



Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

November 19, 2004

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

TO: Interested Parties / Applicant

RE: A.E. Staley Manufacturing Company / SSM 157-18847-00003

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER.dot 9/16/03



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Mr. Brian J. Sweeley
A.E. Staley Manufacturing Company - Sagamore Plant **November 19, 2004**
2200 East Eldorado Street
Decatur, Illinois 62521

Re: 157-18847-00003
Significant Source Modification to:
Part 70 permit No.:T157-6009-00003

Dear Mr. Sweeley:

A.E. Staley Manufacturing Company - Sagamore Plant was issued a Part 70 operating permit T157-6009-00003 on June 28, 2004 for a wet corn milling plant. An application to modify the source was received on March 19, 2004. Pursuant to 326 IAC 2-7-10.5, the following emission unit is approved for modification at the source:

- (a) One (1) coal-fired Boiler, identified as 31B1, constructed in 1984 and modified in 2004, with a heat input capacity of 231 MMBtu/hr, equipped with low-NO_x burners, using natural gas, No. 2 fuel oil, or coal and starch mixture as supplement fuels, with emissions controlled by baghouse 31F2, exhausting to stack 202;

The source also proposed to construct and operate the following unit:

- (a) One (1) enclosed starch feeding pipe, which transfers starch from GMH starch silo to coal pulverizers 31G3 and 31G4.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

This significant source modification authorizes modification of the existing units. Operating conditions shall be incorporated into the Part 70 operating permit as a significant permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12. Operation is not approved until the significant permit modification has been issued.

Pursuant to Contract No. A305-0-00-36, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Yu-Lien Chu, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7871 to speak directly to Ms. Chu. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Original signed by
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

ERG/YC

cc: File - Tippecanoe County
Tippecanoe County Health Department
Air Compliance Section Inspector - Wanda Stanfield
Compliance Data Section
Administrative and Development
Technical Support and Modeling - Michele Boner



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PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

A.E. Staley Manufacturing Company - Sagamore Plant 2245 North Sagamore Parkway Lafayette, Indiana 47902

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T157-6009-00003	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: June 28, 2004 Expiration Date: June 28, 2009

First Significant Source Modification No.: 157-18847-00003	
Issued by: Original signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: November 19, 2004

SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a stationary wet corn milling plant

Responsible Official:	Plant Manager
Source Address:	2245 North Sagamore Parkway, Lafayette, IN 47902
Mailing Address:	2200 E. Eldorado St., Decatur, IL 62521
Source Phone Number:	(217) 421-2152
SIC Code:	2046
County Location:	Tippecanoe
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Major Source, Section 112 of the Clean Air Act 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:

- (a) Corn Receiving and Conveying Operations, consisting of:
- (1) One (1) Railcar Corn Dump Hopper, identified as 12V101, constructed in 1966, with emissions controlled by baghouses 21F1 and 21F17, exhausting to stack 136;
 - (2) One (1) Truck Corn Dump Hopper, identified as 12V102, constructed in 1966, with emissions controlled by baghouses 21F1 and 21F17, exhausting to stack 136;
 - (3) One (1) Bucket Corn Elevator, identified as 12U2, constructed in 1976, with emissions controlled by baghouses 21F1 and 21F17, exhausting to stack 136;
 - (4) Two (2) Corn Transfer Conveyors, identified as 12U4 and 12U5, constructed in 1966, with emissions controlled by baghouses 21F1 and 21F17, exhausting to stack 136;
 - (5) Three (3) Corn Transfer Conveyors, identified as 13U6 through 13U8, constructed in 1986, with emissions controlled by baghouses 21F1 and 21F17, exhausting to stack 136;
 - (6) Two (2) Co-Product Loadout Conveyors, identified as 8U39 and 8U41, constructed in 1966, with emissions controlled by baghouses 21F1 and 21F17, exhausting to stack 136;
 - (7) One (1) Bucket Elevator from Silos to Steeps, identified as 14U9, constructed in 1966, with emissions controlled by baghouse 14F2, exhausting to stack 126;

- (8) One (1) Corn Weigher, identified as 14V1, constructed in 1986, with emissions controlled by baghouse 14F2, exhausting to stack 126;
 - (9) Two (2) Corn Cleaners, identified as 14J4 and 14J5, constructed in 1992, with emissions controlled by baghouse 14F2, exhausting to stack 126; and
 - (10) One (1) Corn Cleanings Pneumatic Transfer, identified as 21F2, constructed in 1966, with emissions controlled by baghouse 21F2, exhausting to stack 137.
- (b) Wet Milling Operations, consisting of:
- (1) One (1) Fiber Dewatering Screen, identified as 21F100, constructed in 1990, exhausting to stack 4;
 - (2) One (1) Fiber Dewatering Screen, identified as 21F101, constructed in 1997, exhausting to stack 4;
 - (3) One (1) Germ Distribution Conveyor, identified as 21U23, constructed in 1978, exhausting to stack 4;
 - (4) One (1) Gluten Filter Receiver Tank, identified as 21V57, constructed in 1966, exhausting to stack 4;
 - (5) One (1) Germ Scrubber Water Tank, identified as 21V130, constructed in 1966, exhausting to stack 4;
 - (6) One (1) Gluten Filter Bowl Drain Tank, identified as 21V159, constructed in 1990, exhausting to stack 4;
 - (7) One (1) Gluten Filter Wash Bar Trough Drain Tank, identified as 21V59, constructed in 1966, exhausting to stack 4;
 - (8) One (1) Fiber Filtrate Tank, identified as 21V58, constructed in 1990, exhausting to stack 4;
 - (9) One (1) Heavy Steepwater Tank, identified as 21V56, constructed in 1966, exhausting to stack 4;
 - (10) One (1) Monitor Tank, identified as 15V210, constructed in 1990, exhausting to stack 4;
 - (11) Fourteen (14) Corn Steeps, identified as 14V3 through 14V16, constructed in 1966, exhausting to stack 348;
 - (12) Seven (7) Grit Starch Screens, identified as Grit Starch Screens 15J15 through 15J22, constructed in 1990, exhausting to stack 347;
 - (13) One (1) Steeped Corn Separator, identified as 15J5A, constructed in 1966, exhausting to stack 24;
 - (14) One (1) First Pass Germ Feed Tank, identified as 15V23, constructed in 1966, exhausting to stack 24;
 - (15) Steeped Corn Surge Hopper, identified as 15V21, constructed in 1966, exhausting to stack 24;

- (16) One (1) Second Pass Germ Feed Tank, identified as 15V25, constructed in 1966, exhausting to stack 347;
- (17) One (1) Grit Starch Feed Tank, identified as 15V26, constructed in 1966, exhausting to stack 347;
- (18) Two (2) Germ Wash Screens, identified as 15J99 and 15J100, constructed in 1966, exhausting to stack 347;
- (19) Three (3) Germ Washing Screens, identified as 15J101, 15J200, and 15J201, constructed in 1966, exhausting to stack 348;
- (20) One (1) Light Steepwater Receiver, identified as 14V19, constructed in 1966, exhausting to stack 348;
- (21) Germ Wash Screens, identified as 15J53, constructed in 1966, exhausting to stack 24;
- (22) One (1) Third Grind Tank, identified as 15V27, constructed in 1966, exhausting to stack 24;
- (23) One (1) Clamshell Wash Water Tank, identified as 15V2, constructed in 1991, exhausting to stack 24;
- (24) One (1) Clamshell Starch Receiver Tank, identified as 15V42, constructed in 1966, exhausting to stack 24;
- (25) One (1) Second Grind Receiver Tank, identified as 15V24, constructed in 1966, exhausting to stack 24;
- (26) One (1) First Grind receiver Tank, identified as 15V22, constructed in 1966, exhausting to stack 24;
- (27) One (1) Steeped Corn Tank, identified as 14V17, constructed in 1966, exhausting to stack 24;
- (28) One (1) Germ Water Tank, identified as 15V139, constructed in 1966, exhausting to stack 24;
- (29) Thirty-six (36) Fiber Wash Screens, identified as 1st Stage through 5th Stage Fiber Wash Screens, constructed in 1966, exhausting to stack 24;
- (30) One (1) Dent Starch Slurry Storage Tank, identified as 15V43, constructed in 1966, exhausting to stack 24;
- (31) One (1) Steepwater Head Tank, identified as 14V18, constructed in 1966, exhausting to stack 24;
- (32) One (1) Mill Acid Tank, identified as 14V96, constructed in 1966, exhausting to stack 24;
- (33) One (1) Primary Wash Box, identified as 15V17, constructed in 1966, exhausting to stack 24;
- (34) One (1) Primary Wash Box, identified as 15V19, constructed in 1966, exhausting to stack 24;

- (35) Five (5) Fiber Wash Receivers, identified as 15V110 through 15V114, constructed in 1966, exhausting to stack 24;
- (36) One (1) Process Water Tank, identified as 15V30, constructed in 1966, exhausting to stack 24;
- (37) One (1) Primary Wash Water Tank, identified as 15V41, constructed in 1966, exhausting to stack 24;
- (38) One (1) Wash Water Surge Tank, identified as 15V38, constructed in 1966, exhausting to stack 24;
- (39) One (1) Primary Feed Tank, identified as 15V34, constructed in 1966, exhausting to stack 24;
- (40) One (1) Primary Underflow Tank, identified as 15V35, constructed in 1966, exhausting to stack 24;
- (41) One (1) Gluten Thickener Feed Tank, identified as 15V36, constructed in 1966, exhausting to stack 24;
- (42) One (1) Heavy Gluten Tank, identified as 15V37, constructed in 1966, exhausting to stack 24;
- (43) One (1) Clarifier Feed Tank, identified as 15V40, constructed in 1966, exhausting to stack 24;
- (44) One (1) MST Feed Tank, identified as 15V31, constructed in 1966, exhausting to stack 24;
- (45) One (1) Vacuum Filter Pump, identified as 21C7, constructed in 1966, exhausting to stack 340;
- (46) One (1) Vacuum Filter Pump, identified as 21C8, constructed in 1966, exhausting to stack 341;
- (47) One (1) Vacuum Filter Pump, identified as 21C9, constructed in 1966, exhausting to stack 342;
- (48) One (1) Vacuum Filter Pump, identified as 21C10, constructed in 1966, exhausting to stack 343;
- (49) One (1) Gluten Vacuum Filter, identified as 21F7, constructed in 1966, exhausting to stack 340;
- (50) One (1) Gluten Vacuum Filter, identified as 21F8, constructed in 1966, exhausting to stack 341;
- (51) One (1) Gluten Vacuum Filter, identified as 21F9, constructed in 1966, exhausting to stack 342; and
- (52) One (1) Gluten Vacuum Filter, identified as 21F10, constructed in 1966, exhausting to stack 343;
- (53) One (1) High DS Starch Filter, identified as 18F510, constructed in 1995, exhausting to stack 348;

- (54) One (1) High DS Starch Tank, identified as 18V520, constructed in 1995, exhausting to stack 348;
 - (55) One (1) High DS Starch Wash Water Tank, identified as 18V522, constructed in 1995, exhausting to stack 348;
 - (56) Two (2) Second Grind Screens, identified as 15J14, and 15J24, constructed in 1966, exhausting to stack 24;
 - (57) Six (6) Sixth Stage Fiber Wash Screens, identified as 15J86, 15J87, 15J88, 15J89, 15J220, and 15J221, constructed in 1966, exhausting to stack 347;
 - (58) One (1) Steep Acid Tank, identified as 14V20, constructed in 1966, exhausting to stack 24.
 - (59) One (1) Fiber Supply Tank, identified as 15V33, constructed in 2000, exhausting to stack 347.
- (c) Feed/Meal/Germ Production Operations, consisting of:
- (1) One (1) Feed Hopper, identified as 21V60, constructed in 1965, with emissions controlled by baghouse 21F14, exhausting indoors to stack 1;
 - (2) One (1) Meal Hopper, identified as 21V61, constructed in 1965, with emissions controlled by baghouse 21F15, exhausting indoors to stack 2;
 - (3) One (1) Rail Loadout Conveyor, identified as 12U11, constructed in 1991, with emissions controlled by baghouse 12F40, exhausting to stack 3;
 - (4) One (1) 21D1 Steam Tube Germ Dryer, identified as 21D1, constructed in 1966, with emissions controlled by scrubber 21F13, exhausting to stack 17;
 - (5) One (1) 21D2 Steam Tube Germ Dryer, identified as 21D2, constructed in 1966, with emissions controlled by scrubber 21F13, exhausting to stack 17;
 - (6) One (1) 21D3 Steam Tube Germ Dryer, identified as 21D3, constructed in 1966, with emissions controlled by scrubber 21F13, exhausting to stack 17;
 - (7) One (1) 21D6 natural gas, No. 2 fuel oil, or biogas fired Feed Dryer, identified as 21D6, constructed in 1966, a heat input capacity of 22 MMBtu/hr, with emissions controlled by integral product collector/cyclone 21F26 and scrubber 21F13, exhausting to stack 17;
 - (8) One (1) 21D7 natural gas, No. 2 fuel oil, or biogas fired Feed or Meal Dryer, identified as 21D7, constructed in 1966, a heat input capacity of 22 MMBtu/hr, with emissions controlled by integral product collector/cyclone 21F27 and scrubber 21F13, exhausting to stack 17;
 - (9) One (1) 21D8 natural gas or No. 2 fuel oil fired Meal Dryer, identified as 21D8, constructed in 1966, a heat input capacity of 22 MMBtu/hr, with emissions controlled by integral product collector/cyclone 21F28 and scrubber 21F13, exhausting to stack 17;
 - (10) One (1) Feed Storage Bin, identified as 8V121, constructed in 1966, with emissions controlled by baghouse 8F1, exhausting to stack 110;

- (11) One (1) Feed Storage Bin, identified as 8V122, constructed in 1966, with emissions controlled by baghouse 8F2, exhausting to stack 111;
 - (12) One (1) Feed Storage Bin, identified as 8V123, constructed in 1966, with emissions controlled by baghouse 8F3, exhausting to stack 112;
 - (13) One (1) Feed Storage Bin, identified as 8V124, constructed in 1966, with emissions controlled by baghouse 8F4, exhausting to stack 113;
 - (14) One (1) Feed/Meal Storage Bin, identified as 8V62, constructed in 1966, with emissions controlled by baghouse 8F62, exhausting to stack 114;
 - (15) One (1) Meal Storage Bin, identified as 8V63, constructed in 1966, with emissions controlled by baghouse 8F63, exhausting to stack 115;
 - (16) One (1) Meal/Germ Storage Bin, identified as 8V53, constructed in 1966, with emissions controlled by baghouse 8F53, exhausting to stack 116;
 - (17) One (1) Germ Storage Bin, identified as 8V54, constructed in 1966, with emissions controlled by baghouse 8F54, exhausting to stack 117;
 - (18) Two (2) Air Conveying Lines to Loadout, identified as AC23 and AC24, constructed in 1966, with emissions controlled by baghouse 12F39, exhausting to stack 125;
 - (19) One (1) Feed Mill, identified as 21G51, constructed in 1965, with emissions controlled by baghouse 21F37, exhausting to stack 141;
 - (20) One (1) Feed Mill, identified as 21G52, constructed in 1965, with emissions controlled by baghouse 21F38, exhausting to stack 142;
 - (21) One (1) D6 Dryer Air Conveying Line to Feed Mill, identified as AC6, constructed in 1966, with emissions controlled by baghouse 21F32, exhausting to stack 143;
 - (22) One (1) D7 Dryer Air Conveying Line to Feed Mill, identified as AC7, constructed in 1966, with emissions controlled by baghouse 21F35, exhausting to stack 144;
 - (23) One (1) D8 Dryer Air Conveying Line to Feed Mill, identified as AC8, constructed in 1966, with emissions controlled by baghouse 21F36, exhausting to stack 145; and
 - (24) One (1) Bag Dump Station, identified as 8V99, constructed in 1966, with emissions controlled by baghouse 8F99, exhausting indoors to stack 285;
- (d) Syrup Refining Operations, consisting of:
- (1) One (1) GMH Storage Silo, identified as 9V32, constructed in 1966, with emissions controlled by baghouse 9F32, exhausting to stack 119;
 - (2) One (1) Filteraid Storage Silo, identified as 9V31, constructed in 1966, with emissions controlled by baghouse 9F31, exhausting to stack 123;
 - (3) One (1) Powdered Carbon Unloading, identified as 9C30, constructed in 1966, with emissions controlled by baghouse 9F30, exhausting to stack 124;

- (4) One (1) Filteraid Conveying System to Precoat Makeup Tank, identified as 18C18, constructed in 1966, with emissions controlled by baghouse 18F118, exhausting to stack 129;
 - (5) One (1) Soda Ash Storage Tank, identified as 9C40, constructed in 1966, with emissions controlled by eductor/scrubber 9E1, exhausting to stack 149;
 - (6) One (1) HCl Storage Tank (Concentrated), identified as 9V101, constructed in 1995, with emissions controlled by scrubber 9F102, exhausting to stack 156;
 - (7) One (1) Jet Cooker system/Jet Conversion Flash Chamber, identified as 18V413, constructed in 1966, with emissions uncontrolled, exhausting to stack 166;
 - (8) One (1) Jet Cooker system/Acid Reject Flash Chamber, identified as 18V312, constructed in 1966, with emissions uncontrolled, exhausting to stack 320;
 - (9) One (1) Powdered Carbon Storage Silo, identified as 9V30, constructed in 1966, with emissions controlled by baghouse 9F37, exhausting to stack 321;
 - (10) One (1) Refinery Reprocess Bag Dump, identified as 45C43, constructed in 2000, with emissions controlled by baghouse 45F43, exhausting indoors to stack 351;
- (e) Starch Modification Operations, consisting of:
- (1) One (1) Non-PO Reactor, identified as 45V115, constructed in 1966, exhausting to stack 11;
 - (2) One (1) Non-PO Reactor, identified as 45V116, constructed in 1966, exhausting to stack 12;
 - (3) One (1) Non-PO Reactor, identified as 45V222, constructed in 1973, exhausting to stack 31;
 - (4) One (1) PO Reactor, identified as 45V223, constructed in 1973, with emissions controlled by scrubber 45F212, exhausting to stack 50;
 - (5) One (1) PO Reactor, identified as 45V240, constructed in 1986, with emissions controlled by scrubber 45F212, exhausting to stack 50;
 - (6) One (1) PO Reactor, identified as 45V241, constructed in 1986, with emissions controlled by scrubber 45F212, exhausting to stack 50;
 - (7) One (1) PO Reactor, identified as 45V242, constructed in 1986, with emissions controlled by scrubber 45F212, exhausting to stack 50;
 - (8) One (1) PO Reactor, identified as 45V243, constructed in 1986, with emissions controlled by scrubber 45F212, exhausting to stack 50;
 - (9) One (1) PO Reactor, identified as 45V246, constructed in 1988, with emissions controlled by scrubber 45F212, exhausting to stack 50;
 - (10) One (1) PO Reactor, identified as 45V247, constructed in 1988, with emissions controlled by scrubber 45F212, exhausting to stack 50;

- (11) One (1) PO Reactor, identified as 45V248, constructed in 1991, with emissions controlled by scrubber 45F212, exhausting to stack 50;
- (12) One (1) PO Reactor, identified as 45V270, constructed in 1995, with emissions controlled by scrubber 45F212, exhausting to stack 50;
- (13) One (1) PO Reactor, identified as 45V271, constructed in 1995, with emissions controlled by scrubber 45F212, exhausting to stack 50;
- (14) One (1) PO Reactor, identified as 45V280, constructed in 2002, with emissions controlled by scrubber 45F212, exhausting to stack 50;
- (15) One (1) PO Reactor, identified as 45V281, constructed in 2002, with emissions controlled by scrubber 45F212, exhausting to stack 50;
- (16) One (1) Sodium Sulfate Storage Bin, identified as 45V250, constructed in 1985, with emissions controlled by two baghouses, 45F25 and 45F25a, exhausting to stack 64;
- (17) One (1) Tri-Polyphosphate Storage Bin, identified as 9V103, constructed in 1988, with emissions controlled by baghouse 9F103, exhausting to stack 68;
- (18) Two (2) Flash 2 Slurry Hold Tanks, identified as 40V20 and 40V21, constructed in 1990, with emissions uncontrolled, exhausting to stack 80;
- (19) Four (4) Belt Dryer Feed Tanks, identified as 45V117 through 45V120, constructed in 1966, with emissions uncontrolled, exhausting to stack 180;
- (20) Two (2) Spray Dryer Feed Tanks, identified as 30V1 and 30V2, constructed in 1986, with emissions uncontrolled, exhausting to stack 195;
- (21) Three (3) Spray Dryer Process Tanks, identified as 40V11, 40V12, and 40V14, constructed in 1988, with emissions uncontrolled, exhausting to stack 222;
- (22) Four (4) Flash 2 Larox Filters, identified as 40F51, 40F52, and 40F53, constructed in 1995, and 40F54, constructed in 2002, with emissions uncontrolled, exhausting to stack 249;
- (23) One (1) Dryer Starch Feed Conveyor/Flash 2 Paddle Mixer, identified as 40U23, constructed in 1995, with emissions uncontrolled, exhausting to stack 249;
- (24) One (1) Flash 2 Air Release Tank, identified as 40V15, constructed in 1995, with emissions uncontrolled, exhausting to stack 250;
- (25) Three (3) Flash 3 Larox Filters, identified as 43F71, 43F72, and 43F73, constructed in 1995, with emissions uncontrolled, exhausting to stack 260;
- (26) One (1) Flash 3 Larox Air Release Tank, identified as 43V85, constructed in 1995, with emissions uncontrolled, exhausting to stack 261;
- (27) Two (2) Flash 3 Slurry Hold Tanks, identified as 43V71 and 43V72, constructed in 1995, with emissions uncontrolled, exhausting to stack 273;
- (28) One (1) Flash 1 Starch Hold Tank, identified as 40V50, constructed in 1996, with emissions uncontrolled, exhausting to stack 289;

- (29) One (1) Conveyor 40U2, identified as 40U2, constructed in 1985, with emissions uncontrolled, exhausting to stack 315;
- (30) One (1) Flash 1 Slurry Hold Tank, identified as 40V1, constructed in 1985, with emissions uncontrolled, exhausting to stack 315;
- (31) One (1) Filtrate Reineveldt Centrifuge Flash Dryer 1, identified as 40Y1, with emissions uncontrolled, constructed in 1985, exhausting to stack 315;
- (32) One (1) Flash 3 Larox Air Release Tank, identified as 43V86, constructed in 1995, with emissions uncontrolled, exhausting to stack 318;
- (33) One (1) Starch Feed Bin, identified as 33V1, constructed in 1995, with emissions controlled by baghouse 33F1, exhausting to stack 236;
- (34) One (1) Starch Feed Bin, identified as 33V2, constructed in 1995, with emissions controlled by baghouse 33F2, exhausting to stack 237;
- (35) One (1) Low Pressure Dry Starch Reactor, identified as 33R1, constructed in 1995, with emissions controlled by baghouses 33F101 and 33F102, exhausting to stack 238;
- (36) One (1) Catalyst Bin, identified as 33V5, constructed in 1995, with emissions controlled by baghouse 33F5, exhausting to stack 239;
- (37) One (1) High Pressure Dry Starch Reactor, identified as 33R2, constructed in 1995, with emissions controlled by baghouses 33F201 and 33F202, exhausting to stack 240;
- (38) One (1) Reactor Surge Bin, identified as 50V61, constructed in 1997, with emissions controlled by baghouse 50F161, exhausting to stack 241;
- (39) One (1) Reactor Surge Bin, identified as 50V62, constructed in 1997, with emissions controlled by baghouse 50F162, exhausting to stack 242;
- (40) One (1) Dry Starch Product Screening Receiver, identified as 50F48, constructed in 1997, with emissions controlled by baghouse 50F48, exhausting to stack 243;
- (41) One (1) Dry Starch Blend Bin, identified as 33V42, constructed in 1995, with emissions controlled by baghouse 33F42, exhausting to stack 244;
- (42) One (1) Dry Starch Blend Bin, identified as 33V43, constructed in 1995, with emissions controlled by baghouse 33F43, exhausting to stack 245;
- (43) One (1) Dry Starch Blend Bin, identified as 33V40, constructed in 1995, with emissions controlled by baghouse 33F40, exhausting to stack 246;
- (44) One (1) Dry Starch Blend Bin, identified as 33V41, constructed in 1995, with emissions controlled by baghouse 33F41, exhausting to stack 247;
- (45) One (1) Dry Starch Product Screening Receiver, identified as 50F45, constructed in 1997, with emissions controlled by baghouse 50F45, exhausting to stack 262;
- (46) One (1) Flash 2 Air Release Tank, identified as 40V16, constructed in 2002, with emissions uncontrolled, exhausting to stack 251.

- (f) Starch Drying and Handling Operation, consisting of:
- (1) One (1) Starch Flash Dryer #1, identified as 40D1, constructed in 1986, a heat input capacity of 14.4 MMBtu/hr, with emissions controlled by integral product collector/cyclones 40F1 and 40F2 and scrubber 40F3, exhausting to stack 69;
 - (2) One (1) Pneumatic Product Transfer, identified as 40F7, constructed in 1986, with emissions controlled by 40F7, exhausting to stack 70;
 - (3) One (1) Starch Storage Bin #8, identified as 7V8, constructed in 1986, with emissions controlled by baghouse 7F8, exhausting to stack 71;
 - (4) One (1) Starch Storage Bin #9, identified as 7V9, constructed in 1986, with emissions controlled by baghouse 7F9, exhausting to stack 72;
 - (5) One (1) Starch Flash Dryer #2, identified as 40D20, constructed in 1990 and modified in 1991, a heat input capacity of 40 MMBtu/hr, with emissions controlled by integral product collector/cyclones 40F20 through 40F25 and scrubber 40F26, exhausting to stack 73;
 - (6) One (1) Starch Product Bin #20, identified as 7V20, constructed in 1992, with emissions controlled by baghouse 7F20, exhausting to stack 76;
 - (7) One (1) Starch Product Bin #21, identified as 7V21, constructed in 1992, with emissions controlled by baghouse 7F21, exhausting to stack 77;
 - (8) One (1) Starch Product Bin #22, identified as 7V22, constructed in 1992, with emissions controlled by baghouse 7F22, exhausting to stack 78;
 - (9) One (1) Starch Grinder/Mill #1, identified as 40G20, constructed in 1990, with emissions controlled by baghouse 40F28, exhausting to stack 286;
 - (10) One (1) Starch Grinder/Mill #2, identified as 40G21, constructed in 1990, with emissions controlled by baghouse 40F29, exhausting to stack 287;
 - (11) One (1) Grinder Feed Collector 40F27, identified as 40F27, constructed in 1990, with emissions exhausting to the intake of bins 7V20, 7V21, 7V22 and 7V23;
 - (12) One (1) Starch Flash Dryer #3, identified as 43D71, constructed in 1995, a heat input capacity of 40 MMBtu/hr, with emissions controlled by integral product collector/cyclones 40F81 through 40F86 and scrubber 43F80, exhausting to stack 265;
 - (13) One (1) Flash #3 Mill, identified as 40G88, constructed in 1996, with emissions controlled by baghouse 40F88, exhausting to stack 266;
 - (14) One (1) Starch Bin #33, identified as 7V23 (formerly identified as 7V33), constructed in 1995, with emissions controlled by baghouse 7F33, exhausting to stack 267;
 - (15) One (1) Starch Bin #34, identified as 7V34, constructed in 1995, with emissions controlled by baghouse 7F34, exhausting to stack 268;
 - (16) One (1) Starch Bin #35, identified as 7V35, constructed in 1995, with emissions controlled by baghouse 7F35, exhausting to stack 269;

- (17) One (1) Adipic Acid Storage Bin, identified as 43V90, constructed in 1996, with emissions controlled by baghouse 43F90, exhausting to stack 274;
- (18) One (1) Starch Transfer Bin #91, identified as 7V91, constructed in 1999, with emissions controlled by baghouse 7F91, exhausting to stack 345;
- (19) One (1) Starch Transfer Bin #92, identified as 7V92, constructed in 1999, with emissions controlled by baghouse 7F92, exhausting to stack 346;
- (20) One (1) Starch Roll Dryer #1, identified as 41D1, constructed in 1986, with emissions uncontrolled, exhausting to stack 91;
- (21) One (1) Starch Roll Dryer #2, identified as 41D2, constructed in 1986, with emissions uncontrolled, exhausting to stack 92;
- (22) One (1) Starch Roll Dryer #3, identified as 41D3, constructed in 1986, with emissions uncontrolled, exhausting to stack 93;
- (23) One (1) Starch Roll Dryer #4, identified as 41D4, constructed in 1993, with emissions uncontrolled, exhausting to stack 94;
- (24) One (1) Starch Roll Dryer #5, identified as 41D5, constructed in 1995, with emissions uncontrolled, exhausting to stack 232;
- (25) One (1) Starch Roll Dryer #6, identified as 41D6, constructed in 1995, with emissions uncontrolled, exhausting to stack 233;
- (26) One (1) Starch Roll Dryer #7, identified as 41D7, constructed in 1997, with emissions uncontrolled, exhausting to stack 234;
- (27) One (1) Starch Roll Dryer #8, identified as 41D8, constructed in 2000, with emissions uncontrolled, exhausting to stack 235;
- (28) One (1) Pneumatic Product Transfer Roll Dryer, identified as 41F210, constructed in 1986, with emissions controlled by baghouse 41F210, exhausting to stack 95;
- (29) One (1) Roll Dryer Mill, identified as 41G200, constructed in 1986, with emissions controlled by baghouse 41F200, exhausting to stack 96;
- (30) One (1) Product Bin #10, identified as 41V10, constructed in 1993, with emissions controlled by baghouse 41F10, exhausting to stack 97;
- (31) One (1) Product Bin #11, identified as 41V11, constructed in 1993, with emissions controlled by baghouse 41F11, exhausting to stack 98;
- (32) One (1) Roll Dryer Mill, identified as 41G201, constructed in 1993, with emissions controlled by baghouse 41F211, exhausting to stack 100;
- (33) One (1) Pneumatic Product Transfer Roll Dryer, identified as 41F201, constructed in 1993, with emissions controlled by baghouse 41F201, exhausting to stack 101;
- (34) One (1) Starch Bin #44, identified as 33V44, constructed in 1995, with emissions controlled by baghouse 33F44, exhausting indoors to stack 248;

- (35) One (1) Bulk Bag Dump Station, identified as 41F13, constructed in 2000, with emissions controlled by baghouse 41F13, exhausting to stack 344;
- (36) One (1) Spray Dryer, identified as 30D1, constructed in 1984, a heat input capacity of 24 MMBtu/hr, with emissions controlled by integral product collector/cyclones 30F7 and 30F8 and baghouses 30F2 and 30F3, exhausting to stack 82;
- (37) One (1) Product Transfer to Milling, identified as 30F13, constructed in 1987, with emissions controlled by baghouse 30F13, exhausting to stack 83;
- (38) One (1) Dryer Mill, identified as 30G1, constructed in 1987, with emissions controlled by baghouse 30F15, exhausting to stack 84;
- (39) One (1) Product Transfer to Bins #14 & #15, identified as 41C30, constructed in 1987, with emissions controlled by baghouses 41F14 and 41F15, exhausting to stack 85;
- (40) One (1) Product Transfer to Bins #17, #18, and #44, identified as 41C35, constructed in 1987, with emissions controlled by baghouses 41F20, 41F21, and 41F54, exhausting to stack 86;
- (41) One (1) Product Bin #14, identified as 41V14, constructed in 1987, with emissions controlled by baghouse 41F16, exhausting to stack 87;
- (42) One (1) Product Bin #15, identified as 41V15, constructed in 1987, with emissions controlled by baghouse 41F17, exhausting to stack 88;
- (43) One (1) Product Bin #17, identified as 41V17, constructed in 1987, with emissions controlled by baghouse 41F22, exhausting to stack 89;
- (44) One (1) Product Bin #18, identified as 41V18, constructed in 1987, with emissions controlled by baghouse 41F23, exhausting to stack 90;
- (45) One (1) Belts Product Conveying Mill Product to Bins #3, #4, and #5, identified as 7F25, constructed in 1966, with emissions controlled by 7F25, exhausting to stack 103;
- (46) One (1) Belts Product Conveying Mill Product to Bins #1, #2, and #3, identified as 7F26, constructed in 1966, with emissions controlled by 7F26, exhausting to stack 104;
- (47) One (1) Product Bin #5, identified as 7V46, constructed in 1966, with emissions controlled by baghouse 7F69, exhausting to stack 105;
- (48) One (1) Product Bin #4, identified as 7V47, constructed in 1966, with emissions controlled by baghouse 7F70, exhausting to stack 106;
- (49) One (1) Product Bin #3, identified as 7V48, constructed in 1966, with emissions controlled by baghouse 7F71, exhausting to stack 107;
- (50) One (1) Product Bin #2, identified as 7V49, constructed in 1966, with emissions controlled by baghouse 7F72, exhausting to stack 108;
- (51) One (1) Product Bin #1, identified as 7V50, constructed in 1966, with emissions controlled by baghouse 7F73, exhausting to stack 109;

- (52) One (1) Belt Dryer Mill, identified as 25G1, constructed in 1968, with emissions controlled by baghouse 25F2, exhausting to stack 146;
 - (53) One (1) Pneumatic Conveying to Mill Feed Receiver, identified as 25F1, constructed in 1968, with emissions controlled by baghouse 25F1, exhausting to stack 147;
 - (54) One (1) Regular Belt Dryer D4 and one (1) Special Belt Dryer D5, identified as 16D4 and 16D5, constructed in 1966, with emissions controlled by rotoclone scrubbers 16F26, 17F78, 16F27, and 17F79, exhausting to stack 177;
 - (55) One (1) Spray Agglomeration System, identified as 50D101, constructed in 2001, a heat input capacity of 6.2 MMBtu/hr, with emissions controlled by integral product collector/cyclones 50F111 and 50F112 and baghouse 50F102, exhausting to stack 349; and
 - (56) One (1) Agglomeration Blender Receiver/Baghouse, identified as 50F106, constructed in 2001, with emissions controlled by baghouse 50F106, exhausting to stack 350;
- (g) Starch Packaging and Loadout Operations, consisting of:
- (1) One (1) Product Bin #6 and Cyclonic Product Collector, identified as 17V6 and 17F5, constructed in 1984, with emissions controlled by baghouse 17F6, exhausting to stack 190;
 - (2) One (1) Product Transfer to Main Packer #1, identified as 16F5, constructed in 1966, with emissions controlled by baghouse 16F5, exhausting to stack 102;
 - (3) One (1) Cationic Product Receiver for Packer #1, identified as 17F27, constructed in 1966, with emissions controlled by baghouse 17F27, exhausting to stack 102;
 - (4) One (1) Packer #1, identified as 17Z38, constructed in 1966, with emissions controlled by baghouse 17F10, exhausting to stack 177;
 - (5) One (1) Reprocess Bag/Tote Dump, identified as 17U58, constructed in 1997, with emissions controlled by baghouse 17F58, exhausting indoors to stack 334;
 - (6) One (1) Bag Packer #2 House Dust Collector, identified as 17F2, constructed in 1995, with emissions controlled by baghouse 17F2, exhausting to stack 177;
 - (7) One (1) Bag Packer #2, identified as 17Z01, constructed in 1995, with emissions controlled by baghouse 17F01, exhausting to stack 177;
 - (8) One (1) Spray Dryer Product Transfer to Bag Packer #3, identified as 41F7, constructed in 1986, with emissions controlled by baghouse 41F7, exhausting to stack 184;
 - (9) One (1) Spray Dryer Product Starch Bag Packer (North Spouts Packer #3), identified as 41Z3, constructed in 1986, with emissions controlled by baghouse 41F7, exhausting to stack 184;
 - (10) One (1) Roll Dried & Dry Starch Reaction System Products Malto Product Transfer to Bag Packer #3, identified as 41F18, constructed in 1986, with emissions controlled by baghouse 41F18, exhausting to stack 186;

- (11) One (1) Roll Dried & Dry Starch Reaction System Products Malto Bag Packer (South Spouts Packer #3), identified as 41Z5, constructed in 1986, with emissions controlled by baghouse 41F18, exhausting to stack 186;
 - (12) One (1) Bag Packer #4, identified as 17Z03, constructed in 1995, with emissions controlled by baghouses 17F03 and 17F04, exhausting to stack 332;
 - (13) One (1) House Dust Collection System for Bag Packer #4, identified as 17F15, constructed in 1995, with emissions controlled by baghouse 17F15, exhausting to stack 333;
 - (14) One (1) Bag Packer #3 House, identified as 41F44, constructed in 1995, with emissions controlled by baghouse 41F44, exhausting to stack 256;
 - (15) One (1) Product Transfer for #1 Bulk Bagger, identified as 16F25, constructed in 1988, with emissions controlled by baghouse 16F25, exhausting to stack 191;
 - (16) One (1) Bulk Bagger #2, identified as 17Z14, constructed in 1996, with emissions controlled by baghouse 17F14, exhausting to stack 254;
 - (17) Three (3) Product Receivers for #3 Bulk Bagger, identified as 41F8, 41F81, and 41F82, constructed in 1988, 1997, and 1997 respectively, with emissions controlled by baghouses 41F8, 41F81, and 41F82, exhausting to stack 208;
 - (18) One (1) Bulk Starch Rail Loadout (Track #10), identified as 20F60, constructed in 1993, with emissions controlled by baghouse 20F60, exhausting to stack 79;
 - (19) One (1) Starch Truck/Rail Loadout, identified as 20F61, constructed in 1966, with emissions controlled by baghouse 20F61, exhausting to stack 135;
 - (20) One (1) J4 Starch Rail Loadout System, identified as 16F100, constructed in 1989, with emissions controlled by baghouse 16F100, exhausting to stack 183;
 - (21) One (1) Dextrin/Roll/Spray Cooked Starch Bulk Truck Loadout, identified as 41F6, constructed in 1988, with emissions controlled by baghouse 41F6, exhausting to stack 189;
 - (22) One (1) Pneumatic Truck Loadout, identified as Truck Loadout, constructed in 1997, with emissions controlled by baghouses 20F78 and 20F79, exhausting to stack 264;
 - (23) One (1) Bulk #1 Product Screening System, identified as 20F1, constructed in 1997, with emissions controlled by baghouse 20F1, exhausting to stack 330;
 - (24) One (1) Bulk #2 Product Screening System, identified as 20F50, constructed in 1997, with emissions controlled by baghouse 20F50, exhausting to stack 331; and
- (h) Boiler support facilities, consisting of:
- (1) One (1) Boiler Ash Silo and Truck Loading, identified as 31V1, constructed in 1984, with emissions controlled by baghouse 31F1, exhausting to stack 199;
 - (2) One (1) Boiler Ash Pneumatic Transfer to Ash Silo, identified as 31F10, constructed in 1984, with emissions controlled by baghouse 31F22, exhausting to stack 200;

- (3) One (1) Coal Storage Silo, identified as 31V3, constructed in 1984, with emissions controlled by baghouse 31F21, exhausting to stack 203;
 - (4) One (1) Coal Day Bin, identified as 31V4, constructed in 1984, with emissions controlled by baghouse 31F19, exhausting to stack 204;
 - (5) One (1) Coal Day Bin, identified as 31V5, constructed in 1984, with emissions controlled by baghouse 31F20, exhausting to stack 205;
 - (6) One (1) Utilities Lime Storage Silo, identified as 31V10, constructed in 1984, with emissions controlled by baghouse 31F18, exhausting to stack 201;
- (i) Utility area, consisting of:
- (1) Three (3) natural gas or No. 2 fuel oil-fired Boilers, identified as 11B1, 11B2 and 11B3, each with a heat input capacity of 125 MMBtu/hr, constructed in 1966, with emissions uncontrolled, exhausting to stack 197;
 - (2) One (1) coal-fired Boiler, identified as 31B1, constructed in 1984 and modified in 2004, with a heat input capacity of 231 MMBtu/hr, equipped with low-NO_x burners, using natural gas, No. 2 fuel oil, or coal and starch mixture as supplement fuels, with emissions controlled by baghouse 31F2, exhausting to stack 202;
- (j) One (1) Wastewater Treatment Anaerobic Digester, identified as 34V10, constructed in 1985, with emissions controlled by: a scrubber (34V11) and main flare (21Z1) which exhaust to stack 271, and an emergency flare (34Z1) which exhausts to stack 272. Note that the biogas is used by dryers 21D6 and 21D7 and if the biogas produced exceeds the dryers' capacity, then the gas is flared off.

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

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

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-2] [326 IAC 8-3-5]
- (b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment cutting torches, soldering equipment, welding equipment. [326 IAC 6-3-2]
- (c) Structural steel and bridge fabrication activities using 80 tons or less of welding consumables. [326 IAC 6-3-2]
- (d) Covered conveyors for coal or coke conveying of less than or equal to 360 tons per day. [326 IAC 6-3-2]
- (e) Uncovered coal conveying of less than or equal to 120 tons per day. [326 IAC 6-3-2]
- (f) Coal bunker and coal scale exhausts and associated dust collector vents. [326 IAC 6-3-2]
- (g) Vents from ash transport systems not operated at positive pressure. [326 IAC 6-3-2]

- (h) Activities with emissions equal to or less than the following thresholds: 5 tons per year PM or PM10, 10 tons per year SO₂, NO_x, or VOC, 0.2 tons per year Pb, 1.0 tons per year of a single HAP, or 2.5 tons per year of any combination of HAPs: Corn Storage Silo Bins (13V1 through 13V5) and ten dewatering presses. [326 IAC 6-3-2]
- (i) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]

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

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

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

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Syrup Refining Operations

- (d) Syrup Refining Operations, consisting of:
- (1) One (1) GMH Starch Silo, identified as 9V32, constructed in 1966, with emissions controlled by baghouse 9F32, exhausting to stack 119;
 - (2) One (1) Filteraid Storage Silo, identified as 9V31, constructed in 1966, with emissions controlled by baghouse 9F31, exhausting to stack 123;
 - (3) One (1) Powdered Carbon Unloading, identified as 9C30, constructed in 1966, with emissions controlled by baghouse 9F30, exhausting to stack 124;
 - (4) One (1) Filteraid Conveying System to Precoat Makeup Tank, identified as 18C18, constructed in 1966, with emissions controlled by baghouse 18F118, exhausting to stack 129;
 - (5) One (1) Soda Ash Storage Tank, identified as 9C40, constructed in 1966, with emissions controlled by eductor/scrubber 9E1, exhausting to stack 149;
 - (6) One (1) HCl Storage Tank (Concentrated), identified as 9V101, constructed in 1995, with emissions controlled by scrubber 9F102, exhausting to stack 156;
 - (7) One (1) Jet Cooker system/Jet Conversion Flash Chamber, identified as 18V413, constructed in 1966, with emissions uncontrolled, exhausting to stack 166;
 - (8) One (1) Jet Cooker system/Acid Reject Flash Chamber, identified as 18V312, constructed in 1966, with emissions uncontrolled, exhausting to stack 320;
 - (9) One (1) Powdered Carbon Storage Silo, identified as 9V30, constructed in 1966, with emissions controlled by baghouse 9F37, exhausting to stack 321;
 - (10) One (1) Refinery Reprocess Bag Dump, identified as 45C43, constructed in 2000, with emissions controlled by baghouse 45F43, exhausting indoors to stack 351;

(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 Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, particulate emissions from facilities 9V31, 9V32, 9C30, 18C18, 9C40, 9V30, and 45C43 shall be limited using one of the following equations (as applicable):

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

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

Or depending on the process weight rate:

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

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

Note that the specific 326 IAC 6-3-2 limits have not been listed here as the process throughputs of the respective facilities is treated as confidential.

D.4.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.4.3 Particulate Control

- (a) In order to comply with Condition D.4.1, scrubber 9E1 for particulate control shall be in operation and control particulate emissions from facility 9C40 at all times the respective facilities are in operation.
- (b) In order to comply with Condition D.4.1, baghouses 9F31, 9F32, 18F118, 9F37, 9F30, and 45F43 for particulate control shall be in operation and control particulate emissions from facilities 9V31, 9V32, 18C18, 9V30, 9C30, and 45C43 at all times those facilities are in operation.

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

D.4.4 Monitoring for Eductor/Scrubber

- (a) The permittee shall make a visible observation for the presence of scrubber recirculation flow each time that soda ash is unloaded through eductor/scrubber 9E1 controlling emissions from facility 9C40.
- (b) The Compliance Response Plan for the scrubber shall contain troubleshooting contingency and corrective actions for when an inadequate scrubber recirculation flow is observed. An inadequate flow reading 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, shall be considered a deviation from this permit.
- (c) The instrument used for determining the flow rate shall comply with Section C - Pressure Gauge and Other 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.4.5 Scrubber Inspections

An inspection of scrubbers 9E1 and 9F102 shall be performed semi-annually. Inspections required by this condition shall not be performed in consecutive months. Repairs or replacement of defective components shall be performed in accordance with the Preventive Maintenance Plan.

D.4.6 Scrubber Malfunction

In the event that a scrubber malfunction has been observed:

- (a) The affected unit will be shut down immediately in accordance with safe operating procedures until the failed unit has been repaired or the appropriate components replaced".
- (b) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.

D.4.7 Visible Emissions Notations

- (a) Visible emission notations of the exhaust from stacks 119 and 321 shall be performed once per day during normal daylight operations when these units are in operation. A trained employee shall record whether emissions are normal or abnormal.
- (b) Visible emission notations of the exhaust from stacks 149, 123, and 124 shall be performed each time rail or truck unloading operations occur. A trained employee shall record whether emissions are normal or abnormal.
- (c) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (d) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (e) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (f) 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.

D.4.8 Monitoring for Baghouses

- (a) The Permittee shall record the total static pressure drop across baghouses 9F31, 9F32, 9F37, and 9F30, used in conjunction with facilities 9V31, 9V32, 9V30, and 9C30, at least once per day when the respective facilities are in operation.
- (b) When, for any one reading, the pressure drop across the baghouses are outside the normal range of 3.0 and 6.0 inches of water or a range established during the last stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. 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, shall be considered a deviation from this permit.
- (c) 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 shall be calibrated at least once every six (6) months.

D.4.9 Baghouse Inspections

- (a) An internal inspection of all bags, controlling particulate emissions from facilities 9V31, 9V32, 18C18, 9V30, and 9C30, shall be performed at least once per calendar year. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.
- (b) Inspections shall also be performed before a respective baghouse that has been secured and tagged as being out of service is returned to service. All defective bags shall be replaced.

D.4.10 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 has been observed and it will be 10 (ten) 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 baghouse's 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, dust traces or triboflows, 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).

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

D.4.11 Record Keeping Requirements

- (a) To document compliance with Condition D.4.4, the Permittee shall maintain observations of scrubber recirculation flow each time soda ash is unloaded from the scrubbers controlling emissions from facility 9C40.
- (b) To document compliance with Condition D.4.7, the Permittee shall maintain records of the visible emission notations of the stack exhaust.
- (c) To document compliance with Condition D.4.8, the Permittee shall maintain records of the total static pressure drop during normal operation.
- (d) To document compliance with Conditions D.4.5 and D.4.9, the Permittee shall maintain records of the results of the inspections.
- (e) To document compliance with Condition D.4.2, the Permittee shall maintain of records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.9 FACILITY OPERATION CONDITIONS

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

- (i) Utility area, consisting of:
- (1) Three (3) natural gas or No. 2 fuel oil-fired Boilers, identified as 11B1, 11B2 and 11B3, each with a heat input capacity of 125 MMBtu/hr, constructed in 1966, with emissions uncontrolled, exhausting to stack 197;
 - (2) One (1) coal-fired Boiler, identified as 31B1, constructed in 1984 and modified in 2004, with a heat input capacity of 231 MMBtu/hr, equipped with low-NO_x burners, using natural gas, No. 2 fuel oil, or coal and starch mixture as supplement fuels, with emissions controlled by baghouse 31F2, exhausting to stack 202;

(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.9.1 Prevention of Significant Deterioration: Best Available Control Technology [326 IAC 2-2]

Pursuant to PSD (79) 1557, issued June 21, 1984, and OP 79-08-89-0354, issued February 5, 1986:

- (a) The controlled particulate matter (PM) emissions from boiler 31B1 shall not exceed 0.05 pounds per MMBtu heat input. Compliance with this limit, in conjunction with the limited PM emissions from the coal/ash handling system (31V1, 31F10, 31V3, 31V4, and 31V5) (Condition D.8.1), is equivalent to total PM emissions of less than 56.0 tons per year.
- (b) The sulfur dioxide (SO₂) emissions from boiler 31B1 shall not exceed 1.2 pounds per MMBtu heat input and 1,215 tons per 12 month consecutive period with compliance determined at the end of each month by burning low sulfur coal.
- (c) The nitrogen oxides (NO_x) emissions from boiler 31B1 shall not exceed 0.7 pounds per MMBtu and 782 tons per 12 month consecutive period with compliance determined at the end of each month by boiler feed method and combustion techniques.
- (d) The carbon monoxide (CO) emissions from boiler 31B1 shall not exceed 10.2 pounds per hour and 45 tons per 12 month consecutive period with compliance determined at the end of each month.
- (e) The volatile organic compounds (VOC) emissions from boiler 31B1 shall not exceed 1.1 pounds per hour and 5.0 tons per 12 month consecutive period with compliance determined at the end of each month.
- (f) Only one of the identical gas/oil-fired boilers (11B1, 11B2, or 11B3) will be operated when the coal-fired boiler, 31B1, is operating. The only exception is the period of time required to replace the operation of boiler 31B1 with the operation of the two remaining standby gas/oil boilers. In no case will this period of time exceed eight (8) hours.
- (g) Boilers 11B1, 11B2, or 11B3 will combust only natural gas when fired in conjunction with the coal-fired boiler (31B1).
- (h) In order to ensure compliance with (a) through (e) above, the total amount of coal consumed by boiler 31B1 and the average coal heating value shall be determined on a

monthly basis with compliance determined, per twelve consecutive month period, at the end of each month.

Compliance with these requirements will satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration).

D.9.2 Particulate Matter (Sources of Indirect Heating) [326 IAC 6-2-3(d)]

Boilers 11B1, 11B2, and 11B3 were constructed in 1966. Therefore, pursuant to 326 IAC 6-2-3(d) the particulate matter emissions from boilers 11B1, 11B2, and 11B3 shall not exceed 0.8 pounds per MMBtu heat input each.

D.9.3 Particulate Matter (Sources of Indirect Heating) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4, the particulate matter emissions from boiler 31B1, constructed in 1985, shall not exceed 0.21 pounds per MMBtu heat input.

This limitation is based on the following equation:

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

Pt = Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input.

Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input. The maximum operating capacity is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used (Q = 606 MMBtu/hr).

D.9.4 Sulfur Dioxide [326 IAC 7-1.1-2] [326 IAC 7-2-1]

- (a) Pursuant to 326 IAC 7-1.1-2(a)(3), the sulfur dioxide emissions from each boiler (11B1, 11B2, and 11B3) shall not exceed 0.5 pounds per MMBtu heat input when combusting #2 fuel oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average. 326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.
- (b) Pursuant to 326 IAC 7-1.1-2(a)(1), the sulfur dioxide emissions from boiler 31B1 shall not exceed 6.0 pounds per MMBtu heat input when combusting coal. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average. 326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable. Compliance with Condition D.9.1(b) will ensure compliance with 326 IAC 7-1.1.

D.9.5 Pollution Control Project [326 IAC 2-2.5]

Pursuant to 326 IAC 2-2.5 (Pollution Control Project), the airlock speed for the GMH starch silo (09V32) shall not exceed 1.6 rpm, which is equivalent to 28.8 ft³/hr of waste starch fed to boiler 31B1.

D.9.6 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]

- (a) The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the affected sources, as designated by 40 CFR 63.7490(a), except when otherwise specified in 40 CFR 63 Subpart DDDDD. The Permittee must comply with these requirements on and after September 13, 2004.
- (b) Since the applicable requirements associated with the compliance options for the affected source for the large solid fuel subcategory are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15, does not apply to paragraph (a) of this condition, except as otherwise provided in this condition. The permit shield applies to Condition D.9.24, National Emissions Standards for Hazardous Air Pollutants

for Industrial, Commercial, and Institutional Boilers and Process Heaters - Notification Requirements.

D.9.7 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR Part 63, Subpart DDDDD]

- (a) The affected sources are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters, (40 CFR 63, Subpart DDDDD), as of the effective date of 40 CFR 63, Subpart DDDDD. Pursuant to this rule, the Permittee must comply with 40 CFR 63, Subpart DDDDD no later than September 13, 2007.
- (b) The following emissions units comprise the affected source for the large solid fuel subcategory: Boiler 31B1.
- (c) The following emissions units comprise the affected source for the large liquid fuel subcategory: Boilers 11B1, 11B2, and 11B3.
- (d) The definitions of 40 CFR 63, Subpart DDDDD at 40 CFR 63.7575 are applicable to the affected sources.

D.9.8 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.9.9 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

No later than 36 months after issuance of this Part 70 permit, and in order to demonstrate compliance with Condition D.9.1, the Permittee shall perform PM testing on boiler 31B1 utilizing methods as approved by the Commissioner. This test 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.9.10 Particulate Control

In order to comply with Conditions D.9.1 and D.9.3, baghouse 31F2 for particulate control shall be in operation and control particulate emissions from facility 31B1 at all times facility 31B1 is in operation.

D.9.11 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 3-7-4]

Compliance with Condition D.9.4 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 11B1, 11B2, and 11B3 do not exceed five-tenths (0.5) pound per million Btu heat input when combusting #2 fuel oil 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 used in conjunction with the boilers immediately after the fuel tank is filled and before any oil is combusted; and

- (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boiler using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

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

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

D.9.12 Sulfur Dioxide (SO₂) Emissions Monitoring [326 IAC 3-5] [326 IAC 7-2-1(g)]

The Permittee shall install, maintain, calibrate and operate a continuous emission monitoring system (CEMS) for sulfur dioxide from boiler 31B1. This system shall be certified in accordance with 326 IAC 3-5-2 and 326 IAC 3-5-3. A standard operating procedure detailing quality assurance/quality control activities shall be submitted to the department for approval in accordance with 326 IAC 3-5-4. Relative accuracy tests and routine quarterly audits shall be performed in accordance with the contents of the standard operating procedures (SOP) pursuant to 326 IAC 3-5-5. The continuous emission monitor (CEM) results shall be used to determine compliance with the sulfur dioxide emissions limit on the basis of three-hour block periods. The continuous emission monitoring data shall be used to determine compliance with the sulfur dioxide emission limitations in Conditions D.9.1 and D.9.4 on the basis of three (3) hour block periods.

D.9.13 Nitrogen Oxides (NO_x) Emissions Monitoring [326 IAC 3-5] [326 IAC 3-5-1(d)]

The Permittee shall install, maintain, calibrate and operate a continuous emission monitoring system (CEMS) for nitrogen oxides from boiler 31B1. This system shall be certified in accordance with 326 IAC 3-5-2 and 326 IAC 3-5-3. A standard operating procedure detailing quality assurance/quality control activities shall be submitted to the department for approval in accordance with 326 IAC 3-5-4. Relative accuracy tests and routine quarterly audits shall be performed in accordance with the contents of the standard operating procedures (SOP) pursuant to 326 IAC 3-5-5. The continuous emission monitor (CEM) results shall be used to determine compliance with the nitrogen oxides emissions limit on the basis of a 30-day rolling average emission rate calculated each steam generating unit operating day as the average of all of the hourly nitrogen oxides emission data for the preceding thirty (30) steam generating unit operating days. The continuous emission monitoring data shall be used to determine compliance with the nitrogen oxide emission limitations in Conditions D.9.1 on the basis of a 30-day rolling average emission rate calculated each steam generating unit operating day as the average of all of the hourly nitrogen oxides emission data for the preceding thirty (30) steam generating unit operating days.

D.9.14 Continuous Opacity Monitoring [326 IAC 3-5]

Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions), and 326 IAC 2, a continuous monitoring system shall be installed, calibrated, maintained, and operated to measure the opacity of the exhaust from boiler 31B1. The continuous opacity monitoring system shall meet the performance specifications of 326 IAC 3-5-2.

D.9.15 Opacity Readings

The ability of the continuous opacity monitor (COM) to monitor particulate emissions from boiler 31B1 shall be monitored by continuously measuring and recording the opacity of emissions from the stack exhaust.

- (a) Appropriate response steps shall be taken in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports whenever the opacity from the boiler exceeds twenty percent (20%) for any three (3) consecutive six-

minute average period. 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.

- (b) The opacity shall be determined by the certified continuous opacity monitor required in Condition D.9.14.

D.9.16 Method 9 Opacity Readings and Visible Emissions Notations

- (a) Whenever a continuous opacity monitor (COM) is malfunctioning, the Permittee shall follow the procedures in accordance with Section C - Maintenance of Opacity Monitoring Equipment, until such time that the continuous opacity monitor is back in operation.
- (b) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed or whenever the opacity from a boiler exceeds twenty percent (20%) for any three (3) consecutive six-minute average periods. 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.9.17 SO₂ Monitor Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(1)]

Whenever the SO₂ continuous emission monitor is malfunctioning or will be down for repairs or adjustments for a period of four (4) hours or more, a calibrated backup CEM shall be brought online within four (4) hours of shutdown of the primary CEM, if possible. If this is not possible, a fuel analysis, pursuant to 326 IAC 3-7-2(a) or (b), shall be conducted to allow for determination of compliance with all SO₂ emission limits.

D.9.18 Visible Emissions Notations

- (a) Visible emission notations of the exhaust from stack 197 (exhausting emissions from boilers 11B1, 11B2, and 11B3) shall be performed once per shift during normal daylight operations when fuel oil is fired in any one of the respective boilers. 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 these units 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.

D.9.19 Baghouse Inspections

- (c) An external inspection shall be performed at least once per calendar quarter of all bags controlling the particulate emissions from facility 31B1. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

- (b) An internal inspection shall be performed at least once per calendar year of all bag controlling the particulate emissions from facility 31B1. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

D.9.20 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 has been observed and it will be 10 (ten) 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 baghouse's 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, dust traces or triboflows, 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).

D.9.21 Airlock Monitoring

In order to demonstrate compliance with Condition D.9.5, the Permittee shall continuously monitor the speed of the airlock for the GMH starch silo.

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

D.9.22 Record Keeping Requirements

- (a) To document compliance with Condition D.9.1, the Permittee shall maintain monthly records of the heating value and amount of coal consumed by boiler 31B1.
- (b) To document compliance with Condition D.9.4, the Permittee shall maintain records in accordance with (1) through (6) below.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
 - (3) To certify compliance when burning natural gas only, the Permittee shall maintain records of fuel used.

If the fuel supplier certification is used to demonstrate compliance, when burning alternate fuels and not determining compliance pursuant to 326 IAC 3-7-4, the following, as a minimum, shall be maintained:

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

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

- (c) To document compliance with Condition D.9.12 and D.9.13, the Permittee shall maintain records of the continuous emission monitoring data for SO₂ and NO_x in accordance with 326 IAC 3-5.
- (d) To document compliance with Conditions D.9.14 and D.9.15, the Permittee shall maintain records of the continuous opacity monitoring (COM) data in accordance with 326 IAC 3-5. Records shall be complete and sufficient to establish compliance with the limits established in this section. When the COM system is not functioning, the Permittee shall maintain records of visible emissions notations of the stack exhaust in accordance with Section C - Maintenance of Continuous Opacity Monitoring Equipment.
- (e) To document compliance with Condition D.9.18, the Permittee shall maintain records of once per shift visible emission notations of the stack exhaust when boilers 11B1, 11B2, or 11B3 are burning fuel oil.
- (f) To document compliance with Condition D.9.19, the Permittee shall maintain records of the results of the inspections.
- (g) To document compliance with Condition D.9.21, the Permittee shall maintain continuous records for the speed of the airlock for GMH starch silo.
- (h) To document compliance with Condition D.9.8, the Permittee shall maintain of records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (i) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.9.23 Reporting Requirements

- (a) The natural gas fired boiler certification shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting form located at the end of this permit, or their equivalent, within thirty (30) days after the end of the six (6) month period being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) A certification, signed by the responsible official, shall be submitted that certifies all of the fuels combusted during the twelve month period.
- (c) A quarterly summary of the information to document compliance with Condition D.9.1 shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting forms located at the end of this permit, or their equivalent, within thirty

(30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

D.9.24 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters - Notification Requirements [40 CFR 63, Subpart DDDDD]

- (a) Pursuant to 40 CFR 63.7545, the Permittee shall submit the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4), and (f)(6), and 63.9(b) through (h) that apply to the affected source for the large solid fuel subcategory and chosen compliance methods by the dates specified. These notifications include, but are not limited to, the following:
- (1) An Initial Notification containing the information specified in 40 CFR 63.9(b)(2) not later than March 12, 2005, as required by 40 CFR 63.7545(b).
 - (2) If required to conduct a performance test, a notification of intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required by 40 CFR 63.7(b)(1) and 40 CFR 63.7545(d).
 - (3) If required to conduct an initial compliance demonstration as specified in 40 CFR 63.7530(a), a Notification of Compliance Status containing the information required by 40 CFR 63.9(h)(2)(ii) in accordance with 40 CFR 62.7545(e).
 - (A) For each initial compliance demonstration, the Permittee shall submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of the performance test and/or other initial compliance demonstrations according to 40 CFR 63.10(d)(2).
 - (B) The Notification of Compliance Status shall contain the items in 40 CFR 63.7545(e)(1) through (9), as applicable.
 - (4) If required to use a continuous monitoring system (CMS), notification of a performance evaluation, if required, as specified in 40 CFR 63.9(g), by the date of submission of the notification of intent to conduct a performance test.
- (b) The notifications required by paragraph (a) shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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

D.9.25 Requirement to Submit a Significant Permit Modification Application [326 IAC 2-7-12][326 IAC 2-7-5]

The Permittee shall submit an application for a significant permit modification to IDEM, OAQ to include information regarding which compliance option or options will be chosen in the Part 70 permit for the affected source for the large solid fuel subcategory.

- (a) The significant permit modification application shall be consistent with 326 IAC 2-7-12, including information sufficient for IDEM, OAQ to incorporate into the Part 70 permit the applicable requirements of 40 CFR 63, Subpart DDDDD, a description of the affected

source and activities subject to the standard, and a description of how the Permittee will meet the applicable requirements of the standard.

- (b) The significant permit modification application shall be submitted no later than nine months prior to the compliance date as specified in 40 CFR 63.7495(b).
- (c) The significant permit modification application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Part 70 Significant Source Modification and a Part 70 Significant Permit Modification

Source Background and Description

Source Name:	A.E. Staley Manufacturing Company - Sagamore Plant
Source Location:	2245 North Sagamore Parkway, Lafayette, Indiana 47902
County:	Tippecanoe
SIC Code:	2046
Operation Permit No.:	T157-6009-00003
Operation Permit Issuance Date:	June 28, 2004
Significant Source Modification No.:	157-18847-00003
Significant Permit Modification No.:	039-18915-00003
Permit Reviewer:	ERG/YC

The Office of Air Quality (OAQ) has reviewed a modification application from A.E. Staley Manufacturing Company - Sagamore Plant relating to the modification of the following emission unit:

- (a) One (1) coal-fired Boiler, identified as 31B1, constructed in 1984 and modified in 2004, with a heat input capacity of 231 MMBtu/hr, equipped with low-NO_x burners, using natural gas, No. 2 fuel oil, or coal and starch mixture as supplement fuels, controlled by baghouse 31F2, and exhausting to stack 202.

The source also proposed to construct and operate the following unit:

- (a) One (1) enclosed starch feeding pipe, which transfers starch from GMH starch silo to coal pulverizers 31G3 and 31G4.

History

A.E. Staley Manufacturing Company - Sagamore Plant is an existing wet corn milling plant and an existing PSD major source. Their Title V permit (T157-6009-00003) was issued on June 28, 2004. On March 19, 2004, the Permittee submitted an application to the OAQ requesting to substitute a small portion (about 6.8% by weight) of the coal combusted in the existing coal fired boiler 31B1 with the waste starch collected at this source. The maximum coal input rate for boiler 31B1 is 10.3 tons/hr and the maximum starch feed rate is approximately 1,150 lbs/hr. The source stated that corn starch can not be combusted alone and will need to be blended with coal before feeding to the boiler.

This alternative fuel project requires a new starch feeding pipe which connects the existing GMH starch silo (identified as 09V32, and previously referred to as Filteraid Storage Silo) to the existing coal pulverizers 31G3 and 31G4. This project is a change in the method of operation and is considered a modification to the existing boiler. However, IDEM, OAQ has determined that this project qualifies for a Pollution Control Project as defined in 326 IAC 2-2.5 (see the discussion in

the section of **Pollution Control Project Exclusion**). Therefore, this modification project is excluded from PSD review.

The source stated that the airlock speed of the GMH starch silo cannot exceed 1.6 rpm, which is equivalent to 28.8 ft³/hr and 1,150 lbs/hr of starch fed (the density of the waste starch collected varies greatly and is affected by weather conditions). Operating the airlock at speeds greater than 1.6 rpm will result in plugging the system. The source proposed to continuously monitor and record the airlock speed for the GMH starch silo to control the amount of starch fed into boiler 31B1. The source also requested to revise the monitoring frequency in Condition D.4.7 - Visible Emission Notation for the GMH starch silo (stack 119) from "each time when rail or truck unloading operation occur" to "once per day when this unit is in operation."

Pollution Control Project Exclusion

A.E. Staley is currently unable to sell approximately 27,600 lbs/day (13.8 tons/day) of corn starch. In order to reduce the solid waste from this source, the Permittee requested permission to use coal and corn starch mixture as fuel in the existing coal fired boiler 31B1. This existing coal fired boiler has a maximum heat input of 231 MMBtu/hr and uses natural gas and No. 2 fuel oil as supplement fuels. The construction of this boiler was permitted in PSD permit #(79) 1557, issued on June 21, 1984, and the operation of this boiler was permitted in OP# 79-08-89-0354, issued on February 5, 1986.

Since changing the fuel used is a change in the method of operation, this project is considered a modification to the existing boiler 31B1 for PSD review purposes. However, if this modification qualifies as a Pollution Control Project (PCP) as defined in 326 IAC 2-2.5-2(b), the PSD review is not necessary, according to an EPA memo from Mr. John S. Seitz dated July 1, 1994.

IDEM, OAQ has evaluated the information submitted by the source on March 19, 2004 and May 24, 2004 and determined that this alternative fuel project is a PCP because it meets all the following criteria:

(a) Environmental Benefit:

The source performed chemical analysis of the raw coal and starch on December 30, 2003. The results of this analysis show that corn starch contains significantly less HAPs than coal. In addition, the corn starch has less sulfur and ash content.

The source also performed stack testing on November 20 and 21, 2003 to compare the emissions from combusting coal and starch/coal mixture at boiler 31B1. The starch feed rate in this testing was 1,150 lbs/hr, which is 6.8% by weight of the total fuel and 4.0% by heat input. The testing results are listed in the table below:

Pollutants	Coal (lbs/MMBtu)	Starch/Coal Mixture (lbs/MMBtu)	Emission Increase after Modification (lbs/MMBtu)	Emission Increase after Modification (%)	*Emission Increase after Modification (tons/yr)
PM	0.008	0.007	-0.001	-12.5%	-1.01
SO ₂	0.72	0.72	0	0	0
NO _x	0.52	0.49	-0.03	-5.76%	-30.3
CO	0.01	0.03	0.02	200%	20.2
VOC	0.002	0.003	0.001	50%	1.01
Total					-10.1

Note: Emission Increase (tons/yr) = Emission Increase (lbs/MMBtu) x 231 MMBtu/hr x 8760 hr/yr x 1 ton/2000 lbs.

The testing results show that there will be 30.3 tons/yr emission reductions in NO_x and 20.2 tons/yr emission increases in CO. The emission changes for other pollutants are negligible. The NO_x emission decrease is only 5.76% of the total NO_x emissions from this boiler. Based on the stack tests results, the emissions (except for CO) from this boiler do not change significantly while using starch/coal mixture because the starch content of the starch/coal mixture is only 6.8% by weight and 4% by heat input.

The source currently does not have an explanation for the higher CO emissions that occur while using the starch/coal mixture since a lower CO emission rate was expected based on fuel characteristics. The source indicated that additional stack testing might be needed to determine the cause of this unexpected increase. However, with the CO emission factor of 0.03 lbs/MMBtu for starch/coal mixture, the CO emissions from the boiler are estimated to be 30.4 tons/yr (0.03 lbs/MMBtu x 231 MMBtu/hr x 8760 hr/yr x 1 ton/2000 lbs = 30.4 tons/yr), which is still less than the current CO emission limit of 45 tons/yr for this boiler.

In conclusion, this project will not have a significant impact on air emissions, except for CO emissions. However, the increase in CO emissions (20.2 tons/yr) is less than the decrease in NO_x emissions (30.3 tons/yr) and the source will still comply with the current CO emission limit after this modification.

The source stated that this project will reduce solid waste from this source significantly. Up to 252,288 ft³/yr (28.8 ft³/hr x 8760 hr/yr = 252,288 ft³/yr) of solid waste starch, which currently goes to landfill, will be combusted in boiler 31B1. Using the averaged density of 40 lbs/ft³ for the waste starch collected, this is equivalent to 5,046 tons/yr of solid waste (252,288 ft³/yr x 40 lbs/ft³ x 1 tons/2,000 lbs = 5,046 tons/yr).

The source stated that the fugitive dust emissions will also be reduced because the waste corn starch will no longer be landfilled and fugitive PM emissions associated with transporting and dumping the waste corn starch to landfills will be eliminated. In addition, less ash will be generated while using starch/coal mixture and less coal will be consumed at this site. Therefore, the fugitive PM emissions associated with coal and ash handling processes will also be decreased.

Based on the information above, this modification is considered an environmentally beneficial project.

- (b) Not a reconstruction of the emission unit being modified:

This project requires adding one enclosed (1) starch feeding pipe to the existing coal pulverizers 31G3 and 31G4 to create starch and coal mixture before feeding to boiler 31B1. No modification is required to the coal burners or the boiler to allow the use of starch/coal mixture as fuel. This is a relatively small construction project and did not constitute more than 50% of the replacement cost of the existing boiler 31B1. Therefore, this modification is not a reconstruction of the existing boiler 31B1.

- (c) Not an increase in the maximum capacity of the unit being modified:

Boiler 31B1 has a design steam production capacity of 190,000 lbs/hr. The starch/coal mixture will be fed to the existing boiler by the existing coal feed system. Since there are no physical changes to the existing coal feed system, burner, or boiler, and the corn starch has lower heating value than coal, this modification will not result in increase of the maximum heat input capacity of the existing boiler 31B1.

- (d) No increased utilization of the unit being modified:

The purpose of this project is to substitute a small percent of coal used at this boiler with corn starch. This will not result in increased utilization of the existing boiler because the

boiler is required to produce the same amount of steam and only up to 6.8% of coal will be replaced by starch. This replacement is not significant and the source stated that any amount of starch fed to boiler 31B1 is used to replace the same amount of coal combusted in this units.

(e) Adverse Impacts:

A PCP must not cause or contribute to a violation of the NAAQS or of a PSD increment. The PM and NO_x emissions from combusting starch/coal mixture are lower than the emissions from combusting coal only. The SO₂, CO, and VOC emissions after this modification are lower than the current SO₂, CO, and VOC emission limits for boiler 31B1 (see the comparison table below), which were used for the Air Quality Analysis performed in PSD permit (79) 1557, issued on June 21, 1984.

	Emission limit in (79) 1557	Emissions while using starch/coal mixture
SO ₂	1.2 lbs/MMBtu	0.72 lbs/MMBtu
CO	10.2 lbs/hr	0.03 lbs/MMBtu x 231 MMBtu/hr = 6.93 lbs/hr
VOC	1.1 lbs/hr	0.003 lbs/MMBtu x 231 MMBtu/hr = 0.69 lbs/hr

Therefore, this modification does not increase the risk of a violation of the NAAQS.

(f) EPA Notice:

US EPA must be provided with an opportunity to review and comment on PCP determinations. US EPA Region V will be provided the Part 70 Significant Permit Modification to review. Therefore, the US EPA can review the PCP concurrently with the Part 70 Significant Permit Modification permit review.

(g) Public Comment:

The public must be notified and allowed to comment on PCP determinations. This Part 70 Significant Source Modification and Significant Permit Modification is required to have a 30 day public comment period. Therefore, the public can review the PCP determination concurrently with the Significant Source Modification and Significant Permit Modification.

In conclusion, this alternative fuel project qualifies for a PCP as defined in 326 IAC 2-2.5-2(b) and is excluded from PSD review.

Enforcement Issue

See the TSD of the source's Part 70 Permit (T157-6009-0003, issued on June 28, 2004) for details on current enforcement activities for this facility.

Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Source Modification and the Part 70 Significant Permit Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on March 19, 2004. Additional information was received on May 24, 2004 and July 2, 2004.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 and 2).

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source 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.”

Pollutant	Potential To Emit (tons/year)
PM	7.08
PM-10	7.08
SO ₂	728
VOC	3.04
CO	30.4
NO _x	496

HAP's	Potential To Emit (tons/year)
HCl	57.8
HF	7.23
Se	0.06
Pb	0.02
Be	0.001
Mg	0.004
TOTAL	65.1

Justification for Modification

This modification is being performed through a Part 70 Significant Source Modification because: (1) the potential to emit SO₂ and NO_x is each greater than 25 tons per year, pursuant to 326 IAC 2-7-10.5(f)(4); and (2) the potential to emit HAPs is greater than 10 tons/yr for a single HAP and greater than 25 tons/yr for any combination of HAPs, pursuant to 326 IAC 2-7-10.5(f)(6). The permit modification is being performed through a Significant Permit Modification pursuant to 326 IAC 2-7-12(d) because this is a modification under provisions of Title I of CAA.

County Attainment Status

The source is located in Tippecanoe County.

Pollutant	Status
PM-10	Attainment
SO ₂	Attainment
NO _x	Attainment
8-Hour Ozone	Attainment
1-Hour Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Tippecanoe County has been designated as attainment or unclassifiable for ozone.

Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Significant Deterioration (PSD) and 326 IAC 2-2.

- (b) Tippecanoe County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD) and 326 IAC 2-2.
- (c) Fugitive Emissions
 Since this type of operation is in one of the 28 listed source categories under 326 IAC 2-2, the fugitive PM emissions are counted toward determination of PSD applicability.

Source Status

Existing Source PSD Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	237
PM-10	237
SO ₂	1,502
VOC	597
CO	56
NOx	604

- (a) This existing source is a PSD major stationary source because at least one attainment regulated pollutant is emitted at a rate of one hundred (100) tons per year or more, and it is in one (1) of the twenty-eight (28) listed source categories.
- (b) These emissions are based upon the 2001 emission inventory data from the source.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

Process/facility	Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
*Boiler 31B1	Less than 56.0	Less than 56.0	Less than 1,215	Less than 5.0	Less than 45.0	Less than 782	Greater than 10 for a single HAP and greater than 25 tons/yr for total HAPs
**Actual Emissions from Boiler 31B1	5.61	5.61	505	1.40	7.01	365	37.6 for a single HAP and 42.3 for total HAPs

Process/facility	Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Total PTE of this Modification (2004)	50.4	50.4	710	3.60	38.0	417	Greater than 10 for a single HAP and greater than 25 tons/yr for total HAPs
PSD Significant Thresholds	25	15	40	40	100	40	NA

Note: (*) The PTE of this boiler is limited by the conditions in permit (79) 1557, issued on June 21, 1984 and OP #79-08-89-0354, issued on February 5, 1986, and remains unchanged.
 (**) This is the averaged emissions from this boiler in 2002 and 2003 (see page 2 of Appendix A).

This modification to an existing PSD major stationary source is not major because this modification is a pollution control project and is excluded from the NSR review.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.
- (b) Boiler 31B1 has a maximum capacity greater than 100 MMBtu/hr and was constructed in 1984. According to the Agreed Order for A-2439, A-3122, A-3147, and A-3186, issued on March 6, 1997, IDEM, OAQ has determined that the construction of this unit commenced prior to April 12, 1984, and the requirements of the New Source Performance Standards for Industrial-Commercial-Institutional Steam Generating Units (326 IAC 12, 40 CFR 60.40b-49b, Subpart Db) are not applicable to the construction of this unit.

40 CFR 60, Subpart Db regulates opacity, SO₂ and NO_x emissions from the affected units. Using coal and starch mixture in the existing boiler 31B1 will not increase the PM, SO₂ and NO_x emissions from this unit, based on the stack test results on November 21, 2003, provided by the source. Therefore, this modification is not considered a modification to the existing boiler 31B1 for NSPS review purposes, according to the modification definition in 40 CFR 60.2. Therefore, the requirements of 40 CFR 60, Subpart Db are not applicable to this alternative fuel project.

- (c) This existing wet corn milling plant is a major source for HAPs. Therefore, boiler 31B1 is subject to the National Emission Standards for Hazardous Air Pollutants - Industrial/Commercial/Institutional Boilers and Process Heaters (40 CFR 63.7480-63.7575, Subpart DDDDD).

Boiler 31 B1 comprises one existing affected source for the large solid fuel subcategory, as defined by 40 CFR 63.7506(b), because it meets the criteria in the definition in 40 CFR 63.7575 for the large solid fuel subcategory. The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the affected source(s) after the effective date of 40 CFR 63, Subpart DDDDD, except when otherwise specified in 40 CFR 63 Subpart DDDDD. This rule is not yet published in the Federal Register. A copy of the signed, final rule is available at <http://www.epa.gov/ttn/atw/boiler/boilerpg.html>.

This rule has a future compliance date; therefore, the specific details of the rule and how the Permittee will demonstrate compliance for the affected source for the large solid fuel subcategory are not provided in the permit. The Permittee shall submit an application for a significant permit modification nine months prior to the compliance date for the MACT

that will specify the option or options for the emission limitations and standards and methods for determining compliance chosen by the Permittee. At that time, IDEM, OAQ will include the specific details of the rule and how the Permittee will demonstrate compliance. In addition, pursuant to 40 CFR 63, Subpart DDDDD, the Permittee shall submit:

- (1) An Initial Notification containing the information specified in 40 CFR 63.9(b)(2) not later than 120 days after the date of publication of the final rule for 40 CFR 63, Subpart DDDDD in the Federal Register, as required by 40 CFR 63.7545(b).
 - (2) If required to conduct a performance test, a notification of intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required by 40 CFR 63.7(b)(1) and 40 CFR 63.7545(d).
 - (3) If required to conduct an initial compliance demonstration as specified in 40 CFR 63.7530(a), a Notification of Compliance Status containing the information required by 40 CFR 63.9(h)(2)(ii) in accordance with 40 CFR 62.7545(e).
 - (A) For each initial compliance demonstration, the Permittee shall submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of the performance test and/or other initial compliance demonstrations according to 40 CFR 63.10(d)(2).
 - (B) The Notification of Compliance Status shall contain the items in 40 CFR 63.7545(e)(1) through (9), as applicable.
 - (4) If required to use a continuous monitoring system (CMS), notification of a performance evaluation, if required, as specified in 40 CFR 63.9(g), by the date of submission of the notification of intent to conduct a performance test.
- (d) This modification involves a pollutant-specific emissions unit as defined in 40 CFR 64.1:
- (1) With the potential to emit before controls equal to or greater than the major source threshold;
 - (2) That is subject to an emission limitation or standard; and
 - (3) Uses a control device (baghouse) as defined in 40 CFR 64.1 to comply with that emission limitation or standard.

Since this unit is subject to 40 CFR 63, Subpart DDDDD and this NESHAP was promulgated after November 15, 1990, boiler 31B1 at this source is exempt from the requirements of 40 CFR 64 (Compliance Assurance Monitoring), pursuant to 40 CFR 64.2(b)(i).

State Rule Applicability - Boiler 31B1

326 IAC 2-2 (PSD)

This source was constructed in 1984 and modified in 2004 (this modification). This source is an existing PSD major source and the construction of this boiler was permitted in a PSD permit. Pursuant to permit (79) 1557, issued on June 21, 1984 and OP 79-08-89-0954, issued on February 5, 1986, this boiler has the following BACT requirements:

- (a) The controlled particulate matter (PM) emissions shall not exceed 0.05 lbs/MMBtu. This is equivalent to 50.6 tons/yr of PM emissions.

- (b) The sulfur dioxide (SO₂) emissions shall not exceed 1.2 lbs/MMBtu. This is equivalent to 1,215 tons/yr of SO₂ emissions.
- (c) The nitrogen oxides (NO_x) emissions shall not exceed 0.7 lbs/ MMBtu. This is equivalent to 782 tons/yr of NO_x emissions.
- (d) The carbon monoxide (CO) emissions shall not exceed 10.2 lbs/hr. This is equivalent to 45 tons/yr of CO emissions.
- (e) The volatile organic compounds (VOC) emissions shall not exceed 1.1 lbs/hr. This equivalent to 5.0 tons/yr of VOC emissions.
- (f) In order to ensure compliance with (a) through (e) above, the total amount of coal consumed by boiler 31B1 and the average coal heating value shall be determined on a monthly basis with compliance determined, per twelve consecutive month period, at the end of each month.

326 IAC 2-2.5 (Pollution Control Project)

All the emission data presented for the Pollution Control Project analysis is based on the emission tests performed on November 20 and 21, 2003. During these stack tests, the maximum starch feed rate was 28.8 ft³/hr. In order to ensure that this modification project is a PCP, the airlock speed for the GMH starch silo (09V32) shall not exceed 1.6 rpm, which is equivalent to 28.8 ft³/hr of the starch fed to boiler 31B1.

326 IAC 2-4.1-1 (New Sources of Hazardous Air Pollutants)

The potential to emit HAP of this modification is greater than the major source thresholds for HAP. However, this project is not a reconstruction of the existing boiler and boiler 31B1 is now subject to the requirements of 40 CFR 63, Subpart DDDDD, Therefore, the requirements of 326 IAC 2-4.1 (MACT) are not applicable to this modification.

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

326 IAC 6-2-4 (PM Emissions for Sources of Indirect Heating)

Pursuant to 326 IAC 6-2-4(a), indirect heating facilities constructed after September 12, 1983, shall be limited by the following equation:

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

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

The emission rate limit calculated from the equation above equals:

$$Pt = \frac{1.09}{(606)^{0.26}} = 0.21 \text{ lbs/MMBtu}$$

Therefore, the PM emission limit for boiler 31B1 is 0.21 lbs/MMBtu. This limitation was determined in a prior permit.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

The potential to emit SO₂ from boiler 31B1 is greater than 25 tons/yr. Therefore, this boiler is subject to the requirements of 326 IAC 7-1.1. Pursuant to 326 IAC 7-1.1, the SO₂ emissions from the boiler 31B1 shall comply with the following:

- (a) Less than 6.0 pounds per MMBtu heat input, when combusting coal or coal blend.
- (b) Less than 0.5 pounds per MMBtu heat input, when combusting fuel oil.

Compliance with 326 IAC 7-1.1 shall be demonstrated with a SO₂ CEMS pursuant to 326 IAC 7-2-1(g) and 326 IAC 3-5.

326 IAC 3-5 (Continuous Monitoring)

Pursuant to Agreed Order A-2439, A-3122, A-3147, and A-3186, and A 157-8577-00003, issued December 3, 1997, the Permittee shall install, maintain, calibrate and operate a continuous emission monitoring system (CEMS) for sulfur dioxide from boiler 31B1. The continuous emission monitoring data shall be used to determine compliance with 326 IAC 7-1.1, and 326 IAC 2-2. This system shall be certified in accordance with 326 IAC 3-5-2 and 326 IAC 3-5-3. A standard operating procedure detailing quality assurance/quality control activities shall be submitted to the department for approval in accordance with 326 IAC 3-5-4. Relative accuracy tests and routine quarterly audits shall be performed in accordance with the contents of the standard operating procedures (SOP) pursuant to 326 IAC 3-5-5. The continuous emission monitor (CEM) results shall be used to determine compliance with the sulfur dioxide emissions limit on the basis of three-hour block periods.

Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions), and 326 IAC 2, a continuous monitoring system shall be installed, calibrated, maintained, and operated to measure the opacity of the exhaust from boiler 31B1. The continuous opacity monitoring system shall meet the performance specifications of 326 IAC 3-5-2.

326 IAC 8-1-6 (Volatile Organic Compounds Limitations - BACT)

Boiler 31B1 has potential VOC emissions less than 25 tons/yr. Therefore, the requirements of 326 IAC 8-1-6 (BACT) are not applicable.

326 IAC 10-4 (NO_x Budget Trading Program)

Boiler 31B1 has a maximum heat input capacity less than 250 MMBtu/hr. Therefore, it is not a "large affected unit" as defined in 326 IAC 10-4-2(27) and the requirements of 326 IAC 10-4 (NO_x Budget Trading Program) are not applicable.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less 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 requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for

enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this modification are as follows:

1. Boiler 31B1, which is controlled by baghouse 31F2, has the following applicable compliance monitoring requirements:
 - (a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions), and 326 IAC 2, a continuous monitoring system shall be installed, calibrated, maintained, and operated to measure the opacity of the exhaust from boiler 31B1. The continuous opacity monitoring system shall meet the performance specifications of 326 IAC 3-5-2.
 - (b) The ability of the continuous opacity monitor (COM) to monitor particulate emissions from boiler 31B1 shall be monitored by continuously measuring and recording the opacity of emissions from the stack exhaust.

Appropriate response steps shall be taken in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports whenever the opacity from the boiler exceeds twenty percent (20%) for any three (3) consecutive six-minute average period. 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.
 - (c) Whenever a continuous opacity monitor (COM) is malfunctioning, the Permittee shall follow the procedures in accordance with Section C - Maintenance of Opacity Monitoring Equipment, until such time that the continuous opacity monitor is back in operation. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed or whenever the opacity from a boiler exceeds thirty-eight percent (38%) for any two consecutive six-minute average periods.
 - (d) Pursuant to A157-8577-00003, issued December 3, 1997, and Agreed Order A-2439, A-3122, A-3147, and A-3186, the Permittee shall install, maintain, calibrate and operate a continuous emission monitoring system (CEMS) for SO₂ from boiler 31B1. This system shall be certified in accordance with 326 IAC 3-5-2 and 326 IAC 3-5-3. A standard operating procedure detailing quality assurance/quality control activities shall be submitted to the department for approval in accordance with 326 IAC 3-5-4. Relative accuracy tests and routine quarterly audits shall be performed in accordance with the contents of the standard operating procedures (SOP) pursuant to 326 IAC 3-5-5.
 - (e) Whenever the SO₂ continuous emission monitor is malfunctioning or will be down for repairs or adjustments for a period of four (4) hours or more, a calibrated backup CEM shall be brought online within four (4) hours of shutdown of the primary CEM, if possible. If this is not possible, a fuel analysis, pursuant to 326 IAC 3-7-2(a) or (b), shall be conducted to allow for determination of compliance with all SO₂ emission limits.
 - (f) The Permittee shall install, maintain, calibrate and operate a continuous emission monitoring system (CEMS) for nitrogen oxides from boiler 31B1. This system shall be certified in accordance with 326 IAC 3-5-2 and 326 IAC 3-5-3. A standard operating procedure detailing quality assurance/quality control activities shall be submitted to the department for approval in accordance with 326 IAC 3-5-4. Relative accuracy tests and routine quarterly audits shall be performed in

accordance with the contents of the standard operating procedures (SOP) pursuant to 326 IAC 3-5-5. The continuous emission monitor (CEM) results shall be used to determine compliance with the nitrogen oxides emissions limit on the basis of a 30-day rolling average emission rate calculated each steam generating unit operating day as the average of all of the hourly nitrogen oxides emission data for the preceding thirty (30) steam generating unit operating days. The continuous emission monitoring data shall be used to determine compliance with the nitrogen oxide emission limitations in Conditions D.9.1 on the basis of a 30-day rolling average emission rate calculated each steam generating unit operating day as the average of all of the hourly nitrogen oxides emission data for the preceding thirty (30) steam generating unit operating days.

- (g) An inspection shall be performed each calendar quarter of all bags controlling boiler 31B1. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced. In the event that bag failure has been observed:
- (1) 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. 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.
 - (2) For single compartment baghouses, 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.
- (h) In order to demonstrate compliance with starch feed rate for boiler 31B1, the Permittee shall continuous monitor the speed of the airlock for GMH starch silo.

These monitoring conditions are necessary because the baghouse, continuous opacity monitoring system, and continuous emission monitoring systems must operate properly to ensure compliance with 326 IAC 2-2-3 (BACT), 326 IAC 2-2.5 (Pollution Control Project) 326 IAC 6-2-4 (PM Emissions for Sources of Indirect Heating), and 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations).

Proposed Changes

The Table of Contents has been changed as necessary. Bold language has been added, language with a line through it has been deleted.

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:

...

- (d) Syrup Refining Operations, consisting of:
 - (1) One (1) ~~Filteraid Storage~~ **GMH Starch** Silo, identified as 9V32, constructed in 1966, with emissions controlled by baghouse 9F32, exhausting to stack 119;
 - ...
- (i) Utility area, consisting of:
 -
 - (2) One (1) coal-fired Boiler, identified as 31B1, **constructed in 1984 and modified in 2004**, with a heat input capacity of 231 MMBtu/hr, ~~constructed in 1984, equipped~~ with low-NO_x burners, ~~fueled by~~ **using** natural gas, ~~or~~ No. 2 fuel oil, **or coal and starch mixture as supplement fuels**, with emissions controlled by baghouse 31F2, exhausting to stack 202;

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Syrup Refining Operations

- (d) Syrup Refining Operations, consisting of:
 - (1) One (1) ~~Filteraid Storage~~ **GMH Starch** Silo, identified as 9V32, constructed in 1966, with emissions controlled by baghouse 9F32, exhausting to stack 119;
 - ...

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

D.4.7 Visible Emissions Notations

- (a) Visible emission notations of the exhaust from stacks **119 and 321** shall be performed once per day during normal daylight operations **when these units are in operation**. A trained employee shall record whether emissions are normal or abnormal.
- (b) Visible emission notations of the exhaust from stacks 149, 123, 449, and 124 shall be performed each time rail or truck unloading operations occur. A trained employee shall record whether emissions are normal or abnormal.

SECTION D.9 FACILITY OPERATION CONDITIONS

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

- (i) Utility area, consisting of:
- (1) Three (3) natural gas or No. 2 fuel oil-fired Boilers, identified as 11B1, 11B2 and 11B3, each with a heat input capacity of 125 MMBtu/hr, constructed in 1966, with emissions uncontrolled, exhausting to stack 197;
 - (2) One (1) coal-fired Boiler, identified as 31B1, **constructed in 1984 and modified in 2004** with a heat input capacity of 231 MMBtu/hr, ~~constructed in 1984~~, **equipped** with low-NO_x burners, ~~fueled by~~ **using** natural gas, or No. 2 fuel oil, **or coal and starch mixture as supplement fuels**, with emissions controlled by baghouse 31F2, exhausting to stack 202;

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

D.9.5 Pollution Control Project [326 IAC 2-2.5]

Pursuant to 326 IAC 2-2.5 (Pollution Control Project), the airlock speed for the GMH starch silo (09V32) shall not exceed 1.6 rpm, which is equivalent to 28.8 ft³/hr of waste starch fed to boiler 31B1.

D.9.6 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]

- (a) The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the affected sources, as designated by 40 CFR 63.7490(a), except when otherwise specified in 40 CFR 63 Subpart DDDDD. The Permittee must comply with these requirements on and after the effective date of 40 CFR 63, Subpart DDDDD.
- (b) Since the applicable requirements associated with the compliance options for the affected source for the large solid fuel subcategory are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15, does not apply to paragraph (a) of this condition, except as otherwise provided in this condition. The permit shield applies to Condition D.9.24, National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters - Notification Requirements.

D.9.7 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR Part 63, Subpart DDDDD]

- (a) The affected sources are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters, (40 CFR 63, Subpart DDDDD), as of the effective date of 40 CFR 63, Subpart DDDDD. Pursuant to this rule, the Permittee must comply with 40 CFR 63, Subpart DDDDD on and after three years after the date of publication of the final rule for 40 CFR 63, Subpart DDDDD in the Federal Register.
- (b) The following emissions units comprise the affected source for the large solid fuel subcategory: Boiler 31B1.
- (c) The following emissions units comprise the affected source for the large liquid fuel subcategory: Boilers 11B1, 11B2, and 11B3.
- (d) The definitions of 40 CFR 63, Subpart DDDDD at 40 CFR 63.7575 are applicable to the affected sources.

D.9.85 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

D.9.96 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

D.9.107 Particulate Control

D.9.118 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 3-7-4]

D.9.129 Sulfur Dioxide (SO₂) Emissions Monitoring [326 IAC 3-5] [326 IAC 7-2-1(g)]

D.9.1340 Nitrogen Oxides (NO_x) Emissions Monitoring [326 IAC 3-5] [326 IAC 3-5-1(d)]

D.9.1411 Continuous Opacity Monitoring [326 IAC 3-5]

D.9.1512 Opacity Readings

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- (b) The opacity shall be determined by the certified continuous opacity monitor required in Condition D.9.1411.

D.9.1613 Method 9 Opacity Readings and Visible Emissions Notations

D.9.1714 SO₂ Monitor Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(1)]

D.9.1815 Visible Emissions Notations

D.9.1916 Baghouse Inspections

D.9.2017 Broken or Failed Bag Detection

D.9.21 Airlock Monitoring

In order to demonstrate compliance with Condition D.9.5, the Permittee shall continuously monitor the speed of the airlock for the GMH starch silo.

D.9.2218 Record Keeping Requirements

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- (c) To document compliance with Condition D.9.129 and D.9.1340, the Permittee shall maintain records of the continuous emission monitoring data for SO₂ and NO_x in accordance with 326 IAC 3-5.
- (d) To document compliance with Conditions D.9.1411 and D.9.1512, the Permittee shall maintain records of the continuous opacity monitoring (COM) data in accordance with 326 IAC 3-5. Records shall be complete and sufficient to establish compliance with the limits established in this section. When the COM system is not functioning, the Permittee shall maintain records of visible emissions notations of the stack exhaust in accordance with Section C - Maintenance of Continuous Opacity Monitoring Equipment.
- (e) To document compliance with Condition D.9.1815, the Permittee shall maintain records of once per shift visible emission notations of the stack exhaust when boilers 11B1, 11B2, or 11B3 are burning fuel oil.
- (f) To document compliance with Condition D.9.1916, the Permittee shall maintain records of the results of the inspections.
- (g) **To document compliance with Condition D.9.21, the Permittee shall maintain**

continuous records for the speed of the airlock for GMH starch silo.

- (hg) To document compliance with Condition D.9.58, the Permittee shall maintain of records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (ih) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.9.2349 Reporting Requirements

D.9.24 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters - Notification Requirements [40 CFR 63, Subpart DDDDD]

- (a) Pursuant to 40 CFR 63.7545, the Permittee shall submit the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4), and (f)(6), and 63.9(b) through (h) that apply to the affected source for the large solid fuel subcategory and chosen compliance methods by the dates specified. These notifications include, but are not limited to, the following:
 - (1) An Initial Notification containing the information specified in 40 CFR 63.9(b)(2) not later than 120 days after the date of publication of the final rule for 40 CFR 63, Subpart DDDDD in the Federal Register, as required by 40 CFR 63.7545(b).
 - (2) If required to conduct a performance test, a notification of intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required by 40 CFR 63.7(b)(1) and 40 CFR 63.7545(d).
 - (3) If required to conduct an initial compliance demonstration as specified in 40 CFR 63.7530(a), a Notification of Compliance Status containing the information required by 40 CFR 63.9(h)(2)(ii) in accordance with 40 CFR 62.7545(e).
 - (A) For each initial compliance demonstration, the Permittee shall submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of the performance test and/or other initial compliance demonstrations according to 40 CFR 63.10(d)(2).
 - (B) The Notification of Compliance Status shall contain the items in 40 CFR 63.7545(e)(1) through (9), as applicable.
 - (4) If required to use a continuous monitoring system (CMS), notification of a performance evaluation, if required, as specified in 40 CFR 63.9(g), by the date of submission of the notification of intent to conduct a performance test.
- (b) The notifications required by paragraph (a) shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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

D.9.25 Requirement to Submit a Significant Permit Modification Application [326 IAC 2-7-12][326 IAC 2-7-5]

The Permittee shall submit an application for a significant permit modification to IDEM, OAQ to include information regarding which compliance option or options will be chosen in the Part 70 permit for the affected source for the large solid fuel subcategory.

- (a) The significant permit modification application shall be consistent with 326 IAC 2-7-12, including information sufficient for IDEM, OAQ to incorporate into the Part 70 permit the applicable requirements of 40 CFR 63, Subpart DDDDD, a description of the affected source and activities subject to the standard, and a description of how the Permittee will meet the applicable requirements of the standard.**
- (b) The significant permit modification application shall be submitted no later than nine months prior to the compliance date as specified in 40 CFR 63.7495(b).**
- (c) The significant permit modification application shall be submitted to:**

**Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015**

Conclusion

The construction of this proposed modification shall be subject to the conditions of the proposed Part 70 Significant Source Modification No. 157-18847-00003. The operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Permit Modification No. 157-18915-00003.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for Part 70 Significant Source Modification and Part 70 Significant Permit Modification

Source Background and Description

Source Name:	A.E. Staley Manufacturing Company - Sagamore Plant
Source Location:	2245 North Sagamore Parkway, Lafayette, Indiana 47902
County:	Tippecanoe
SIC Code:	2046
Operation Permit No.:	T157-6009-00003
Operation Permit Issuance Date:	June 28, 2004
Significant Source Modification No.:	157-18847-00003
Significant Permit Modification No.:	039-18915-00003
Permit Reviewer:	ERG/YC

On September 11, 2004, the Office of Air Quality (OAQ) had a notice published in the Journal and Courier, Lafayette, Indiana, stating that A.E. Staley Manufacturing Company - Sagamore Plant had applied for a Part 70 Significant Source Modification and a Part 70 Significant Permit Modification to use a coal and starch mixture as fuel for the existing coal fired boiler 31 B1. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On September 24, 2004, Ms. Dorothy J. Ross (referred to as "the commenter") submitted comments on the proposed Significant Source Modification and the Significant Permit Modification. The summary of the comments is listed below.

Comment 1:

The commenter requested to have clean air and objected to the proposed Significant Source Modification and the Significant Permit Modification.

Response to Comment 1:

IDEM, OAQ prepared the proposed Significant Source Modification and the Significant Permit Modification based on current state and federal air rules, which are designed to protect general public health. The commenter did not provide evidence indicating that the proposed permits will violate current air regulations or be harmful to public health. IDEM, OAQ cannot judge the comment without further information. Therefore, no change has been made as a result of this comment.

Upon further review, the OAQ has decided to make the following revisions to the permit (bolded language has been added, the language with a line through it has been deleted).

1. The final rule for NESHAP, Subpart DDDDD has been published in the Federal Register on September 13, 2004. Therefore, the specific compliance date for this NESHAP has been added to the permit as follows:

D.9.6 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]

- (a) The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the affected sources, as designated by 40 CFR 63.7490(a), except when otherwise specified in 40 CFR 63 Subpart DDDDD. The Permittee must comply with these requirements on and after ~~the effective date of 40 CFR 63, Subpart DDDDD~~ **September 13, 2004**.

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D.9.7 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR Part 63, Subpart DDDDD]

- (a) The affected sources are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters, (40 CFR 63, Subpart DDDDD), as of the effective date of 40 CFR 63, Subpart DDDDD. Pursuant to this rule, the Permittee must comply with 40 CFR 63, Subpart DDDDD ~~on and after three years after the date of publication of the final rule for 40 CFR 63, Subpart DDDDD in the Federal Register~~ **no later than September 13, 2007**.

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D.9.24 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters - Notification Requirements [40 CFR 63, Subpart DDDDD]

- (a) Pursuant to 40 CFR 63.7545, the Permittee shall submit the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4), and (f)(6), and 63.9(b) through (h) that apply to the affected source for the large solid fuel subcategory and chosen compliance methods by the dates specified. These notifications include, but are not limited to, the following:
 - (1) An Initial Notification containing the information specified in 40 CFR 63.9(b)(2) not later than ~~120 days after the date of publication of the final rule for 40 CFR 63, Subpart DDDDD in the Federal Register~~, **March 12, 2005**, as required by 40 CFR 63.7545(b).

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**Appendix A: Emission Calculations
Criteria Pollutant Emissions
From the Boiler 31B1 While Using Coal and Starch Blend**

**Company Name: A. E. Staley Manufacturing Company
Address: 2245 North Sagamore Parkway, Lafayette, IN 47902
SSM: 157-18847-00003
Reviewer: ERG/YC
Date: July 2, 2004**

Max. Heat Input Rate
MMBtu/hr

231

	Pollutant					
	PM	PM10	SO ₂	NO _x	VOC	CO
*Emission factor in lbs/MMBtu	0.007	0.007	0.72	0.49	0.003	0.03
Potential to Emit (tons/yr)	7.08	7.08	728	496	3.04	30.4

*The emissions factors are based on stack test results performed on November 21, 2003.

	HCl	HF	Se	Pb	Be	Hg
**Emission Factor in lbs/ton of coal	1.20	0.15	1.30E-03	4.20E-04	2.10E-05	8.30E-05
Potential to Emit (tons/yr)	57.8	7.23	6.26E-02	2.02E-02	1.01E-03	4.00E-03

**Emission factors for HAPs are from AP-42, Table 1.1 -15 and 1.1-18 (09/98).

Total HAPs = 65.1 tons/yr

Methodology

PTE of Criteria Pollutants (tons/yr) = Max. Heat Input Rate (MMBtu/hr) x Emission Factor (lbs/MMBtu) x 8760 hr/yr x 1 ton/2,000 lbs

PTE of HAPs (tons/yr) = Max. Heat Input (MMBtu/hr) x 8760 hr/yr / 21 MMBtu/ton x Emission Factor (lbs/ton) x 1 ton/2,000 lbs

**Appendix A: Emission Calculations
Actual Emissions
From the Boiler 31B1**

**Company Name: A. E. Staley Manufacturing Company
Address: 2245 North Sagamore Parkway, Lafayette, IN 47902
SSM: 157-18847-00003
Reviewer: ERG/YC
Date: July 2, 2004**

Actual Coal Usage in 2002:
Actual Coal Usage in 2003:

61,428	tons/yr
63,768	tons/yr

	Pollutant					
	PM	PM10	SO ₂	NO _x	VOC	CO
*Emission Factor in lbs/MMBtu	0.008	0.008	0.72	0.52	0.002	0.01
Actual Emissions in 2002 (tons/yr)	5.50	5.50	495	358	1.38	6.88
Actual Emissions in 2003 (tons/yr)	5.71	5.71	514	371	1.43	7.14
Averaged Emission (tons/yr)	5.61	5.61	505	365	1.40	7.01

* Emission factors are from the stack test results on 11/21/03.

	HCl	HF	Se	Pb	Be	Hg
Emission Factor in lbs/ton	1.20	0.15	1.30E-03	4.20E-04	2.10E-05	8.30E-05
Actual Emissions in 2002 (tons/yr)	3.69E+01	4.61E+00	3.99E-02	1.29E-02	6.45E-04	2.55E-03
Actual Emissions in 2003 (tons/yr)	3.83E+01	4.78E+00	4.14E-02	1.34E-02	6.70E-04	2.65E-03
Averaged Emission (tons/yr)	3.76E+01	4.69E+00	4.07E-02	1.31E-02	6.57E-04	2.60E-03

Emission factors for HAPs are from AP-42, Table 11.6-9 (01/95).

Total HAPs = 42.3 tons/yr

Methodology

Actual PM, PM10, VOC, CO and HAP Emissions (tons/yr) = Actual Coal Usage (tons/yr) x Emission Factor (lbs/ton) x 1 ton/2,000 lbs