	0.03
Bran Conveyor System	1.40	1.40
Bran Preweigh Hopper	0.03	0.03
PTE	24.30	24.30
Actual to Future Allowables (Existing Units)		
Baseline Grind Area	29.88	29.88
Baseline BCD Area	1.13	1.13
Total Baseline	**31.02**	**31.02**
Future Allowables Grind Area	51.04	51.04
Future Allowables BCD Area	1.70	1.70
Total Future Allowables	**52.74**	**52.74**
Actual to Future Allowables	**21.72**	**21.72**
Contemporaneous Netting		
PTE + Actual to Future Allowables	46.02	46.02
Grind Modernization (Units shutdown prior to issuance)	-34.46	-34.46
Gluten Dryer Modification (Appl 12/2003, Approval 11/2004)	2.22	2.22
Germ & Gluten Storage Tanks Control Unit Mods (Appl 6/2004, Approval 8/2005)	0.21	0.21
Boiler Modifications, includes Temp Boiler (Appl 11/2005, Approvals 9/2006 & 11/2006)	4.7	7.2
BCD Dryer, BCD Reactor, HPCD Reactor Shutdowns (Appl 4/2007, Approval 5/2007)	-0.58	-0.58
Emissions Increase of the Project - Upon Issuance	18.11	20.61
Existing Germ Dryer/Cooler (Shutdown required by permit within 180 days after issuance)	-5.65	-5.65
Emissions Increase for the Project	12.46	14.96
PSD Significant Threshold	25	15

Cargill, Inc. - Hammond
PROJECT EMISSION SUMMARIES, NETTING ANALYSIS, AND DE MINIMIS ANALYSIS

De Minimis Analysis (ton/yr)	
Process/Emission Unit	**VOC**
Emissions Increase Upon issuance (Grind and BCD Area Modification)	24.10
Grind Modernization (Units shutdown prior to issuance)	-18.95
Gluten Dryer Modification (Appl 12/2003, Approval 11/2004)	0.14
Germ & Gluten Storage Tanks Control Unit Mods (Appl 6/2004, Approval 8/2005)	-
Boiler Modifications, includes Temp Boiler (Appl 11/2005, Approvals 9/2006 & 11/2006)	3.40
BCD Dryer, BCD Reactor, HPCD Reactor Shutdowns (Appl 4/2007, Approval 5/2007)	-0.95
Emissions Increase of the Project - Upon Issuance	7.73
Existing Germ Dryer/Cooler (Shutdown required by permit within 180 days after issuance)	-2.45
Emissions Increase for the Project	5.28
PSD Significant Threshold	25

Only net emission increases count towards De Minimis.
NSR is not triggered.
PSD/Offsets are not triggered.
NOTE: No onsite contractors at this facility.
NOTE: PM emissions include condensibles based on SIP.
NOTE: SO2 increase excludes reductions (netting) for shutdown of Consent Decree units beyond the mandates reductions.

CARGIL, INC. - HAMMOND
BCD Area - PM/PM-10/PM-2.5 Emission Factors and Operating Data

PM Source Units	ID No.	Manufacture Specifications (lb/hr)	Baseline Emission Factor (lb/hr)	Future Emission Factor (lb/hr)	Comments
No. 1 BCD Storage Hopper (convert to Unit 127-28-B)	127-23-B	0.18	0.1800	-	Process shutdown and converted to Alt Carbohydrate process (now Unit 127-28-B)
No. 2 BCD Storage Hopper (convert to Unit 127-29-B)	127-24-B	0.18	0.1800	-	Process shutdown and converted to Alt Carbohydrate process (now Unit 127-29-B)
BCD Mill Feed Hopper (convert to Unit 127-30-B)	127-25-B	0.028	0.0280	-	Process shutdown and converted to Alt Carbohydrate process (now Unit 127-30-B)
No. 1 Alt. Carbohydrate Storage Bin (formerly 127-23-B)	127-28-B	0.18	-	0.1800	Using same emission factor as Unit #127-23-B, because the same emission unit and baghouse are used.
No. 2 Alt. Carbohydrate Storage Bin (formerly 127-24-B)	127-29-B	0.18	-	0.1800	Using same emission factor as Unit #127-24-B, because the same emission unit and baghouse are used.
Alt. Carbohydrate Mill Feed Hopper (formerly 127-25-B)	127-30-B	0.028	-	0.0280	Using same emission factor as Unit #127-25-B, because the same emission unit and baghouse are used.

BCD Operating Data

Unit	ID No.	Baseline Operating Hours	Future Operating Hours	Comments
No. 1 BCD Storage Hopper (convert to Unit 127-28-B)	127-23-B	5,840	-	Data from operations, normal historic operating hours.
No. 2 BCD Storage Hopper (convert to Unit 127-29-B)	127-24-B	5,840	-	Data from operations, normal historic operating hours.
BCD Mill Feed Hopper (convert to Unit 127-30-B)	127-25-B	5,840	-	Data from operations, normal historic operating hours.
No. 1 Alt. Carbohydrate Storage Bin (formerly 127-23-B)	127-28-B	-	8,760	Operation baghouse at 8760 max operating hours.
No. 2 Alt. Carbohydrate Storage Bin (formerly 127-24-B)	127-29-B	-	8,760	Operation baghouse at 8760 max operating hours.
Alt. Carbohydrate Mill Feed Hopper (formerly 127-25-B)	127-30-B	-	8,760	Operation baghouse at 8760 max operating hours.

CARGIL, INC. - HAMMOND
BCD Area - PM/PM-10/PM-2.5 Emission Calculations

		Baseline Actual Emissions						Future Potential Emissions						
PM Source Units	**ID No.**	**BH Hours of Operation**	**Controlled Emission Factor (lb/hr)**	**Uncontrolled Emission Factor (lb/hr)**	**Cap Eff**	**Ctrl Eff**	**Baseline Emissions (tpy)**	**BH Hours of Operation**	**Controlled Emission Factor (lb/hr)**	**Uncontrolled Emission Factor (lb/hr)**	**Cap Eff**	**Ctrl Eff**	**Future Controlled Emissions (tpy)**	**Net Emissions Increase per Unit (tpy)**
No. 1 BCD Storage Hopper (convert to Unit 127-28-B)	127-23-B	5,840	0.180	900	100%	99.98%	0.53	PROCESS CONVERTED TO ALT CARBOHYDRATE PROCESS					-	(0.53)
No. 2 BCD Storage Hopper (convert to Unit 127-29-B)	127-24-B	5,840	0.180	900	100%	99.98%	0.53	PROCESS CONVERTED TO ALT CARBOHYDRATE PROCESS					-	(0.53)
BCD Mill Feed Hopper (convert to Unit 127-30-B)	127-25-B	5,840	0.028	140	100%	99.98%	0.08	PROCESS CONVERTED TO ALT CARBOHYDRATE PROCESS					-	(0.08)
No. 1 Alt. Carbohydrate Storage Bin (formerly 127-23-B)	127-28-B	FORMERLY NO. 1 BCD STORAGE HOPPER 127-23-B						8,760	0.180	900	100%	99.98%	0.79	0.79
No. 2 Alt. Carbohydrate Storage Bin (formerly 127-24-B)	127-29-B	FORMERLY NO. 2 BCD STORAGE HOPPER 127-24-B						8,760	0.180	900	100%	99.98%	0.79	0.79
Alt. Carbohydrate Mill Feed Hopper (formerly 127-25-B)	127-30-B	FORMERLY BCD MILL FEED HOPPER 127-25-B						8,760	0.028	140	100%	99.98%	0.12	0.12

Total Baseline Emissions: **1.13**

Total Controlled Future Emissions: **1.70**

All units controlled by a baghouse.

Total Emissions Inceases: **0.57**

Emissions Increase/Decrease: **0.57** **TPY**

CARGIL, INC. - HAMMOND
BCD AREA FACILITY DATA

Unit	ID No.	Control Equip	Capture Efficiency	Control Efficiency
No. 1 BCD Storage Hopper (convert to Unit 127-28-B)	127-23-B	Baghouse	100.0%	99.98%
No. 2 BCD Storage Hopper (convert to Unit 127-29-B)	127-24-B	Baghouse	100.0%	99.98%
BCD Mill Feed Hopper (convert to Unit 127-30-B)	127-25-B	Baghouse	100.0%	99.98%
No. 1 Alt. Carbohydrate Storage Bin (formerly 127-23-B)	127-28-B	Baghouse	100.0%	99.98%
No. 2 Alt. Carbohydrate Storage Bin (formerly 127-24-B)	127-29-B	Baghouse	100.0%	99.98%
Alt. Carbohydrate Mill Feed Hopper (formerly 127-25-B)	127-30-B	Baghouse	100.0%	99.98%

CARGILL, INC. - HAMMOND
Grind - PM/PM-10/PM-2.5 Emission Factors

		Baseline Emission Factor Calcs					Future Emission Factor Calcs				Emission Factors	
PM Source Units	ID No.	Baseline Rated Grain Loading (gr/scf)	Baseline Rated Flow Rate (acfm)	Baseline Rated Temp (F)	lb/hr Emission Factor	*Adjusted Emission Factor (lbs/hr)	Future Rated Grain Loading (gr/scf)	Future Rated Flow Rate (acfm)	Future Rated Temp (F)	lb/hr Emission Factor	Baseline Emission Factor (lb/hr)	**Future Emission Factor (lb/hr)
Corn Screening System	30-16-G	0.01	855	70	0.0733	0.0600	Using SIP Limit			0.06	0.0600	0.0600
Storage Bin No. 5 (Grind 1)	33-01-G	0.02	1,000	70	0.1714	0.1710	Using SIP Limit			0.171	0.1710	0.1710
Storage Bin No. 6 (Grind 2)	33-02-G	0.02	1,000	70	0.1714	0.1710	Using SIP Limit			0.171	0.1710	0.1710
Corn Cleaner	33-03-G	0.01	2,200	70	0.1886	-	Using SIP Limit			0.21	0.1886	0.2100
Fiber Dryer	89-01-G	0.01	81,705	176	5.8361	4.5000	Using SIP Limit			4.5	4.5000	4.5000
Rotary Feed Dryer	89-03-G	0.03	35,000	1,000	3.2671	-	Shutdown				3.2671	0
Dry Feed Transfer (grind 1)	89-05-G	0.01	1,000	70	0.0857	-	Shutdown				0.0857	0
No. 1 Gluten Dryer (existing)	121-01-G	0.03	9,700	179	2.05	-	Using SIP Limit			3	2.0500	3.0000
Germ Storage Silo	121-14-G	0.01	1,200	100	0.0973	-	Shutdown				0.0973	0
Waxy Feed Drum Dryer	124-01-G	0.03	41,520	135	5.40	-	Shutdown				5.4000	0
Waxy Feed Mill Equipment	124-22-G	0.01	600	70	0.0514	0.0510	Shutdown				0.0510	0
Wet Feed Transfer (grind 2)	124-23-G	0.01	1,000	70	0.0857	-	Shutdown				0.0857	0
Germ Dryer/Cooler (existing)	124A-01-G	0.02	13,600	200	2.02	1.87	Shutdown				1.8700	0
Storage Bin #3	140-03-G	0.02	1,000	70	0.1714	-	Using SIP Limit			0.343	0.1714	0.3430
Storage Bin #4	140-04-G	0.02	1,000	70	0.1714	-	Using SIP Limit			0.343	0.1714	0.3430
Storage Bin #1	140-01-G	0.02	1,000	70	0.1714	-	Using SIP Limit			0.343	0.1714	0.3430
Storage Bin #2	140-02-G	0.02	1,000	70	0.1714	-	Using SIP Limit			0.343	0.1714	0.3430
Corn Dump Pit	140-05-G	0.01	30,000	70	2.5714	1.2860	Using SIP Limit			1.286	1.2860	1.2860
Gravity Take-Up Conveyor	140-06-G	0.01	1,800	70	0.1543	0.1540	Using SIP Limit			0.154	0.1540	0.1540
Corn Elevator Conveying	140-07-G	0.01	1,000	70	0.0857	-	Using SIP Limit			0.086	0.0857	0.0860
Germ Tank 1310	200-01-G	0.01	80	70	0.0034	-	Using SIP Limit			0.05	0.0034	0.0500
Gluten Tank 1410	200-02-G	0.01	80	70	0.0034	-	Using SIP Limit			0.05	0.0034	0.0500
Germ Tank 1110	200-03-G	0.01	1,200	70	0.0514	0.0500	Using SIP Limit			0.05	0.0500	0.0500
Gluten Tank 1010	200-04-G	0.01	1,200	70	0.0514	0.0500	Using SIP Limit			0.05	0.0500	0.0500
Bulk Loadout	200-05-G	0.01	30,000	70	1.2857	1.2100	Using SIP Limit			1.21	1.2100	1.2100
Corn Screenings Silo	200-06-G	0.01	400	70	0.0171	-	Using SIP Limit			0.02	0.0171	0.0200
Central Vacuum Loadout	200-07-G	0.01	400	70	0.0171	-	Using SIP Limit			0.02	0.0171	0.0200
Hammermill No. 1	201-01-G	0.01	4,000	70	0.1714	0.1500	Shutdown				0.1500	0
Hammermill No. 2	201-02-G	0.01	4,000	70	0.1714	0.1500	Shutdown				0.1500	0
Pellet Cooler No. 1	201-03-G	0.02	1,700	70	0.2186	-	Shutdown				0.2186	0
Pellet Cooler No. 2	201-04-G	0.02	1,700	70	0.2186	-	Shutdown				0.2186	0
Loose Feed Bin Vent	201-05-G	0.01	80	70	0.0034	-	Shutdown				0.0034	0
Central Vacuum Pelletizing	201-06-G	0.01	400	70	0.0171	-	Shutdown				0.0171	0
Receiver 1st Stage Germ Dryer	21A-01-G	0.02	1,000	100	0.1217	0.1200	Shutdown				0.1200	0
1st Stage Germ Dryer	21A-02-G	0.01	5,730	150	0.68	0.67	Shutdown				0.6700	0
Receiver 2nd Stage Germ Dryer	51A-01-G	0.02	1,200	100	0.1947	0.1900	Shutdown				0.1900	0
2nd Stage Germ Dryer	51A-02-G	0.02	5,730	150	0.68	-	Shutdown				0.6800	0
No. 2 Gluten Dryer (New)	121A-01-G	New Unit					Current Test Data			2.05	-	2.4000
Germ Dryer (New)	203-01-G	New Unit					Current Test Data			2.02	-	2.8100
No. 1 Bran Bunker (New)	89-06-G	New Unit					0.01	80	110	0.0064	-	0.0064
No. 2 Bran Bunker (New)	89-07-G	New Unit					0.01	80	110	0.0064	-	0.0064
Bran Conveyor System	89-08-G	New Unit (see note below)					0.01	4,000	110	0.3188	-	0.3188
Bran Preweigh Hopper	89-09-G	New Unit					0.01	80	110	0.0064	-	0.0064

*Baseline emission factors were adjusted down to the SIP Limit if the calculated emisison factor was higher.

**Per request of the source, the future emission factors for the new No. 2 Gluten Dryer (121A-01-G) and Germ Dryer (203-01-G) have been conservatively adjusted.

NOTE: Baseline emission factors are based on grain loading unit where test data was not available. Baseline hours of operation were based on baseline period production ratio "actual:capacity".

NOTE: Unit 89-08-G, using grain loading and the additional flow from the high pressure fan system to compute emission rate. This unit feeds into Fiber Dryer 89-01-G scrubber using a high pressure fan for exhaust transfer.

Test Data for Future EF	ID	Date	Emissions (lb/hr)	NOTES:
No. 2 Gluten Dryer (New)	121A-01-G	05/17/07	2.05	Recent test data, front + back half PM, compliance test using Methods 5 and 202.
Germ Dryer (New)	203-01-G	05/11/07	2.02	Recent test data, front + back half PM, compliance test using Methods 5 and 202.

Test Data for Baseline EF	ID	Date	Emissions (lb/hr)	NOTES:
No. 1 Gluten Dryer (existing)	121-01-G	05/17/07	2.05	Recent test data = Front + back half PM, compliance test using Methods 5 and 202.
Waxy Feed Drum Dryer	124-01-G	12/07/93	5.40	Baseline PM Test Data. Method 5. This test pre-dates the baseline period of 97/98 but is the only data available.
Germ Dryer/Cooler (existing)	124A-01-G	05/17/07	2.02	Recent test data = Front + back half PM, compliance test using Methods 5 and 202.
1st Stage Germ Dryer	21A-02-G	see note	0.68	Baseline PM test data, Method 5. Using data from 2nd stage germ dryer test, 1st stage germ not available. See note below.
2nd Stage Germ Dryer	51A-02-G	05/15/96	0.68	Baseline PM Test Data. Method 5. This test pre-dates the baseline period of 97/98 but only data available.

EF = Emission Factor

CARGILL, INC. - HAMMOND
Grind - PM/PM-10/PM-2.5 Emission Calculations

		Baseline Actual Emissions						Future Potential Emissions						
PM Source Units	ID No.	Baseline Hours of Operation	Controlled Emission Rate (lb/hr)	Uncontrolled Emission Rate (lb/hr)	Cap Eff	Ctl Eff	Baseline Emissions (tpy)	Future Hours of Operation	Controlled Emission Rate (lb/hr)	Uncontrolled Emission Rate (lb/hr)	Cap Eff	Ctl Eff	Controlled Future Emissions (tpy)	Net Emissions per Unit (tpy)
Corn Screening System	30-16-G	6,047	0.060	50.0	100%	99.88%	0.18	8,760	0.060	50.0	100%	99.88%	0.26	0.08
Storage Bin No. 5 (Grind 1)	33-01-G	6,047	0.171	142.5	100%	99.88%	0.52	8,760	0.171	142.5	100%	99.88%	0.75	0.23
Storage Bin No. 6 (Grind 2)	33-02-G	6,047	0.171	142.5	100%	99.88%	0.52	8,760	0.171	142.5	100%	99.88%	0.75	0.23
Corn Cleaner	33-03-G	4,380	0.189	157.1	100%	99.88%	0.41	8,760	0.210	157.1	100%	99.88%	0.83	0.41
Fiber Dryer	89-01-G	6,047	4.500	41.3	100%	89.10%	13.61	8,760	4.500	41.3	100%	89.10%	19.71	6.10
Rotary Feed Dryer	89-03-G	6,047	3.267	311.2	100%	98.95%	9.88	Shutdown					0.00	(9.88)
Dry Feed Transfer (grind 1)	89-05-G	6,047	0.086	71.4	100%	99.88%	0.26	Shutdown					0.00	(0.26)
No. 1 Gluten Dryer	121-01-G	6,047	2.050	306.0	100%	99.33%	6.20	8,760	3.000	447.8	100%	99.33%	13.14	6.94
Germ Storage Silo	121-14-G	6,047	0.097	486.7	100%	99.98%	0.29	Shutdown					0.00	(0.29)
Waxy Feed Drum Dryer	124-01-G	6,047	5.400	534.7	100%	98.99%	16.33	Shutdown					0.00	(16.33)
Waxy Feed Mill Equipment	124-22-G	6,047	0.051	42.5	100%	99.88%	0.15	Shutdown					0.00	(0.15)
Wet Feed Transfer (grind 2)	124-23-G	6,047	0.086	8.4	100%	98.98%	0.26	Shutdown					0.00	(0.26)
Germ Dryer/Cooler (old)	124A-01-G	6,047	1.870	36.3	100%	94.85%	5.65	Shutdown					0.00	(5.65)
Storage Bin #3	140-03-G	5,840	0.171	16.8	100%	98.98%	0.50	8,760	0.343	16.8	100%	98.98%	0.75	0.25
Storage Bin #4	140-04-G	5,840	0.171	857.1	100%	99.98%	0.50	8,760	0.343	857.1	100%	99.98%	0.75	0.25
Storage Bin #1	140-01-G	5,840	0.171	16.8	100%	98.98%	0.50	8,760	0.343	16.8	100%	98.98%	0.75	0.25
Storage Bin #2	140-02-G	5,840	0.171	857.1	100%	99.98%	0.50	8,760	0.343	857.1	100%	99.98%	0.75	0.25
Corn Dump Pit	140-05-G	5,840	1.286	1071.7	100%	99.88%	3.76	8,760	1.286	1071.7	100%	99.88%	5.63	1.88
Gravity Take-Up Conveyor	140-06-G	4,380	0.154	128.3	100%	99.88%	0.34	8,760	0.154	128.3	100%	99.88%	0.67	0.34
Corn Elevator Conveying	140-07-G	4,380	0.086	71.4	100%	99.88%	0.19	8,760	0.086	71.4	100%	99.88%	0.38	0.19
Germ Tank 1310	200-01-G	6,047	0.003	2.9	100%	99.88%	0.01	8,760	0.050	2.9	100%	99.88%	0.02	0.00
Gluten Tank 1410	200-02-G	6,047	0.003	2.9	100%	99.88%	0.01	8,760	0.050	2.9	100%	99.88%	0.02	0.00
Germ Tank 1110	200-03-G	6,047	0.050	41.7	100%	99.88%	0.15	8,760	0.050	41.7	100%	99.88%	0.22	0.07
Gluten Tank 1010	200-04-G	6,047	0.050	41.7	100%	99.88%	0.15	8,760	0.050	41.7	100%	99.88%	0.22	0.07
Bulk Loadout	200-05-G	2,920	1.210	1008.3	100%	99.88%	1.77	8,760	1.210	1008.3	100%	99.88%	5.30	3.53
Corn Screening Silo	200-06-G	6,047	0.017	14.3	100%	99.88%	0.05	8,760	0.020	14.3	100%	99.88%	0.08	0.02
Central Vacuum Loadout	200-07-G	2,920	0.017	14.3	100%	99.88%	0.03	8,760	0.020	14.3	100%	99.88%	0.08	0.05
Hammermill No. 1	201-01-G	6,047	0.150	125.0	100%	99.88%	0.45	Shutdown					0.00	(0.45)
Hammermill No. 2	201-02-G	6,047	0.150	125.0	100%	99.88%	0.45	Shutdown					0.00	(0.45)
Pellet Cooler No. 1	201-03-G	6,047	0.219	20.8	100%	98.95%	0.66	Shutdown					0.00	(0.66)
Pellet Cooler No. 2	201-04-G	6,047	0.219	20.8	100%	98.95%	0.66	Shutdown					0.00	(0.66)
Loose Feed Bin Vent	201-05-G	6,047	0.003	2.9	100%	99.88%	0.01	Shutdown					0.00	(0.01)
Central Vacuum Pelletizing	201-06-G	2,920	0.017	14.3	100%	99.88%	0.03	Shutdown					0.00	(0.03)
Receiver 1st Stage Germ Dryer	21A-01-G	6,047	0.120	2.3	100%	94.85%	0.36	Shutdown					0.00	(0.36)
1st Stage Germ Dryer	21A-02-G	6,047	0.670	13.0	100%	94.85%	2.03	Shutdown					0.00	(2.03)
Receiver 2nd Stage Germ Dryer	51A-01-G	6,047	0.190	3.7	100%	94.85%	0.57	Shutdown					0.00	(0.57)
2nd Stage Germ Dryer	51A-02-G	6,047	0.680	13.2	100%	94.85%	2.06	Shutdown					0.00	(2.06)
No. 2 Gluten Dryer (New)	121A-01-G	New Unit					0.00	8,760	2.400	358.2	100%	99.33%	10.51	10.51
Germ Dryer (New)	203-01-G	New Unit					0.00	8,760	2.810	54.6	100%	94.85%	12.31	12.31
No. 1 Bran Bunker (New)	89-06-G	New Unit					0.00	8,760	0.006	5.3	100%	99.88%	0.03	0.03
No. 2 Bran Bunker (New)	89-07-G	New Unit					0.00	8,760	0.006	5.3	100%	99.88%	0.03	0.03
Bran Conveyor System	89-08-G	New Unit					0.00	8,760	0.319	2.9	100%	89.10%	1.40	1.40
Bran Preweigh Hopper	89-09-G	New Unit					0.00	8,760	0.006	5.3	100%	99.88%	0.03	0.03

Total Baseline Emissions: **70.00** **Total Controlled Future Emissions:** **75.31**

New bran conveyor exhausts into fiber dryer scrubber, using increase flow and grain loading for additional particulate calculation. **Total Emissions Increase:** **45.46**

69.04% Use this to adjust baseline for hours on continuously operated BH units and throughputs on units with lb/ton emission factors.
BH units that do not have 6,172 operating hrs on the baseline had specific operating hours estimated by the plant engineers.

Increase/Decrease: 5.32 TPY
PSD/Offset Threshold: 25/15 TPY

CARGILL, INC. - HAMMOND
Grind - SO2 Emission Factors

				Baseline Emission Factor Calculations				Future Emission Factor Calculations							
SO2 Source Units	**ID No.**	**Baseline Rated Max Capacity (tpy)**	**Future Rated Max Capacity (tpy)**	**Baseline Stack Test Data (lb/hr)**	**Test Date**	**Thruput During Test (lb/hr)***	**lb/ton Emission Factor based on test data**	**Future Stack Test Data (lb/hr)**	**Test Date**	**Thruput During Test (lb/hr)***	**lb/ton Emission Factor based on test data**	**Mandatory Controls from Consent Order**	**Baseline Emission Factor (lb/ton)**	**Future Emission Factor (lb/ton)**	**Comments***
Steep Tanks (Grind 1)	Bldg 24	1,226,400	1,226,400	NA	Oct 2004	NA	0.00000	NA	Oct 2004	NA	0.00000	No	0.00000	0.00000	See Steep EF calculation.
Steep Tanks (Grind 2)	Bldg 53	204,400	204,400	NA	Oct 2004	NA	0.00000	NA	Oct 2004	NA	0.00000	No	0.00000	0.00000	See Steep EF calculation.
Fiber Dryer	89-01-G	349,064	349,064	0.847	10/12/99	75,710	0.0224	Used same EF as baseline			0.0224	Yes	0.0224	0.0224	Per CD mandate, used same baseline and future emission factors.
Rotary Feed Dryer	89-03-G	389,820	0	0.565	10/13/99	84,550	0.0134	Shutdown				Yes	0.0134	0	Since unit is to be shutdown, baseline emission factor is reduced by 90% per CD.
No. 1 Gluten Dryer (existing)	121-01-G	86,286	86,286	1.14	02/25/00	18,715	0.1218	Used same EF as baseline			0.1218	Yes	0.1218	0.1218	Per CD mandate, used same baseline and future emission factors.
Waxy Feed Drum Dryer	124-01-G	242,214	0	0.565	10/13/99	52,535	0.0215	Shutdown				Yes	0.0215	0	Since unit is to be shutdown, baseline emission factor is reduced by 90% per CD.
Germ Dryer/Cooler (existing)	124A-01-G	72,620	0	0.191	10/20/99	15,751	0.0243	Shutdown				Yes	0.0243	0	Since unit is to be shutdown, baseline emission factor is reduced by 90% per CD.
1st Stage Germ Dryer	21A-02-G	65,700	0	0.747	05/15/96	14,250	0.1048	Shutdown				Yes	0.1048	0	Since unit is to be shutdown, baseline emission factor is reduced by 90% per CD.
2nd Stage Germ Dryer	51A-02-G	74,460	0	0.01	05/15/96	16,150	0.0012	Shutdown				Yes	0.0012	0	Since unit is to be shutdown, baseline emission factor is reduced by 90% per CD.
No. 2 Gluten Dryer (New)	121A-01-G	0	86,286	NEW UNIT				1.29	5/17/2007	15,830	0.1630	No	-	0.1630	Using recent test data for identical unit.
Germ Dryer (New)	203-01-G	0	169,068	NEW UNIT				1.47	5/11/2007	14,410	0.2040	No	-	0.2040	Using recent test data for identical unit.

Test Data for Future EF	Unit ID	Test Date	Emissions lb/hr	Prod Rate (lb/hr)	Comments:
No. 2 Gluten Dryer (New)	121A-01-G	05/17/07	1.29	15,830	Using for future potential EF calculation. EPA Test Method 6C used.
Germ Dryer (New)	203-01-G	05/11/07	1.47	14,410	Using for future potential EF calculation. EPA Test Method 6C used.

Test Data for Baseline EF	Unit ID	Test Date	Emissions lb/hr	Prod Rate (lb/hr)*	90% Reduced	NOTES:
1st Stage Germ Dryer	21A-02-G	05/15/96	7.47	14,250	0.747	Using for baseline EF calculation. EPA Test Method 6C used.
2nd Stage Germ Dryer	51A-02-G	05/15/96	0.1	16,150	0.01	Using for baseline EF calculation. EPA Test Method 6C used.
Fiber Dryer	89-01-G	10/12/99	8.47	75,710	0.847	Using for baseline EF calculation. EPA Test Method 6C used.
Rotary Feed Dryer	89-03-G	10/13/99	5.65	84,550	0.565	Using for baseline EF calculation. EPA Test Method 6C used.
No. 1 Gluten Dryer (existing)	121-01-G	02/25/00	11.4	18,715	1.14	Using for baseline EF calculation. EPA Test Method 6C used.
Waxy Feed Drum Dryer	124-01-G	10/13/99	5.65	52,535	0.565	Using for baseline EF calculation. EPA Test Method 6C used. Used same EF as Rotary Feed, no other test data available.
Germ Dryer/Cooler (existing)	124A-01-G	10/20/99	1.91	15,751	0.191	Using for baseline EF calculation. EPA Test Method 6C used.

CD = Consent Decree

95.0% *For test throughput data, using 95% of unit's capacity unless actual throughput data is available.

EF = Emission Factor

Baseline for consent decree emissions has not been established. 95% reduction used for demonstrative purposes only.

2004 Steep Tank Bag Sample and Analysis Testing
Grind Area Steeping Tanks
Using Equations from AP-42, 7.1, Sept 1997.

Eqn 1-1: Lt = Ls + Lw = Total Losses from Vertical Fixed Roof Tanks, lb
Ls = standing storage losses, lb
Lw = working losses, lb

Estimate Standing Losses

Eqn 1-2: Ls = 365*Vv*Wv*Ke*Ks = Standing Storage Loss, lb — Ls = 127.79 lbs vapor
Vv = vapor space volume, ft^3
Wv = vapor desity, lb/ft^3
Ke = vapor space expansion factor, dimensionless
Ks = vented vapor saturation factor, dimensionless
365 = constant, d

Calculate Vapor Space Volume:

Eqn 1-3: Vv = π/4*D^2*Hvo = Vapor Space Volume, ft^3 — Vv = 805.8 ft
D = tank diameter, ft — D = 18 ft
Hvo = vapor space outage, ft
Eqn 1-4: Hvo = (Hs - Hl) + Hro = Vapor Space Outage for Conical Tank, ft — Hvo = 3.17 ft
Hs - Hl = distance from top of liquid level to
base of conical tank top, ft — Hs - Hl = 2.5 ft
Hro = roof outage, ft = 1/3 Hr — Hro = 0.67 ft
Hr = height of the conical roof, ft — Hr = 2.0 ft

Calculate Vapor Density:

Eqn 1-9: Wv = Mv*Pva / R*Tla = Vapor Density, lb/ft^3 — Wv = 0.0638 lb/ft^3
Mv = vapor molecular weight in the vapor space, lb/lb-mole
R = ideal gas constant, psia*ft^3/lb-mole*R — R = 10.731 psia-ft^3/lb-mole-°R
Pva = vapor pressure at daily avg liquid surface temp, psia
Tla = daily avg liquid surface temp, °R — Tla = 593 °R (range is 126-140F)
Vapor in headspace is at atm pressure, psia — Patm = 14.696 psia
Vapor consists of 3 components: — Pva = 14.696 psia (same as atmospheric)
Water vapor partial pressure from steam tables @ 140F — Pwater = 2.889 psia
SO2 vapor partial pressure (using heavy steep SO2 conc):
1200 ppm = 1200 mg SO2/liter sol'n = 1.2 g SO2/liter sol'n
1 liter of sol'n weights 1000 g
1000 g sol'n - 1.2 g SO2 = 998.8 g water
1.2 g SO2/998.8 g water = 0.120 g SO2/100 g water
From Perry's Chem Egnr Handbook, table 2-11, p.2-77, 7th ed.
use partial pressure of SO2 over a solution @ 140F
of 17.14 mmHg. — P_{SO2} = 17.1429 mmHg (Perry's Handbook)
17.14 / 760 * 14.636 = 0.3301 psia — P_{SO2} = 0.3301 psia
Pva = total pressure of liquid stored, psia = ΣPi
Pi = partial pressure of vapor component gas
yi = Pi / ΣPi = Pi / Pva
yi = vapor mole (volume) fraction of vapor component gas
Mi = molecular weight of vapor component gas
Mv = ΣMi*yi = molecular weight of vapor
mi = Mi*yi / ΣMi*yi = Mi*yi / Mv
mi = mass fraction of vapor component gas in the vapor

Vapor Component Gas	Partial Pressure of Vapor Component Gas, psia (Pi)	Vapor Mole Fraction (volume) of Vapor Component Gas, mol gas/mol vapor (yi)	Molecular Weight of Vapor Component Gas, lb/lb-mole (Mi)	Molecular Weight of Vapor, lb/lb-mole (ΣMi*yi=Mv)	Vapor Mass Fraction, lb gas/lb vapor (mi)
SO2	0.3301	0.0225	64	27.624	0.0520
Water	2.889	0.1966	18	27.624	0.1281
Air	11.477	0.7810	29	27.624	0.8199
Totals	14.696	1.0000	-----	-----	1.0000

Mv = 27.624 lb/lb-mole

Calculate Vapor Space Expansion Factor:

Eqn 1-16: Ke = ΔTv/Tla + (ΔPv-ΔPb)/(Pa-Pva) — Ke = 0.024
ΔTv = daily vapor temp range, °R — ΔTv = 14 °R (use same as surface temp)
ΔPv = daily vapor pressure range, psi — ΔPv = 0 negligible at 126-140F range
ΔPb = breather vent pressure setting range, psi — ΔPb = 0 vents are open
Pa = atmospheric pressure, psia — Pa = 14.696 psia
Pva = vapor pressure at daily avg liquid surface temp, psia — Pva = 14.696 psia
Tla = daily avg liquid surface temp, °R — Tla = 593 °R

Calculate Vented Vapor Saturation Factor:

Eqn 1-22: Ks = 1 / (1+ 0.053Pva*Hvo) = Vented Vapor Saturation Factor, dimensionless

Pva = vapor pressure at daily avg liquid surface temp, psia

Hvo = vapor space outage, ft

Ks =	0.2885	
Pva =	14.696	psia
Hvo =	3.17	ft

Calculate SO2 Release from Standing Losses:

Mass fraction of SO2 in vapor = mi (see above)

SO2 release = mi_{SO2} x Ls

SO2 release from standing losses = 6.6511 lbs SO2/year per tank
negligible

mi_{SO2} =	0.0520	lb SO2/lb vapor (see table)
Ls =	127.792	lbs vapor (see above)

Baseline SO2 Release from Standing Losses:

Baseline SO2 release = 6.6511 lbs SO2/year per tank * 16.4 tanks/day

Baseline SO2 release = 108.93 lbs SO2/year
0.05 tons SO2/year

81886.3	bushels/day throughput rate
5000	bushels capacity/tank
16.4	tanks/day for steeping

Future SO2 Release from Standing Losses:

Future SO2 release = 6.6511 lbs SO2/year per tank * 8760 tanks/year

Baseline SO2 release = 159.63 lbs SO2/year
0.08 tons SO2/year

120000	bushels/day throughput rate
5000	bushels capacity/tank
24	tanks/day for steeping

Baseline Estimate Working Losses

Each steep tank holds 5000 bushels of corn.

With the daily throughput rate, calculate the number of tanks involved in steeping

No. of Tanks = daily throughput, bushels/day / 5000 bushels/tank

81886.3	bushels/day throughput rate
5000	bushels capacity/tank
13	cycles/tank
16.4	tanks/day for steeping

Assuming 365 days in operation for steeping process and 13 cycles per day per

Cycles per year = No. of tanks/day x 13 cycles/tank x 365 days

365	days steeping operation
77710.1	total cycles

Calculate Volume of Vapor Displaced from Each Tank During Each Cycle:

Estimate the height of the corn fill line in the tank using tank dimensions:

Vc = tank corn capacity / density of corn

Volume of bottom of a cone:

Vbcn = 1/3*π/4*D^2*Hcn

Remaining volume of corn:

Vcr = volume of corn/tank - volume of the cone

Height in cylindrical section of the tank:

Vcr = π/4*D^2*Hcyl

Hcyl = Vcr*4/πD^2

Volume above the corn fill line in the cylindrical section:

Vacf = π/4*D^2*Hacf

Volume of conical roof:

Vcrf = 1/3*π/4*D^2*Hcrf

Total volume above the corn fill line:

Vt = Vacf + Vcrf

ρ_c =	0.8	bushels corn/ft^3
Hc =	6250	ft^3 corn/tank
D =	18	ft (measured)
Hcn =	8.5	ft (measured)
Vbc =	721.0	ft^3
Vcr =	5529.0	ft^3 corn remaining
Hcyl =	21.73	ft (calculated)
Hacf =	4.3	ft (measured)
Vacf =	1094.22	ft^3
Hcrf =	2	ft (measured)
Vcrf =	169.65	ft^3
Vt =	1263.86	ft^3 (volume per cycle)

Calculate the Total Volume of the Vapor Displaced Annually:

Vvap = No. of cycles * volume per cycle

Vvap = 98,214,899 ft^3

Calculate SO2 Released From Working Losses of Vented Vapor:

Measured vapor concentration after approximately 26 hours of steep time was

SO2 = 100 ppm
100 ft^3 of SO2/10^6 ft^3 of vapor

Calculate the Volume Occupied by One Mole at 140F:

V = nRT/p

Calculate the Vapor Density:

ρ_v = 100 ft^3 SO2 x 1 mole SO2 x 64 lbs SO2
10^6 ft^3 vapor x V x 1 mole SO2

T =	600	°R
R =	1545	psfa-ft^3/lb-mol-R
V =	438.04	ft^3
ρ_v =	1.5E-05	lbs SO2/ft^3 vapor

SO2 release = ρ_v x Vvap

SO2 Releases from Working Losses = 1,434.96 lbs SO2/year

Total Baseline SO2 Releases:	1,543.88	lbs SO2/year
	0.7719	tons SO2/year
	0.1762	lb/hr
	4.23	lb/day

Future Estimate Working Losses

Each steep tank holds 5000 bushels of corn.

With the daily throughput rate, calculate the number of tanks involved in steeping and "empty/fill" steeping process.

No. of Tanks = daily throughput, bushels/day / 5000 bushels/tank

Assuming 365 days in operation for steeping process and 13 cycles per day per tank, calculate the total number of cycles per year for steeping.

Cycles per year = No. of tanks/day x 13 cycles/tank x 365 days

Calculate Volume of Vapor Displaced from Each Tank During Each Cycle:

Estimate the height of the corn fill line in the tank using tank dimensions:

Vc = tank corn capacity / density of corn

Volume of bottom of a cone:

Vbcn = 1/3*π/4*D^2*Hcn

Remaining volume of corn:

Vcr = volume of corn/tank - volume of the cone

Height in cylindrical section of the tank:

Vcr = π/4*D^2*Hcyl

Hcyl = Vcr*4/πD^2

Volume above the corn fill line in the cylindrical section:

Vacf = π/4*D^2*Hacf

Volume of conical roof:

Vcrf = 1/3*π/4*D^2*Hcrf

Total volume above the corn fill line:

Vt = Vacf + Vcrf

Calculate the Total Volume of the Vapor Displaced Annually:

Vvap = No. of cycles * volume per cycle

Calculate SO2 Released From Working Losses of Vented Vapor:

sampled in October 2004.

Calculate the Volume Occupied by One Mole at 140F:

V = nRT/p

Calculate the Vapor Density:

ρ_v = 100 ft^3 SO2 x 1 mole SO2 x 64 lbs SO2 / 10^6 ft^3 vapor x V x 1 mole SO2

SO2 release = ρ_v x Vvap

SO2 Releases from Working Losses = 2,102.85 lbs SO2

Total Future SO2 Releases:	2,262.48	lbs SO2/year
	1.1312	tons SO2/year
	0.2583	lb/hr
	6.20	lb/day

120000	bushels/day throughput rate	
5000	bushels capacity/tank	
13	cycles/tank	
24.0	tanks/day for steeping	
365	days steeping operation	
113880	total cycles	
ρ_c =	0.8	bushels corn/ft^3
Hc =	6250	ft^3 corn/tank
D =	18	ft (measured)
Hcn =	8.5	ft (measured)
Vbc =	721.0	ft^3
Vcr =	5529.0	ft^3 corn remaining
Hcyl =	21.73	ft (calculated)
Hacf =	4.3	ft (measured)
Vacf =	1094.22	ft^3
Hcrf =	2	ft (measured)
Vcrf =	169.65	ft^3
Vt =	1263.86	ft^3 (volume per cycle)
Vvap =	143,928,687	ft^3
SO2 =	100	ppm
	100 ft^3 of SO2/10^6 ft^3 of vapor	
T =	600	°R
R =	1545	psfa-ft^3/lb-mol-R
V =	438.04	ft^3
ρ_v =	1.5E-05	lbs SO2/ft^3 vapor

CARGILL, INC. - HAMMOND - PERMIT MODIFICATION REQUEST
Grind - SO2 Emission Calculations

		Baseline Actual Emissions						Future Potential Emissions						
SO2 Source Units	**ID No.**	**Baseline Thruput (tons)**	**Controlled Emission Factor (lb/ton)**	**Uncontrolled Emission Factor (lb/ton)**	**Cap Eff**	**Ctrl Eff**	**Baseline Emissions (tpy)**	**Future Throughput (tons)**	**Controlled Emission Factor (lb/ton)**	**Uncontrolled Emission Factor (lb/ton)**	**Cap Eff**	**Ctrl Eff**	**Controlled Future Emissions (tpy)**	**Net Emissions per Unit (tpy)**
Steep Tanks (Grind 1 & 2)	Bldg 24 & 53	846,649.1	N/A	N/A	0%	0.0%	0.77	1,226,400.0	N/A	N/A	0%	0.0%	1.13	0.36
Fiber Dryer	89-01-G	240,782.5	0.022	0.112	100%	80.0%	2.69	349,064.1	0.02237	0.112	100%	80.0%	3.91	1.21
Rotary Feed Dryer	89-03-G	268,895.7	0.013	0.013	100%	0.0%	1.80	SHUTDOWN					-	(1.80)
No. 1 Gluten Dryer (existing)	121-01-G	59,519.6	0.122	0.609	100%	80.0%	3.63	86,286.0	0.12183	0.609	100%	80.0%	5.26	1.63
Waxy Feed Drum Dryer	124-01-G	167,077.9	0.022	0.022	100%	0.0%	1.80	SHUTDOWN					-	(1.80)
Germ Dryer/Cooler (existing)	124A-01-G	50,093.2	0.024	0.024	100%	0.0%	0.61	SHUTDOWN					-	(0.61)
1st Stage Germ Dryer	21A-02-G	45,319.5	0.105	0.105	100%	0.0%	2.38	SHUTDOWN					-	(2.38)
2nd Stage Germ Dryer	51A-02-G	51,362.1	0.00124	0.00124	100%	0.0%	0.03	SHUTDOWN					-	(0.03)
No. 2 Gluten Dryer (New)	121A-01-G	New Unit						86,286.0	0.163	0.815	100%	80.0%	7.03	7.03
Germ Dryer (New)	203-01-G	New Unit						169,068.0	0.204	1.020	100%	80.0%	17.25	17.25

Total Baseline Emissions: **13.70**

Total Controlled Future Emissions: **34.57**

Total Emissions Increases: **27.48**

Increase/Decrease: 20.87 tpy

PSD/Offset Threshold: 40 tpy

Percent of max capacity operated during the baseline period: 69.04%

Note: Calcualtions for the Baseline and Future emissions for the Steep Tanks are found on pages 8-10.

CARGILL, INC. - HAMMOND
Grind - VOC Emission Factors

				Baseline Emission Factor Calcs				Future Emission Factor Calcs							
VOC Source Units	**ID No.**	**Baseline Rated Max Capacity (tpy)**	**Future Rated Max Capacity (tpy)**	**Baseline Stack Test Data (lb/hr)**	**Test Date**	**Thruput During Test (lb/hr)***	**lb/ton Emission Factor based on test data**	**Future Stack Test Data (lb/hr)**	**Test Date**	**Thruput During Test (lb/hr)***	**lb/ton Emission Factor based on test data**	**Mandatory Controls from Consent Order**	**Baseline Emission Factor (lb/ton)**	**Future Emission Factor (lb/ton)**	**Comments**
Fiber Dryer	89-01-G	349,064	349,064	5.55	10/12/99	75,710	0.1466	5.55	10/12/99	75,710	0.1466	No	0.1466	0.1466	Baseline test data used for baseline EFs. Baseline test data used for future EFs, since no current test data available.
Rotary Feed Dryer	89-03-G	389,820	0	0.33	10/12/99	84,550	0.00781	Shutdown				Yes	0.0078	0	Baseline EF is less than the required CD reduction of 10 ppm.
No. 1 Gluten Dryer (existing)	121-01-G	86,286	86,286	5.8	2/25/00	18,715	0.6198	1.286	5/17/07	15,830	0.1625	No	0.6198	0.1625	Using baseline and current test data. Current test data gives a lower emission factor.
Waxy Feed Drum Dryer	124-01-G	242,214	0	5.55	10/12/99	52,535	0.2113	Shutdown				No	0.2113	0	Using baseline test data.
Germ Dryer/Cooler (existing)	124A-01-G	72,620	0	0.77	10/20/99	15,751	0.0978	Shutdown				No	0.0978	0	Using baseline test data.
1st Stage Germ Dryer	21A-02-G	65,700	0	0.0385	10/20/99	15,751	0.0049	Shutdown				Yes	0.0049	0	Since unit is to be shutdown, baseline EF is reduced by 95% per CD. Using baseline test data from Germ Dryer 124A-01, no other data available.
2nd Stage Germ Dryer	51A-02-G	74,460	0	0.0385	10/20/99	15,751	0.0049	Shutdown				Yes	0.0049	0	Since unit is to be shutdown, baseline EF is reduced by 95% per CD. Using baseline test data from Germ Dryer 124A-01, no other data available.
No. 2 Gluten Dryer (New)	121A-01-G	-	86,286	New Unit				1.286	5/17/07	15,830	0.1625	No	-	0.1625	Using current test data.
Germ Dryer (New)	203-01-G	-	169,068	New Unit				0.781	5/11/07	14,410	0.1084	No	-	0.1084	Using current test data.

Future Stack Test Data	Unit ID	Test Date	Avg Prod Rate (lb/hr)	Emissions (lb/hr)	95% Reduction	NOTES:
No. 2 Gluten Dryer (New)	121A-01-G	5/17/07	15,830	1.286	NA	Recent test data, Method 25A.
Germ Dryer (New)	203-01-G	5/11/07	14,410	0.781	0.03905	Recent test data, Method 25A.
Fiber Dryer	89-01-G	10/12/99	75,710	5.55	NA	*see notes for fiber dryer below.

Baseline Stack Test Data	Unit ID	Emissions (lb/hr)	Test Date	95% Reduction	NOTES:
Fiber Dryer	89-01-G	5.55	10/12/99	NA	Using for baseline EF calcs. EPA Test Method 25A used.
Rotary Feed Dryer	89-03-G	0.33	10/12/99	0.33	0.33 lb/hr (5.1 ppm) is less than 10 ppm consent order reduction, no reduction required. Using for baseline EF calcs. EPA Test Method 25A used.
Gluten Dryer	121-01-G	5.8	2/25/00	NA	Using for baseline EF calcs. EPA Test Method 25A used.
Germ Dryer/Cooler	124A-01-G	0.77	10/20/99	NA	Using for baseline EF calcs. EPA Test Method 25A used.
1st Stage Germ Dryer	21A-02-G	0.77	10/20/99	0.0385	Using for baseline EF calcs. EPA Test Method 25A used. Using same as Germ Dryer/Cooler since no other data available.
2nd Stage Germ Dryer	51A-02-G	0.77	10/20/99	0.0385	Using for baseline EF calcs. EPA Test Method 25A used. Using same as Germ Dryer/Cooler since no other data available.
Waxy Feed Dryer	124-01-G	5.55	10/12/99	NA	Using for baseline EF calcs. EPA Test Method 25A used. Using same as Germ Dryer/Cooler since no other data available.

CD = Consent Decree

95.0% *For test throughput data, using 95% of unit's capacity unless actual throughput data is available.

EF = Emission Factor

Baseline for consent decree emissions has not been established. 95% reduction used for demonstrative purposes only.

CARGILL, INC. - HAMMOND - PERMIT MODIFICATION REQUEST
Grind - VOC Emission Calculations

		Baseline Actual Emissions						Future Potential Emissions						
VOC Source Units	**ID No.**	**Baseline Thruput (tons)**	**Controlled Emission Factor (lb/ton)**	**Uncontrolled Emission Factor (lb/ton)**	**Cap Eff**	**Ctrl Eff**	**Baseline Emissions (tpy)**	**Future Thruput (tons)**	**Controlled Emission Factor (lb/ton)**	**Uncontrolled Emission Factor (lb/ton)**	**Cap Eff**	**Ctrl Eff**	**Controlled Future Emissions (tpy)**	**Net Emissions per Unit (tpy)**
Fiber Dryer	89-01-G	240,977.5	0.147	0.147	100%	0%	17.67	349,064.1	0.147	0.147	100%	0%	25.59	7.92
Rotary Feed Dryer	89-03-G	269,113.5	0.0078	0.1301	100%	94%	1.05	SHUTDOWN					-	(1.05)
No. 1 Gluten Dryer (existing)	121-01-G	59,567.8	0.620	0.620	100%	0%	18.46	86,286.0	0.162	0.162	100%	0%	7.01	(11.45)
Waxy Feed Drum Dryer	124-01-G	167,213.2	0.211	0.211	100%	0%	17.67	SHUTDOWN					-	(17.67)
Germ Dryer/Cooler (existing)	124A-01-G	50,133.7	0.098	0.098	100%	0%	2.45	SHUTDOWN					-	(2.45)
1st Stage Germ Dryer	21A-02-G	45,356.2	0.0049	0.0049	100%	0%	0.11	SHUTDOWN					-	(0.11)
2nd Stage Germ Dryer	51A-02-G	51,403.7	0.0049	0.0049	100%	0%	0.13	SHUTDOWN					-	(0.13)
No. 2 Gluten Dryer (New)	121A-01-G	New Unit						86,286.0	0.162	0.162	100%	0%	7.01	7.01
Germ Dryer (New)	203-01-G	New Unit						169,068.0	0.108	0.108	100%	0%	9.16	9.16

Total Baseline Emissions: **57.53**

Total Controlled Future Emissions: **48.77**

Total Emission Increase: **24.10**

Increase/Decrease: -8.76 tpy

PSD/Offset Threshold: 40 tpy

Percent of max capacity operated during the baseline period: 69.04%

CARGILL, INC. - HAMMOND
Grind - CO Emission Factors

				Baseline Emission Factor Calcs				Future Emission Factor Calcs							
CO Source Units	**ID No.**	**Baseline Rated Max Capacity (tpy)**	**Future Rated Max Capacity (tpy)**	**Baseline Stack Test Data (lb/hr)**	**Test Date**	**Thruput During Test (lb/hr)***	**lb/ton Emission Factor based on test data**	**Future Stack Test Data (lb/hr)**	**Test Date**	**Thruput During Test (lb/hr)***	**lb/ton Emission Factor based on test data**	**Mandatory Controls from Consent Order**	**Baseline Emission Factor (lb/ton)**	**Future Emission Factor (lb/ton)**	**Comments**
Fiber Dryer	89-01-G	349,064	349,064	2.95	5/17/2007	15,830	0.3727	2.95	5/17/2007	15,830	0.3727	No	0.3727	0.3727	Used current test data from the gluten dryer because of similarities. No baseline test data available.
Rotary Feed Dryer	89-03-G	389,820	0	0.295	5/17/2007	15,830	0.0373	Shutdown				Yes	0.0373	0	Since unit is to be shutdown, baseline EF is reduced by 90% per CD. Used test data from the gluten dryer because of emission similarities. No baseline test data available.
No. 1 Gluten Dryer (existing)	121-01-G	86,286	86,286	26.3	2/25/2000	18,715	2.8106	2.95	5/17/2007	15,830	0.3727	No	2.8106	0.3727	Used actual test data for baseline and future
Waxy Feed Drum Dryer	124-01-G	242,214	0	2.95	5/17/2007	15,830	0.3727	Shutdown				No	0.3727	0	Used current test data from the gluten dryer because of similarities. No baseline test data available.
Germ Dryer/Cooler (existing)	124A-01-G	72,620	0	0.46	5/11/2007	14,410	0.0638	Shutdown				No	0.0638	0	Used current test data for baseline EF since no baseline test data is available.
1st Stage Germ Dryer	21A-02-G	65,700	0	0.46	5/11/2007	14,410	0.0638	Shutdown				Yes	0.0638	0	Used current test data for baseline EF since no baseline test data is available. EF used for baseline based on test data that is already below the required 100 ppm CD reduction.
2nd Stage Germ Dryer	51A-02-G	74,460	0	0.46	5/11/2007	14,410	0.0638	Shutdown				Yes	0.0638	0	Used current test data for baseline EF since no baseline test data is available. EF used for baseline based on test data that is already below the required 100 ppm CD reduction.
No. 2 Gluten Dryer (New)	121A-01-G	-	86,286	New Unit				2.95	5/17/2007	15,830	0.3727	No	-	0.3727	Using current test data.
Germ Dryer (New)	203-01-G	-	169,068	New Unit				0.46	5/11/2007	14,410	0.0638	No	-	0.0638	Using current test data.

Stack Test Data	Unit ID	Test Date	Avg Rate (lb/hr)	Emissions (lb/hr)	90% Reduced	NOTES:
Gluten Dryer	121-01-G	2/25/2000	18,715	26.30	NA	Used for baseline EF calculation. EPA Method 10 used.
Gluten Dryer	121-01-G	5/17/2007	15,830	2.95	0.2950	Used for baseline EF calculation. EPA Method 10 used.
Germ Dryer	124A-01-G	5/11/2007	14,410	0.46	<100ppm	Used for baseline EF calculation. EPA Method 10 used. (no reduction taken for CD because already less than 100 ppm)

Using gluten test data for fiber and feed dryers (most conservative and similar in emissions)

CD = Consent Decree

EF = Emission Factor

95.0% *For test throughput data, using 95% of unit's capacity unless actual throughput data is available.

Baseline for consent decree emissions have no been established. 95% reduction used for demonstrative purposes only.

CARGILL, INC. - HAMMOND
Grind - CO Emission Calculations

		Baseline Actual Emissions						Future Potential Emissions						
CO Source Units	**ID No.**	**Baseline Thruput (tons)**	**Controlled Emission Factor (lb/ton)**	**Uncontrolled Emission Factor (lb/ton)**	**Cap Eff**	**Ctrl Eff**	**Baseline Emissions (tpy)**	**Future Thruput (tons)**	**Controlled Emission Factor (lb/ton)**	**Uncontrolled Emission Factor (lb/ton)**	**Cap Eff**	**Ctrl Eff**	**Future Controlled Emissions (tpy)**	**Net Emissions per Unit (tpy)**
Fiber Dryer	89-01-G	240,977.5	0.373	0.373	100%	0%	44.91	349,064.1	0.373	0.373	100%	0%	65.05	20.14
Rotary Feed Dryer	89-03-G	269,113.5	0.037	0.037	100%	0%	5.02	SHUTDOWN					-	(5.02)
No. 1 Gluten Dryer (existing)	121-01-G	59,567.8	2.811	2.811	100%	0%	83.71	86,286.0	0.373	0.373	100%	0%	16.08	(67.63)
Waxy Feed Drum Dryer	124-01-G	167,213.2	0.373	0.373	100%	0%	31.16	SHUTDOWN					-	(31.16)
Germ Dryer/Cooler (existing)	124A-01-G	50,133.7	0.064	0.064	100%	0%	1.60	SHUTDOWN					-	(1.60)
1st Stage Germ Dryer	21A-02-G	45,356.2	0.064	0.064	100%	0%	1.45	SHUTDOWN					-	(1.45)
2nd Stage Germ Dryer	51A-02-G	51,403.7	0.064	0.064	100%	0%	1.64	SHUTDOWN					-	(1.64)
No. 2 Gluten Dryer (New)	121A-01-G	New Unit						86,286.0	0.373	0.373	100%	0%	16.08	16.08
Germ Dryer (New)	203-01-G	New Unit						169,068.0	0.064	0.064	100%	0%	5.40	5.40

Total Baseline Emissions: **169.48**

Total Controlled Future Emissions: **102.61**

Total Emission Increases: **41.62**

Increase/Decrease: -66.88 tpy

PSD/Offset Threshold: 100 tpy

Percent of max capacity operated during the baseline period: 69.04%

CARGILL, INC. - HAMMOND
Grind - NOx Emission Factors

NOx Source Units	ID No.	Baseline Heat Input (mmbtu/hr)	Future Rated Max Heat Input Capacity (mmbtu/hr)	AP-42 Emission Factor (lb/mmcf)	Baseline lb/hr based on AP-42	Future lb/hr based on AP-42	Baseline Emission Factor (lb/hr)	Future Emission Factor (lb/hr)	Comments
Fiber Dryer	89-01-G	78	78	100	7.8000	7.8000	7.8000	7.8000	Using AP-42, Table 1.4-1, EF for small industrial boilers
Rotary Feed Dryer	89-03-G	65	-	100	6.5000	-	6.5000	0	Using AP-42, Table 1.4-1, EF for small industrial boilers
No. 1 Gluten Dryer (existing)	121-01-G	15	17	100	1.5000	1.7000	1.5000	1.7000	Using AP-42, Table 1.4-1, EF for small industrial boilers
Waxy Feed Drum Dryer	124-01-G	35	-	100	3.5000	-	3.5000	0	Using AP-42, Table 1.4-1, EF for small industrial boilers
Germ Dryer/Cooler (existing)	124A-01-G	12.9	-	100	1.2900	-	1.2900	0	Using AP-42, Table 1.4-1, EF for small industrial boilers
1st Stage Germ Dryer	21A-02-G	0.5	-	100	0.0500	-	0.0500	0	Using AP-42, Table 1.4-1, EF for small industrial boilers
2nd Stage Germ Dryer	51A-02-G	0.5	-	100	0.0500	-	0.0500	0	Using AP-42, Table 1.4-1, EF for small industrial boilers
No. 2 Gluten Dryer (New)	121A-01-G	New Unit	17	100	-	1.7000	-	1.7000	Using AP-42, Table 1.4-1, EF for small industrial boilers
Germ Dryer (New)	203-01-G	New Unit	30	100	-	3.0000	-	3.0000	Using AP-42, Table 1.4-1, EF for small industrial boilers

Natural Gas Heating Value: 1000 mmbtu/mmcf

EF = Emission Factor

CARGILL, INC. - HAMMOND
Grind - NOx Emission Calculations

		Baseline Actual Emissions						Future Potential Emissions						
NOx Source Units	**ID No.**	**Baseline Hours of Operation**	**Controlled Emission Rate (lb/hr)**	**Uncontrolled Emission Rate (lb/hr)**	**Cap Eff**	**Ctrl Eff**	**Baseline Emissions (tpy)**	**Future Hours of Operation**	**Controlled Emission Rate (lb/hr)**	**Uncontrolled Emission Rate (lb/hr)**	**Cap Eff**	**Ctrl Eff**	**Future Controlled Emissions (tpy)**	**Net Emissions per Unit (tpy)**
Fiber Dryer	89-01-G	6,042.6	7.800	7.800	100%	0%	23.57	8,760.0	7.800	7.800	100%	0%	34.16	10.60
Rotary Feed Dryer	89-03-G	6,042.6	6.500	6.500	100%	0%	19.64	SHUTDOWN					-	(19.64)
No. 1 Gluten Dryer (existing)	121-01-G	6,042.6	1.500	1.500	100%	0%	4.53	8,760.0	1.700	1.700	100%	0%	7.45	2.91
Waxy Feed Drum Dryer	124-01-G	6,042.6	3.500	3.500	100%	0%	10.57	SHUTDOWN					-	(10.57)
Germ Dryer/Cooler (existing)	124A-01-G	6,042.6	1.290	1.290	100%	0%	3.90	SHUTDOWN					-	(3.90)
1st Stage Germ Dryer	21A-02-G	6,042.6	0.050	0.050	100%	0%	0.15	SHUTDOWN					-	(0.15)
2nd Stage Germ Dryer	51A-02-G	6,042.6	0.050	0.050	100%	0%	0.15	SHUTDOWN					-	(0.15)
No. 2 Gluten Dryer (New)	121A-01-G	NEW UNIT TO REPLACE 124A-01-G						8,760.0	1.700	1.700	100%	0%	7.45	7.45
Germ Dryer (New)	203-01-G	New Unit						8,760.0	3.000	3.000	100%	0%	13.14	13.14

Total Baseline Emissions: **62.51**

Total Controlled Future Emissions: **62.20**

Total Emission Increase: **34.10**

Increase/Decrease: -0.31 tpy

PSD/Offset Threshold: 40 tpy

CARGILL, INC. - HAMMOND

Estimated HAPS based on Cargill estimated percentages

Estimated HAPS increase from Grind Project:

2.34 TPY Combined HAPS
1.17 TPY Acetaldehyde
0.72 TPY Formaldehyde
0.46 TPY Methanol

Pollutant	Fiber Dryer Emission Factor (10/12/99 stack test) lb/hr	Estimated HAP% of VOC	Potential Emissions TPY	Each Germ Dryer Emission Factor (May 2007 stack test) lb/hr	Estimated HAP% of VOC	Potential Emissions TPY	Each Gluten Dryer Emission Factor (May 2007 stack test) lb/hr	Estimated HAP% of VOC	Potential Emissions TPY
VOC	5.55		24.31	0.78		3.42	1.29		5.63
Acetaldehyde		8.00	1.94		3.70	0.1266		7.10	0.3999
Formaldehyde		9.50	2.31						
Methanol		4.40	1.07		1.00	0.0342		1.60	0.0901
Total HAPS			**5.32**			**0.16**			0.49
								Two gluten dryers:	**0.98**

Total Future Potential HAPS: 6.46 TPY (one fiber dryer, one germ dryer and two gluten dryers operating)

Total Emissions Increases: 2.45 TPY (one fiber dryer, one germ dryer and two gluten dryers operating)

Pollutant	Fiber Dryer Emission Factor (10/12/99 stack test) lb/hr	Estimated HAP% of VOC	Baseline Emissions TPY	Each Germ Dryer Emission Factor (May 2007 stack test) lb/hr	Estimated HAP% of VOC	Baseline Emissions TPY	Each Gluten Dryer Emission Factor (May 2007 stack test) lb/hr	Estimated HAP% of VOC	Baseline Emissions TPY
VOC	5.55		16.77	0.78		2.36	1.29		3.89
Acetaldehyde		8.00	1.34		3.70	0.0873		7.10	0.2759
Formaldehyde		9.50	1.59						
Methanol		4.40	0.74		1.00	0.0236		1.60	0.0622
Total HAPS			**3.67**			**0.11**			**0.34**

Total Baseline HAPS: 4.12 TPY (one fiber dryer, one germ dryer and one gluten dryer operating)

Ratio of Baseline hours to Future hours:	**0.6898**

BASELINE CORN THROUGHPUT

82,775 Baseline Bushels Per Day
30,213,000 Baseline Annualized Bushels
845,964 Baseline Annualized Tons Corn

FUTURE CORN THROUGHPUT

120,000 Future Bushels Per Day
43,800,000 Future Annualized Bushels
1,226,400 Future Annualized Tons Corn

CARGILL, INC. - HAMMOND
Throughput and Production Data

Year	Million Bushels	Bushels	2yr Period Bushels Ascending	Daily Bushels	Grind ratio Percent of Max Capacity (120,000 bu/d)
1997	30.212	30,212,000	61,724,000	82,773	69.0%
1998	31.512	31,512,000	59,777,000	86,334	71.9%
1999	28.265	28,265,000	51,493,000	77,438	64.5%
2000	23.228	23,228,000	55,368,000	63,638	53.0%
2001	32.140	32,140,000	52,816,000	88,055	73.4%
2002	20.676	20,676,000	32,446,000	56,647	47.2%
2003	11.770	11,770,000	26,810,000	32,247	26.9%
2004	15.040	15,040,000	30,602,000	41,205	34.3%
2005	15.562	15,562,000	31,171,000	42,636	35.5%
2006	15.609	15,609,000	-	42,764	35.6%
Sep 97 - Aug 99 period is highest baseline					
Sep-97	2.518	2,517,667	60,426,000	83,922	69.9%
Oct-97	2.518	2,517,667		81,215	67.7%
Nov-97	2.518	2,517,667		83,922	69.9%
Dec-97	2.518	2,517,667		81,215	67.7%
Jan-98	2.626	2,626,000		84,710	70.6%
Feb-98	2.626	2,626,000		93,786	78.2%
Mar-98	2.626	2,626,000		84,710	70.6%
Apr-98	2.626	2,626,000		87,533	72.9%
May-98	2.626	2,626,000		84,710	70.6%
Jun-98	2.626	2,626,000		87,533	72.9%
Jul-98	2.626	2,626,000		84,710	70.6%
Aug-98	2.626	2,626,000		84,710	70.6%
Sep-98	2.626	2,626,000		87,533	72.9%
Oct-98	2.626	2,626,000		84,710	70.6%
Nov-98	2.626	2,626,000		87,533	72.9%
Dec-98	2.626	2,626,000		84,710	70.6%
Jan-99	2.355	2,355,417		75,981	63.3%
Feb-99	2.355	2,355,417		84,122	70.1%
Mar-99	2.355	2,355,417		75,981	63.3%
Apr-99	2.355	2,355,417		78,514	65.4%
May-99	2.355	2,355,417		75,981	63.3%
Jun-99	2.355	2,355,417		78,514	65.4%
Jul-99	2.355	2,355,417		75,981	63.3%
Aug-99	2.355	2,355,417		75,981	63.3%

Dryer	Unit ID	Baseline Hours of Operation*	Future Hours of Operation
Fiber Dryer	89-01-G	6042.60	8760
Rotary Feed Dryer	89-03-G	6042.60	0
No. 1 Gluten Dryer (existing)	121-01-G	6042.60	8760
Waxy Feed Drum Dryer	124-01-G	6042.60	0
Germ Dryer/Cooler (existing)	124A-01-G	6042.60	8760
1st Stage Germ Dryer	21A-02-G	6042.60	0
2nd Stage Germ Dryer	51A-02-G	6042.60	0
No. 2 Gluten Dryer (New)	121A-01-G	6042.60	8760
Germ Dryer (New)	203-01-G	6042.60	8760

To determine hours of operation, took ratio of baseline production to future production

120,000 Baseline Plant Bushel Capacity Per Day

* Ratio for baseline hours of op = baseline actual/baseline capacity

97 & 98 is the highest 2-yr period over the last 10 years.

BASELINE CORN THROUGHPUT

82,775 Baseline Actual Bushels Per Day
30,213,000 Baseline Annualized Bushels
845,964 Baseline Annualized Tons Corn

FUTURE CORN THROUGHPUT

120,000 Future Bushels Per Day
43,800,000 Future Annualized Bushels
1,226,400 Future Annualized Tons Corn

The maximum plant capacity is 120,000 bushels per day.
56 lbs per bushel of corn.

verage percent of max capacity during baseline period (Sept. 1997- Aug. 1999): 69.04%

CARGILL, INC. - HAMMOND
GRIND AREA FACILITY DATA

Unit	ID No.	Baseline Dryer: Max Heat Input Cap (mmbtu/hr)	Future Dryer: Max Heat Input Cap (mmbtu/hr)	Baseline Max Capacity Throughput (Raw Material)	Units	Baseline TPY Max Capacity Throughput (Raw Material)	Future Max Capacity Throughput (Raw Material)	Units	Future TPY Max Capacity Throughput (Raw Material)	Baseline PM Cap Eff	Baseline PM Ctrl Eff	Future PM Cap Eff	Future PM Ctrl Eff	Baseline Rated Unit Flow (acfm)	Future Rated Flow (scfm)	Baseline Rated Unit Temp (F)	Future Rated Temp (F)	Baseline Equip Grain Loading (gr/acfm)	Future Equip Grain Loading (gr/acfm)
Steep Tanks (Grind 1)	Bldg 24	-	-	43,800,000	bu/yr	1,226,400	43,800,000	bu/yr	1,226,400	-	-	-	-	-	-	-	-	-	-
Steep Tanks (Grind 2)	Bldg 53	-	-	7,300,000	bu/yr	204,400	7,300,000	bu/yr	204,400	-	-	-	-	-	-	-	-	-	-
Corn Screening System	30-16-G	-	-	NA, BH Control			NA, BH Control			100%	99.88%	100%	99.88%	855	-	70	-	0.01	0.01
Storage Bin No. 5 (Grind 1)	33-01-G	-	-	NA, BH Control			NA, BH Control			100%	99.88%	100%	99.88%	1,000	-	70	-	0.02	0.01
Storage Bin #6 (Grind 2)	33-02-G	-	-	NA, BH Control			NA, BH Control			100%	99.88%	100%	99.88%	1,000	-	70	-	0.02	0.01
Corn Cleaner	33-03-G	-	-	NA, BH Control			NA, BH Control			100%	99.88%	100%	99.88%	2,200	-	70	-	0.01	0.01
Fiber Dryer	89-01-G	78	78	79,695	lb/hr	349,064	79,695	lb/hr	349,064	100%	89.10%	100%	89.10%	81,705	-	176	-	0.01	0.01
Rotary Feed Dryer	89-03-G	65	-	89,000	lb/hr	389,820	0	-	0	100%	98.95%	100%	98.95%	35,000	-	1000	-	0.03	-
Dry Feed Transfer (grind 1)	89-05-G	-	-	NA, BH Control			NA, BH Control			100%	99.88%	100%	99.88%	1,000	-	70	-	0.01	-
No. 1 Gluten Dryer (existing)	121-01-G	15	17	19,700	lb/hr	86,286	19,700	lb/hr	86,286	100%	99.33%	100%	99.33%	9,700	-	179	-	0.03	0.03
Germ Storage Silo	121-14-G	-	-	NA, BH Control			NA, BH Control			100%	99.98%	100%	99.98%	1,200	-	100	-	0.01	-
Waxy Feed Drum Dryer	124-01-G	35	-	55,300	lb/hr	242,214	0	-	0	100%	98.99%	100%	98.99%	41,520	-	135	-	0.03	-
Waxy Feed Mill Equipment	124-22-G	-	-	NA, BH Control			NA, BH Control			100%	99.88%	100%	99.88%	600	-	70	-	0.01	-
Wet Feed Transfer (grind 2)	124-23-G	-	-	NA, BH Control			NA, BH Control			100%	98.98%	100%	98.98%	1,000	-	70	-	0.01	-
Germ Dryer/Cooler (existing)	124A-01-G	12.9	-	16,580	lb/hr	72,620	0	-	0	100%	94.85%	100%	94.85%	13,600	-	200	-	0.02	0.02
Storage Bin #3	140-03-G	-	-	NA, BH Control			NA, BH Control			100%	98.98%	100%	98.98%	1,000	-	70	-	0.02	0.01
Storage Bin #4	140-04-G	-	-	NA, BH Control			NA, BH Control			100%	99.98%	100%	99.98%	1,000	-	70	-	0.02	0.01
Storage Bin #1	140-01-G	-	-	NA, BH Control			NA, BH Control			100%	98.98%	100%	98.98%	1,000	-	70	-	0.02	0.01
Storage Bin #2	140-02-G	-	-	NA, BH Control			NA, BH Control			100%	99.98%	100%	99.98%	1,000	-	70	-	0.02	0.01
Corn Dump Pit	140-05-G	-	-	NA, BH Control			NA, BH Control			100%	99.88%	100%	99.88%	30,000	-	70	-	0.01	0.01
Gravity Take-Up Conveyor	140-06-G	-	-	NA, BH Control			NA, BH Control			100%	99.88%	100%	99.88%	1,800	-	70	-	0.01	0.01
Corn Elevator Conveying	140-07-G	-	-	NA, BH Control			NA, BH Control			100%	99.88%	100%	99.88%	1,000	-	70	-	0.01	0.01
Germ Tank 1310	200-01-G	-	-	NA, BH Control			NA, BH Control			100%	99.88%	100%	99.88%	80	-	70	-	0.005	0.005
Gluten Tank 1410	200-02-G	-	-	NA, BH Control			NA, BH Control			100%	99.88%	100%	99.88%	80	-	70	-	0.005	0.005
Germ Tank 1110	200-03-G	-	-	NA, BH Control			NA, BH Control			100%	99.88%	100%	99.88%	1,200	-	70	-	0.005	0.005
Gluten Tank 1010	200-04-G	-	-	NA, BH Control			NA, BH Control			100%	99.88%	100%	99.88%	1,200	-	70	-	0.005	0.005
Bulk Loadout	200-05-G	-	-	NA, BH Control			NA, BH Control			100%	99.88%	100%	99.88%	30,000	-	70	-	0.005	0.005
Corn Screenings Silo	200-06-G	-	-	NA, BH Control			NA, BH Control			100%	99.88%	100%	99.88%	400	-	70	-	0.005	0.005
Central Vacuum Loadout	200-07-G	-	-	NA, BH Control			NA, BH Control			100%	99.88%	100%	99.88%	400	-	70	-	0.005	0.005
Hammermill No. 1	201-01-G	-	-	NA, BH Control			NA, BH Control			100%	99.88%	100%	99.88%	4,000	-	70	-	0.005	-
Hammermill No. 2	201-02-G	-	-	NA, BH Control			NA, BH Control			100%	99.88%	100%	99.88%	4,000	-	70	-	0.005	-
Pellet Cooler No. 1	201-03-G	-	-	60,000	lb/hr	262,800	0	-	0	100%	98.95%	100%	98.95%	1,700	-	70	-	0.015	-
Pellet Cooler No. 2	201-04-G	-	-	60,000	lb/hr	262,800	0	-	0	100%	98.95%	100%	98.95%	1,700	-	70	-	0.015	-
Loose Feed Bin Vent	201-05-G	-	-	394,200	tpy	394,200	0	-	0	100%	99.88%	100%	99.88%	80	-	70	-	0.005	-
Central Vacuum Pelletizing	201-06-G	-	-	100	lb/hr	438	0	-	0	100%	99.88%	100%	99.88%	400	-	70	-	0.005	-
Receiver 1st Stage Germ Dryer	21A-01-G	-	-	15,000	lb/hr	65,700	0	-	0	100%	94.85%	100%	94.85%	1,000	-	100	-	0.015	-
1st Stage Germ Dryer	21A-02-G	0.5	-	15,000	lb/hr	65,700	0	-	0	100%	94.85%	100%	94.85%	5,730	-	150	-	0.01	-
Receiver 2nd Stage Germ Dryer	51A-01-G	-	-	17,000	lb/hr	74,460	0	-	0	100%	94.85%	100%	94.85%	1,200	-	100	-	0.02	-
2nd Stage Germ Dryer	51A-02-G	0.5	-	17,000	lb/hr	74,460	0	-	0	100%	94.85%	100%	94.85%	5,730	-	150	-	0.015	-
No. 2 Gluten Dryer (New)	121A-01-G	New Unit	17	New Unit			19,700	lb/hr	86,286	-	-	100%	99.33%	-	-	-	-	-	0.03
Germ Dryer (New)	203-01-G	New Unit	30	New Unit			38,600	lb/hr	169,068	-	-	100%	94.85%	-	-	-	-	-	0.01
No. 1 Bran Bunker (New)	89-06-G	New Unit	-	New Unit			NA, BH Control			-	-	100%	99.88%	-	80	-	110	-	0.01
No. 2 Bran Bunker (New)	89-07-G	New Unit	-	New Unit			NA, BH Control			-	-	100%	99.88%	-	80	-	110	-	0.01
Bran Conveyor System*	89-08-G	New Unit	-	New Unit			NA, exhaust to 89-01-G, use flow			-	-	100%	89.10%	-	4,000	-	110	-	0.01
Bran Preweigh Hopper	89-09-G	New Unit	-	New Unit			NA, BH Control			-	-	100%	99.88%	-	80	-	110	-	0.01

* The new bran conveyor will exhaust to the Fiber Dryer scrubber (89-01-G), therefore, use the flow increase and grain loading for emission calcs.

56 lbs corn/bushel

CARGILL, INC. - HAMMOND

Consent Order Control Mandates for Hammond Grind Facilities

Unit	ID	SO2 % Control	SO2 ppm	VOC % Control	VOC ppm	CO % Control	CO ppm	Comments
1st Stage Germ Dryer	21A-02-G	90%	20	95%	10	90%	100	Reduce SO2 by 90% or to 20 ppm, CO by 90% or to 100 ppm & VOC by 95% or to 10 ppm for baseline emission factors to account for this reduction mandate; this dryer will no longer operate
2nd Stage Germ Dryer	51A-02-G	90%	20	95%	10	90%	100	Reduce SO2 by 90% or to 20 ppm, CO by 90% or to 100 ppm & VOC by 95% or to 10 ppm for baseline emission factors to account for this reduction mandate; this dryer will no longer operate
Fiber Dryer	89-01-G	90%	20	-	-	-	-	Reduce SO2 by 90% or to 20 ppm for baseline emission factors to account for this reduction mandate; this dryer will no longer operate
Rotary Feed Dryer	89-03-G	90%	20	95%	10	90%	100	Reduce SO2 by 90% or to 20 ppm, CO by 90% or to 100 ppm & VOC by 95% or to 10 ppm for baseline emission factors to account for this reduction mandate; this dryer will no longer operate
Gluten Dryer	121-01-G	90%	20	-	-	-	-	Reduce SO2 by 90% or to 20 ppm for baseline emission factors to account for this reduction mandate; this dryer will no longer operate
Germ Dryer	124A-01-G	90%	20	-	-	-	-	Reduce SO2 by 90% or to 20 ppm for baseline emission factors to account for this reduction mandate; this dryer will no longer operate