INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: December 22, 2006

RE: Tate and Lyle 157-22808-00003

FROM: Nisha Sizemore
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 03/23/06

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Albert C. McFarland
Manager, Process Technology
Tate & Lyle, Sagamore
2245 North Sagamore Parkway
Lafayette, IN 47902

December 20, 2006

Re: 157-22808-00003
Prevention of Significant Deterioration (PSD) and
Significant Source Modification to
Part 70 Permit 157-6009-00003

Dear Mr. McFarland,

Tate & Lyle was issued a Part 70 operating permit on June 28, 2004 for a corn processing plant located at 2245 North Sagamore Parkway, Lafayette, IN 47902. An application to modify the emission source was received on March 16, 2006. Pursuant to 326 IAC 2-7-10.5, the following emission units are approved for construction at the source:

(1) One (1) baghouse 08F300,

(2) One (1) Gluten Vacuum Filter Pump 21C105,

(3) One (1) Gluten Vacuum Filter 21F5

(4) One (1) Fiber Flash Dryer 21D501,

(5) One (1) Fiber Flash Dryer Furnace 21B501,

(6) One (1) Feed Mill 21G351,

(7) One (1) Feed Mill 21G352,

(8) One (1) Corn Cleanings Receiver 21F304,

(9) One (1) Feed Milling Loadout Conveyor 21U314,

(10) One (1) Gluten Meal Transfer to Storage Bin 12FAA,

(11) One (1) Gluten Meal Storage Bin 12VAA,

(12) Two (2) Gluten Truck and Rail Loadout Conveyors 12UAA and 12UBB,

(13) One (1) Germ Storage Bin 12VCC,

(14) One (1) Germ Rail Loadout Conveyor 12UCC,

(15) One (1) Spray Dryer #2 Mill 30GAA,

(16) One (1) Product Bin #47 41V47,

(17) One (1) Product Bin #KK 41VKK,

(18) One (1) Malto Product Transfer to Bag Packer #3 (~~41Z1~~ 41F182),

(19) One (1) Malto Products Bag Packer #3 41Z1,

(20) One (1) Dry Starch Reacted Product Transfer to Bag Packer #3 41F183,

(21) One (1) Dry Starch Reacted Products Bag Packer #3 41Z2,

(22) One (1) Bag Packer #3 House Dust Collector 41F186, and

(23) Modification of the existing emissions units to accomplish this project.

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.

Effective Date of the Permit

(3) Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

(4) Pursuant to 326 I AC 2-2-8(1) and 326 IAC 2-7-10.5(i), this approval expires if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is discontinued for a period of eighteen months or more, or if construction is not completed within a reasonable period.

(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.

(6) Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

This significant source modification authorizes construction of the new emission units and modification of the existing emissions 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.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call (800) 451-6027, and ask for Dr. Tripurari Sinha or extension (4-4907), or dial (317) 234-4907 or Aida De Guzman at extension (3-4972), or dial (317) 233-4972.

Sincerely,

Original Signed By:
Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

Attachments
TPS/APD
cc: File - Tippecanoe County
Tippecanoe County Health Department
Air Compliance Section Inspector - Wanda Stanfield
Compliance Data Section
Administrative and Development

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PREVENTION OF SIGNIFICANT DETERIORATION (PSD) and PART 70 SIGNIFICANT SOURCE MODIFICATION OFFICE OF AIR QUALITY

Tate and Lyle - Sagamore Plant
2245 North Sagamore Parkway
Lafayette, IN 47902

(herein known as the Permittee) is hereby authorized to construct subject to the conditions contained herein, the emission units 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 approval is issued in accordance with 326 IAC 2, 326 IAC 2-2, 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. This approval also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-2 and 326 IAC 2-7-10.5, applicable to those conditions.

PSD/Significant Source Modification 157-22808-00003	
Issued by: Original Signed By: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: December 20, 2006

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SECTION B

GENERAL CONSTRUCTION CONDITIONS

B.1 Permit No Defense [IC 13-11 through 13-20] [IC 13-22 through 13-25] [IC 13-17]

This permit 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.

B.2 Effective Date of the Permit [IC 13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.3 Revocation of Permits [326 IAC 2-2-8]

Pursuant to 326 IAC 2-2-8(a)(1), this permit to construct shall expire if construction is not commenced within eighteen (18) months after receipt of this approval, if construction is discontinued for a period of eighteen (18) months or more, or if construction is not completed within a reasonable time. The IDEM may extend the eighteen (18) month period upon satisfactory showing that an extension is justified.

B.4 Modification to Construction Conditions [326 IAC 2]

All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for revisions pursuant to 326 IAC 2.

SECTION D.1 FACILITY OPERATION CONDITIONS

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

(a) Corn Receiving and Handling Operations, consisting of:

(1) One (1) Railcar Corn Dump Hopper, identified as 12V101, constructed in 1966, with emissions controlled by baghouse 08F300, and exhausting to stack 433;

(2) One (1) Truck Corn Dump Hopper, identified as 12V102, constructed in 1966, with emissions controlled by baghouse 08F300, and exhausting to stack 433;

(3) One (1) Bucket Corn Elevator, identified as 12U2, constructed in 1976, with emissions controlled by baghouse 08F300, and exhausting to stack 433;

(4) Two (2) Corn Transfer Conveyors, identified as 12U4 and 12U5, constructed in 1966, with emissions controlled by baghouse 08F300, and exhausting to stack 433;

(5) Three (3) Corn Transfer Conveyors, identified as 13U6 through 13U8, constructed in 1986, with emissions controlled by baghouse 08F300, and exhausting to stack 433;

(6) Two (2) Co-Product Loadout Conveyors, identified as 8U39 and 8U41, constructed in 1966, with emissions controlled by baghouse 08F300, and exhausting to stack 433. These two conveyors will be shutdown upon startup and operation of the new germ and meal storage and loadout systems;

(7) One (1) Bucket Elevator from Silos to Steeps, identified as 14U9, constructed in 1966, with emissions controlled by baghouse 08F300, and exhausting to stack 433;

(8) One (1) Corn Weigher, identified as 14V1, constructed in 1986, with emissions controlled by baghouse 08F300, and exhausting to stack 433;

(9) Two (2) Corn Cleaners, identified as 14J4 and 14J5, constructed in 1992, with emissions controlled by baghouse 08F300, and exhausting to stack 433;

(10) One (1) Corn Cleanings Pneumatic Transfer, identified as 21F2, constructed in 1966, with emissions controlled by baghouse 21F2, and exhausting to stack 137. This emissions unit will be shutdown upon operation of the new baghouse 08F300;

(11) Five (5) Corn Storage Silos, identified as 13V1, 13V2, 13V3, 13V4 and 13V5, constructed in 1966, with emissions controlled by baghouse 08F300, and exhausting to stack 433;

(12) Two (2) Corn Storage Silos, identified as 13VAA and 13VBB, permitted in 2007, with emissions controlled by baghouse 08F300, and exhausting to stack 433;

(13) One (1) Vibrating Corn Cleaning System, identified as 14JAA, permitted in 2007, with emissions controlled by baghouse 08F300, and exhausting to stack 433;

(14) One (1) Bucket Elevator from Silos to Steeps, identified as 14UBB, permitted in 2007, with emissions controlled by baghouse 08F300, and exhausting to stack 433; and

(15) One (1) Vibrating Corn Cleaning Pneumatic Transfer, identified as 21FMM, permitted in 2007, with emissions controlled by baghouse 08F300, and exhausting to stack 433.

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

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

D.1.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

Pursuant to 326 IAC 2-2-3:

(a) The following emission units shall be controlled for PM and PM_{10} using best available control technology (BACT):

(1) Vibrating Corn Cleaning Screen Aspiration System 14JAA,

(2) Corn Storage Silo 13VAA,

(3) Corn Storage Silo 13VBB,

(4) Vibrating Corn Cleaning Pneumatic Transfer 21FMM, and

(5) Corn Bucket Elevator – Silo to Steeps 14UBB.

(b) Best available control technology (BACT) for PM and PM_{10} (Filterable and Condensable) is an emission rate of 0.004 gr/dscf for baghouse 08F300;

(1) The total PM /PM_{10} (Filterable and Condensable) emissions from baghouse 08F300, which controls Vibrating Corn Cleaning System 14JAA, and Corn Bucket Elevator 14UBB, Corn Storage Silos 13VAA and 13VBB, and Vibrating Corn Cleaning Pneumatic Transfer 21FMM in addition to emission units 12V101, 12V102, 12U2, 12U4, 12U5, 13V1, 13V2, 13V3, 13V4, 13V5, 13U6, 13U7, 13U8, 8U39, 8U41, 14V1, 14J4, 14J5 and 14U9, shall be limited to 1.18 pounds per hour; and

(2) The opacity from the baghouse 08F300 not exceed 3%.

D.1.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emissions Limitations for Manufacturing Processes), particulate emissions from emission units 12V101, 12V102, 12U2, 12U4, 12U5, 13U6, 13U7, 13U8, 8U39, 8U41, 14V1, 14J4, 14J5, 14U9, 13V1, 13V2, 13V3, 13V4, 13V5, (all emission units exhausting to stack 433) 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:

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

Or depending on the process weight rate:

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

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

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

Compliance Determination Requirements

D.1.3 Particulate Control

(a) In order to comply with Conditions D.1.1 and D.1.2, baghouse 08F300, used for PM and PM_{10} control, shall be in operation and control emissions from emission units 12V101, 12V102, 12U2, 12U4, 12U5, 13U6, 13U7, 13U8, 8U39, 8U41, 14V1, 14J4, 14J5, 14U9, 13V1, 13V2, 13V3, 13V4, 13V5, 13VAA, 13VBB, 14JAA, 14UBB, and 21FMM (all emission units exhausting to stack 433) at all times when an emission unit that the baghouse control~~s~~ is in operation.

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

D.1.4 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup of Vibrating Corn Cleaning System 14JAA, Bucket Elevator 14UBB, Corn Silos 13VAA and 13VBB, and Vibrating Corn Cleaning Pneumatic Transfer 21FMM, the Permittee shall perform PM and PM_{10} testing on baghouse 08F300 to verify compliance with Condition D.1.1 (b) (1), utilizing methods as approved by the Commissioner, and furnish the Commissioner a written report of the results of such performance tests.

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

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

D.1.5 Visible Emissions Notations

(a) Visible emission notations of the stack 433 exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

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

D.1.6 Monitoring for Baghouses

(a) The Permittee shall record the pressure drop across baghouse 08F300, used in conjunction with emissions units 12V101, 12V102, 12U2, 12U4, 12U5, 13U6, 13U7, 13U8, 8U39, 8U41, 14V1, 14J4, 14J5, 14U9, 13V1, 13V2, 13V3, 13V4, 13V5, 13VAA, 13VBB, 14JAA, 14UBB, and 21FMM, at least once per day when the respective emission units are in operation.

(b) When, for any one reading, the pressure drop across the baghouse is outside of the normal range of 1 and 8 inches of water or a range established during the last stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(c) The instruments used for determining the pressure shall comply with Section C - Instrument Specifications of this permit, and shall be calibrated at least once every six (6) months.

D.1.7 Broken or Failed Bag Detection

In the event that bag failure has been observed:

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

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

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

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

D.1.8 Record Keeping Requirements

(a) To document compliance with Condition D.1.5, the Permittee shall maintain records of the visible emission notations of the stack exhaust.

(b) To document compliance with Condition D.1.6, the Permittee shall maintain records of the pressure drop during normal operation.

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

Clean Unit [326 IAC 2-2.2-2]

D.1.9 Clean Unit [326 IAC 2-2.2-2]

(a) Pursuant to 326 IAC 2-2.2-2:

The following emissions units are classified as Clean Units for PM/PM_{10}:

New Units:

(1) Vibrating Corn Cleaning Screen Aspiration System 14JAA,

(2) Corn Storage Silo 13VAA,

(3) Corn Storage Silo 13VBB,

(4) Vibrating Corn Cleaning Pneumatic Transfer 21FMM,

(5) Corn Bucket Elevator – Silo to Steeps 14UBB,

Existing Units:

(1) Railcar Corn Dump Hopper 12V101,

(2) Truck Corn Dump Hopper 12V102,

(3) Bucket Corn Elevator 12U2,

(4) Two (2) Corn Transfer Conveyors 12U4 and 12U5,

(5) Bucket Elevator from Silos to Steeps 14U9,

(6) Corn Weigher, identified as 14V1,

(7) Two Corn Cleaners 14J4 and 14J5, and

(8) Five Corn Storage Silos 13V1, 13V2, 13V3, 13V4, and 13V5.

(b) The Clean Unit designations for the above emissions units are in effect for ten (10) years after the issuance date of the source modification permit or the date the emission's unit control technology is placed in service, whichever is later.

SECTION D.2 FACILITY OPERATION CONDITIONS

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

(b) Wet Milling Operations, consisting of:

(1) One (1) Fiber Dewatering Screen, identified as 21F100, constructed in 1990, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(2) One (1) Fiber Dewatering Screen, identified as 21F101, constructed in 1997, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(3) One (1) Germ Distribution Conveyor, identified as 21U23, constructed in 1978, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(4) One (1) Gluten Filter Receiver Tank, identified as 21V57, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(5) One (1) Germ Scrubber Water Tank, identified as 21V130, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(6) One (1) Gluten Filter Bowl Drain Tank, identified as 21V159, constructed in 1990, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(7) One (1) Gluten Filter Wash Bar Trough Drain Tank, identified as 21V59, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(8) One (1) Fiber Filtrate Tank, identified as 21V58, constructed in 1990, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(9) One (1) Heavy Steep water Tank, identified as 21V56, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(10) One (1) Monitor Tank, identified as 15V210, constructed in 1990, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(11) Fourteen (14) Corn Steep tanks, identified as 14V3 through 14V16, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(12) Seven (7) Grit Starch Screens, identified as Grit Starch Screens 15J15-15J19, 15J21, and 15J22, constructed in 1990, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(13) One (1) Steeped Corn Separator, identified as 15J5A, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(14) One (1) First Pass Germ Feed Tank, identified as 15V23, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(15) Steeped Corn Surge Hopper, identified as 15V21, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(16) One (1) Second Pass Germ Feed Tank, identified as 15V25, constructed in 1966, with

emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(17) One (1) Grit Starch Feed Tank, identified as 15V26, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(18) Two (2) Germ Wash Screens, identified as 15J99 and 15J100, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(19) Three (3) Germ Washing Screens, identified as 15J101, 15J200, and 15J201, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(20) One (1) Light Steep water Receiver, identified as 14V19, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(21) Germ Wash Screens, identified as 15J53, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(22) One (1) Third Grind Tank, identified as 15V27, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(23) One (1) Clamshell Wash Water Tank, identified as 15V2, constructed in 1991, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(24) One (1) Clamshell Starch Receiver Tank, identified as 15V42, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(25) One (1) Second Grind Receiver Tank, identified as 15V24, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(26) One (1) First Grind receiver Tank, identified as 15V22, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(27) One (1) Steeped Corn Tank, identified as 14V17, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(28) One (1) Germ Water Tank, identified as 15V139, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(29) Thirty-six (36) Fiber Wash Screens, identified as 1st Stage through 5th Stage Fiber Wash Screens, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(30) One (1) Dent Starch Slurry Storage Tank, identified as 15V43, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(31) One (1) Steep water Head Tank, identified as 14V18, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(32) One (1) Mill Acid Tank, identified as 14V96, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(33) One (1) Primary Wash Box, identified as 15V17, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(34) One (1) Primary Wash Box, identified as 15V19, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(35) Five (5) Fiber Wash Receivers, identified as 15V110 through 15V114, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(36) One (1) Process Water Tank, identified as 15V30, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(37) One (1) Primary Wash Water Tank, identified as 15V41, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(38) One (1) Wash Water Surge Tank, identified as 15V38, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(39) One (1) Primary Feed Tank, identified as 15V34, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(40) One (1) Primary Underflow Tank, identified as 15V35, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(41) One (1) Gluten Thickener Feed Tank, identified as 15V36, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(42) One (1) Heavy Gluten Tank, identified as 15V37, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(43) One (1) Clarifier Feed Tank, identified as 15V40, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(44) One (1) MST Feed Tank, identified as 15V31, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(45) One (1) Gluten Vacuum Filter Pump, identified as 21C7, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(46) One (1) Gluten Vacuum Filter Pump, identified as 21C8, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(47) One (1) Gluten Vacuum Filter Pump, identified as 21C9, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(48) One (1) Gluten Vacuum Filter Pump, identified as 21C10, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(49) One (1) Gluten Vacuum Filter, identified as 21F7, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(50) One (1) Gluten Vacuum Filter, identified as 21F8, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(51) One (1) Gluten Vacuum Filter, identified as 21F9, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(52) One (1) Gluten Vacuum Filter, identified as 21F10, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(53) One (1) High DS Starch Filter, identified as 18F510, constructed in 1995, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(54) One (1) High DS Starch Tank, identified as 18V520, constructed in 1995, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(55) One (1) High DS Starch Wash Water Tank, identified as 18V522, constructed in 1995, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(56) Two (2) Second Grind Screens, identified as 15J14, and 15J24, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(57) Six (6) Sixth Stage Fiber Wash Screens, identified as 15J86, 15J87, 15J88, 15J89, 15J220, and 15J221, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(58) One (1) Steep Acid Tank, identified as 14V20, constructed in 1966, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(59) One (1) Fiber Supply Tank, identified as 15V33, constructed in 2000, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(60) Eight (8) Steep Tanks, identified as 14V400, 14V401, 14V402, 14VDD, 14VEE, 14VFF, 14VGG, and 14VHH, permitted in 2007, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(61) One (1) High DS Starch Vacuum Filter, identified as 18FAA, permitted in 2007, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(62) Two (2) Water Tube Germ Cooler rotary airlock valves, identified as 21D3 (constructed/permitted in PSD 157-18832-0003, formerly operating as Germ Dryer 21D3), with pneumatic transfer blowback air controlled by an alkaline scrubber 15F401, exhausting to stack 17.

(63) One (1) proposed Gluten Vacuum Filter, identified as 21F5, permitted in 2007, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(64) One (1) proposed Gluten Vacuum Filter Pump, identified as 21C105, permitted in 2007, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(65) One (1) Gluten Vacuum Filter, identified as 21F6, permitted in 2007, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(66) One (1) Gluten Vacuum Filter Pump, identified as 21C6, permitted in 2007, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(67) Fiber Dewatering Screens, identified as 21FNN, permitted in 2007, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17; and

(68) 8 Bldg. Process Tanks and screens, permitted in 2007, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17.

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

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

D.2.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3:

(a) The following emission units shall be controlled for sulfur dioxide (SO_2) and VOC using the BACT:

New Units:

(1) Steep Tanks 14V400, 14V401, 14V402, 14VDD, 14VEE, 14VFF, 14VGG and 14VHH;

(2) High DS Starch Vacuum Filter 18FAA;

(3) Two (2) Germ Cooler Rotary Airlock Valves 21D3 (currently operating as Germ Dryer 21D3);

(4) The “8 Building” Process Tanks and screens;

(5) Gluten Vacuum Filters 21F5 and 21F6;

(6) Gluten Vacuum Filter Pumps 21C105 and 21C6;

(7) Fiber Dewatering Screens 21FNN; and

Existing Units:

15V210, 14V17, 14V18, 14V20, 14V96, 15J14, 15J24, 15J53, 15J5A, 15V110, 15V111, 15V112, 15V113, 15V114, 15V139, 15V17, 15V19, 15V2, 15V21, 15V22, 15V23, 15V24, 15V27, 15V30, 15V31, 15V34, 15V35, 15V36, 15V37, 15V38, 15V40, 15V41, 15V42, 15V43, 15J100, 15J15, 15J16, 15J17, 15J18, 15J19, 15J20, 15J21, 15J22, 15J220, 15J221, 15J86, 15J87, 15J88, 15J89, 15J99, 15V25, 15V26, 15V33, 14V10, 14V11, 14V12, 14V13, 14V14, 14V15, 14V16, 14V19, 14V3, 14V4, 14V5, 14V6, 14V7, 14V8, 14V9, 15J101, 15J200, 15J201, 18F510, 18V520, 18V522, 21F100, 21F101, 21U23, 21V130, 21V159, 21V56, 21V57, 21V58, 21V59, 21C7, 21F7, 21C8, 21F8, 21C9, 21F9, 21C10, 21F10, 15J60-15J67, 15J80-15J85, 15J68-15J71, 15J92, 15J 212, 15J213, 15J72-15J75, 15J91, 15J76-15J79, 15J90, 15J214, 15J215, 15J217-15J219, and 18V413

(b) For these units, the BACT for SO_2 is the use of alkaline scrubber 15F401; and:

(1) When the inlet SO_2 concentration to the scrubber is greater than 150 ppmvw, the scrubber shall have a minimum SO_2 control efficiency of 90%, and the scrubber outlet SO_2 emission rate shall not exceed 8.17 lbs/hr $SO_{2;}$ and

(2) When the inlet SO_2 concentration to the scrubber is 150 ppmvw or less, the

scrubber shall have an outlet SO_2 concentration of less than 15 ppmvw, and the scrubber outlet SO_2 emission rate shall not exceed 8.17 lbs/hr.

(c) For these units, the BACT for VOC is the use of an absorption system using wet scrubber 15F401, and

(1) the scrubber shall have a minimum VOC control efficiency of 25%, and shall not exceed 27 lbs/hr.

Compliance Determination Requirements

D.2.2 Sulfur Dioxide (SO_2) and Volatile Organic Compounds (VOC) Control

In order to comply with Condition D.2.1, the scrubber 15F401 used for SO_2 and VOC control, shall be in operation and control SO_2 and VOC emissions at all times when an emission unit that is being aspirated to the scrubber is in operation.

D.2.3 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

(a) Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup of the steep tanks, the Permittee shall perform SO_2 and VOC testing on scrubber 15F401 in order to verify compliance with D.2.1(b)(1), (2), and (c), utilizing methods as approved by the Commissioner.

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

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

D.2.4 Monitoring for Scrubber

(a) The Permittee shall monitor the pH of the scrubbing liquor and scrubber's recirculation rate at least once per day from scrubber 15F401.

(b) If the pH reading is outside of the normal range or the 1-hr average flow rate reading is below the minimum flow rate for any one reading, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances.

(1) The normal pH range for Scrubber 15F401 is 7 to 9 to or a range established during the latest stack test. The minimum flow rate for Scrubber 15F401 is 400 gpm or a minimum rate established during the latest stack test.

(c) A pH reading that is outside of the normal range or the 1-hr average flow rate that is below the minimum flow rate for any one reading is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(d) The instruments used for determining the pH and flowrate shall comply with Section C - Instrument Specifications of this permit, and shall be calibrated at least once every six (6) months.

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

D.2.5 Record Keeping Requirements

(a) To document compliance with Condition D.2.4, the Permittee shall maintain records of the pH and scrubber recirculation rate from scrubber 15F401.

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

Clean Unit [326 IAC 2-2.2-2]

D.2.6 Clean Unit [326 IAC 2-2.2-2]

Pursuant to 326 IAC 2-2.2-2:

(a) The following emissions units are classified as Clean Units for SO_2 and VOC:

New Units:

(1) Steep Tanks 14V400, 14V401, 14V402, 14VDD, 14VEE, 14VFF, 14VGG and 14VHH;

(1) High DS Starch Vacuum Filter 18FAA;

(2) The “8 Building” Process Tanks and screens;

(3) Gluten Vacuum Filter 21F6;

(4) Gluten Vacuum Filter Pump 21C6;

(5) Fiber Dewatering Screens 21FNN; and

Existing Units:

15V210, 14V17, 14V18, 14V20, 14V96, 15J14, 15J24, 15J53, 15J5A, 15V110, 15V111, 15V112, 15V113, 15V114, 15V139, 15V17, 15V19, 15V2, 15V21, 15V22, 15V23, 15V24, 15V27, 15V30, 15V31, 15V34, 15V35, 15V36, 15V37, 15V38, 15V40, 15V41, 15V42, 15V43, 15J100, 15J15, 15J16, 15J17, 15J18, 15J19, 15J20, 15J21, 15J22, 15J220, 15J221, 15J86, 15J87, 15J88, 15J89, 15J99, 15V25, 15V26, 15V33, 14V10, 14V11, 14V12, 14V13, 14V14, 14V15, 14V16, 14V19, 14V3, 14V4, 14V5, 14V6, 14V7, 14V8, 14V9, 15J101, 15J200, 15J201, 18F510, 18V520, 18V522, 21F100, 21F101, 21U23, 21V130, 21V159, 21V56, 21V57, 21V58, 21V59, 21C7, 21F7, 21C8, 21F8, 21C9, 21F9, 21C10, 21F10, 15J60-15J67, 15J80-15J85, 15J68-15J71, 15J92, 15J 212, 15J213, 15J72-15J75, 15J91, 15J76-15J79, 15J90, 15J214, 15J215, 15J217-15J219, and 18V413.

(b) The Clean Unit designations for the above emissions units are in effect for ten (10) years after the issuance date of the source modification permit or the date the emission's unit control technology is placed in service, whichever is later.

SECTION D.3 FACILITY OPERATION CONDITIONS

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

(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, and exhausting indoors to stack 1. The Feed Hopper 21V60 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems;

(2) One (1) Meal Hopper, identified as 21V61, constructed in 1965, with emissions controlled by baghouse 21F15, and exhausting indoors to stack 2. The Meal Hopper 21V61 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems;

(3) One (1) Rail Loadout Conveyor, identified as 12U11, constructed in 1991, with emissions controlled by baghouse 12F40, and exhausting to stack 3. The Rail Loadout Conveyor 12U11 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems;

(4) One (1) RST Feed Dryer, identified as 21D301. PM and PM10 emissions are controlled by product collector/cyclone 21F301, then PM, PM10 and sulfur dioxide emissions controlled by scrubber 21F13, then VOC emissions controlled by Thermal Oxidation Units 48F201 and 48F202, before exhausting to stack 17;

(5) One (1) RST Germ Dryer, identified as 21D401, PM and PM10 emissions are controlled by product collectors/cyclones 21F401, then PM, PM10 and sulfur dioxide emissions controlled by scrubber 21F13, then VOC emissions controlled by Thermal Oxidation Units 48F201 and 48F202, before exhausting to stack 17. This new dryer will replace the three existing dryers;

(6) Three (3) existing steam tube dryers constructed in 1966, identified as 21D1, 21D2, and 21D3, PM and PM10 are controlled by scrubber 21F13, and exhausting to stack 17. These dryers will be shutdown after the new germ dryer starts up;

(7) One (1) natural gas or biogas fired Gluten Flash Dryer, with a heat input capacity of 30 MMBtu/hr, identified as 48D101. PM and PM10 emissions are controlled by product collectors/cyclones 48F101-48F102, then PM, PM10 and sulfur dioxide emissions controlled by scrubber 21F13, then VOC emissions controlled by Thermal Oxidation Units 48F201 and 48F202, before exhausting to stack 17;

(8) One (1) Fiber Flash Dryer, identified as 21D501, PM and PM10 emissions are controlled by product collectors/cyclones 21F501-21F502, then PM, PM10 and sulfur dioxide emissions are controlled by scrubber 21F13, then VOC emissions controlled by Thermal Oxidation Units 48F201 and 48F202, before exhausting to stack 17;

(9) One (1) natural gas or biogas fired Fiber Flash Dryer Furnace, identified as 21B501, with a heat input capacity of 60 MMBtu/hr, with emissions uncontrolled, and exhausting to stack 17. This emissions unit is part of Fiber Flash Dryer 21D501 for the purposes of NSPS, 40 CFR 60, Subpart Dc, and NESHAP, 40 CFR 63, Subpart DDDDD. This emissions unit is subject to 40CFR 60, Subpart Dc. Under National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and

Process Heaters (e.g., the Boiler NESHAP (40 CFR 63, Subpart DDDDD)), this Fiber Flash Dryer Furnace is considered a new large gaseous fuel unit;

(10) One (1) Feed Cooler, identified as 21D8 (formerly operating as Meal Dryer 21D8), with emissions controlled by scrubber 21F311, exhausting as combustion air into the furnace of Gluten Flash Dryer 48D101 and/or, the Fiber Flash Dryer Furnace 21B501, and/or with PM and PM10 emissions controlled by Thermal Oxidation Units 48F201 and 48F202, before exhausting to stack 17;

(11) One (1) 21D6 natural gas, No. 2 fuel oil, or biogas fired Feed Dryer, identified as 21D6, constructed in 1966, with a heat input capacity of 30 MMBtu/hr. PM and PM10 emissions controlled by integral product collector/cyclone 21F26, then sulfur dioxide emissions controlled by scrubber 21F13, before exhausting to stack 17. Dryer 21D6 will be shutdown upon startup and operation of the RST Feed Dryer and Fiber Flash Dryer;

(12) One (1) 21D7 natural gas, No. 2 fuel oil, or biogas fired Feed or Meal Dryer, identified as 21D7, constructed in 1966, with a heat input capacity of 30 MMBtu/hr. PM and PM10 emissions controlled by integral product collector/cyclone 21F27, then sulfur dioxide emissions controlled by scrubber 21F13, before exhausting to stack 17. Dryer 21D7 will be shutdown upon startup and operation of the RST Feed Dryer and Fiber Flash Dryer;

(13) One (1) 21D8 natural gas, No. 2 fuel oil fired, or biogas fired Meal Dryer or backup Feed Dryer identified as 21D8, constructed in 1966, with a heat input capacity of 30 MMBtu/hr. PM and PM10 emissions are controlled by integral product collector/cyclone 21F28, then sulfur dioxide emissions controlled by scrubber 21F13, before exhausting to stack 17. Dryer 21D8 will be shutdown upon startup and operation of the RST Feed Dryer and Fiber Flash Dryer;

(14) One (1) Feed Storage Bin, identified as 8V121, constructed in 1966, with emissions controlled by baghouse 8F1, and exhausting to stack 110. Bin 8V121 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems;

(15) One (1) Feed Storage Bin, identified as 8V122, constructed in 1966, with emissions controlled by baghouse 8F2, and exhausting to stack 111. Bin 8V122 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems;

(16) One (1) Feed Storage Bin, identified as 8V123, constructed in 1966, with emissions controlled by baghouse 8F3, and exhausting to stack 112. Bin 8V123 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems;

(17) One (1) Feed Storage Bin, identified as 8V124, constructed in 1966, with emissions controlled by baghouse 8F4, and exhausting to stack 113. Bin 8V124 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems;

(18) One (1) Feed/Meal Storage Bin, identified as 8V62, constructed in 1966, with emissions controlled by baghouse 8F62, and exhausting to stack 114. Bin 8V62 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems;

(19) One (1) Meal Storage Bin, identified as 8V63, constructed in 1966, with emissions controlled by baghouse 8F63, and exhausting to stack 115. Bin 8V63 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems;

(20) One (1) Meal/Germ Storage Bin, identified as 8V53, constructed in 1966, with emissions controlled by baghouse 8F53, and exhausting to stack 116. Bin 8V53 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems;

(21) One (1) Germ Storage Bin, identified as 8V54, constructed in 1966, with emissions controlled by baghouse 8F54, and exhausting to stack 117. Bin 8V54 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems;

(22) Two (2) Air Conveying Lines to Loadout, identified as AC23 and AC24, constructed in 1966, with emissions controlled by baghouse 12F39, and exhausting to stack 125. The AC23 and AC24 air conveying line controlled by baghouse 12F39 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems;

(23) One (1) Feed Mill, identified as 21G51, constructed in 1965, with emissions controlled by baghouse 21F37, and exhausting to stack 141. Feed Mill 21G51, controlled by baghouse 21F37, will be shutdown upon startup and operation of the new feed mills;

(24) One (1) Feed Mill, identified as 21G52, constructed in 1965, with emissions controlled by baghouse 21F38, and exhausting to stack 142. Feed Mill 21G52, controlled by baghouse 21F37, will be shutdown upon startup and operation of the new feed mills;

(25) One (1) Feed Mill, identified as 21G351, with emissions controlled by scrubber 21F312, and exhausting to stack 444;

(26) One (1) Feed Mill, identified as 21G352, with emissions controlled by scrubber 21F312, and exhausting to stack 444;

(27) One (1) D6 Dryer Air Conveying Line to Feed Mill, identified as AC6, constructed in 1966, with emissions controlled by baghouse 21F32, and exhausting to stack 143. The AC6 conveying line controlled by baghouse 21F32 will be shutdown upon startup and operation of the RST Feed Dryer and Fiber Flash Dryer;

(28) One (1) D7 Dryer Air Conveying Line to Feed Mill, identified as AC7, constructed in 1966, with emissions controlled by baghouse 21F35, and exhausting to stack 144. The AC7 conveying line controlled by baghouse 21F35 will be shutdown upon startup and operation of the RST Feed Dryer and Fiber Flash Dryer ;

(29) One (1) 48D101 Dryer Air Conveying Line, identified as AC8, constructed in 1966, with emissions controlled by baghouse 21F36, and exhausting to stack 145. The AC8 conveying line controlled by baghouse 21F36 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems;

(30) One (1) Bag Dump Station, identified as 8V99, constructed in 1966, with emissions controlled by baghouse 8F99, and exhausting indoors to stack 285. Bag Dump Station 8V99 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems;

(31) Two (2) Natural Gas Fired Thermal Oxidation Units, identified as 48F201 and 48F202, with heat input capacity of 5 million Btu per hour each;

(32) One (1) Corn Cleanings Receiver, identified as 21F304, with emissions controlled by scrubber 21F311, exhausting as combustion air into the furnace of Gluten Flash Dryer 48D101 and/or the Fiber Flash Dryer Furnace 21B501 and/or with PM and PM10 emissions controlled by Thermal Oxidation Units 48F201 and 48F202, before exhausting to stack 17;

(33) One (1) Feed Loadout Hopper, identified as 21V125, with emissions aspirated to the inlet of Feed Cooler 21D8 to be used as cooling air;

(34) One (1) Feed Milling Loadout Conveyor, identified as 21U314, with emissions controlled by scrubber 21F312, and exhausting to stack 444;

(35) One (1) Gluten Meal Transfer to Storage Bin, identified as 12FAA, with emissions controlled by baghouse 12FAA, and exhausting to stack 445;

(36) One (1) Gluten Meal Storage Bin, identified as 12VAA, with emissions controlled by baghouse 12FBB, and exhausting to stack 447;

(37) Two (2) Gluten Truck and Rail Loadout Conveyors, identified as 12UAA and 12UBB, with emissions controlled by baghouse 12FBB, and exhausting to stack 447;

(38) One (1) Germ Storage Bin, identified as 12VCC, with emissions controlled by baghouse 12FCC, and exhausting to stack 446; and

(39) One (1) Germ Rail Loadout Conveyor, identified as 12UCC, with emissions controlled by baghouse 12FCC, and exhausting to stack 446.

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

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

D.3.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

Pursuant to 326 IAC 2-2-3:

(a) The following emission units shall be controlled for PM and PM_{10}, SO_2, VOC, and NOx using the BACT:

(1) RST Feed Dryer (21D301) – No NOx Emissions,

(2) Rotary Steam Tube Germ Dryer (21D401) – No NOx Emissions,

(3) Gluten Flash Dryer (48D101),

(4) Fiber Flash Dryer (21D501),

(5) Fiber Flash Dryer Furnace (21B501) – BACT only for NOx and VOC

(6) Feed Cooler 21D8 (Formerly Meal Dryer 21D8), and

(7) Regenerative Thermal Oxidizers (48F201and 48F202) – BACT only for NOx.

(b) The following combined emission limits are established as BACT for the above dryers:

For these units, the BACT for PM/PM_{10} is the use of scrubber (21F13) and thermal oxidizers (48F201 and 48F202). The following emission limits are the BACT requirements for PM/PM_{10}:

(1) the PM and PM_{10} (Filterable and Condensable) emissions from the thermal oxidizers and the fiber dryer furnace shall each not exceed 0.031 gr/dscf;

(2) the total PM and total PM_{10} (Filterable and Condensable) emissions from the

thermal oxidizers and the fiber dryer furnace shall each be limited to 7.38 lbs/hr; and

(3) the exhaust opacity of the combined gas flow from the thermal oxidizers and the fiber dryer furnace shall not exceed 8%.

(c) For these units, except the Fiber Flash Dryer Furnace 21B501 and Feed Cooler 21D8, the BACT for SO_2 is the use of pH adjusted scrubber 21F13. The following emission limits are the BACT requirements for SO_2:

(1) When the inlet SO_2 concentration to the scrubber is more than 100 ppmvw, the scrubber shall have a minimum SO_2 control efficiency of 90%, and the scrubber outlet SO_2 emission rate shall not exceed 4.4 lbs/hr; and

(2) When the inlet SO_2 concentration to the scrubber is 100 ppmvw or less, the scrubber shall have an outlet SO_2 concentration of 10 ppmvw or less, and the scrubber outlet SO_2 emission rate shall not exceed 4.4 lbs/hr.

(d) For these units, except the Fiber Flash Dryer Furnace 21B501, the BACT for VOC is the use of the scrubber 21F13 followed by the regenerative thermal oxidizers (48F201 and 48F202). The following emission limits are the BACT requirements for VOC:

(1) When the inlet VOC to the scrubber is more than 100 lbs/hr, the scrubber and thermal oxidizers shall have a minimum overall VOC control efficiency of 95%, and the outlet thermal oxidizer VOC emission rate shall not exceed 3.16 lbs/hr; and

(2) When the inlet VOC rate to the scrubber is 100 lbs/hr or less, the thermal oxidizers shall have an outlet VOC concentration of less than 10 ppmvw and the outlet VOC emissions rate shall not exceed 3.16 lbs/hr.

(e) For Fiber Flash Dryer Furnace 21B501, the BACT for VOC is good combustion practices;

(f) For these units, including the fiber flash dryer furnace and the regenerative thermal oxidizers, except the rotary steam tube germ dryer, and the rotary steam tube feed dryer, the BACT for NOx is the use of low-NO_X burners rated at 0.06 lb/MMBtu or less, and the total NOx emissions from these burners exhausting to stack S/V 17 shall not exceed 6 lbs/hr;

(g) The following new and existing emission units shall be controlled for PM and PM_{10} (Filterable and Condensable) using best available control technology (BACT):

(1) Feed Storage Bins 8V121, 8V123, 8V124;

(2) Meal Storage Bin 8V63;

(3) Meal/Germ Storage Bin 8V53;

(4) Germ Storage Bin 8V54;

(5) Gluten Meal Transfer to Storage Bin 12FAA;

(6) Gluten Meal Storage Bin and Loadout 12VAA, 12UAA, and 12UBB; and

(7) Germ Storage Bin and Loadout 12VCC and 12UCC.

For these units, the BACT for PM and PM_{10} (Filterable and Condensable) is the use of baghouses rated at a maximum emission rate of 0.005 gr/dscf and shall meet the following emissions limitations:

(1) the total PM /PM_{10} (Filterable and Condensable) emissions from the following baghouses, shall be limited to

Emission Unit	Baghouse	Lbs/hr
8V121	8F1	0.08
8V123	8F3	0.08
8V124	8F4	0.08
8V63	8F63	0.08
8V53	8F53	0.08
8V54	8F54	0.08
12FAA	12FAA	0.40
12UAA, 12UBB, 12VAA	12FBB	0.12
12UCC, 12VCC	12FCC	0.17

and;

(2) the opacity from the baghouses shall not exceed 3%.

(h) The following existing and new emission units shall be controlled for PM and PM_{10} (Filterable and Condensable) using best available control technology (BACT):

(1) Feed Mill 21G351,

(2) Feed Mill 21G352, and

(3) Feed Milling Loadout Conveyor 12U314.

For these units, the BACT for PM and PM_{10} (Filterable and Condensable) is the use of a wet scrubber limited to an emission rate of 0.0089 gr/scf; and

(1) the total PM /PM_{10} (Filterable and Condensable) emissions from scrubber 21F312 shall be limited to 0.204 lb/hr; and

(2) the opacity from the scrubber shall not exceed 8%.

D.3.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emissions Limitations for Manufacturing Processes), particulate emissions from facilities 21D1, 21D2, 21D3, 21D6, 21D7, 21D8, 21V60, 21V61, 12U11, 8V121 through 8V124, 8V62, 8V63, 8V53, 8V54, AC23, AC24, 21G51, 21G52, AC6, AC7, AC8, and 8V99 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:

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

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

D.3.3 Sulfur Dioxide (SO_2) [326 IAC 7-1.1-2] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1-2 (SO_2 Emissions Limitations), the SO_2 emissions from combustion in dryers 21D6, 21D7, and 21D8 shall not exceed five-tenths (0.5) pounds per million Btu (MMBtu) per dryer when combusting No. 2 fuel oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average. This condition will expire upon the operation of new feed dryers, RST Feed Dryer and Fiber Flash Dryer.

D.3.4 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emissions Limitations for Sources of Indirect Heating), the allowable particulate matter (PM) emissions from fiber flash dryer furnace shall be limited to 0.20 lb/MMBtu. The above particulate emissions rate was determined from the following formula:

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

Where:

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

Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever 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 = 666 MMBtu/hr).

Compliance Determination Requirement

D.3.5 Sulfur Dioxide Emissions and Sulfur Content

Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate compliance with Condition D.3.3 utilizing one of the following options:

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

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

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

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

A determination of noncompliance pursuant to the methods specified above shall not be refuted by evidence of compliance pursuant to the other method.

This condition will expire upon the operation of new feed dryers, RST Feed Dryer and Fiber Flash Dryer.

D.3.6 Particulate, Volatile Organic Compounds (VOC), and Sulfur Dioxide (SO_2) Control

In order to comply with Conditions D.3.1(b), (c), and (d), the scrubber (21F13), and thermal oxidizers (48F201and 48F202) (for particulate, VOC, and SO_2 control) shall be in operation and control emissions from emission units 21D301, 21D401, 48D101, and 21D501 at all times when the material feed system to any emission unit that it controls is in operation. Scrubber 21F311 shall be in operation and control particulate emissions from emission unit 21D8 and 21F304 and exhaust as combustion air into the furnace of Gluten Flash Dryer 48D101 and/or the Fiber Flash Dryer Furnace 21B501 and/or Thermal Oxidation Units 48F201 and 49F202 at all times when the material feed system to any emission unit that it controls is in operation.

D.3.7 Particulate Control

(a) In order to comply with Conditions D.3.1(g) and D.3.2, baghouses, including those integral to the process, 21F14, 21F15, 12F40, 8F1, 8F2, 8F3, 8F4, 8F62, 8F63, 8F53, 8F54, 12F39, 21F37, 21F38, 21F32, 21F35, 21F36, 8F99, 12FAA, 12FBB, and 12FCC for particulate control shall be in operation and control particulate emissions from emission units 21V60, 21V61, 12U11, 8V121 through 8V124, 8V62, 8V63, 8V53, 8V54, AC23, AC24, 21G51, 21G52, AC6, AC7, AC8, 8V99, 12FAA, 12VAA, 12UAA, 12UBB, 12VCC, and 12UCC at all times when any emission unit that it controls is in operation.

(b) In order to comply with Condition D.3.1(h), scrubber 21F312 for particulate control shall be in operation and control particulate emissions from emission units 21G351, 21G352, and 21U314 at all times when any emission unit that it controls is in operation.

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

D.3.8 Volatile Organic Compounds (VOC) Control

In order to comply with Condition D.3.1(d), the scrubber 21F13, and the Regenerative Thermal Oxidization Units 48F201 and 48F202 for VOC control, shall be in operation and control emissions from emission units 21D301, 21D401, 48D101, and 21D501 at all times when the material feed system to any emission unit that it controls is in operation.

D.3.9 Thermal Oxidizer Temperature

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizers for measuring operating temperature. For purposes of this condition continuous shall mean temperature measurement no less than once per minute. The output of this system shall be recorded as 3 - hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the 3 - hour average temperature of 1400°F.

(b) The Permittee shall determine the 3 - hour average temperature from the most recent valid stack test that demonstrates compliance with limits in condition D.3.1(d), as approved by IDEM.

(c) On and after the date the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the 3 - hour average temperature as observed during the compliant stack test.

D.3.10 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

(a) Within 60 days after achieving the maximum production rate for dryers 21D301, 21D401, 48D101, and 21D501 but no later than 180 days after startup of the dryers, the Permittee shall perform PM, PM_{10}, opacity, VOC, and SO_2 testing on scrubber 21F13 and Thermal Oxidation Units (48F201 and 48F202) in order to determine compliance with Conditions D.3.1 (b), (c), and (d) utilizing methods as approved by the Commissioner.

(b) Within 60 days after achieving the maximum production rate for but no later than 180 days after startup of the emissions units 12FAA, 12VCC, and 12UCC, the Permittee shall perform PM, PM_{10}, and opacity testing on baghouses 12FAA, and 12FCC, in order to determine compliance with Condition D.3.1 (g) utilizing methods as approved by the Commissioner.

(c) Within sixty (60) days after achieving maximum production rate for dryers 48D101, 48F201, 48F202, and 21B501 but no later than one hundred and eighty (180) days after the startup of operation, the Permittee shall conduct performance tests to measure the NOx to determine compliance with Condition D.3.1 utilizing methods as approved by the Commissioner

These tests shall be repeated for PM, PM_{10} (PM_{10} includes filterable and condensable PM_{10}), opacity, VOC, SO_2, and NOx, 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

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

D.3.11 Monitoring for Scrubber

(a) The Permittee shall monitor the pH of the scrubbing liquor and scrubber's recirculation rate at least once per day from scrubber 21F13.

(b) If the pH reading is outside of the normal range, or the 1-hr average flow rate reading is below the minimum flow rate for any one reading, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances.

(1) The normal pH range for scrubber 21F13 is 5 to 8 or the range established during the latest stack test. The minimum 1-hr average flow rate for Scrubber 21F13 is 400 gpm or a minimum flow rate established during the latest stack test.

(c) The Permittee shall monitor the scrubbers' recirculation rates at least once per day from scrubber 21F311 controlling particulate emissions from the feed cooler 21D8 and scrubber 21F312 controlling particulate emissions from 21G351, 21G352, and 12U314. If the 1-hr average flow rate reading is below the flow rate as specified by the manufacturer, or a minimum flow rate established during the latest stack test for any one reading, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances.

(d) The 1-hr average flow rate that is below the minimum flow rate for any one reading is not a deviation from this permit. Failure to take response steps in accordance with Section C -

Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(e) The instruments used for determining the pH and flow rate shall comply with Section C - Instrument Specifications and shall be calibrated at least once every six (6) months. The loss of monitoring data due to the calibration of an instrument while the equipment is in operation does not constitute a deviation from this permit.

D.3.12 Visible Emissions Notations

(a) Visible emission notations of the stacks 3, 17, 110, 111, 112, 113, 114, 115, 116, 117, 444, 445, 446, and 447 exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

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

D.3.13 Monitoring for Baghouses

(a) The Permittee shall record the pressure drop across the baghouse 12F40, used in conjunction with facility 12U11, baghouses 12 FAA, 12FBB, and 12FCC at least once per day when the respective facilities are in operation.

(b) The Permittee shall record the pressure drop across the baghouse, used in conjunction with facilities 8V121 through 8V124, 8V62, 8V63, 8V53, and 8V54 at least once per day when the respective facilities are in operation.

(c) When, for any one reading, the pressure drop across the baghouse is outside of the normal range of 3 and 6 inches of water or a range established during the last stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(d) The instruments used for determining the pressure shall comply with Section C - Instrument Specifications of this permit, and shall be calibrated at least once every six (6) months.

D.3.14 Broken or Failed Bag Detection

In the event that bag failure has been observed:

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

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

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

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

D.3.15 Record Keeping Requirements

(a) To document compliance with Condition D.3.3, 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, and

(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.

(b) To document compliance with Condition D.3.11 (a), the Permittee shall maintain records of the pH and scrubber's recirculation rate from scrubber 21F13.

(c) To document compliance with Condition D.3.11(c), the Permittee shall maintain records of the scrubbers' recirculation rates from scrubbers 21F311 and 21F312.

(d) To document compliance with Condition D.3.9, the Permittee shall maintain records of the operating temperatures of thermal oxidation units (48F201 and 48F202).

(e) To document compliance with Condition D.3.12, the Permittee shall maintain records of the visible emission notations of the stacks exhaust.

(f) To document compliance with Condition D.3.13, the Permittee shall maintain records of the pressure drop during normal operation.

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

Clean Unit [326 IAC 2-2.2-2]

D.3.16 Clean Unit [326 IAC 2-2.2-2]

Pursuant to 326 IAC 2-2.2-2:

(a) The following emissions units are classified as Clean Units for PM/PM_{10}:

(1) Feed Storage Bins 8V121, 8V123, 8V124;

(2) Meal Storage Bin 8V63,

(3) Meal/Germ Storage Bin 8V53, and

(4) Germ Storage Bin 8V54.

(b) The following emission unit is classified as Clean Unit for PM/PM_{10}, SO_2 and VOC:

(1) Gluten Flash Dryer (48D101),

(2) RST Feed Dryer (21D301), and

(3) RST Germ Dryer (21D401).

(c) The following emissions units are classified as Clean Units for NOx:

(1) Gluten Flash Dryer (48D101) and

(2) Regenerative Thermal Oxidizers (48F201 and 48F202).

(d) The Clean Unit designations for the above emissions units are in effect for ten (10) years after the issuance date of the source modification permit or the date the emission's unit control technology is placed in service, whichever is later.

New Source Performance Standard (NSPS) Requirements [326 IAC 2-7-5(1)] [326 IAC 12] [40 CFR 60, Subpart Dc]

D.3.17 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for Fiber Flash Dryer Furnace except as otherwise specified in 40 CFR Part 60, Subpart Dc.

(b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

NSPS Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] [326 IAC 12] [40 CFR 60, Subpart Dc]

D.3.18 Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (Boiler NSPS) [40 CFR 60, Subpart Dc]

Pursuant to 40 CFR 60.48c(g), the Permittee shall record and maintain records of the amounts of natural gas and biogas combusted in Fiber Flash Dryer Furnace 21B501 during each calendar month.

D.3.19 State Only Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (Boiler NSPS) [326 IAC12]

Pursuant to 326 IAC 12, the Permittee shall record and maintain records of the amounts of natural gas and biogas combusted in Fiber Flash Dryer Furnace 21B501 each day. This condition expires when the revisions made to 40 CFR 60 Subpart Dc, as amended on February 27, 2006, become effective as Indiana Law. This condition is not federally enforceable.

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)] [326 IAC 20-1] [40 CFR Part 63, Subpart A] [40 CFR Part 63, Subpart DDDDD]

D.3.20 General Provisions Relating to NESHAP DDDDD [326 IAC 20-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.7505, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, for Fiber Flash Dryer Furnace 21B501, as specified in Appendix A of 40 CFR Part 63, Subpart DDDDD in accordance with the schedule in 40 CFR 63, Subpart DDDDD.

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

and

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

D.3.21 NESHAP DDDDD [40 CFR Part 63, Subpart DDDDD]

Pursuant to CFR Part 63, Subpart DDDDD, the Permittee shall comply with the provisions of 40

CFR Part 63, Subpart DDDDD, for Fiber Flash Dryer Furnace 21B501, as specified as follows:

§ 63.7485 Am I subject to this subpart?

You are subject to this subpart if you own or operate a process heater as defined in §63.7575 that is located at, or is part of, a major source of HAP as defined in §63.2, except as specified in §63.7491.

§ 63.7490 What is the affected source of this subpart?

(a) This subpart applies to new affected sources as described in paragraphs (a)(2) of this section.

(2) The affected source of this subpart is each new process heater located at a major source as defined in §63.7575.

(b) A process heater is new if you commence construction of the process heater after January 13, 2003, and you meet the applicability criteria at the time you commence construction.

§ 63.7495 When do I have to comply with this subpart?

(a) If you have a new process heater, you must comply with this subpart by upon startup of your process heater.

(d) You must meet the notification requirements in §63.7545 according to the schedule in §63.7545 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the work practice standards in this subpart.

Emission Limits and Work Practice Standards

§ 63.7499 What are the subcategories of boilers and process heaters?

The subcategories of process heaters are large gaseous fuel. Each subcategory is defined in §63.7575.

§ 63.7500 What emission limits, work practice standards, and operating limits must I meet?

(a) You must meet the requirements in paragraphs (a)(1) of this section.

(1) You must meet work practice standard in Table 1 to this subpart that applies to your process heater, except as provided under §63.7507.

General Compliance Requirements

§ 63.7505 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the work practice standards in this subpart at all times, except during periods of startup, shutdown, and malfunction.

(b) You must always operate and maintain your affected source according to the provisions in §63.6(e)(1)(i).

(e) If you have an applicable work practice standard, you must develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6(e)(3).

[69 FR 55253, Sept. 13, 2004, as amended at 71 FR 20467, Apr. 20, 2006]

Testing, Fuel Analyses, and Initial Compliance Requirements

§ 63.7510 What are my initial compliance requirements and by what date must I conduct them?

(a) For affected sources that elect to demonstrate compliance with any of the emission limits of this subpart through performance testing, your initial compliance requirements include conducting performance tests according to §63.7520 and Table 5 to this subpart.

(c) For affected sources that have an applicable work practice standard, your initial compliance requirements depend on the subcategory and rated capacity of process heater. If your process heater has a heat input capacity less than 100 MMBtu per hour, your initial compliance demonstration is conducting a performance test for carbon monoxide according to Table 5 to this subpart.

(g) If your new affected source commences construction after November 12, 2004, you must demonstrate initial compliance with the promulgated work practice standards no later than 180 days after startup of the source.

§ 63.7515 When must I conduct subsequent performance tests or fuel analyses?

(e) If you have an applicable work practice standard for carbon monoxide and your process heater has a heat input capacity less than 100 MMBtu per hour, you must conduct annual performance tests for carbon monoxide according to §63.7520. Each annual performance test must be conducted between 10 and 12 months after the previous performance test.

(g) You must report the results of performance tests within 60 days after the completion of the performance tests. The reports for all subsequent performance tests should include all applicable information required in §63.7550.

§ 63.7520 What performance tests and procedures must I use?

(a) You must conduct all performance tests according to §63.7(c), (d), (f), and (h). You must also develop a site-specific test plan according to the requirements in §63.7(c) if you elect to demonstrate compliance through performance testing.

(b) You must conduct each performance test according to the requirements in Table 5 to this subpart.

(d) You must conduct each performance test under the specific conditions listed in Table 5 to this subpart. You must conduct performance tests at the maximum normal operating load These requirements could result in the need to conduct more than one performance test.

(e) You may not conduct performance tests during periods of startup, shutdown, or malfunction.

(f) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.

§ 63.7530 How do I demonstrate initial compliance with the emission limits and work practice standards?

(a) You must demonstrate initial compliance with work practice standard that applies to you by conducting initial performance tests according to §63.7520 and Table 5 to this subpart.

§ 63.7540 How do I demonstrate continuous compliance with the emission limits and work practice standards?

(a) You must demonstrate continuous compliance with work practice standard in Tables 1 to this subpart.

(b) You must report each instance in which you did not meet work practice standard in Tables 1 to this subpart that apply to you. You must also report each instance during a startup, shutdown, or malfunction when you did not meet each work practice standard. These instances are deviations from the emission limits and work practice standards in this subpart. These deviations must be reported according to the requirements in §63.7550.

(d) Consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the EPA Administrator's satisfaction that you were operating in accordance with §63.6(e)(1). The EPA Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e).

[69 FR 55253, Sept. 13, 2004, as amended at 71 FR 20467, Apr. 20, 2006]

Notification, Reports, and Records

§ 63.7545   What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h) that apply to you by the dates specified.

(c) As specified in §63.9(b)(4) and (b)(5), if you startup your new affected source on or after November 12, 2004, you must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source.

(d) If you are required to conduct a performance test you must submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin.

(e) If you are required to conduct an initial compliance demonstration as specified in §63.7530(a), you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii). For each initial compliance demonstration, you must submit the Notification of Compliance Status, including all performance test results, before the close of business on the 60th day following the completion of the performance test and/or other initial compliance demonstrations according to §63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (9), as applicable.

(1) A description of the affected source(s) including identification of which subcategory the source is in, the capacity of the source, a description of the add-on controls used on the source description of the fuel(s) burned, and justification for the fuel(s) burned during the performance test.

(2) Summary of the results of all performance tests, and calculations conducted to demonstrate initial compliance including all established operating limits.

(6) A signed certification that you have met all applicable emission limits and work practice standards.

(7) A summary of the carbon monoxide emissions monitoring data and the maximum carbon monoxide emission levels recorded during the performance test to show that you have met any applicable work practice standard in Table 1 to this subpart.

(9) If you had a deviation from any emission limit or work practice standard, you must also submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report.

§ 63.7550   What reports must I submit and when?

(a) You must submit each report in Table 9 to this subpart that applies to you.

(b) Unless the EPA Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 9 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for your source in §63.7495.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.7495.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) The compliance report must contain the information required in paragraphs (c)(1) through (11) of this section.

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(5) A summary of the results of the annual performance tests.

(9) If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in §63.10(d)(5)(i).

(10) If there are no deviations from any emission limits or operating limits in this subpart that apply to you, and there are no deviations from the requirements for work practice standards in this subpart, a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.

(d) For each deviation from the requirements for work practice standards in this subpart that occurs at an affected source, the compliance report must contain the information in paragraphs (c)(1) through (10) of this section and the information required in paragraphs (d)(1) through (4) of this section. This includes periods of startup, shutdown, and malfunction.

(1) The total operating time of each affected source during the reporting period.

(2) A description of the deviation and which emission limit, operating limit, or work practice standard from which you deviated.

(3) Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 9 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

§ 63.7555 What records must I keep?

(a) You must keep records according to paragraphs (a)(1) through (3) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in §63.10(b)(2)(xiv).

(2) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests or other compliance demonstrations, performance evaluations and opacity observations as required in §63.10(b)(2)(viii).

§ 63.*7560 In what form and how long must I keep my records?*

(a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records off site for the remaining 3 years.

Other Requirements and Information

§ 63.7565 What parts of the General Provisions apply to me?

Table 10 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

§ 63.7570 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

§ 63.7575 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in §63.2 (the General Provisions), and in this section as follows:

Annual capacity factor means the ratio between the actual heat input to a boiler or process heater from the fuels burned during a calendar year, and the potential heat input to the boiler or process heater had it been operated for 8,760 hours during a year at the maximum steady state design heat input capacity.

Deviation. (1) Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(i) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard;

(ii) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(iii) Fails to meet work practice standard in this subpart during startup, shutdown, or malfunction, regardless or whether or not such failure is permitted by this subpart.

(2) A deviation is not always a violation. The determination of whether a deviation constitutes a violation of the standard is up to the discretion of the entity responsible for enforcement of the standards.

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

Fossil fuel means natural gas, petroleum, coal, and any form of solid, liquid, or gaseous fuel derived from such materials.

Fuel type means each category of fuels that share a common name or classification. Examples include, but are not limited to, bituminous coal, subbituminous coal, lignite, anthracite, biomass, construction/demolition material, salt water laden wood, creosote treated wood, tires, residual oil. Individual fuel types received from different suppliers are not considered new fuel types except for construction/demolition material.

Gaseous fuel includes, but is not limited to, natural gas, process gas, landfill gas, coal derived gas, refinery gas, and biogas. Blast furnace gas is exempted from this definition.

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

Large gaseous fuel subcategory includes any process heater that burns gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has an annual capacity factor of greater than 10 percent.

Natural gas means:

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

(2) Liquid petroleum gas, as defined by the American Society for Testing and Materials in ASTM D1835–03a, “Standard Specification for Liquid Petroleum Gases” (incorporated by reference, see §63.14(b)).

Period of natural gas curtailment or supply interruption means a period of time during which the supply of natural gas to an affected facility is halted for reasons beyond the control of the facility. An increase in the cost or unit price of natural gas does not constitute a period of natural gas curtailment or supply interruption.

Process heater means an enclosed device using controlled flame, that is not a boiler, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to a heat transfer material for use in a process unit, instead of generating steam. Process heaters are devices in which the combustion gases do not directly come into contact with process materials. Process heaters do not include units used for comfort heat or space heat, food preparation for on-site consumption, or autoclaves.

Responsible official means responsible official as defined in 40 CFR 70.2.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

Tables to Subpart DDDDD of Part 63

Table 1 to Subpart DDDDD of Part 63—Emission Limits and Work Practice Standards

As stated in § 63.7500, you must comply with the following applicable work practice standards:

If your process heater is in this subcategory	For the following pollutants	You must meet the following limits and work practice standards. . .
New reconstructed large gaseous fuel.	Carbon Monoxide.....	400 ppm by volume on a dry basis corrected to 3 percent oxygen (3-run average for units less than 100 MMBtu/hr).

Table 5 to Subpart DDDDD of Part 63—Performance Testing Requirements

As stated in § 63.7520, you must comply with the following requirements for performance test for new affected sources:

To conduct a performance test for the following pollutant . . .		You must . . .	Using . . .
Carbon Monoxide	a	Select the sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of this chapter.
	b	Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B in appendix A to part 60 of this chapter, or ASTM D6522-00 (IBR, see § 63.14(b)), or ASME PTC 19, Part 10 (1981) (IBR, see § 63.14(i)).
	c	Measure the moisture content of the stack gas	Method 4 in appendix A to part 60 of this chapter.
	d	Measure the carbon monoxide emission concentration.	Method 10, 10A, or 10B in appendix A to part 60 of this chapter, or ASTM D6522-00 (IBR, see § 63.14(b)) when the fuel is natural gas.

Table 9 to Subpart DDDDD of Part 63—Reporting Requirements

As stated in § 63.7550, you must comply with the following requirements for reports:

You must submit a(n)		The report must contain . . .	You must submit the report . . .
1. Compliance report........	a..	Information required in § 63.7550(c)(1) through (11); and	Semiannually according to the requirements in § 63.7550(b).
	b	If there are no deviations from any emission limitation (emission limit and operating limit) that applies to you and there are no deviations from the requirements for work practice standards in Table 8 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period; and	
	c	If you have a deviation from any emission limitation (emission limit and operating limit) or work practice standard during the reporting period, the report must contain the information in § 63.7550(d); and	
	d.	If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent	

		with your startup, shutdown, and malfunction plan, the compliance report must include the information in § 63.10(d)(5)(i)		
2. An immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard.	a	Actions taken for the event; and	i	By fax or telephone within 2 working days after starting actions inconsistent with the plan; and
	b	The information in § 63.10(d)(5)(ii)	ii	By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority.

Table 10 to Subpart DDDDD of Part 63—Applicability of General Provisions to Subpart DDDDD

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.1	Applicability	Initial Applicability Determination; Applicability After Standard Established; Permit Requirements; Extensions, Notifications.	Yes.
§ 63.2	Definitions	Definitions for part 63 standards.	Yes.
§ 63.3	Units and Abbreviations	Units and abbreviations for part 63 standards.	Yes.
§ 63.4	Prohibited Activities	Prohibited Activities; Compliance date; Circumvention, Severability.	Yes.
§ 63.5	Construction Reconstruction	Applicability; applications; approvals.	Yes.
§ 63.6(b)(1)-(4)	Compliance Dates for New sources	Standards apply upon startup	Yes.
§ 63.6(e)(1)-(2)	Operation & Maintenance.	Operate to minimize emissions at all times; and Correct malfunctions as soon as practicable; and Operation and maintenance requirements independently enforceable; information Administrator will use to determine if operation and maintenance requirements were met.	Yes.
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction Plan (SSMP).	Requirement for SSM and startup, shutdown, malfunction plan; and content of SSMP.	Yes.
§ 63.6(f)(1)	Compliance Except During SSM.	Comply with emission standards at all times except during SSM.	Yes.
§ 63.6(f)(2)-(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection.	Yes.
§ 63.7(a)(1)	Performance Test Dates	Dates for Conducting Initial Performance Testing and Other	Yes.

		Compliance Demonstrations.	
§ 63.7(a)(3	Section 114 Authority	Administrator may require a performance test under CAA Section 114 at any time.	Yes.
§ 63.7(b)(1)	Notification of Performance Test.	Must notify Administrator 60 days before the test.	No.
§ 63.7(c)	Quality Assurance/Test Plan.	Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with: test plan approval procedures; and performance audit requirements; and internal and external QA procedures for testing.	Yes.
§ 63.7(d)	Testing Facilities	Requirements for testing facilities.	.Yes.
§ 63.7(e)(1)	Conditions for Conducting Performance Tests.	1 Performance tests must be conducted under representative conditions; and	No.
		2 Cannot conduct performance tests during SSM; and	Yes.
		3 Not a deviation to exceed standard during SSM; and	Yes.
		4. Upon request of Administrator, make available records necessary to determine conditions of performance tests.	Yes.
§ 63.7(e)(2)	Conditions for Conducting Performance Tests.	Must conduct according to rule and EPA test methods unless Administrator approves alternative.	Yes.
§ 63.7(e)(3)	Test Run Duration	Must have three separate test runs; and Compliance is based on arithmetic mean of three runs; and conditions when data from an additional test run can be used.	Yes.
§ 63.7(e)(4)	Interaction with other sections of the Act.	Nothing in § 63.7(e)(1) through (4) can abrogate the Administrator's authority to require testing under Section 114 of the Act.	Yes.
§ 63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an alternative test method.	Yes.
§ 63.7(g)	Performance Test Data Analysis.	Must include raw data in performance test report; and must submit performance test data 60	Yes.

	days after end of test with the Notification of Compliance Status; and keep data for 5 years.	
§ 63.9(a).Notification Requirements	Applicability and State Delegation.	Yes.
§ 63.9(b)(1)-(5)Initial Notifications ...	Submit notification 120 days after effective date; and Notification of intent to construct and Notification of commencement of construct; Notification of startup; and Contents of each.	Yes.
§ 63.9(c).Request for Compliance Extension	Can request if cannot comply by date or if installed BACT.	Yes.
§ 63.9(h)(1)-(6)Notification of Compliance Status	Contents; and due 60 days after end of performance test or other compliance demonstration, and when to submit to Federal vs. State authority.	Yes.
§ 63.9(i).......Adjustment of Submittal Deadlines.	Procedures for Administrator to approve change in when notifications must be submitted.	Yes.
§ 63.9(j).......Change in Previous Information.	Must submit within 15 days after the change.	Yes.
§ 63.10(a)......Recordkeeping/Reporting..	Applies to all, unless compliance extension; and when to submit to Federal vs. State authority; and procedures for owners of more than 1 source.	Yes.
§ 63.10(b)(1)...Recordkeeping/Reporting...	General Requirements; and keep all records readily available and keep for 5 years.	Yes.
§ 63.10(b)(2)(i)-(v)Records related to Startup, Shutdown, and Malfunction.	Occurrence of each of operation (process, equipment); and actions during startup, shutdown, and malfunction.	Yes.
§ 63.10(b)(2)(vii)-(ix)Records...........	Measurements to demonstrate compliance with emission limitations; and performance test,	Yes.
§ 63.10(b)(2)(xiv).Records...............	All documentation supporting Initial Notification and Notification of Compliance Status.	Yes.
§ 63.10(b)(3)..Records..................	Applicability Determinations.	Yes.

§ 63.10(d)(1)	General Reporting Requirements.	Requirement to report	Yes.
§ 63.10(d)(2).	Report of Performance Test Results.	When to submit to Federal or State authority.	Yes.
§ 63.10(d)(4).	Progress Reports..........	Must submit progress reports on schedule if under compliance extension.	Yes.
§ 63.10(d)(5).	Startup, Shutdown, and Malfunction Reports.	Contents and submission	Yes.
§ 63.14.	Incorporation by Reference	Test methods incorporated by reference.	Yes.
§ 63.15.......	Availability of Information.	Public and confidential Information.	Yes.

D.3.22 One Time Deadlines Relating to Boiler NESHAP [40 CFR Part 63, Subpart DDDDD]

(a) The Permittee must submit an Initial Notification not later than 15 days after the actual date of startup of Fiber Flash Dryer Furnace.

(b) The Permittee must conduct the initial performance tests no later than 180 days after startup of the source. The Permittee must submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin. The Permittee must submit a notification of compliance status, including all performance test results, before the close of business on the 60th day following the completion of the performance test report for Fiber Flash Dryer Furnace.

SECTION D.4 FACILITY OPERATION CONDITIONS

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

(d) Syrup Refining Operations, consisting of:

(1) One (1) GMH Storage Silo, identified as 9V32, constructed in 1966, with emissions controlled by baghouse 9F32, and exhausting to stack 119;

(2) One (1) Filteraid Storage Silo, identified as 9V31, constructed in 1966, with emissions controlled by baghouse 9F31, and exhausting to stack 123;

(3) One (1) Powdered Carbon Unloading, identified as 9C30, constructed in 1966, with emissions controlled by baghouse 9F30, and 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, and exhausting to stack 129;

(5) One (1) Soda Ash Storage Tank, identified as 9C40, constructed in 1966, with emissions controlled by eductor/scrubber 9E1, and exhausting to stack 149;

(6) One (1) HCl Storage Tank (Concentrated), identified as 9V101, constructed in 1995, with emissions controlled by scrubber 9F102, and exhausting to stack 156;

(7) One (1) Jet Cooker system/Jet Conversion Flash Chamber, identified as 18V413, constructed in 1966, with SO2 and VOC emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(8) One (1) Jet Cooker system/Acid Reject Flash Chamber, identified as 18V312, constructed in 1966, with emissions uncontrolled, and exhausting to stack 320;

(9) One (1) Powdered Carbon Storage Silo, identified as 9V30, constructed in 1966, with emissions controlled by baghouse 9F37, and exhausting to stack 321; and

(10) One (1) Refinery Reprocess Bag Dump, identified as 45C43, constructed in 2000, with emissions controlled by baghouse 45F43, and exhausting indoors.

(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 Limitations for Manufacturing Processes), 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:

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

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = 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 are treated as confidential.

Compliance Determination Requirements

D.4.2 Particulate Control [326 IAC 2-7-6(6)]

(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.

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

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

D.4.3 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) If an inadequate scrubber recirculation flow is observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. An inadequate flow reading is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.4.4 Visible Emissions Notations

(a) Visible emission notations of the stacks 119 and 321 exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) Visible emission notations of the exhaust from stacks 149, 123, and 124 shall be performed once per day when 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) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.4.5 Monitoring for Baghouses

(a) The Permittee shall record the pressure drops 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) If, for any one reading, the pressure drop across the baghouses is outside of the normal range of 3 and 6 inches of water or a range established during the last stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(c) The instruments used for determining the pressure shall comply with Section C - Instrument Specifications of this permit, and shall be calibrated at least once every six (6) months.

D.4.6 Broken or Failed Bag Detection

In the event that bag failure has been observed:

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

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

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

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

D.4.7 Record Keeping Requirements

(a) To document compliance with Condition D.4.3, 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.4.4, the Permittee shall maintain records of the visible emission notations of the stack exhaust.

(c) To document compliance with Condition D.4.5, the Permittee shall maintain records of the pressure drop during normal operation.

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

SECTION D.5 FACILITY OPERATION CONDITIONS

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

(e) Starch Modification Operations, consisting of:

(1) One (1) Non-PO Reactor, identified as 45V115, constructed in 1966, and exhausting to stack 11;

(2) One (1) Non-PO Reactor, identified as 45V116, constructed in 1966, and exhausting to stack 12;

(3) One (1) Non-PO Reactor, identified as 45V222, constructed in 1973, and exhausting to stack 31;

(4) One (1) PO Reactor, identified as 45V223, constructed in 1973, with emissions controlled by scrubber 45F212, and exhausting to stack 50;

(5) One (1) PO Reactor, identified as 45V240, constructed in 1986, with emissions controlled by scrubber 45F212, and exhausting to stack 50;

(6) One (1) PO Reactor, identified as 45V241, constructed in 1986, with emissions controlled by scrubber 45F212, and exhausting to stack 50;

(7) One (1) PO Reactor, identified as 45V242, constructed in 1986, with emissions controlled by scrubber 45F212, and exhausting to stack 50;

(8) One (1) PO Reactor, identified as 45V243, constructed in 1986, with emissions controlled by scrubber 45F212, and exhausting to stack 50;

(9) One (1) PO Reactor, identified as 45V246, constructed in 1988, with emissions controlled by scrubber 45F212, and exhausting to stack 50;

(10) One (1) PO Reactor, identified as 45V247, constructed in 1988, with emissions controlled by scrubber 45F212, and exhausting to stack 50;

(11) One (1) PO Reactor, identified as 45V248, constructed in 1991, with emissions controlled by scrubber 45F212, and 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, and exhausting to stack 50;

(14) One (1) PO Reactor, identified as 45V280, constructed in 2002, with emissions controlled by scrubber 45F212, and exhausting to stack 50;

(15) One (1) PO Reactor, identified as 45V281, constructed in 2002, with emissions controlled by scrubber 45F212, and 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, and exhausting to stack 64;

(17) One (1) Tri-Polyphosphate Storage Bin, identified as 9V103, constructed in 1988, with emissions controlled by baghouse 9F103, and exhausting to stack 68;

(18) Two (2) Flash 2 Slurry Hold Tanks, identified as 40V20 and 40V21, constructed in 1990, with emissions uncontrolled, and exhausting to stack 80;

(19) Four (4) Belt Dryer Feed Tanks, identified as 45V117 through 45V120, constructed in 1966, with emissions uncontrolled, and exhausting to stack 180;

(20) Two (2) Spray Dryer Feed Tanks, identified as 30V1 and 30V2, constructed in 1986, with emissions uncontrolled, and exhausting to stack 195;

(21) Three (3) Spray Dryer Process Tanks, identified as 40V11, 40V12, and 40V14, constructed in 1988, with emissions uncontrolled, and 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, and 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, and exhausting to stack 250;

(25) Three (3) Flash 3 Larox Filters, identified as 43F71, 43F72, and 43F73, constructed in 1995, with emissions uncontrolled, and exhausting to stack 260;

(26) One (1) Flash 3 Larox Air Release Tank, identified as 43V85, constructed in 1995, with emissions uncontrolled, and exhausting to stack 261;

(27) Two (2) Flash 3 Slurry Hold Tanks, identified as 43V71 and 43V72, constructed in 1995, with emissions uncontrolled, and exhausting to stack 273;

(28) One (1) Flash 1 Starch Hold Tank, identified as 40V50, constructed in 1996, with emissions uncontrolled, and exhausting to stack 289;

(29) One (1) Conveyor 40U2, identified as 40U2, constructed in 1985, with emissions uncontrolled, and exhausting to stack 315;

(30) One (1) Flash 1 Slurry Hold Tank, identified as 40V1, constructed in 1985, with emissions uncontrolled, and exhausting to stack 315;

(31) One (1) Filtrate Reineveldt Centrifuge Flash Dryer 1, identified as 40Y1, with emissions uncontrolled, constructed in 1985, and exhausting to stack 315;

(32) One (1) Flash 3 Larox Air Release Tank, identified as 43V86, constructed in 1995, with emissions uncontrolled, and exhausting to stack 318;

(33) One (1) Starch Feed Bin, identified as 33V1, constructed in 1995, with emissions controlled by baghouse 33F1, and exhausting via vent 236 to stack 355;

(34) One (1) Starch Feed Bin, identified as 33V2, constructed in 1995, with emissions controlled by baghouse 33F2, and exhausting via vent 237 to stack 355;

(35) One (1) Low Pressure Dry Starch Reactor, identified as 33R1, constructed in 1995, with emissions controlled by baghouses 33F101 and 33F102, and exhausting to stack 238;

(36) One (1) Catalyst Bin, identified as 33V5, constructed in 1995, with emissions controlled by baghouse 33F5, and 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, and exhausting to stack 240;

(38) One (1) Reactor Surge Bin, identified as 50V61, constructed in 1997, with emissions controlled by baghouse 50F161, and exhausting via vent 241 to stack 361;

(39) One (1) Reactor Surge Bin, identified as 50V62, constructed in 1997, with emissions controlled by baghouse 50F162, and exhausting via vent 242 to stack 361;

(40) One (1) Dry Starch Product Screening Receiver, identified as 50F48, constructed in 1997, with emissions controlled by baghouse 50F48, and exhausting via vent 243 to stack 355;

(41) One (1) Dry Starch Blend Bin, identified as 33V42, constructed in 1995, with emissions controlled by baghouse 33F42, and exhausting via vent 244 to stack 355;

(42) One (1) Dry Starch Blend Bin, identified as 33V43, constructed in 1995, with emissions controlled by baghouse 33F43, and exhausting via vent 245 to stack 355;

(43) One (1) Dry Starch Blend Bin, identified as 33V40, constructed in 1995, with emissions controlled by baghouse 33F40, and exhausting via vent 246 to stack 355;

(44) One (1) Dry Starch Blend Bin, identified as 33V41, constructed in 1995, with emissions controlled by baghouse 33F41, and exhausting via vent 247 to stack 355;

(45) One (1) Dry Starch Product Screening Receiver, identified as 50F45, constructed in 1997, with emissions controlled by baghouse 50F45, and exhausting via vent 262 to stack 355;

(46) One (1) Flash 2 Air Release Tank, identified as 40V16, constructed in 2002, with emissions uncontrolled, exhausting to stack 251;

(47) Six (6) Propylated Starch Reactors, identified as 45V292, 45V293, 45V294, 45V295, 45V296, and 45VFF with VOC emissions controlled by packed bed scrubbers 45FAA or 45F212, and exhausting to stack 399 or stack 50;

(48) One (1) Sodium Sulfate Storage Bin, identified as 45BVAA, with emissions controlled by baghouse 45BFAA, and exhausting to stack 400;

(49) Two (2) Flash 4 Slurry Hold Tanks, identified as 44V1 and 44V2, with emissions uncontrolled, and exhausting to stack 419;

(50) Three (3) Flash 4 Larox Filters, identified as 44FKK, 44FLL and 44FMM, with emissions uncontrolled, and exhausting to stack 420;

(51) One (1) Flash 4 Larox Filter Feed Tank, identified as 44V3, with emissions uncontrolled, and exhausting to stack 420;

(52) One (1) Flash 4 Larox Air Release Tank, identified as 44V4, with emissions uncontrolled, and exhausting to stack 421;

(53) One (1) Flash 4 Larox Air Release Tank, identified as 44V5, with emissions uncontrolled, and exhausting to stack 422;

(54) Two (2) Spray dryer 2 Feed Tanks, identified as 46V200 and 46V297, with emissions uncontrolled, and exhausting to stacks 423 and 434;

(55) One (1) Spray dryer 2 Waste Surge Tank, identified as 46V213 with emissions uncontrolled, and exhausting to stack 424;

(56) One (1) Spray dryer 2 Sweco Tank, identified as 46V201with emissions uncontrolled, and exhausting to stack 436;

(57) One (1) Spray dryer 2 Under Flow Tank, identified as 46V204 with emissions uncontrolled, and exhausting to stack 435;

(58) One (1) Raw Starch Storage Bin, identified as 20VAA, with emissions controlled by baghouse 20FAA, and exhausting to stack 369;

(59) One (1) Raw Starch Storage Bin, identified as 20VBB, with emissions controlled by baghouse 20FBB, and exhausting to stack 370;

(60) One (1) Starch Slurry Storage Tank, identified as 18AVAA, with emissions controlled by baghouse 18AFAA, and exhausting to stack 371;

(61) One (1) Starch Feed Bin, identified as 41VAA, with emissions controlled by baghouse 41FKK, and exhausting to stack 372;

(62) One (1) Starch Weigh Bin, identified as 33VAA, with emissions controlled by baghouse 33FAA, and exhausting to stack 373;

(63) One (1) Dextrin Fluidizer Reactor, identified as 33RAA, with emissions controlled by cyclone 33FBB and baghouse 33FCC, and exhausting to stack 374;

(64) One (1) Dextrin Fluidizer Surge Bin, identified as 33VBB, with emissions controlled by baghouse 33FDD, and exhausting via vent 375 to stack 355;

(65) One (1) Dextrin Blending and Storage Bin, identified as 33VCC, with emissions controlled by baghouse 33FFF, and exhausting via vent 377 to stack 355;

(66) One (1) Dextrin Blending and Storage Bin, identified as 33VDD, with emissions controlled by baghouse 33FGG, and exhausting via vent 378 to stack 355; and

(67) One (1) Dextrin Product Screening Receiver, identified as 33FEE, with emissions controlled by baghouse 33FEE, and exhausting via vent 376 to stack 355.

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

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

D.5.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

Pursuant to 326 IAC 2-2-3:

(a) The following emission units shall be controlled for PM and PM_{10} using best available control technology (BACT):

(1) Sodium Sulfate Storage Bin 45BVAA,

(2) Raw Starch Storage Bin 20VAA,

(3) Raw Starch Storage Bin 20VBB,

(4) Starch Slurry Storage Tank 18AVAA,

(5) Starch Feed Bin 41VAA,

(6) Starch Weigh Bin 33VAA,

(7) Dextrin Fluidizer Reactor 33RAA,

(8) Dextrin Fluidizer Surge Bin 33VBB,

(9) Dextrin Blending and Storage Bin 33VCC,

(10) Dextrin Blending and Storage Bin 33VDD, and

(11) Dextrin Product Screening Receiver 33FEE.

For these units, the BACT for PM, and PM_{10} (Filterable and Condensable) is the use of baghouses with an emission rate of 0.005 gr/dscf; and

(1) as given in the following table:

Emission Units	**Control Device ID**	**Total PM /PM_{10} (Filterable and Condensable) Emissions Rate (lbs/hr)**
45BVAA	45BFAA	0.06
20VAA	20FAA	0.09
20VBB	20FBB	0.09
18AVAA	18AFAA	0.06
41VAA	41FKK	0.09
33VAA	33FAA	0.05
33RAA	33FCC	0.16
33VBB	33FDD	0.04
33VCC	33FFF	0.13
33VDD	33FGG	0.13
33FEE	33FEE	0.07; and

(2) the opacity from the baghouses shall not exceed 3%.

(b) The following emission units shall be controlled for VOC using BACT:

Six (6) Propylated Starch Reactors, identified as 45V292, 45V293, 45V294, 45V295, 45V296, and 45VFF.

VOC BACT has been determined to be the use of a low pH packed bed scrubber and hydrolysis and

(1) a VOC emission rate of 3.25 lb per 100,000 lb of acid-killed starch and 6.0 lb per 100,000 lbs of non-acid-killed starch for Propylene Oxide Starch Reactors ((equivalent to minimum 95% overall control efficiency); and

(2) the combined propylene oxide input to emission units 45V292, 45V293, 45V294, 45V295, 45V296, 45VFF, 40V1, 40U2, 40Y1, 40V50, 40V20, 40V21, 40V15, 40V16, 40F51, 40F52, 40F53, 40F54, 40U23, 43V71, 43V72, 43F71, 43F72, 43F73, 43V85, 43V86, 45V117, 45V118, 45V119, 45V120, 30V1, 30V2, 40V12, 40V11, 40V14, 45V223, 45V240, 45V241, 45V242, 45 V243, 45V246, 45V247, 45V248, 45V270, 45V271, 45V280, 45V281, 44V1, 44V2, 44V3, 44V4, 44V5, 44FKK, 44FLL, 44FMM, 46V200, 46V201, 46V204, 46V213, 46V297, 40D1, 40D20, 43D71, 41D1, 41D2, 41D3, 41D4, 41D5, 41D6, 41D7, 41D8, 19D301, 19D302, 19D303, 41D12, 41D13, 41D14, 30D1, 16D4, 16D5, 44DAA, and 46D200 shall not exceed 1,500 tons per twelve consecutive month period for propylated starch reactions that do not undergo the acid-kill step.

D.5.2 Prevention of Significant Deterioration Minor Limit [326 IAC 2-2]

Pursuant to CP 157-4195-00003, issued August 25, 1995, as amended by A 157-6170-00003, issued July 26, 1996, the particulate matter emissions are limited as indicated in the table below:

Facility	Stack	PM/PM_{10} emission limit (lb/hr)	PM/PM_{10} emission limit (ton/12mo*)
Starch Feed Bin (33V1)	236	0.29	1.26
Starch Feed Bin (33V2)	237	0.29	1.26
Low Pressure Dry Starch Reactor (33R1)	238	0.078	0.34
Catalyst Storage Bin (33V5)	239	0.034	0.15
Dry Starch Blend Bins (33V42, 33V43, 33V40, and 33V41)	244, 245, 246, 247	0.55	2.4
Dry Starch Product Screening Receiver (50F45)	262	0.07	0.31

*12. mo - Twelve consecutive month period with compliance determined at the end of each month.

Compliance with these limits shall render the requirements of 326 IAC 2-2 not applicable to emission units 33V1, 33V2, 33R1, 33V5, 33V42, 33V43, 33V40, 33V41 and 50F45.

D.5.3 Sulfur Dioxide (SO_2) Emission Limitation

The amount of acid-thinned starch produced from the reactors 45V115, 45V116, and 45V222 is limited to fifty million (50,000,000) pounds per twelve (12) consecutive month period with compliance determined at the end of each month.

This voluntary limit, based on sulfur dioxide (SO_2) emissions of 43 pounds SO_2 per 100,000 pounds of acid-thinned starch, has been incorporated to limit the potential to emit SO_2 from reactors 45V115, 45V116, and 45V222 to 10.8 tons per year.

D.5.4 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emissions Limitations for Manufacturing Processes), particulate emissions from emission units 45V250, 9V103, 33V1, 33V2, 33R1, 33V5, 33R2, 50V61, 50V62, 33V42, 33V43, 33V40, 33V41, 50F45, and 50F48, 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:

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

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = 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 throughput of the respective facilities is being treated as confidential.

D.5.5 Volatile Organic Compounds (VOC) BACT [326 IAC 8-1-6] [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3, and 326 IAC 8-1-6, the VOC BACT for emission units 45V223, 45V240, 45V241, 45V242, 45V243, 45V246, 45V247, 45V248, 45V270, 45V271, 45V280, and 45V281, 45V292, 45V293, 45V294, 45V295, 45V296 and 45VFF shall be the use of the scrubbers 45F212, and 45FAA ; and

(a) The VOC emissions from the scrubbers 45F212, and 45FAA controlling emissions from emission units 45V223, 45V240, 45V241, 45V242, 45V243, 45V246, 45V247, 45V248, 45V270, 45V271, 45V280, 45V281, 45V292, 45V293, 45V294, 45V295, 45V296 and 45VFF shall not exceed 3.25 lbs per 100,000 lbs of acid-killed starch and 6 lbs per 100,000 lbs of non-acid-killed starch (equivalent to a minimum 95% overall control efficiency); and

(b) The combined propylene oxide input to emission units (listed in Section D.5), 45V292, 45V293, 45V294, 45V295, 45V296, 45VFF, 40V1, 40U2, 40Y1, 40V50, 40V20, 40V21, 40V15, 40V16, 40F51, 40F52, 40F53, 40F54, 40U23, 43V71, 43V72, 43F71, 43F72, 43F73, 43V85, 43V86, 45V117, 45V118, 45V119, 45V120, 30V1, 30V2, 40V12, 40V11, 40V14, 45V223, 45V240, 45V241, 45V242, 45V243, 45V246, 45V247, 45V248, 45V270, 45V271, 45V280, 45V281, 44V1, 44V2, 44V3, 44V4, 44V5,44FKK, 44FLL, 44FMM, 46V200, 46V201, 46V204, 46V213, and 46V297; and (listed in Section D.6) 40D1, 40D20, 43D71, 41D1, 41D2, 41D3, 41D4, 41D5, 41D6, 41D7, 41D8, 19D301, 19D302, 19D303, 41D12, 41D13, 41D14, 30D1, 16D4, 16D5, 44DAA, and 46D200 shall not exceed 1,500 tons per twelve consecutive month period for propylated starch reactions that do not undergo the acid-kill step with compliance determined at the end of each month.

Compliance Determination Requirements

D.5.6 Volatile Organic Compounds (VOC) Control

Pursuant to CP 157-10232-00003, issued October 12, 1999, and in order to comply with Conditions D.5.1(b) and D.5.5(a), scrubbers 45FAA, and 45F212, shall be in operation and control VOC emissions from emission units 45V223, 45V240, 45V241, 45V242, 45V243, 45V246, 45V247, 45V248, 45V270, 45V271, 45V280, 45V281, 45V292, 45V293, 45V294, 45V295, 45V296 and 45VFF at all times any of those emission units are in operation.

D.5.7 Particulate Control

(a) In order to comply with Conditions D.5.1(a), D.5.2 and D.5.4, baghouses, including those integral to the process, 45F25, 45F25a, 9F103, 33F1, 33F2, 33F101, 33F102, 33F5, 33F201, 33F202, 50F161, 50F162, 50F48, 33F42, 33F43, 33F40, 33F41, 50F45, 45BFAA, 20FAA, 20FBB, 18AFAA, 41FKK, 33FAA, 33FCC, 33FDD, 33FEE, 33FFF, and 33FGG for particulate control shall be in operation and control particulate emissions at all times when an emission unit that it controls is in operation.

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

D.5.8 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

(a) Within 60 days after achieving the maximum production rate, but no later than 180 days after startup, the Permittee shall perform PM and PM_{10} testing on Dextrin Fluidizer Reactor baghouse 33FCC, and one of Dextrin storage and blending bins baghouses 33FFF or 33FGG, to verify compliance with Condition D.5.1(a), utilizing methods as approved by the Commissioner.

(b) Within 60 days after achieving the maximum production rate, but no later than 180 days after startup, the Permittee shall perform VOC testing on packed bed scrubber 45FAA, to verify compliance with Condition D.5.1(b), utilizing methods as approved by the Commissioner.

(c) Within 60 days after achieving the maximum production rate, but no later than 180 days after startup of emission unit 45V292, the Permittee shall perform VOC testing on 45F212, to verify compliance with Condition D.5.5(a), utilizing methods as approved by the Commissioner.

These tests shall be repeated at least once every five years from the date of this valid compliance demonstration. PM_{10} includes filterable and condensable PM_{10}.Testing shall be conducted in accordance with Section C - Performance Testing.

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

D.5.9 Visible Emissions Notations

(a) Visible emission notations of the stacks 64, 68, 240, 355, and 361 exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

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

D.5.10 Monitoring for Scrubbers

(a) The Permittee shall monitor the pH of the scrubbing liquid and exhaust air stream pressure drop across the scrubber at least once per day for each of scrubbers 45FAA and 45F212.The normal pH range for scrubber 45FAA is 0.5 to 4 or the range established during the latest stack test. The normal pH range for scrubber 45F212 is 0.5 to 4 or the range established during the latest stack test. The normal pressure drop range for scrubber 45FAA and fan is 1 to 6 inches of water or the range established during the latest stack test. The normal pressure drop range for scrubber 45F212 and fan is 1 to 6 inches of water or the range established during the latest stack test.

(b) A continuous monitoring system shall be installed and operated at all times when either scrubber 45FAA or 45F212 is in operation. The monitoring system shall continuously measure and record the scrubbers' recirculation rate for each of the scrubbers 45FAA and 45F212. The minimum flow rate for scrubber 45FAA is 390 gallon per minute or a minimum flow rate established during the latest stack test. The minimum flow rate for scrubber 45F212 is 390 gallon per minute or a minimum flow rate established during the latest stack test.

(c) If the pH or pressure drop reading is outside of the normal range or the 1-hr average flow rate is below the minimum flow rate for any one reading, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances.

(d) A pH or pressure drop that is outside of the normal range or the 1-hr average flow rate reading that is below the minimum flow rate is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(e) The instruments used for determining the pH, pressure drop, and flow rate shall comply with Section C - Instrument Specifications and shall be calibrated at least once every six (6) months. The loss of monitoring data due to the calibration of an instrument while the equipment is in operation does not constitute a deviation from this permit.

D.5.11 Monitoring for Baghouses

(a) The Permittee shall record the pressure drop across baghouses 45BFAA, 20FAA, 20FBB, 18AFAA, 41FKK, 33FAA, 33FCC, 33FDD, 33FEE, 33FFF and 33FGG, used in conjunction with emission units 45BVAA, 20VAA, 20VBB, 18AVAA, 41VAA, 33VAA, 33RAA, 33VBB, 33VCC, 33VDD, and 33FEE, at least once per day when the respective facilities are in operation.

(b) The Permittee shall record the pressure drop across baghouses 50F161 and 50F162, used in conjunction with emission units 50V61 and 50V62, at least once per day when the respective emission units are in operation.

(c) The Permittee shall record the pressure drop across baghouses 45F25, 45F25a, 9F103, 33F201, and 33F202, used in conjunction with facilities 45V250, 9V103, and 33R2, at least once per day when the respective facilities are in operation.

(d) If, for any one reading, the pressure drop across the baghouse is outside of the normal range of 1 and 8 inches of water or a range established during the last stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(e) The instruments used for determining the pressure shall comply with Section C - Instrument Specifications of this permit, and shall be calibrated at least once every six (6) months.

D.5.12 Broken or Failed Bag Detection

In the event that bag failure has been observed:

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

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

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

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

D.5.13 Record Keeping Requirements

(a) To document compliance with Condition D.5.3, the Permittee shall maintain monthly records of the amount of acid-thinned starch produced from 45V115, 45V116, and 45V222.

(b) To document compliance with Condition D.5.5(b), the Permittee shall maintain monthly records for propylated starch reactions that do not undergo the acid-kill step to facilities

45V292, 45V293, 45V294, 45V295, 45V296, 45VFF, 40V1, 40U2, 40Y1, 40V50, 40V20, 40V21, 40V15, 40V16, 40F51, 40F52, 40F53, 40F54, 40U23, 43V71, 43V72, 43F71, 43F72, 43F73, 43V85, 43V86, 45V117, 45V118, 45V119, 45V120, 30V1, 30V2, 40V12, 40V11, 40V14, 45V223, 45V240, 45V241, 45V242, 45V243, 45V246, 45V247, 45V248, 45V270, 45V271, 45V280, 45V281, 44V1, 44V2, 44V3, 44V4, 44V5, 44FKK, 44FLL, 44FMM, 46V200, 46V201, 46V204, 46V213, 46V297, 40D1, 40D20, 43D71, 41D1, 41D2, 41D3, 41D4, 41D5, 41D6, 41D7, 41D8, 19D301, 19D302, 19D303, 41D12, 41D13, 41D14, 30D1, 16D4, 16D5, 44DAA, and 46D200. Note that this record is the same record as required in Condition D.6.11 (a).

(c) To document compliance with Condition D.5.9, the Permittee shall maintain records of visible emission notations of the stacks exhaust.

(d) To document compliance with Condition D.5.10, the Permittee shall maintain records of the following with respect to each of scrubbers 45FAA and 45F212:

(1) The pH of the scrubbing liquid and exhaust air stream pressure drop across the scrubber, and

(2) The scrubber recirculation rate as read by the continuous monitor.

(e) To document compliance with Condition D.5.11, the Permittee shall maintain records of the pressure drop during normal operation.

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

Clean Unit [326 IAC 2-2.2-2]

D.5.14 Clean Unit [326 IAC 2-2.2-2]

Pursuant to 326 IAC 2-2.2-2:

(a) The following emissions units are classified as Clean Units for PM/PM_{10}:

(1) Sodium Sulfate Storage Bin 45BVAA,

(2) Raw Starch Storage Bin 20VAA,

(3) Raw Starch Storage Bin 20VBB,

(4) Starch Slurry Storage Tank 18AVAA,

(5) Starch Feed Bin 41VAA,

(6) Starch Weigh Bin 33VAA,

(7) Dextrin Fluidizer Reactor 33RAA,

(8) Dextrin Fluidizer Surge Bin 33VBB,

(9) Dextrin Blending and Storage Bin 33VCC,

(10) Dextrin Blending and Storage Bin 33VDD, and

(11) Dextrin Product Screening Receiver 33FEE.

(b) Pursuant to 326 IAC 2-2.2-2, the following emissions units are classified as Clean Units for VOC:

Six (6) Propylated Starch Reactors, identified as 45V292, 45V293, 45V294, 45V295, 45V296, and 45VFF.

(c) The Clean Unit designations for the above emissions units are in effect for ten (10) years after the issuance date of the source modification permit or the date the emission's unit control technology is placed in service, whichever is later.

SECTION D.6 FACILITY OPERATION CONDITIONS

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

(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, and exhausting to stack 69;

(2) One (1) Pneumatic Product Transfer, identified as 40F7, constructed in 1986, with emissions controlled by 40F7, and exhausting to stack 70;

(3) One (1) Starch Storage Bin #8, identified as 7V8, constructed in 1986, with emissions controlled by baghouse 7F8, and exhausting to stack 71;

(4) One (1) Starch Storage Bin #9, identified as 7V9, constructed in 1986, with emissions controlled by baghouse 7F9, and 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, and exhausting to stack 73;

(6) One (1) Starch Product Bin #20, identified as 7V20, constructed in 1992, with emissions controlled by baghouse 7F20, and exhausting to stack 76;

(7) One (1) Starch Product Bin #21, identified as 7V21, constructed in 1992, with emissions controlled by baghouse 7F21, and exhausting to stack 77;

(8) One (1) Starch Product Bin #22, identified as 7V22, constructed in 1992, with emissions controlled by baghouse 7F22, and exhausting to stack 78;

(9) One (1) Starch Grinder/Mill #1, identified as 40G20, constructed in 1990, with emissions controlled by baghouse 40F28, and exhausting via vent 286 to stack 360;

(10) One (1) Starch Grinder/Mill #2, identified as 40G21, constructed in 1990, with emissions controlled by baghouse 40F29, and exhausting via vent 287 to stack 360;

(11) One (1) Grinder Feed Collector 40F27, identified as 40F27, constructed in 1990, and 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, and exhausting to stack 265;

(13) One (1) Flash #3 Mill, identified as 40G88, constructed in 1996, with emissions controlled by baghouse 40F88, and 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, and exhausting to stack 267;

(15) One (1) Starch Bin #34, identified as 7V34, constructed in 1995, with emissions controlled

by baghouse 7F34, and exhausting to stack 268;

(16) One (1) Starch Bin #35, identified as 7V35, constructed in 1995, with emissions controlled by baghouse 7F35, and exhausting to stack 269;

(17) One (1) Adipic Acid Storage Bin, identified as 43V90, constructed in 1996, with emissions controlled by baghouse 43F90, and exhausting to stack 274;

(18) One (1) Starch Transfer Bin #91, identified as 7V91, constructed in 1999, with emissions controlled by baghouse 7F91, and exhausting to stack 345;

(19) One (1) Starch Transfer Bin #92, identified as 7V92, constructed in 1999, with emissions controlled by baghouse 7F92, and exhausting to stack 346;

(20) One (1) Starch Roll Dryer #1, identified as 41D1, constructed in 1986, with emissions uncontrolled, and exhausting to stack 91;

(21) One (1) Starch Roll Dryer #2, identified as 41D2, constructed in 1986, with emissions uncontrolled, and exhausting to stack 92;

(22) One (1) Starch Roll Dryer #3, identified as 41D3, constructed in 1986, with emissions uncontrolled, and exhausting to stack 93;

(23) One (1) Starch Roll Dryer #4, identified as 41D4, constructed in 1993, with emissions uncontrolled, and exhausting to stack 94;

(24) One (1) Starch Roll Dryer #5, identified as 41D5, constructed in 1995, with emissions uncontrolled, and exhausting to stack 232;

(25) One (1) Starch Roll Dryer #6, identified as 41D6, constructed in 1995, with emissions uncontrolled, and exhausting to stack 233;

(26) One (1) Starch Roll Dryer #7, identified as 41D7, constructed in 1997, with emissions uncontrolled, and exhausting to stack 234;

(27) One (1) Starch Roll Dryer #8, identified as 41D8, constructed in 2000, with emissions uncontrolled, and exhausting to stack 235;

(28) One (1) Pneumatic Product Transfer Roll Dryer, identified as 41F200, constructed in 1986, with emissions controlled by baghouse 41F200, and exhausting to the intake of mill 41G200;

(29) One (1) Roll Dryer Mill, identified as 41G200, constructed in 1986, with emissions controlled by baghouse 41F210, and exhausting via vent 96 to stack 355;

(30) One (1) Product Bin #10, identified as 41V10, constructed in 1993, with emissions controlled by baghouse 41F10, and exhausting to stack 97;

(31) One (1) Product Bin #11, identified as 41V11, constructed in 1993, with emissions controlled by baghouse 41F11, and exhausting to stack 98;

(32) One(1) Roll Dryer Mill, identified as 41G201, constructed in 1993, with emissions controlled by baghouse 41F211, and exhausting via vent 100 to stack 355;

(33) One (1) Pneumatic Product Transfer Roll Dryer, identified as 41F201, constructed in

1993, with emissions controlled by baghouse 41F201, and exhausting to the intake of mill 41G201;

(34) One (1) Starch Product Bin #44, identified as 33V44, constructed in 1995, with emissions controlled by baghouse 33F44, and exhausting to stack 248;

(35) One (1) Bulk Bag Dump Station, identified as 41F13, constructed in 2000, with emissions controlled by baghouse 41F13, and exhausting indoors 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, and exhausting to stack 82;

(37) One (1) Product Transfer to Milling, identified as 30F13, constructed in 1987, and exhausting to the intakes of bins 41V45, 41V46, 41V47, and 33V44;

(38) One (1) Dryer Mill, identified as 30G1, constructed in 1987, with emissions controlled by baghouse 30F15, and exhausting via vent 84 to stack 360;

(39) One (1) Product Transfer to Bins #14, #15, and #KK, identified as 41C30, constructed in 1987, with emissions controlled by baghouses 41F14, 41F15, 41FMM, respectively, and exhausting via vent 85 into stack 355;

(40) One (1) Product Transfer to Bins #17 and #18, identified as 41C35, constructed in 1987, with emissions controlled by baghouses 41F20, and 41F21, respectively, and exhausting via vent 86 into stack 355;

(41) One (1) Product Bin #14, identified as 41V14, constructed in 1987, with emissions controlled by baghouse 41F16, and exhausting to stack 87;

(42) One (1) Product Bin #15, identified as 41V15, constructed in 1987, with emissions controlled by baghouse 41F17, and exhausting to stack 88;

(43) One (1) Product Bin #17, identified as 41V17, constructed in 1987, with emissions controlled by baghouse 41F22, and exhausting to stack 89;

(44) One (1) Product Bin #18, identified as 41V18, constructed in 1987, with emissions controlled by baghouse 41F23, and 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, and exhausting to stack 104;

(47) One (1) Product Bin #5, identified as 7V46, constructed in 1966, with emissions controlled by baghouse 7F69, and exhausting to stack 105;

(48) One (1) Product Bin #4, identified as 7V47, constructed in 1966, with emissions controlled by baghouse 7F70, and exhausting to stack 106;

(49) One (1) Product Bin #3, identified as 7V48, constructed in 1966, with emissions controlled by baghouse 7F71, and exhausting to stack 107;

(50) One (1) Product Bin #2, identified as 7V49, constructed in 1966, with emissions controlled

by baghouse 7F72, and exhausting to stack 108;

(51) One (1) Product Bin #1, identified as 7V50, constructed in 1966, with emissions controlled by baghouse 7F73, and exhausting to stack 109;

(52) One (1) Belt Dryer Mill, identified as 25G1, constructed in 1968, with emissions controlled by baghouse 25F2, and 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, and 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 the 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, and exhausting via vent 349 to stack 361;

(56) One (1) Agglomeration Blender Receiver/Baghouse, identified as 50F106, constructed in 2001, with emissions controlled by baghouse 50F106, and exhausting via vent 350 to stack 361;

(57) Starch Roll Dryer #301, identified as 19D301, permitted in 2007, with emissions uncontrolled, and exhausting to stack 405;

(58) Starch Roll Dryer #302, identified as 19D302, permitted in 2007, with emissions uncontrolled, and exhausting to stack 406;

(59) Starch Roll Dryer #303, identified as 19D303, permitted in 2007, with emissions uncontrolled, and exhausting to stack 407;

(60) Starch Roll Dryer #12, identified as 41D12, permitted in 2007, with emissions uncontrolled, and exhausting to stack 408;

(61) Starch Roll Dryer #13, identified as 41D13, permitted in 2007, with emissions uncontrolled, and exhausting to stack 409;

(62) Starch Roll Dryer #14, identified as 41D14, permitted in 2007, with emissions uncontrolled, and exhausting to stack 410;

(63) One (1) Roll Dryer Mill Feed Collector Baghouse, identified as 19F400, permitted in 2007, with emissions controlled by baghouse 19F400, and exhausting to the intake of Mill 19G401;

(64) One (1) Roll Dryer System Mill, identified as 19G401, permitted in 2007, with emissions controlled by baghouse 19F402, and exhausting via vent 366 to stack 404;

(65) One (1) Starch Blend Bin #1, identified as 07VDD, permitted in 2007, with emissions controlled by baghouse 07FDD, and exhausting to stack 383;

(66) One (1) Starch Blend Bin #2, identified as 07VEE, permitted in 2007, with emissions controlled by baghouse 07FEE, and exhausting to stack 384;

(67) One (1) Product Bin #AA, identified as 07VAA, permitted in 2007, with emissions controlled by baghouse 07FAA, and exhausting to stack 385;

(68) One (1) Product Bin #BB, identified as 07VBB, permitted in 2007, with emissions controlled by baghouse 07FBB, and exhausting to stack 386;

(69) One (1) Product Bin #CC, identified as 07VCC, permitted in 2007, with emissions controlled by baghouse 07FCC, and exhausting to stack 387;

(70) One (1) Product Bin #45, identified as 41V45, permitted in 2007, with emissions controlled by baghouse 41F45, and exhausting to stack 226.

(71) One (1) Product Bin #46, identified as 41V46, permitted in 2007, with emissions controlled by baghouse 41F46, and exhausting to stack 255;

(72) One (1) Mill #3, identified as 44GAA, permitted in 2007, with emissions controlled by baghouse 44FII, and exhausting via vent 389 to stack 388;

(73) One (1) Mill #4, identified as 44GBB, permitted in 2007, with emissions controlled by baghouse 44FJJ, and exhausting via vent 390 to stack 388;

(74) One (1) Natural Gas Fired Spray Dryer #2, identified as 46D200, permitted in 2007, with heat input capacity of 45 million Btu per hour, with PM and PM10 emissions controlled by cyclones 46F221 through 46F224 and baghouses 46F231 through 46F232, and exhausting via vent 360 to stack 360. Nitrogen oxide (NOX) emissions are controlled by low-NOX burners rated at 0.04 lb/MMBtu;

(75) One (1) Natural Gas Fired Spray Dryer #3, identified as 51DAA, permitted in 2007, with heat input capacity of 16 million Btu per hour, with emissions controlled by cyclones 51FAA and 51FBB and baghouse 51FCC, and exhausting via vent 361 to stack 361. Nitrogen oxide (NOX) emissions are controlled by low-NOX burners rated at 0.04 lb/MMBtu;

(76) One (1) Natural Gas Fired Starch Flash Dryer #4, identified as 44DAA, permitted in 2007, with heat input capacity of 40 million Btu per hour, with emissions controlled by cyclones 44FAA through 44FFF and wet scrubber 44FGG, and exhausting to stack 388. Nitrogen oxide (NOX) emissions are controlled by low-NOX burners rated at 0.04 lb/MMBtu;

(77) One (1) Spray Dryer #2 Mill, identified as 30GAA, permitted in 2007, with emissions controlled by baghouse 30FAA, and exhausting via vent 431 to stack 360;

(78) One (1) Product Bin #47, identified as 41V47, permitted in 2007, with emissions controlled by baghouse 41F47, and exhausting via vent 432; and

(79) One (1) Product Bin #KK, identified as 41VKK, permitted in 2007, with emissions controlled by baghouse 41FPP, and exhausting via vent 443.

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

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

D.6.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3:

(a) The following emission units shall be controlled for PM and PM_{10} using BACT:

(1) Product Storage Bin #AA (07VAA),

(2) Product Storage Bin #BB (07VBB),

(3) Product Storage Bin #CC (07VCC),

(4) Starch Blend Bin #1 (07VDD),

(5) Starch Blend Bin #2 (07VEE),

(6) Product Storage Bin #46 (41V46),

(7) Roll Dryer System Mill (19G401),

(8) Product Transfer to Bins 14, 15, & #KK (41C30),

(9) Product Transfer to Bins 17 & 18 (41C35),

(10) Product Bin 14 (41V14),

(11) Product Bin 15 (41V15),

(12) Product Bin 17 (41V17),

(13) Product Bin 18 (41V18),

(14 Product Storage Bin #45 (41V45),

(15) Product Storage Bin (33V44),

(16) Mill #3 (44GAA),

(17) Mill #4 (44GBB),

(18) Starch Grinder/Mill #1 (40G20),

(19) Starch Grinder/Mill #2 (40G21),

(20) Starch Product Bin #20 (7V20),

(21) Starch Product Bin #21 (7V21),

(22) Starch Product Bin #22 (7V22),

(23) Starch Product Bin #23 (7V23),

(24) Spray Dryer #2 Mill (30GAA),

(25) Product Bin #47 (41V47), and

(26) Product Bin #KK (41VKK).

For these units, the BACT for PM and PM_{10} (Filterable and Condensable) is the use of baghouses rated at a maximum emission rate of 0.005 gr/dscf; and

(1) The total PM/PM_{10} (Filterable and Condensable) emissions from the following baghouses, shall be limited to

Emission Unit	Baghouse	Lbs/hr
07VAA	07FAA	0.12
07VBB	07FBB	0.12
07VCC	07FCC	0.12
07VDD	07FDD	0.12
07VEE	07FEE	0.12
41V46	41F46	0.08
19G401	19F402	0.73
41C30	41F14, 41F15, & 41FMM	0.08
41C35	41F20 & 41F21	0.08
41V14	41F16	0.01
41V15	41F17	0.01
41V17	41F22	0.01
41V18	41F23	0.01
41V45	41F45	0.08
33V44	33F44	0.08
44GAA	44FII	0.14
44GBB	44FJJ	0.14
40G20	40F28	0.14
40G21	40F29	0.14
7V20	7F20	0.09
7V21	7F21	0.09
7V22	7F22	0.09
7V23	7F33	0.09
30GAA	30FAA	0.73
41V47	41F47	0.08
41VKK	41FPP	0.01; and

(2) except for 40F28, 40F29, 44FII, 44FJJ, and 30 FAA, the opacity from the baghouse exhausts shall not exceed 3%. The opacity from the baghouses 40F28, 40F29, 44FII, 44FJJ, and 30 FAA shall not exceed 8%.

(b) The following emission units shall be controlled for PM and PM_{10} using BACT:

(1) Spray Dryer #2 (46D200) and

(2) Spray Dryer #3 (51DAA).

The BACT for PM, and PM_{10} is an emission rate of 0.008 gr/scf; and

(1) The total PM/PM_{10} (Filterable and Condensable) emissions from spray dryer #2 shall be limited to 6.61 lbs/hr;

(2) The total PM/PM_{10} (Filterable and Condensable) emissions from spray dryer #3 shall be limited to 2.20 lbs/hr; and

(3) The opacity from the baghouses' exhausts shall not exceed 8%.

(c) The following emission units shall be controlled for PM and PM_{10} using BACT:

(1) Starch Flash Dryer #2 (40D20) and

(2) Starch Flash Dryer #4 (44DAA).

For starch flash dryers, BACT for PM, and PM_{10} is an emission rate of 0.008 gr/acf; and

(1) The total PM/PM_{10} (Filterable and Condensable) emissions from starch flash dryer #2 shall be limited to 7.54 lbs/hr;

(2) The total PM/PM_{10} (Filterable and Condensable) emissions from starch flash dryer #4 shall be limited to 7.54 lbs/hr; and

(3) The opacity from the scrubber exhausts shall not exceed 8%.

(d) For the following emission units, BACT for NOx is the use of low-NO_X burners rated at 0.04 lb/MMBtu or less and shall not exceed the emission rates as given below:

	Lbs/hr
Starch Spray Dryer #2 (46D200)	1.8
Starch Spray Dryer #3 (51DAA)	0.64
Starch Flash Dryer #4 (44DAA)	1.6

D.6.2 Prevention of Significant Deterioration Minor Limit [326 IAC 2-2]

(a) Pursuant to CP 157-9182-00003, issued April 2, 1998, A 157-10447-00003, issued October 26, 1999, A 157-15029-00003, issued October 24, 2001, and SSM 157-14974-00003, issued December 17, 2002, the PM emissions from emission units 43D71, 40G88, 7V34, 7V35, 7V91, and 7V92 are limited as indicated in the table below:

Facility	**Stacks**	**PM/PM_{10} Limit (pounds per hour)**	**PM/PM_{10} Limit (tons per 12 mos.)**
Starch Flash Dryer #3 (43D71)	265	7.54	33
Flash #3 Mill (40G88)	266	0.23	0.99
Starch Product Bins (7V34, 7V35, 7V91, 7V92)	268, 269, 345, 346	0.2 each	0.89 each

*12 mo. - Twelve consecutive month period with compliance determined at the end of each month.

Compliance with these limits will render the requirements of 326 IAC 2-2 not applicable to emission units 43D71, 40G88, 7V34, 7V35, 7V91, and 7V92.

(b) Pursuant to CP (79) 1599, issued February 28, 1986, and OP 79-10-90-0406, issued October 16, 1987, the PM emissions from emission unit 40D1 shall not exceed 1.2 lbs/hr and 5.3 tons per twelve month consecutive period with compliance determined at the end of each month. Compliance with this limit shall render the requirements of 326 IAC 2-2 not applicable to emission unit 40D1.

(c) Pursuant to A 157-6180-00003, issued on August 12, 1996, and CP 157-4569-00003, issued September 21, 1995:

(1) The PM/PM_{10} emissions from emissions unit 43V90 shall not exceed 1.2 lbs/hr. Compliance with these limits is equivalent to total PM/PM_{10} emissions of less than 15 tons per year and will render the requirements of 326 IAC 2-2 not applicable to emission unit 43V90.

D.6.3 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emissions Limitations for Manufacturing Processes), particulate emissions from emission units 40D1, 40F7, 7V8, 7V9, 40D20, , 43D71, 40G88, 7V34, 7V35, 43V90, 7V91, 7V92, 41G200, 41V10, 41V11, 41G201, 41F13, 30D1, 30G1, 7F25, 7F26, 7V46, 7V47, 7V48, 7V49, 7V50, 25G1, 25F1, 16D4, 16D5, 50D101, and 50F106 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:

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

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = 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 throughput of the respective facilities is treated as confidential.

(b) Pursuant to CP 157-5294-00003, issued September 5, 1996, A157-6170-00003, issued July 26, 1996, A 157-6571-00003, issued October 3, 1996, and in order to comply with 326 IAC 6-3-2:

(1) The PM_{10} emissions from emission units 41G200, 41V10, 41V11, 41G201, 41F13, 30D1, and 30G1 are limited as indicated in the table below:

Emission Unit	**Stack**	**PM_{10} emission limit (pounds per hour)**	**PM_{10} emission limit (tons per 12 mo)**
Roll Dryer Mill 41G200	96 to 355	0.28	1.22
Product Bin #10 (41V10) and	97	0.03	0.14

Emission Unit	Stack	PM_{10} emission limit (pounds per hour)	PM_{10} emission limit (tons per 12 mo)
Product Bin #11 (41V11)	98		
Roll Dryer Mill 41G201	100 to 355	0.39	1.69
Bulk Bag Dump Station (41F13)	344	0.03	0.11
Spray Dryer (30D1)	82	4.45	19.49
Dryer Mill (30G1)	84	0.95	4.17

*12 mo. - Twelve consecutive month period with compliance determined at the end of each month.

(2) The opacity from facilities 41G200 (stack 355), and 41G201 (stack 355) shall not exceed three percent (3%).

(c) Pursuant to MSM 157-11907-00003, issued May 16, 2000, and in order to ensure compliance with 326 IAC 6-3-2, the allowable PM emission rate from emission units 50D101 and 50F106 shall not exceed 1.1 and 0.1 pounds per hour, respectively.

D.6.4 Volatile Organic Compounds: Best Available Control Technology [326 IAC 8-1-6] [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3, and 326 IAC 8-1-6, the VOC BACT for emission units 45V223, 45V240, 45V241, 45V242, 45V243, 45V246, 45V247, 45V248, 45V270, 45V271, 45V280, 45V281, 45V292, 45V293, 45V294, 45V295, 45V296, and 45VFF shall be the use of the scrubbers 45F212, and 45FAA; and

(a) The VOC emissions from scrubbers 45F212, and 45FAA controlling emissions from emission units 45V223, 45V240, 45V241, 45V242, 45V243, 45V246, 45V247, 45V248, 45V270, 45V271, 45V280, 45V281, 45V292, 45V293, 45V294, 45V295, 45V296, and 45VFF shall not exceed 3.25 lbs per 100,000 lbs of acid-killed starch and 6 lbs per 100,000 lbs of non-acid-killed starch (equivalent to a minimum 95% overall control efficiency).

(b) The combined propylene oxide input to facilities (listed in Section D.5) 45V292, 45V293, 45V294, 45V295, 45V296, 45VFF, 40V1, 40U2, 40Y1, 40V50, 40V20, 40V21, 40V15, 40V16, 40F51, 40F52, 40F53, 40F54, 40U23, 43V71, 43V72, 43F71, 43F72, 43F73, 43V85, 43V86, 45V117, 45V118, 45V119, 45V120, 30V1, 30V2, 40V12, 40V11, 40V14, 45V223, 45V240, 45V241, 45V242, 45V243, 45V246, 45V247, 45V248, 45V270, 45V271, 45V280, 45V281, 44V1, 44V2, 44V3, 44V4, 44V5,44FKK, 44FLL, 44FMM, 46V200, 46V201, 46V204, 46V213, and 46V297; and (listed in Section D.6) 40D1, 40D20, 43D71, 41D1, 41D2, 41D3, 41D4, 41D5, 41D6, 41D7, 41D8, 19D301, 19D302, 19D303, 41D12, 41D13, 41D14, 30D1, 16D4, 16D5, 44DAA, and 46D200 shall not exceed 1,500 tons for propylated starch reactions that do not undergo the acid-kill step per twelve consecutive month period with compliance determined at the end of each month.

Compliance Determination Requirements

D.6.5 Particulate Control

(a) In order to comply with Conditions D.6.1, D.6.2 and D.6.3, baghouses, including those integral to the process, 40F7, 7F8, 7F9, 7F20, 7F21, 7F22, 40F28, 40F29, 7F33, 7F34, 7F35, 40F88, 43F90, 7F91, 7F92, 41F210, 41F10, 41F11, 41F211, 33F44, 41F13, 30F2, 30F3, 30F15, 41F14, 41F15, 41FMM, 41F20, 41F21, 41F16, 41F17, 41F22, 41F23, 25F1, 25F2, 7F73, 7F72, 7F71, 7F70, 7F69, 7F26, 7F25, 50F102, 50F106, 19F402, 07FDD, 07FEE, 07FAA, 07FBB, 07FCC, 41F45, 41F46, 44FII, 44FJJ, 46F231 through 46F232, 51FCC, 30FAA, 41F47, and 41FPP for particulate control shall be in operation and control particulate emissions from facilities 40F7, 7V8, 7V9, 7V20, 7V21, 7V22, 40G20, 40G21, 40G88, 7V23, 7V34, 7V35, 43V90, 7V91, 7V92, 41G200, 41V10, 41V11, 41G201, 33V44, 41F13, 30D1, 30G1, 41C30, 41C35, 41V14, 41V15, 41V17, 41V18, 7F25, 7F26, 7V46, 7V47, 7V48, 7V49, 7V50, 25G1, 25F1, 50D101, 50F106, 19G401, 07VDD, 07VEE, 07VAA, 07VBB, 07VCC, 41V45, 41V46, 44GAA, 44GBB, 46D200, 51DAA, 30GAA, 41V47, and 41VKK at all times those facilities are in operation.

(b) Pursuant to CP 157-5294-00003, issued September 5, 1996, A 157-6571-00003, issued October 3, 1996, and in order to comply with Condition D.6.3, the particulate emissions from facilities 41G200, 41V10, 41V11, 41G201, 41F13, 30D1, and 30G1, shall be considered in compliance that:

(1) The respective baghouses shall be operated at all times when the facilities are in operation. To facilitate compliance, opacity shall not exceed three percent (3%), from facilities 41G200, 41V10, 41V11, 41G201, 41F13, and 30D1 and eight percent (8%) from facility 30G1.

(c) In order to comply with Conditions D.6.1, D.6.2 and D.6.3, scrubbers 40F3, 40F26, 16F26, 17F78, 16F27, 17F79, 43F80, and 44FGG for particulate control shall be in operation and control emissions from facilities 40D1, 40D20, 16D4, 16D5, 43D71, and 44DAA at all times the respective facilities are in operation.

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

D.6.6 Testing Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

(a) Within 60 days after achieving the maximum production rate but no later than 180 days after startup of the Flash dryer #4 (44DAA), the Permittee shall perform PM and PM_{10} testing on the Starch Flash Dryer #2 (40D20) and the Starch Flash Dryer #4 (44DAA), to verify compliance with Condition D.6.1(b), utilizing methods as approved by the Commissioner.

(b) Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup, the Permittee shall perform PM and PM_{10} testing on one of the storage bins baghouses 07FAA, 07FBB, 07FCC, 07FDD, and 07FEE; the roll dryer mill baghouse 19F402 and spray dryer #2 mill baghouse 30FAA; and one of the starch milling baghouses 44FII, 44FJJ, 40F28, and 40F29 to verify compliance with Condition D.6.1(a), utilizing methods as approved by the Commissioner.

These tests shall be repeated at least once every five years from the date of this valid compliance demonstration. PM_{10} includes filterable and condensable PM_{10}. Testing shall be conducted in accordance with Section C - Performance Testing.

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

D.6.7 Visible Emissions Notations

(a) Visible emission notations of the stacks 73, 76, 77, 78, 105, 106, 107, 108, 109, 177, 265, 266, 267, 268, 269, 274, 345, 346, 355, 360, and 388 exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, not including operations associated with 50D101 or 50F106, "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, not including operations associated with 50D101 or 50F106, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

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

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

(f) For units 50D101 and 50F106, when abnormal emissions are observed, the Permittee shall complete a Pollution Control Equipment Maintenance and Inspection Log sheet.

D.6.8 Monitoring for Scrubbers

(a) A continuous monitoring system shall be operated at all times scrubber 40F26 is in operation. The monitoring system shall continuously measure and record the scrubber's recirculation rate from scrubber 40F26 controlling emissions from emission unit 40D20. If the 1-hour average recirculation rate is below 300 gallons per minute or a minimum flow rate established during the latest stack test for any one reading, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A 1-hour average flow rate reading that is below the minimum flow rate is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(b) A continuous monitoring system shall be operated at all times scrubber 43F80 is in operation. The monitoring system shall continuously measure and record the scrubber's recirculation rate from scrubber 43F80 controlling emissions from emission unit 43D71. If the 1-hour average recirculation rate is below 300 gallons per minute or a minimum flow rate established during the latest stack test for any one reading, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A 1-hour average flow rate reading that is below the minimum flow rate is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(c) The Permittee shall monitor the scrubbers' recirculation rate at least once per day from scrubbers 40F3, 16F26, 17F78, 16F27, and 17F79 controlling emissions from emission units 40D1, 16D4, and 16D5. If the 1-hour average flow rate reading is outside of the normal range, as specified by the manufacturer, or a minimum flow rate established during the latest stack test for any one reading, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A 1-hour average flow rate reading that is outside of the normal range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(d) A continuous monitoring system shall be installed and operated at all times the scrubber 44FGG is in operation. The monitoring system shall continuously measure and record the scrubber's recirculation rate from scrubber 44FGG controlling emissions from emission unit 44DAA. If the 1-hour average recirculation rate is below 300 gallons per minute or a minimum flow rate established during the latest stack test for any one reading, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A 1-hour average flow rate reading that is below the minimum flow rate is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(e) The instruments used for determining the flow rate shall comply with Section C - Instrument Specifications of this permit and shall be calibrated at least once every six (6) months. The loss of monitoring data due to the calibration of an instrument while the equipment is in operation does not constitute a deviation from this permit.

D.6.9 Monitoring for Baghouses

(a) The Permittee shall record the pressure drop across baghouses 40F88, 43F90, 7F73, 7F72, 7F71, 7F70, 7F69, 19F402, 30FAA, 07FDD, 07FEE, 07FAA, 07FBB, 07FCC, 44FII, 44FJJ, 46F231 through 46F232, 51FCC 40F28, 40F29, 7F20, 7F21, 7F22, and 7F33 used in conjunction with facilities 40G88, 43V90, 7V46, 7V47, 7V48, 7V49, 7V50, 19G401, 30GAA, 07VDD, 07VEE, 07VAA, 07VBB, 07VCC, 44GAA, 44GBB, 46D200, 51DAA, 40G20, 40G21, 7V20, 7V21, 7V22, and 7V23, at least once per day when the respective facilities are in operation.

(b) If, for any one reading, the pressure drop across the baghouse is outside of the normal range of 1 and 8 inches of water or a range established during the last stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(c) The instruments used for determining the pressure shall comply with Section C - Instrument Specifications of this permit, and shall be calibrated at least once every six (6) months.

D.6.10 Broken or Failed Bag Detection

In the event that bag failure has been observed:

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

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

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

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

D.6.11 Record Keeping Requirements

(a) To document compliance with Condition D.6.4, the Permittee shall maintain monthly records for propylated starch reactions that do not undergo the acid-kill step to facilities 45V292, 45V293, 45V294, 45V295, 45V296, 45VFF, 40V1, 40U2, 40Y1, 40V50, 40V20, 40V21, 40V15, 40V16, 40F51, 40F52, 40F53, 40F54, 40U23, 43V71, 43V72, 43F71, 43F72, 43F73, 43V85, 43V86, 45V117, 45V118, 45V119, 45V120, 30V1, 30V2, 40V12, 40V11, 40V14, 45V223, 45V240, 45V241, 45V242, 45V243, 45V246, 45V247, 45V248, 45V270, 45V271, 45V280, 45V281, 44V1, 44V2, 44V3, 44V4, 44V5,44FKK, 44FLL, 44FMM, 46V200, 46V201, 46V204, 46V213, 46V297, 40D1, 40D20, 43D71, 41D1, 41D2, 41D3, 41D4, 41D5, 41D6, 41D7, 41D8, 19D301, 19D302, 19D303, 41D12, 41D13, 41D14, 30D1,16D4, 16D5, 44DAA; and 46D200. This record is the same record as required in Condition D.5.13 (b).

(b) The maximum production capacity of the #2 Flash Dryer System is treated as confidential and shall be kept at the emission source for the life of the facility.

(c) To document compliance with Condition D.6.7, the Permittee shall maintain records of the visible emission notations of the stacks exhaust.

(d) To document compliance with Conditions D.6.8(a) and D.6.8(b), the Permittee shall maintain records of the scrubbers' recirculation rates as read by the continuous monitor for 40F26 and 43F80.

(e) To document compliance with Condition D.6.8 (c), the Permittee shall maintain records of the recirculation rates from the scrubbers identified in Condition D.6.8(c).

(f) To document compliance with Conditions D.6.8(d), the Permittee shall maintain records of the scrubber's recirculation rate as read by the continuous monitor for scrubber 44FGG.

(g) To document compliance with Condition D.6.9, the Permittee shall maintain records of the pressure drop during normal operation.

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

D.6.12 Reporting Requirements

A quarterly summary of the information used to document compliance with Condition D.6.4(b) 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).

Clean Unit [326 IAC 2-2.2-2]

D.6.13 Clean Unit [326 IAC 2-2.2-2]

Pursuant to 326 IAC 2-2.2-2:

(a) The following emissions units are classified as Clean Units for PM/PM_{10}:

(1) Product Storage Bin #AA (07VAA),

(2) Product Storage Bin #BB (07VBB),

(3) Product Storage Bin #CC (07VCC),

(4) Starch Blend Bin #1 (07VDD),

(5) Starch Blend Bin #2 (07VEE),

(6) Product Storage Bin #46 (41V46),

(7) Roll Dryer System Mill (19G401),

(8) Product Transfer to Bins 14& 15 (41C30),

(9) Product Transfer to Bins 17 & 18 (41C35),

(10) Product Bin 14 (41V14),

(11) Product Bin 15 (41V15),

(12) Product Bin 17 (41V17),

(13) Product Bin 18 (41V18),

(14) Product Storage Bin #45 (41V45),

(15) Product Storage Bin (33V44),

(16) Mill #3 (44GAA),

(17) Mill #4 (44GBB),

(18) Starch Grinder/Mill #1 (40G20),

(19) Starch Grinder/Mill #2 (40G21),

(20) Starch Product Bin #20 (7V20),

(21) Starch Product Bin #21 (7V21),

(22) Starch Product Bin #22 (7V22),

(23) Starch Product Bin #23 (7V23),

(24) Spray Dryer #2 (46D200),

(25) Spray Dryer #3 (51DAA),

(26) Starch Flash Dryer #2 (40D20), and

(27) Starch Flash Dryer #4 (44DAA).

(b) The following emissions units are classified as Clean Units for NOx:

(1) Starch Spray Dryer #2 (46D200),

(2) Starch Spray Dryer #3 (51DAA), and

(3) Starch Flash Dryer #4 (44DAA).

(c) The Clean Unit designations for the above emissions units are in effect for ten (10) years after the issuance date of the source modification permit or the date the emission's unit control technology is placed in service, whichever is later.

SECTION D.7 FACILITY OPERATION CONDITIONS

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

(g) Starch Packaging and Loadout Operations, consisting of:

(1) One (1) Product Bin #6/House Vacuum System, identified as 17V6 and 17F5, constructed in 1984, with emissions controlled by baghouse 17F6, and exhausting via vent 190 into stack 177;

(2) One (1) Product Transfer to Main Packer #1, identified as 16F5, constructed in 1966, with emissions controlled by baghouse 16F5, and 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, and exhausting to stack 102;

(4) One (1) Packer #1, identified as 17Z38, constructed in 1966, with emissions controlled by baghouse 17F10, and exhausting into stack 177;

(5) One (1) Reprocess Bag/Tote Dump, identified as 17U58, constructed in 1997, with emissions controlled by baghouse 17F58, and 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, and exhausting to stack 177;

(7) One (1) Bag Packer #2, identified as 17Z01, constructed in 1995, with emissions controlled by baghouse 17F01, and exhausting to stack 177;

(8) One (1) Spray Cook Starch Product Transfer to Bag Packer #3 (41Z3), identified as 41F7, constructed in 1986, with emissions controlled by baghouse 41F7, and exhausting via vent 184 to stack 355;

(9) One (1) Spray Cook/O.S. Starch Products Bag Packer #3, identified as 41Z 3, constructed in 1986, with emissions controlled by baghouse 41F7 or baghouse 41F181, and exhausting via vent 184 to stack 355;

(10) One (1) Roll Dried Starch Product Transfer to Bag Packer #3 (41Z5), identified as 41F18, constructed in 1986, with emissions controlled by baghouse 41F18, and exhausting via vent 186 to stack 355;

(11) One (1) Roll Dried Starch Products Bag Packer #3, identified as 41Z 5, constructed in 1986, with emissions controlled by baghouse 41F18, and exhausting via vent 186 to stack 355;

(12) One (1) Bag Packer #4, identified as 17Z03, constructed in 1995, with emissions controlled by baghouses 17F03 and 17F04, and exhausting via vent 332 to stack 356;

(13) One (1) House Dust Collection System for Bag Packer #4, identified as 17F15, constructed in 1995, with emissions controlled by baghouse 17F15, and exhausting via vent 333 to stack 356;

(14) One (1) Bag Packer #3 House Dust Collector, identified as 41F44, constructed in 1995, with emissions controlled by baghouse 41F44, and exhausting via vent 256 to stack 361;

(15) One (1) Product Transfer for #1 Bulk Bagger, identified as 16F25, constructed in 1988, with emissions controlled by baghouse 16F25, and exhausting via vent 191 into stack 177;

(16) One (1) Bulk Bagger #2, identified as 17Z14, constructed in 1996, with emissions controlled by baghouse 17F14, and 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, and exhausting via vent 208 to stack 355;

(18) One (1) Bulk Starch Rail Loadout (Track #10), identified as 20F60, constructed in 1993, with emissions controlled by baghouse 20F60, and exhausting via vent 79 to stack 404;

(19) One (1) Starch Truck/Rail Loadout (Track #9), identified as 20F61, constructed in 1966, with emissions controlled by baghouse 20F61, and exhausting via vent 135 to stack 404;

(20) One (1) J4 Starch Rail Loadout System, identified as 16F100, constructed in 1989, with emissions controlled by baghouse 16F100, and exhausting via vent 183 into stack 177;

(21) One (1) Dextrin/Roll/Spray Cooked Starch Bulk Truck Loadout, identified as 33 Bldg. Truck Loadout, constructed in 1988, with emissions controlled by baghouses 41F6 and 41FLL, and 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, and exhausting via vent 264 to stack 404;

(23) One (1) Bulk #1 Product Screening System, identified as 20F1, constructed in 1997, with emissions controlled by baghouse 20F1, and exhausting via vent 330 to stack 404;

(24) One (1) Bulk #2 Product Screening System, identified as 20F50, constructed in 1997, with emissions controlled by baghouse 20F50, and exhausting via vent 331 to stack 404;

(25) One (1) Spray Dryer #3 Packer Baghouse (Pneumatically transferred), identified as 51FDD, with emissions controlled by baghouse 51FDD, and exhausting via vent 362 to stack 361;

(26) Two (2) Packer #6 Product Receivers, identified as 17FBB and 17FDD, with emissions controlled by baghouses 17FBB and 17FDD, and exhausting via vent 380 to stack 356;

(27) One (1) Packer #6 House Dust Collector, identified as 17FCC, with emissions controlled by baghouse 17FCC, and exhausting via vent 381 to stack 356;

(28) One (1) Bulk Bagger #4 Product Receiver, identified as 17FAA, with emissions controlled by baghouse 17FAA, and exhausting via vent 382 to stack 356;

(29) One (1) #3 Bulk Starch Rail Loadout Receiver, identified as 20FAA, with emissions controlled by baghouse 20FAA, and exhausting via vent 263 to stack 404;

(30) One (1) #3 Bulk Loadout Screening System Filter Receiver, identified as 20FBB, with emissions controlled by baghouse 20FBB, and exhausting via vent 393 to stack 404;

(31) One (1) Bag Dump Station Bin Vent, identified as 18FBB, with emissions controlled by baghouse 18FBB, and exhausting indoors via vent 426;

(32) One (1) O.S. Starch Product Transfer to Bag Packer #3 (41Z3), identified as 41F181, with emissions controlled by baghouse 41F18, and exhausting via vent 184 to stack 355.

(33) One (1) Malto Product Transfer to Bag Packer #3 (41Z1), identified as 41F182, with emissions controlled by baghouse 41F182, and exhausting via vent 428 to stack 355;

(34) One (1) Malto Products Bag Packer #3, identified as 41Z1, with emissions controlled by baghouse 41F182, and exhausting via vent 428 to stack 355;

(35) One (1) Dry Starch Reacted Product Transfer to Bag Packer #3 (41Z2), identified as 41F183, with emissions controlled by baghouse 41F183, and exhausting via vent 429 to stack 355;

(36) One (1) Dry Starch Reacted Products Bag Packer #3, identified as 41Z2, with emissions controlled by baghouse 41F183, and exhausting via vent 429 to stack 355; and

(37) One (1) Bag Packer #3 House Dust Collector, identified as 41F186, with emissions controlled by baghouse 41F186, and exhausting via vent 430 to stack 355.

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

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

D.7.1 Prevention of Significant Deterioration BACT Requirements [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3:

(a) the following emission units shall be controlled for PM and PM_{10} using BACT:

(1) Spray Dryer #3 Packer Baghouse (51FDD),

(2) Packer #6 Product Receivers (17FBB and 17FDD),

(3) Packer #6 House Dust Collector (17FCC),

(4) Bulk Bagger #4 Product Receiver (17FAA),

(5) #3 Bulk Starch Rail Loadout Receiver (20FAA),

(6) #3 Bulk Loadout Screening System Filter Receiver (20FBB),

(7) Bulk Starch Rail Loadout (20F60),

(8) Bag Dump Station (18FBB),

(9) Packer #3 Product Receivers and Packers (41F7, 41F181, 41Z3; 41F18, 41Z5; 41F182, 41Z1; and 41F183, and 41Z2); and

(10) Packer #3 House Dust Collector (41F186).

(b) For these units, the BACT for PM and PM_{10} (Filterable and Condensable) is the use of baghouses with an emission rate of 0.005 gr/dscf; and

(1) the total PM /PM_{10} (Filterable and Condensable) emissions shall be limited to as follows:

Emission Unit	Baghouse	Lb/hr
51FDD	51FDD	0.06
17FBB &17FDD	17FBB &17FDD	0.13
17FCC	17FCC	0.67
17FAA	17FAA	0.08
20FAA	20FAA	0.08
20FBB	20FBB	0.09
20F60	20F60	0.09
18FBB	18FBB	0.02
41F7	41F7	0.11
41F181	41F181	
41Z3	41F7 or 41F181	
41F18	41F18	0.11
41Z5	41F18	
41F182	41F182	0.11
41Z1	41F182	
41F183	41F183	0.11
41Z2	41F183	
41F186	41F186	0.65; and

(2) The opacity from the stack exhausts except from Spray Dryer #3 Packer Baghouse (51FDD) and Bagdump Station shall not exceed 3%;

(3) The opacity from Spray Dryer #3 Packer Baghouse (51FDD) shall not exceed 8%; and

(4) The Bag Dump Station (18FBB) shall exhaust inside the building.

D.7.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emissions Limitations for Manufacturing Processes), particulate emissions from emission units 17V6, 17F5, 16F5, 17F27, 17Z38, 17U58, 17Z01, 17F2, 41F7, 41Z5, 41F18, 41Z3, 41F44, 17Z03, 17F15, 16F25, 17Z14, 41F8, 41F81, 41F82, 20F61, 16F100, 41F6, 20F78, 20F79, 20F1, 20F50, and 41FLL, 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:

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

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

(b) Pursuant to CP 157-4160-00003, issued April 5, 1995, and in order to ensure compliance with 326 IAC 6-3-2, the PM emissions from facilities 17Z01, 17F2, 17Z14, and Truck Loadout, are limited as indicated in the table below:

Facility	Stack	PM emission limit lb/hr
Bag Packer #2 (17Z01)	177	0.17
House Dust Collector Bag Packer #2 (17F2)	177	1.1
Bulk Bagger #2 (17Z14)	254	0.08
Pneumatic Truck Loadout (Truck Loadout)	404	0.12

(c) Pursuant to CP 157-5294-00003, issued September 5, 1996, A 157-6571-00003, issued October 3, 1996, revised through the Part 70 permit, and in order to comply with 326 IAC 6-3-2, the particulate matter emissions from facilities 41F8, 41F81, 41F82, 41F6, and 41FLL are limited as indicated in the table below:

Facility	Stack	PM_{10} emission limit (pounds per hour)	PM_{10} emission limit (tons per 12 mo)
Product Transfer System for #3 Bulk Bagger (41F8, 41F81, and 41F82)	355	0.11	0.48
33 Bldg. Dextrin/Roll /Spray Cooked Starch Bulk Truck Loadout (41F6 and 41FLL)	189	0.04	0.18

*12 mo. - Twelve consecutive month period with compliance determined at the end of each month.

(d) Pursuant to Exemption 157-8071-00003, issued February 7, 1997, the PM emissions from 20F1 and 20F50 are each limited to 1 pound per hour to ensure compliance with 326 IAC 6-3-2.

(e) Pursuant to CP 157-4569-00003, issued September 21, 1995, and A 157-6180-00003:

(1) The PM emissions from 17Z03 (controlled by baghouses 17F15, 17F03 and 17F04) shall not exceed 2.2 pounds per hour (equivalent to less than or equal to 9.63 tons per year) to ensure compliance with 326 IAC 6-3-2; and

(2) Only one of the baghouses, 17F03 or 17F04, shall be operated at a time.

Compliance Determination Requirements

D.7.3 Particulate Control

(a) In order to comply with Condition D.7.1 and Condition D.7.2, baghouses, including those integral to the process, 17F6, 17F5, 16F5, 17F27, 17F10, 17F58, 17F01, 17F2, 41F7, 41F18, 41F44, 17F03, 17F04, 17F15, 16F25, 17F14, 41F8, 41F81, 41F82, 20F60, 20F61, 16F100, 41F6, 20F78, 20F79, 20F1, 20F50, 41FLL, 41F181, 51FDD, 17FBB, 17FDD, 17FCC, 17FAA, 20FAA, 20FBB, 18FBB, 41F182, 41F183, and 41F186 for particulate control shall be in operation and control particulate emissions from emission units 17V6, 17F5, 16F5, 17F27, 17Z38, 17U58, 17Z01, 17F2, 41F7, 41Z5, 41F18, 41Z3, 41F44, 17Z03, 17F15, 16F25, 17Z14, 41F8, 41F81, 41F82, 20F60, 20F61, 16F100, 33 Bldg.

Truck Loadout (41F6 and 41FLL), 20 Building Truck Loadout (20F78 and 20F79), 20F1, 20F50, 41F181, 51FDD, 17FBB, 17FDD, 17FCC, 17FAA, 20FAA, 20FBB, 18FBB, 41F182, 41Z1, 41F183, 41Z2, and 41F186 at all times those emission units are in operation.

(b) Pursuant to CP 157-5294-00003, issued September 5, 1996, A 157-6571-00003, issued October 3, 1996, and in order to comply with Condition D.7.1, the particulate emissions from emission units 41F8, 41F81, 41F82, and 41F6 shall be considered in compliance that:

(1) the respective baghouses shall be operated at all times when the emission units are in operation. To facilitate compliance, opacity shall not exceed zero percent (0%);

(2) only one of the tote packer product receivers (41F8, 41F81, and 41F82) shall be operated at any one time; and.

(3) Following the routing of emission units 41F8, 41F81, and 41F82 to the new starch area stack, S/V 355, opacity limits in D.7.3(b)(1) shall only apply to emission unit 33 Bldg. Truck Loadout (41F6 and 41FLL).

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

D.7.4 Testing Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup, the Permittee shall perform PM and PM_{10} testing on one of the Packer #6 product receiver baghouses 17FBB, and17FDD; and Packer #6 house dust collector 17FCC to verify compliance with Condition D.7.1, utilizing methods as approved by the Commissioner.

(b) Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup of 41F7, 41F181, 41F18, 41F182, and 41F183, the Permittee shall perform PM and PM_{10} testing on Packer #3 house dust collector 41F186 to verify compliance with Condition D.7.1, utilizing methods as approved by the Commissioner.

These tests shall be repeated at least once every five years from the date of this valid compliance demonstration. PM_{10} includes filterable and condensable PM_{10}. Testing shall be conducted in accordance with Section C- Performance Testing.

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

D.7.5 Visible Emissions Notations

(a) Visible emission notations of the stacks 102, 177, 355, 356, 361, and 404 exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

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

D.7.6 Monitoring for Baghouses

(a) The Permittee shall record the pressure drop across baghouses 17F10, 17F01, 41F44, 17F15, 51FDD, 17FBB, 17FDD, 17FCC, 17FAA, 20FAA, 20FBB, 20F60, 41F7, 41F181, 41F18, 41F182, 41F183, and 41F186 used in conjunction with facilities 17Z38, 17Z01, 41F44, 17F15, 51FDD, 17FBB, 17FDD, 17FCC, 17FAA, 20FBB, 20F60; 41F7, 41F181, 41Z3; 41F18, 41Z5; 41F182, 41Z1; 41F183, 41Z2; and 41F186 at least once per day when the respective facilities are in operation.

(b) The Permittee shall record the pressure drop across baghouses 17F6, 16F5, 17F27, 20F61 and 16F100, used in conjunction with facilities 17V6, 17F5, 17F27, 20F61, and 16F100, at least once per day when the respective facilities are in operation.

(c) If, for any one reading, the pressure drop across the baghouses are outside of the normal range of 1 and 8 inches of water or a range established during the last stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(d) The instruments used for determining the pressure shall comply with Section C - Instrument Specifications of this permit, and shall be calibrated at least once every six (6) months.

D.7.7 Broken or Failed Bag Detection

In the event that bag failure has been observed:

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

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

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

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

D.7.8 Record Keeping Requirements

(a) To document compliance with Condition D.7.5, the Permittee shall maintain records of visible emission notations of the stacks exhaust.

(b) To document compliance with Condition D.7.6, the Permittee shall maintain records of the pressure drop during normal operation.

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

Clean Unit [326 IAC 2-2.2-2]

D.7.9 Clean Unit [326 IAC 2-2.2-2]

Pursuant to 326 IAC 2-2.2-2:

(a) The following emissions units are classified as Clean Units for PM/PM_{10}:

(1) Spray Dryer #3 Packer Baghouse (51FDD),

(2) Packer #6 Product Receivers (17FBB and 17FDD),

(3) Packer #6 House Dust Collector (17FCC),

(4) Bulk Bagger #4 Product Receiver (17FAA),

(5) #3 Bulk Starch Rail Loadout Receiver (20FAA),

(6) #3 Bulk Loadout Screening System Filter Receiver (20FBB),

(7) Bulk Starch Rail Loadout (20F60), and

(8) Bag Dump Station (18FBB).

(b) The Clean Unit designations for the above emissions units are in effect for ten (10) years after the issuance date of the source modification permit or the date the emissions unit's control technology is placed in service, whichever is later.

SECTION D.10 **FACILITY OPERATION CONDITIONS**

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

(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, 21D7, and 21D8; fiber flash dryer furnace 21B501; and gluten flash dryer 48D101; and if the biogas produced exceeds these emissions units' capacity, then the gas is flared off.

(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.10.1 Prevention of Significant Deterioration [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3, issued March 31, 1986, the SO_2 BACT for emission unit 34V10 shall be the use of alkaline scrubber 34V11; and

(a) the scrubber shall have a minimum H_2S control efficiency of 90%, and shall not exceed 9 lbs/hr SO_2 (equivalent to 4.78 lbs/hr of H_2S) in the scrubber outlet, when the inlet H_2S concentration to the scrubber is more than 1.1% by volume;

(b) the scrubber shall have an outlet H_2S concentration of less than 0.11% by volume, and shall not exceed 9 lbs/hr SO_2 (equivalent to 4.78 lbs/hr H_2S) in the scrubber outlet if the inlet concentration of H_2S is 1.1% by volume or less;

(c) To determine compliance with Condition D.10.1(a) and (b), the hydrogen sulfide content of the untreated biogas, the hydrogen sulfide content of the biogas treated by the biogas scrubber (34V11), the temperature of the biogas at the time of testing, and the total amount of biogas treated by the scrubber (34V11) shall be measured on a daily basis and used to calculate an average hourly sulfur dioxide emission rate and scrubber removal efficiency. If the biogas is directed to the emergency flare (34Z1), the hydrogen sulfide content of the untreated biogas, the temperature of the untreated biogas at the time of testing, and the total amount of untreated biogas burned by the emergency flare (34Z1) shall be measured on a daily basis and used to calculate a daily sulfur dioxide emission rate; and

(d) The Permittee shall notify the IDEM, OAQ within two working days of any period if any H_2S is emitted directly to the atmosphere without being burned.

Compliance Determination Requirements

D.10.2 Sulfur Dioxide (SO_2)

In order to comply with Condition D.10.1:

(a) The scrubber (34V11), used to prevent SO_2 emissions by removing H_2S from biogas, shall be in operation at all times when biogas is produced from the anaerobic treatment system (34V10) and used by dryers 21D6, 21D7, 21D8; fiber flash dryer furnace 21B501; and gluten flash dryer 48D101;

(b) The main flare (21Z1), used to control H_2S emissions from the exhaust of scrubber 34V11 shall be in operation at all times biogas is routed to scrubber 34V11;

(c) When the amount of the biogas produced by anaerobic treatment system 34V10 exceeds the capacities of dryers 21D6, 21D7, 21D8; fiber flash dryer furnace 21B501; gluten flash dryer 48D101; and the main flare (21Z1), then the emergency flare (34Z1) shall operate to combust the biogas at all times when biogas may be vented to it; and

(d) Whenever inspection or maintenance of the biogas scrubber (34V11) or blowers occurs that requires biogas from the anaerobic digester (34V10) be isolated to allow that maintenance to be performed safely, and then the emergency flare (34Z1) shall operate to combust the biogas at all times when biogas may be vented to it.

D.10.3 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

H_2S testing on the inlet and outlet of the biogas scrubber (34V11) to verify compliance with the PSD BACT limit in Condition D.10.1 was performed on May 3, 2006. All hydrogen sulfide measured will be assumed to have been converted to sulfur dioxide in flares 21Z1 and 34Z1; feed dryers 21D6, 21D7, and 21D8; fiber flash dryer furnace 21B501; and gluten dryer 48D101. 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.

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

D.10.4 Flare Pilot Flame

The presence of a flare pilot flame (for flares 21Z1 and 34Z1) shall be monitored using a thermocouple, or any other equivalent device, to detect the presence of a flame.

D.10.5 Monitoring for Scrubber

(a) The Permittee shall monitor the scrubber pH of the scrubbing liquor at least once per day from scrubber 34V11 used to scrub the biogas from 34V10.

(b) A continuous monitoring system shall be operated at all times scrubber 34V11 is in operation. The monitoring system shall continuously measure and record the scrubber recirculation rate from scrubber 34V11 controlling emissions from emission unit 34V10. If the pH reading is outside of the normal range, or the 1-hr average flow rate is below the minimum flow rate for any one reading, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances.

(1) The normal pH range for Scrubber 34V11 is 9 to 11.5 or the range established during the latest stack test. The minimum 1-hr average flow rate for Scrubber 34V11 is 70 gpm or a minimum flow rate established during the latest stack test.

(c) A pH reading that is outside of the normal range, or the 1-hr average flow rate that is below the minimum flow rate for any one reading is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(d) The instruments used for determining the flow rate and pH shall comply with Section C - Instrument Specifications of this permit, and shall be calibrated at least once every six (6) months. The loss of monitoring data due to the calibration of an instrument while the equipment is in operation does not constitute a deviation from this permit.

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

D.10.6 Record Keeping Requirements

(a) To document compliance with Condition D.10.1, the Permittee shall maintain:

(1) A log of the daily H_2S content before and after the scrubber (34V11), temperature, and the total amount of the biogas burned in the main flare (21Z1), feed dryers (21D6, 21D7, 21D8), fiber flash dryer furnace (21B501), gluten flash dryer (48D101), and emergency flare (34Z1); and

(2) Records of all calculations used to determine the SO_2 emissions from the combustion of biogas in the main flare (21Z1), feed dryers (21D6, 21D7, 21D8), fiber flash dryer furnace (21B501), gluten flash dryer (48D101), and emergency flare (34Z1).

(b) To document compliance with Condition D.10.5, the Permittee shall maintain records of the scrubber's pH and scrubber's recirculation rate from scrubber 34V11.

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

Clean Unit [326 IAC 2-2.2-2]

D.10.7 Clean Unit [326 IAC 2-2.2-2]

Pursuant to 326 IAC 2-2.2-2:

(a) The following emissions unit is classified as Clean Unit for SO_2:

One (1) Wastewater Treatment Anaerobic Digester (34V10).

(b) The Clean Unit designations for the above emissions units are in effect for ten (10) years after the issuance date of the source modification.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Data Section

Part 70 Quarterly Report

Source Name: Tate & Lyle - Sagamore Plant
Source Address: 2245 North Sagamore Parkway, Lafayette, IN 47902
Mailing Address: 2245 North Sagamore Parkway, Lafayette, IN 47902
Part 70 Permit No.: T157-6009-00003
Facility: Starch production facilities (listed in Section D.5) 45V292, 45V293, 45V294, 45V295, 45V296, 45VFF, 40V1, 40U2, 40Y1, 40V50, 40V20, 40V21, 40V15, 40V16, 40F51, 40F52, 40F53, 40F54, 40U23, 43V71, 43V72, 43F71, 43F72, 43F73, 43V85, 43V86, 45V117, 45V118, 45V119, 45V120, 30V1, 30V2, 40V12, 40V11, 40V14, 45V223, 45V240, 45V241, 45V242, 45V243, 45V246, 45V247, 45V248, 45V270, 45V271, 45V280, 45V281, 44V1, 44V2, 44V3, 44V4, 44V5,44FKK, 44FLL, 44FMM, 46V200, 46V201, 46V204, 46V213, 46V297; and (listed in Section D.6) 40D1, 40D20, 43D71, 41D1, 41D2, 41D3, 41D4, 41D5, 41D6, 41D7, 41D8, 19D301, 19D302, 19D303, 41D12, 41D13, 41D14, 30D1, 16D4, 16D5, 44DAA, and 46D200.

Parameter: Propylene oxide (PO) input for propylated starch reactions that do not undergo the acid-kill step

Limit: Fifteen hundred (1,500) tons propylene oxide per twelve consecutive month period with compliance determined at the end of each month.

YEAR:

Month	VOC Usage This Month	VOC Usage Previous 11 Months	VOC Usage 12 Month Total

No deviation occurred in this quarter.

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

Submitted by: ______________________________

Title / Position: ______________________________

Signature: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report

Indiana Department of Environmental Management

Office of Air Quality

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

Source Name:	Tate & Lyle, Sagamore
Source Location:	2245 North Sagamore Parkway, Lafayette, IN 47902
County:	Tippecanoe
SIC Code:	2046
Operation Permit No.:	T 157-6009-00003
Operation Permit Issuance Date:	June 28, 2004
Significant Source Modification No.:	157-22808-00003
Significant Permit Modification No.:	157-23285-00003
Permit Reviewer:	Dr. Trip Sinha / Aida De Guzman

On November 12, 2006, the Office of Air Quality (OAQ) had a notice published in the Journal and Courier in Lafayette, Indiana, stating that Tate & Lyle, Sagamore had applied for a significant source modification and a significant permit modification, relating to several changes needed to accommodate the planned expansion of the plant permitted in PSD and SSM No. 157-18832-00003. 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 these permits should be issued as proposed.

On December 4, 2006, Tate & Lyle, Sagamore, submitted the following comments to the proposed significant source modification and significant permit modification (additions are **bolded** and deletions are ~~struck-through~~ for emphasis):

Comment 1: The following emission unit has been overlooked from among the list of emission units in the cover letter to the draft SSM, please add this emission unit after item (2):

"One (1) Gluten Vacuum Filter 21F5"

Comment 2: The Feed Loadout Hopper 21V125, listed as item (8) in the SSM cover letter, should be deleted from the list. This is not a new emission unit and was described in the April 8, 2004 PSD permit application as 21VAA. In the previous permit application, the hopper was aspirated to Feed Mill 21G52. Feed Mill 21G52 is being replaced by Feed Mill 21G352 which will be located in a different location in the facility. Therefore, aspiration of this existing feed loadout hopper will be provided by the Feed Cooler 21D8 (formerly Meal Dryer 21D8) where the aspirated air will be used as cooling air.

Comment 3: Roll Dryer Mills 41G200 and 41G201, listed as items (15) and (16) in the cover letter, should be deleted from the list since these two sources are existing roll dryer starch milling systems constructed in 1986 and 1993 respectively. Finally, item (20) should be revised to eliminate the tag number "41Z1" as follows to clarify that the emission unit is a product transfer receiver.

"One (1) Malto Product Transfer to Bag Packer #3 (~~41Z1~~ 41F182~~,~~)"

Response 1, 2 and 3: The SSM letter has been revised to add the one (1) Gluten Vacuum Filter 21F5 and has been numbered as item (3). The Feed Loadout Hopper 21V125, listed as item (8), Roll Dryer Mills 41G200, and 41G201, listed as items (15) and (16) have been deleted from the SSM letter as requested. The list of emission units have been re-numbered accordingly:

(1) One (1) baghouse 08F300,

(2) One (1) Gluten Vacuum Filter Pump 21C105,

(3) One (1) Gluten Vacuum Filter 21F5

(~~3~~ **4**) One (1) Fiber Flash Dryer 21D501,

(~~4~~ **5**) One (1) Fiber Flash Dryer Furnace 21B501,

(~~5~~ **6**) One (1) Feed Mill 21G351,

(~~6~~ **7**) One (1) Feed Mill 21G352,

(~~7~~ **8**) One (1) Corn Cleanings Receiver 21F304,

~~(8) One (1) Feed Loadout Hopper 21V125,~~

(9) One (1) Feed Milling Loadout Conveyor 21U314,

(10) One (1) Gluten Meal Transfer to Storage Bin 12FAA,

(11) One (1) Gluten Meal Storage Bin 12VAA,

(12) Two (2) Gluten Truck and Rail Loadout Conveyors 12UAA and 12UBB,

(13) One (1) Germ Storage Bin 12VCC,

(14) One (1) Germ Rail Loadout Conveyor 12UCC,

~~(15) One (1) Roll Dryer Mill 41G200,~~

~~(16) One (1) Roll Dryer Mill 41G201,~~

(~~17~~ **15**) One (1) Spray Dryer #2 Mill 30GAA,

(~~18~~**16**) One (1) Product Bin #47 41V47,

(~~19~~ **17**) One (1) Product Bin #KK 41VKK,

(~~20~~ **18**) One (1) Malto Product Transfer to Bag Packer #3 (~~41Z1~~ 41F182),

(~~21~~**19**) One (1) Malto Products Bag Packer #3 41Z1,

(~~22~~ **20**) One (1) Dry Starch Reacted Product Transfer to Bag Packer #3 41F183,

(~~23~~ **21**) One (1) Dry Starch Reacted Products Bag Packer #3 41Z2,

(~~24~~ **22**) One (1) Bag Packer #3 House Dust Collector 41F186, and

(~~25~~**23**) Modification of the existing emissions units to accomplish this project.

Comment 4: The following emission unit descriptions in Sections A and D of the draft SPM and draft SSM should be revised to eliminate the phrase " to be constructed in 2006/2007" because Tate & Lyle cannot be certain all of these facilities will be constructed before the end of 2007. Inclusion of a potentially inaccurate construction date at this time will only lead to confusion in the future. Tate & Lyle believes the actual construction dates for this proposed equipment should be added the next time the permits are either revised or renewed.

Permit Section	Draft SPM (Page No.)	Draft SSM (Page No.)
A.2(a)(12) to A.2(a)(15)	10	N/A
A.2(b)(60) to A.2(b)(61)	14	N/A
A.2(b)(65) to A.2(b)(68)	14	N/A
A.2(f)(57) to A.2(f)(79)	26-27	N/A
D.1(a)(12) to D.1(a)(15)	55-56	7-8
D.2(b)(60) to D.2(b)(61)	63	15
D.2(b)(63) to D.2(b)(64)	N/A	15
D.2(b)(65) to D.2(b)(68)	63	15-16
D.6(f)(57) to D.6(f)(79)	113-114	65-66

Response 4: The phrase "in 2006/2007" has been changed to "permitted in 2007" in the Significant Source Modification and Significant Permit Modification as follows:

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

The emissions unit numbers have been renumbered because of the additions and deletions of the emissions units from SSM 157-18832-00003 and SPM 157-20671-00003.

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

(a) Corn Receiving and Handling Operations, consisting of:

(12) Two (2) Corn Storage Silos, identified as 13VAA and 13VBB, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 08F300, and exhausting to stack 433;

(13) One (1) Vibrating Corn Cleaning System, identified as 14JAA, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 08F300, and exhausting to stack 433;

(14) One (1) Bucket Elevator from Silos to Steeps, identified as 14UBB, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 08F300, and exhausting to stack 433; and

(15) One (1) Vibrating Corn Cleaning Pneumatic Transfer, identified as 21FMM, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 08F300, and exhausting to stack 433.

(b) Wet Milling Operations, consisting of:

(60) Eight (8) Steep Tanks, identified as 14V400, 14V401, 14V402, 14VDD, 14VEE, 14VFF, 14VGG and 14VHH, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(61) One (1) High DS Starch Vacuum Filter, identified as 18FAA, **permitted in 2007** ~~to~~

~~be constructed in 2006/2007,~~ with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(65) One (1) Gluten Vacuum Filter, identified as 21F6, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(66) One (1) Gluten Vacuum Filter Pump, identified as 21C6, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(67) Fiber Dewatering Screens, identified as 21FNN, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17; and

(68) 8 Bldg. Process Tanks and screens, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17.

(f) Starch Drying and Handling Operation, consisting of:

(57) Starch Roll Dryer #301, identified as 19D301, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions uncontrolled, and exhausting to stack 405;

(58) Starch Roll Dryer #302, identified as 19D302, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions uncontrolled, and exhausting to stack 406;

(59) Starch Roll Dryer #303, identified as 19D303, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions uncontrolled, and exhausting to stack 407;

(60) Starch Roll Dryer #12, identified as 41D12, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions uncontrolled, and exhausting to stack 408;

(61) Starch Roll Dryer #13, identified as 41D13, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions uncontrolled, and exhausting to stack 409;

(62) Starch Roll Dryer #14, identified as 41D14, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions uncontrolled, and exhausting to stack 410;

(63) One (1) Roll Dryer Mill Feed Collector Baghouse, identified as 19F400, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 19F400, and exhausting to the intake of Mill 19G401;

(64) One (1) Roll Dryer System Mill, identified as 19G401, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 19F402, and exhausting via vent 366 to stack 404;

(65) One (1) Starch Blend Bin #1, identified as 07VDD, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 07FDD, and exhausting to stack 383;

(66) One (1) Starch Blend Bin #2, identified as 07VEE, **permitted in 2007** ~~to be~~

~~constructed in 2006/2007,~~ with emissions controlled by baghouse 07FEE, and exhausting to stack 384;

(67) One (1) Product Bin #AA, identified as 07VAA, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 07FAA, and exhausting to stack 385;

(68) One (1) Product Bin #BB, identified as 07VBB, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 07FBB, and exhausting to stack 386;

(69) One (1) Product Bin #CC, identified as 07VCC, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 07FCC, and exhausting to stack 387;

(70) One (1) Product Bin #45, identified as 41V45, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 41F45, and exhausting to stack 226.

(71) One (1) Product Bin #46, identified as 41V46, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 41F46, and exhausting to stack 255;

(72) One (1) Mill #3, identified as 44GAA, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 44FII, and exhausting via vent 389 to stack 388;

(73) One (1) Mill #4, identified as 44GBB, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 44FJJ, and exhausting via vent 390 to stack 388;

(74) One (1) Natural Gas Fired Spray Dryer #2, identified as 46D200, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with heat input capacity of 45 million Btu per hour, with PM and PM_{10} emissions controlled by cyclones 46F221 through 46F224 and baghouses 46F231 through 46F232, and exhausting via vent 360 to stack 360. Nitrogen oxide (NO_X) emissions are controlled by low-NO_X burners rated at 0.04 lb/MMBtu;

(75) One (1) Natural Gas Fired Spray Dryer #3, identified as 51DAA, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with heat input capacity of 16 million Btu per hour, with emissions controlled by cyclones 51FAA and 51FBB and baghouse 51FCC, and exhausting via vent 361 to stack 361. Nitrogen oxide (NO_X) emissions are controlled by low-NO_X burners rated at 0.04 lb/MMBtu;

(76) One (1) Natural Gas Fired Starch Flash Dryer #4, identified as 44DAA, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with heat input capacity of 40 million Btu per hour, with emissions controlled by cyclones 44FAA through 44FFF and wet scrubber 44FGG, and exhausting to stack 388. Nitrogen oxide (NO_X) emissions are controlled by low-NO_X burners rated at 0.04 lb/MMBtu;

(77) One (1) Spray Dryer #2 Mill, identified as 30GAA, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 30FAA, and exhausting via vent 431 to stack 360;

(78) One (1) Product Bin #47, identified as 41V47, **permitted in 2007** ~~to be~~

~~constructed in 2006/2007,~~ with emissions controlled by baghouse 41F47, and exhausting via vent 432; and

(79) One (1) Product Bin #KK, identified as 41VKK, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 41FPP, and exhausting via vent 443.

SECTION D.1

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

(a) Corn Receiving and Handling Operations, consisting of:

(12) Two (2) Corn Storage Silos, identified as 13VAA and 13VBB, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 08F300, and exhausting to stack 433;

(13) One (1) Vibrating Corn Cleaning System, identified as 14JAA, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 08F300, and exhausting to stack 433;

(14) One (1) Bucket Elevator from Silos to Steeps, identified as 14UBB, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 08F300, and exhausting to stack 433; and

(15) One (1) Vibrating Corn Cleaning Pneumatic Transfer, identified as 21FMM, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 08F300, and exhausting to stack 433.

SECTION D.2

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

(b) Wet Milling Operations, consisting of:

(60) Eight (8) Steep Tanks, identified as 14V400, 14V401, 14V402, 14VDD, 14VEE, 14VFF, 14VGG and 14VHH, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(61) One (1) High DS Starch Vacuum Filter, identified as 18FAA, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(65) One (1) Gluten Vacuum Filter, identified as 21F6, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(66) One (1) Gluten Vacuum Filter Pump, identified as 21C6, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(67) Fiber Dewatering Screens, identified as 21FNN, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17; and

(68) 8 Bldg. Process Tanks and screens, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17.

SECTION D.6

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

(f) Starch Drying and Handling Operation, consisting of:

(57) Starch Roll Dryer #301, identified as 19D301, **permitted in 2007** ~~to be constructed in 2006/2007,~~, with emissions uncontrolled, and exhausting to stack 405;

(58) Starch Roll Dryer #302, identified as 19D302, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions uncontrolled, and exhausting to stack 406;

(59) Starch Roll Dryer #303, identified as 19D303, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions uncontrolled, and exhausting to stack 407;

(60) Starch Roll Dryer #12, identified as 41D12, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions uncontrolled, and exhausting to stack 408;

(61) Starch Roll Dryer #13, identified as 41D13, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions uncontrolled, and exhausting to stack 409;

(62) Starch Roll Dryer #14, identified as 41D14, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions uncontrolled, and exhausting to stack 410;

(63) One (1) Roll Dryer Mill Feed Collector Baghouse, identified as 19F400, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 19F400, and exhausting to the intake of Mill 19G401;

(64) One (1) Roll Dryer System Mill, identified as 19G401, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 19F402, and exhausting via vent 366 to stack 404;

(65) One (1) Starch Blend Bin #1, identified as 07VDD, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 07FDD, and exhausting to stack 383;

(66) One (1) Starch Blend Bin #2, identified as 07VEE, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 07FEE, and exhausting to stack 384;

(67) One (1) Product Bin #AA, identified as 07VAA, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 07FAA, and exhausting to stack 385;

(68) One (1) Product Bin #BB, identified as 07VBB, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 07FBB, and exhausting to stack 386;

(69) One (1) Product Bin #CC, identified as 07VCC, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 07FCC, and exhausting to stack 387;

(70) One (1) Product Bin #45, identified as 41V45, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 41F45, and exhausting to stack 226.

(71) One (1) Product Bin #46, identified as 41V46, **permitted in 2007** ~~to be constructed in~~

~~2006/2007,~~ with emissions controlled by baghouse 41F46, and exhausting to stack 255;

(72) One (1) Mill #3, identified as 44GAA, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 44FII, and exhausting via vent 389 to stack 388;

(73) One (1) Mill #4, identified as 44GBB, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 44FJJ, and exhausting via vent 390 to stack 388;

(74) One (1) Natural Gas Fired Spray Dryer #2, identified as 46D200, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with heat input capacity of 45 million Btu per hour, with PM and PM_{10} emissions controlled by cyclones 46F221 through 46F224 and baghouses 46F231 through 46F232, and exhausting via vent 360 to stack 360. Nitrogen oxide (NO_X) emissions are controlled by low-NO_X burners rated at 0.04 lb/MMBtu;

(75) One (1) Natural Gas Fired Spray Dryer #3, identified as 51DAA, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with heat input capacity of 16 million Btu per hour, with emissions controlled by cyclones 51FAA and 51FBB and baghouse 51FCC, and exhausting via vent 361 to stack 361. Nitrogen oxide (NO_X) emissions are controlled by low-NO_X burners rated at 0.04 lb/MMBtu;

(76) One (1) Natural Gas Fired Starch Flash Dryer #4, identified as 44DAA, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with heat input capacity of 40 million Btu per hour, with emissions controlled by cyclones 44FAA through 44FFF and wet scrubber 44FGG, and exhausting to stack 388. Nitrogen oxide (NO_X) emissions are controlled by low-NO_X burners rated at 0.04 lb/MMBtu;

(77) One (1) Spray Dryer #2 Mill, identified as 30GAA, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 30FAA, and exhausting via vent 431 to stack 360;

(78) One (1) Product Bin #47, identified as 41V47, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 41F47, and exhausting via vent 432; and

(79) One (1) Product Bin #KK, identified as 41VKK, **permitted in 2007** ~~to be constructed in 2006/2007,~~ with emissions controlled by baghouse 41FPP, and exhausting via vent 443.

Comment 5: B.22 – Permit Amendment or Modification

Section B.22(d), present in the SPM issued in November 2005, was deleted in the draft SPM without explanation in the Technical Support Document ("TSD"). Tate & Lyle requests either restoration of this paragraph or an explanation for its deletion**.** Section B.22(d) states:

(d) No permit amendment or modification is required for the addition, operation, or removal of a non-road engine, as defined in 40 CFR 80.2.

Response 5: IDEM has removed Condition B.22(d) from Condition B.22 Permit Amendment or Modification, because 40 CFR 89, Appendix A specifically indicates that states are not precluded from regulating the use and operation of nonroad engines, such as regulations on hours of usage, daily mass emission limits, or sulfur limits on fuel, nor are permits regulating such operations precluded, once the engine is no longer new.

Comment 6: C.11 – Maintenance of Continuous Opacity Monitoring Equipment

Section C.11(d)(2) of the draft SPM should be revised by deleting the crossed-out character "~~in~~" located in the third line of the paragraph.

Response 6: Character "~~in~~" in C.11 has been deleted as follows:

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

(d) Whenever a COMS is malfunctioning or will be down for maintenance, or repairs for a period of twenty-four (24) hours or more, a backup COMS is not online within twenty-four (24) hours of shutdown of the primary COMS, the Permittee shall provide a certified opacity reader, who may be an employee~~s~~ of the Permittee or an independent contractor, to self-monitor the emissions from the emission unit stack.

(2) Method 9 opacity readings shall be repeated for a minimum of five (5) consecutive six (6) minute averaging periods at least twice per day during daylight operations, with at least four (4) hours between each set of readings, until a COMS is ~~in~~ online.

Comment 7: Feed/Meal/Germ Production Operations

D.3.1(a)(5) – Prevention of Significant Deterioration

Section D.3.1(e) establishes a BACT determination for the Fiber Flash Dryer Furnace 21B501 as "the BACT for VOC is good combustion practices;" However, Section D.3.1(a)(5) states that BACT for the fiber flash dryer furnace has only been established for NOx. Therefore, Tate & Lyle requests that D.3.1(a)(5) of the draft SSM and SPM be revised as follows:

(5) Fiber Dryer Furnace (31B401) – BACT only for NOx and VOC,

Response 7: This section has inadvertently excluded BACT for VOC. This section has been changed to reflect your comment.

D.3.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

Pursuant to 326 IAC 2-2-3:

(a) The following emission units shall be controlled for PM and PM_{10}, SO_2, VOC, and NOx using the BACT:

(1) RST Feed Dryer (21D301) – No NOx Emissions,

(2) Rotary Steam Tube Germ Dryer (21D401) – No NOx Emissions,

(3) Gluten Flash Dryer (48D101),

(4) Fiber Flash Dryer (21D501),

(5) Fiber Flash Dryer Furnace (21B501) – BACT only for NOx **and VOC**,

(6) Feed Cooler 21D8 (Formerly Meal Dryer 21D8), and

(7) Regenerative Thermal Oxidizers (48F201and 48F202) – BACT only for NOx.

Comment 8: Section D.3.8 of the draft SSM needs to be revised to eliminate cross-outs so that it is identical to Section D.3.8 of the draft SPM.

Response 8: The crossed out has been inadvertently left in the Significant Source Modification permit. This has been deleted in the final permit as follows:

D.3.8 Volatile Organic Compounds (VOC) Control

In order to comply with Condition D.3.1(d), the scrubber~~s~~ 21F13 ~~and 21F311~~, and the Regenerative Thermal Oxidization Units 48F201 and 48F202 for VOC control, shall be in operation and control emissions from emission units 21D301, 21D401, 48D101, and 21D501 at all times when the material feed system to any emission unit that it controls is in operation.

Comment 9: Section D.3.11(d) of the draft SSM and SPM should be revised as follows in order to clarify that response steps are only required when the 1-hr average flow rate is below the minimum flow rate established by Section D.3.11(c).

(d) A ~~flow reading that is outside of the normal range or the~~ 1-hr average flow rate that is below the minimum flow rate for any one reading is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

Response 9: Section D.3.11 on both the Significant Source Modification and Significant Permit Modification has been revised as requested:

D.3.11 Monitoring for Scrubber

(d) A ~~flow reading that is outside of the normal range or the~~ 1-hr average flow rate that is below the minimum flow rate for any one reading is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

Comment 10: D.3.21 - Table 9 to Subpart DDDDD of Part 63 - Reporting Requirements

Item 1.c. in Table 9 of Section D.3.21 of the draft SSM needs to be revised as follows to eliminate the reference to monitoring systems so that it is identical to Item 1.c. of the draft SPM. These monitoring systems are not required for the fiber flash dryer furnace.

c)If you have a deviation from any emission limitation (emission limit and operating limit) or work practice standard during the reporting period, the report must contain the information in §63.7550(d); and ~~If there were periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control, as specified in § 63.8(c)(7), the report must contain the information in § 63.7550(e); and~~

Response 10: Since the NESHAP, Subpart DDDDD does not require the Fiber Flash Dryer Furnace to have a continuous emissions monitoring system (CMS) and continuous opacity monitoring system (COM), this section has been deleted from Table 9 of Condition D.3.21 as follows:

Table 9 to Subpart DDDDD of Part 63—Reporting Requirements

As stated in § 63.7550, you must comply with the following requirements for reports:

You must submit a(n)	The report must contain . . .	You must submit the report . . .
1. Compliance report........	a..Information required in § 63.7550(c)(1) through (11); and b If there are no deviations from any emission limitation (emission limit and operating limit) that applies to you and there are no deviations from the requirements for work practice standards in Table 8 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period; and c If you have a deviation from any emission limitation (emission limit and operating limit) or work practice standard during the reporting period, the report must contain the information in § 63.7550(d); ~~and~~ ~~If there were periods during which the CMSs, including continuous emissions~~	Semiannually according to the requirements in § 63.7550(b).

~~monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control, as specified in § 63.8(c)(7), the report must contain the information in § 63.7550(~~

Comment 11: D.3.21 – Table 10 to Subpart DDDDD of Part 63 – Applicability of General Provisions

The reference to §63.6(b)(5) - Notification in Table 10 of Section D.3.21 of the draft SSM and SPM needs to be deleted since it is not applicable to the proposed fiber flash dryer furnace. Construction of the fiber flash dryer furnace will commence well after the date of promulgation of Subpart DDDDD (September 13, 2004). Section §63.6(b)(5) states:

(5) The owner or operator of a new source that is subject to the compliance requirements of paragraph (b)(3) or (4) of this section must notify the Administrator in accordance with §63.9(d)

Paragraphs (b) (3) and (4) of §63.6 state:

(3) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established under this part pursuant to section 112(d), 112(f), or 112(h) of the Act but before the effective date (that is, promulgation) of such standard shall comply with the relevant emission standard not later than the date 3 years after the effective date if:

(i) The promulgated standard (that is, the relevant standard) is more stringent than the proposed standard; for purposes of this paragraph, a finding that controls or compliance methods are “more stringent” must include control technologies or performance criteria and compliance or compliance assurance methods that are different but are substantially equivalent to those required by the promulgated rule, as determined by the Administrator (or his or her authorized representative); and

(i) The owner or operator complies with the standard as proposed during the 3-year period immediately after the effective date.

(4) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established pursuant to section 112(d) of the Act but before the proposal date of a relevant standard established pursuant to section 112(f) shall not be required to comply with the section 112(f) emission standard until the date 10 years after the date construction or reconstruction is commenced, except that, if the section 112(f) standard is promulgated more than 10 years after construction or reconstruction is commenced, the owner or operator must comply with the standard as provided in paragraphs (b)(1) and (2) of this section.

Response 11: Section § 63.6(b)(5) requirements in Table 10 of Condition D.3.21 have been deleted, since it does not apply to the proposed Fiber Flash Dryer Furnace:

Table 10 to Subpart DDDDD of Part 63—Applicability of General Provisions to Subpart DDDDD

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.1	Applicability	Initial Applicability Determination; Applicability After Standard Established; Permit Requirements; Extensions, Notifications.	Yes.
§ 63.2	Definitions	Definitions for part 63 standards.	Yes.
§ 63.3	Units and Abbreviations	Units and abbreviations for part 63 standards.	Yes.
§ 63.4	Prohibited Activities	Prohibited Activities; Compliance date; Circumvention, Severability.	Yes.
§ 63.5	Construction Reconstruction	Applicability; applications; approvals.	Yes.
§ 63.6(b)(1)-(4)	Compliance Dates for New sources	Standards apply upon startup	Yes.
~~§ 63.6(b)(5)~~	~~Notification~~	~~Must notify if commenced construction~~	~~Yes.~~
§ 63.6(e)(1)-(2)	Operation & Maintenance.	Operate to minimize emissions at all times; and Correct malfunctions as soon as practicable; and Operation and maintenance requirements independently enforceable; information Administrator will use to determine if operation and maintenance requirements were met.	Yes.
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction Plan (SSMP).	Requirement for SSM and startup, shutdown, malfunction plan; and content of SSMP.	Yes.
§ 63.6(f)(1)	Compliance Except During SSM.	Comply with emission standards at all times except during SSM.	Yes.
§ 63.6(f)(2)-(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection.	Yes.
§ 63.7(a)(1)	Performance Test Dates	Dates for Conducting Initial Performance Testing and Other Compliance Demonstrations.	Yes.
§ 63.7(a)(3	Section 114 Authority	Administrator may require	Yes.

		a performance test under CAA Section 114 at any time.	
§ 63.7(b)(1)	Notification of Performance Test.	Must notify Administrator 60 days before the test.	No.
§ 63.7(c)	Quality Assurance/Test Plan.	Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with: test plan approval procedures; and performance audit requirements; and internal and external QA procedures for testing.	Yes.
§ 63.7(d)	Testing Facilities	Requirements for testing facilities.	Yes.
§ 63.7(e)(1)	Conditions for Conducting Performance Tests.	1 Performance tests must be conducted under representative conditions; and	No.
		2 Cannot conduct performance tests during SSM; and	Yes.
		3 Not a deviation to exceed standard during SSM; and	Yes.
		4. Upon request of Administrator, make available records necessary to determine conditions of performance tests.	Yes.
§ 63.7(e)(2)	Conditions for Conducting Performance Tests.	Must conduct according to rule and EPA test methods unless Administrator approves alternative.	Yes.
§ 63.7(e)(3)	Test Run Duration	Must have three separate test runs; and Compliance is based on arithmetic mean of three runs; and conditions when data from an additional test run can be used.	Yes.
§ 63.7(e)(4)	Interaction with other sections of the Act.	Nothing in § 63.7(e)(1) through (4) can abrogate the Administrator's authority to require testing under Section 114 of the Act.	Yes.
§ 63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an alternative test method.	Yes.
§ 63.7(g)	Performance Test Data Analysis.	Must include raw data in performance test report; and must submit performance test data 60 days after end of test with the Notification of	Yes.

		Compliance Status; and keep data for 5 years.	
§ 63.9(a).	Notification Requirements	Applicability and State Delegation.	Yes.
§ 63.9(b)(1)-(5)	Initial Notifications	Submit notification 120 days after effective date; and Notification of ...intent to construct and Notification of commencement of construct; Notification of startup; and Contents of each.	Yes.
§ 63.9(c).	Request for Compliance Extension	Can request if cannot comply by date or if installed BACT.	Yes.
§ 63.9(h)(1)-(6)	Notification of Compliance Status	Contents; and due 60 days after end of performance test or other compliance demonstration, and when to submit to Federal vs. State authority.	Yes.
§ 63.9(i).......	Adjustment of Submittal Deadlines.	Procedures for Administrator to approve change in when notifications must be submitted.	Yes.
§ 63.9(j).......	Change in Previous Information.	Must submit within 15 days after the change.	Yes.
§ 63.10(a)......	Recordkeeping/Reporting..	Applies to all, unless compliance extension; and when to submit to Federal vs. State authority; and procedures for owners of more than 1 source.	Yes.
§ 63.10(b)(1)...	Recordkeeping/Reporting...	General Requirements; and keep all records readily available and keep for 5 years.	Yes.
§ 63.10(b)(2)(i)-(v)	Records related to Startup, Shutdown, and Malfunction.	Occurrence of each of operation (process, equipment); and actions during startup, shutdown, and malfunction.	Yes.
§ 63.10(b)(2)(vii)-(ix)	Records...........	Measurements to demonstrate compliance with emission limitations; and performance test,	Yes.
§ 63.10(b)(2)(xiv).	Records...............	All documentation supporting Initial Notification and Notification of Compliance Status.	Yes.
§ 63.10(b)(3)..	Records..................	Applicability Determinations.	Yes.
§ 63.10(d)(1)	General Reporting Requirements.	Requirement to report	Yes.

§ 63.10(d)(2). Report of Performance Test Results.	When to submit to Federal or State authority.	Yes.
§ 63.10(d)(4). Progress Reports..........	Must submit progress reports on schedule if under compliance extension.	Yes.
§ 63.10(d)(5). Startup, Shutdown, and Malfunction Reports.	Contents and submission	Yes.
§ 63.14. Incorporation by Reference	Test methods incorporated by reference.	Yes.
§ 63.15....... Availability of Information.	Public and confidential Information.	Yes.

Comment 12: The word “Dextrin” should replace “Dextrim” in two places in Section D.5.8(a) of the draft SSM so that it is identical to Section D.5.8(a) of the draft SPM.

Response 12: Condition D.5.8(a) of the draft Significant Source Modification has been revised as follows:

D.5.8 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

(a) Within 60 days after achieving the maximum production rate, but no later than 180 days after startup, the Permittee shall perform PM and PM_{10} testing on ~~Dextrim~~ **Dextrin** Fluidizer Reactor baghouse 33FCC, and one of ~~Dextrim~~ **Dextrin** storage and blending bins baghouses 33FFF or 33FGG, to verify compliance with Condition D.5.1(a), utilizing methods as approved by the Commissioner.

Comment 13: Starch Drying and Handling Operations - D.6.3(b)(3) – Particulate Emission Limitations for Manufacturing Processes of the draft SSM needs to be deleted so that it is identical to changes made to Section D.6.3(b) of the draft SPM. The original intent of this condition was to allow continued operation of modified emission units originally listed in the table in Section D.6.3(b)(1) that now have BACT limits under D.6.1(a)(1) until those modifications were complete. Those units with BACT limits under D.6.1(a)(1) have been removed from D.6.3(b)(1) making D.6.3(b)(3) obsolete.

Response 13: Condition D.6.3(b)(3) is a typographical error. It was deleted in the Significant Permit Modification to match the Significant Source Modification. The change is as follows:

D.6.3 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

(b) Pursuant to CP 157-5294-00003, issued September 5, 1996, A157-6170-00003, issued July 26, 1996, A 157-6571-00003, issued October 3, 1996, and in order to comply with 326 IAC 6-3-2:

(1) The PM_{10} emissions from emission units 41G200, 41V10, 41V11, 41G201, 41F13, 30D1, and 30G1 are limited as indicated in the table below:

Emission Unit	Stack	PM_{10} emission limit (pounds per hour)	PM_{10} emission limit (tons per 12 mo)
Roll Dryer Mill 41G200	96 to 355	0.28	1.22
Product Bin #10 (41V10) and Product Bin #11 (41V11)	97 98	0.03	0.14

Emission Unit	Stack	PM_{10} emission limit (pounds per hour)	PM_{10} emission limit (tons per 12 mo)
Roll Dryer Mill 41G201	100 to 355	0.39	1.69
Bulk Bag Dump Station (41F13)	344	0.03	0.11
Spray Dryer (30D1)	82	4.45	19.49
Dryer Mill (30G1)	84	0.95	4.17

*12 mo. - Twelve consecutive month period with compliance determined at the end of each month.

(2) The opacity from facilities 41G200 (stack 355), and 41G201 (stack 355) shall not exceed three percent (3%); and

~~(3) Following modification or shutdown of the facilities listed in Section D.6.3(b)(1), as described in Section D.6.1(a), Section D.6.3(b) shall continue only to apply to facilities 41G200, 41V10, 41V11, 41G201, 41F13, 30D1, and 30G1.~~

Comment 14: Line 6 of Section D.6.5(a) of the draft SSM and SPM should be revised to correct tag number “46232” to read “46F232”.

Response 14: Condition D.6.5(a) of the Significant Source Modification and Significant Permit Modification has been revised as requested:

D.6.5 Particulate Control

(a) In order to comply with Conditions D.6.1, D.6.2 and D.6.3, baghouses, including those integral to the process, 40F7, 7F8, 7F9, 7F20, 7F21, 7F22, 40F28, 40F29, 7F33, 7F34, 7F35, 40F88, 43F90, 7F91, 7F92, 41F210, 41F10, 41F11, 41F211, 33F44, 41F13, 30F2, 30F3, 30F15, 41F14, 41F15, 41FMM, 41F20, 41F21, 41F16, 41F17, 41F22, 41F23, 25F1, 25F2, 7F73, 7F72, 7F71, 7F70, 7F69, 7F26, 7F25, 50F102, 50F106, 19F402, 07FDD, 07FEE, 07FAA, 07FBB, 07FCC, 41F45, 41F46, 44FII, 44FJJ, 46F231 through ~~46232~~, **46F232**, 51FCC, 30FAA, 41F47, and 41FPP for particulate control shall be in operation and control particulate emissions from facilities 40F7, 7V8, 7V9, 7V20, 7V21, 7V22, 40G20, 40G21, 40G88, 7V23, 7V34, 7V35, 43V90, 7V91, 7V92, 41G200, 41V10, 41V11, 41G201, 33V44, 41F13, 30D1, 30G1, 41C30, 41C35, 41V14, 41V15, 41V17, 41V18, 7F25, 7F26, 7V46, 7V47, 7V48, 7V49, 7V50, 25G1, 25F1, 50D101, 50F106, 19G401, 07VDD, 07VEE, 07VAA, 07VBB, 07VCC, 41V45, 41V46, 44GAA, 44GBB, 46D200, 51DAA, 30GAA, 41V47, and 41VKK at all times those facilities are in operation.

Comment 15: Baghouses 41F20 and 41F21 were added to the list of bagfilter units requiring daily pressure drop monitoring. 41F20 and 41F21 are product transfer receivers associated with emission unit 41C35 (Product Transfer to Bins 17 & 18) that will transfer starch to existing Bins 17 & 18 from the new roll dryer expansion. This system is very similar to emission unit 41C30 (Product Transfer to Bins 14, 15 & #KK) which transfers starch from Spray Dryer #1.

There has been no change in BACT limits (0.08 lbs/hr) or any increase in airflow for either of these transfer systems and neither system had baghouse pressure drop monitoring requirements in the PSD and Part 70 permits issued in 2005. Since no change to emission unit 41C35 occurred, other than a change in service from the new Spray Dryer #2 system to the roll dryer expansion, Tate & Lyle requests baghouses 41F20 and 41F21 be deleted from Section D.6.9(a) of the draft permits. Baghouse

30FAA serving the proposed spray dryer #2 mill 30GAA is listed twice in this paragraph and should only be listed as a baghouse. Finally, tag number “46F2324” should be corrected in the third line of Section D.6.9(a) to read “46F232”.

D.6.9(a) – Monitoring for Baghouses of the draft SSM and SPM needs to be revised as follows:

(a) The Permittee shall record the pressure drop across baghouses 40F88, 43F90, 7F73, 7F72, 7F71, 7F70, 7F69, 19F402, 30FAA, 07FDD, 07FEE, 07FAA, 07FBB, 07FCC, 44FII, 44FJJ, 46F231 through 46F232, 51FCC, 40F28, 40F29, 7F20, 7F21, 7F22, and 7F33 used in conjunction with facilities 40G88, 43V90, 7V46, 7V47, 7V48, 7V49, 7V50, 19G401, 30GAA, 07VDD, 07VEE, 07VAA, 07VBB, 07VCC, 44GAA, 44GBB, 46D200, 51DAA, 40G20, 40G21, 7V20, 7V21, 7V22, and 7V23, ~~41F20, 41F21, and 30FAA~~ at least once per day when the respective facilities are in operation.

Response 15 Since Baghouses 41F20 and 41F21 are used as product transfer receivers and are not used primarily to control particulate emissions, they will be deleted from Condition D.6.9(a) which requires pressure drop monitoring from baghouses. Baghouse 30FAA has been deleted, since it appeared twice in this condition. The change is as follows:

D.6.9 Monitoring for Baghouses

(a) The Permittee shall record the pressure drop across baghouses 40F88, 43F90, 7F73, 7F72, 7F71, 7F70, 7F69, 19F402, 30FAA, 07FDD, 07FEE, 07FAA, 07FBB, 07FCC, 44FII, 44FJJ, 46F231 through 46F232~~4~~, 51FCC 40F28, 40F29, 7F20, 7F21, 7F22, and 7F33 used in conjunction with facilities 40G88, 43V90, 7V46, 7V47, 7V48, 7V49, 7V50, 19G401, 30GAA, 07VDD, 07VEE, 07VAA, 07VBB, 07VCC, 44GAA, 44GBB, 46D200, 51DAA, 40G20, 40G21, 7V20, 7V21, 7V22, **and** 7V23, ~~41F20, 41F21~~, ~~and 30FAA~~ at least once per day when the respective facilities are in operation.

Comment 16: Starch Packaging and Loadout Operations D.7.4(b) – Testing Requirements
The Packer #3 System product transfer bagfilters (41F7, 41F181, 41F18, 41F182, and 41F183) should be deleted from the list of emission units required to be tested for PM and PM_{10} emissions pursuant to Section D.7.4 (b). Requiring testing of these units is contrary to statements made by IDEM in the Technical Support Document. Page 21 of the Technical Support Document (Compliance Determination and Monitoring Requirements) states:

“*Testing is not required for 21F312, 12FBB, 41FPP, 41F20, 41F21, 41F22, 41F23, 33F44, 41F45, 41F46, 41F47, 41F7, 41F181, 41F18, 41F182, and 41F183 because they have small gas flows.*

Therefore, Section D.7.4(b) should be revised as follows:

(b) Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup of 41F7, 41F181, 41F18, 41F182, and 41F183, the Permittee shall perform PM and PM_{10} testing on ~~one of the Packer #3 product receiver baghouses 41F7, 41F181, 41F18, 4F182, and 41F183 and~~ Packer #3 house dust collector 41F186 to verify compliance with Condition D.7.1, utilizing methods as approved by the Commissioner.

Response 16: The Significant Source Modification and Significant Permit Modification have been revised to delete the testing requirements for emission units 41F7, 41F181, 41F18, 41F182, and 41F183 since they have small gas flows. This is consistent with the Technical Support Document statement on page 21 of 198. The change is as follows:

D.7.4 Testing Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(b) Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup of 41F7, 41F181, 41F18, 41F182, and 41F183, the Permittee shall perform PM and PM_{10} testing on ~~one of the Packer #3 product receiver baghouses 41F7, 41F181, 41F18, 41F182, and 41F183; and~~ Packer #3 house dust collector 41F186 to verify compliance with Condition D.7.1, utilizing methods as approved by the Commissioner.

Comment 17: D.9.3 – Particulate Matter (Sources of Indirect Heating)

The limit of 0.21 pounds per MMBtu heat input stated in the first paragraph of Section D.9.3 of the draft SPM should be revised to be a limit of **0.20 pounds per MMBtu** to reflect the current Q (total source maximum operating capacity) of 666 MMBtu/hr.

Response 17: IDEM agrees that the new limit for the indirect heating units with a source wide total heat input capacity of 666 MMBtu/hr is 0.20 lb/MMBtu. Condition D.9.3 has been changed as follows:

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

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitation For Sources of Indirect Heating), the particulate matter emissions from boiler 31B1, constructed in 1985, shall not exceed ~~0.21~~ **0.20** 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 = 666 MMBtu/hr).

Comment 18: Part 70 Quarterly Report

The Part 70 Quarterly Report for coal boiler 31B1 on pages 159 and 160 of the draft SPM has been revised by deleting references to monthly calculations of carbon monoxide and volatile organic compound emissions based on coal usage. Monthly compliance calculations of CO and VOC emissions (see Sections D.9.1(d) and (e)) are required under Section D.9.1(h). Therefore, Tate & Lyle recommends the Part 70 Quarterly Report provided for our review by IDEM on October 4, 2006 replace the reporting form provided in the current draft SPM. Under the notes section on the second page of the October 4th form, the PM, SO_2, and NOx emissions should be divided by 10^6 rather than 106.

Response 18: The monthly compliance calculations for CO and VOC emissions were inadvertently deleted in the draft permit. This reporting form has been revised as follows:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Data Section

Part 70 Quarterly Report

Source Name: Tate & Lyle - Sagamore Plant
Source Address: 2245 North Sagamore Parkway, Lafayette, IN 47902
Mailing Address: 2245 North Sagamore Parkway, Lafayette, IN 47902
Part 70 Permit No.: T157-6009-00003
Parameters: PM, SO_2, and NOx emissions
Coal consumption and average coal heating value
Limits: Total PM emissions not to exceed 56.0 tons per year
SO_2 emissions not to exceed 1,215 tons per 12 month consecutive period
NOx emissions not to exceed 782 tons per 12 month consecutive period
Coal consumed and average coal heating value determined on a monthly basis

Months:__________ to _________ Year: ___________

Permit Condition						
D.9.1 (h)	Coal	Consumption	tons			
		Average Heating Value	Btu/lb			
D.9.1 (a)	PM	Emission Factor	lb/MMBtu	0.05	0.05	0.05
		Emissions - This Month	tons			
		Emissions - Previous 11 Months	tons			
		Emissions - 12 Month Total	tons			
D.9.1 (b)	SO_2	Emission Factor	lb/MMBtu	1.2	1.2	1.2
		Emissions - This Month	tons			
		Emissions - Previous 11 Months	tons			
		Emissions - 12 Month Total	tons			
D.9.1 (c)	NO_x	Emission Factor	lb/MMBtu	0.7	0.7	0.7
		Emissions - This Month	tons			
		Emissions - Previous 11 Months	tons			
		Emissions - 12 Month Total				
D.9.1 (d)	CO	**Emission Factor**	**lb/ton coal**	**0.5**	**0.5**	**0.5**
		Emissions - This Month	**tons**			
		Emissions - Previous 11 Months	**tons**			
		Emissions - 12 Month Total	**tons**			
D.9.1 (e)	VOC	**Emission Factor**	**lb/ton coal**	**0.06**	**0.06**	**0.06**
		Emissions - This Month	**tons**			
		Emissions - Previous 11 Months	**tons**			
		Emissions - 12 Month Total	**tons**			

Notes:
PM, SO_2, and NOx emission factors are based on permit limits
CO and VOC emission factors were taken from AP-42 Supplement E (9/98)
PM, SO_2, and NOx Emissions (tons/month) = (Coal consumption)*(Average Coal Heating Value)*(Emission Factor)/10^6
CO and VOC Emissions (tons/month) = (Coal consumption)*(Emission Factor)/2000

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on:

Submitted by: ______________________

Title / Position: ______________________

Signature: ______________________

Date: ______________________

Phone: ______________________

Attach a signed certification to complete this report.

TECHNICAL SUPPORT DOCUMENT

This TSD Addendum is part of the TSD. It serves to address the changes made in the permit as a result of the submitted comments. IDEM, OAQ prefers not to change the original TSD in order to preserve the information from the permit that went through public notification. The changes to the TSD will only be documented and reflected in this TSD Addendum.

Comment 1: Comments, concerns, and corrections provided for Sections A and D of the draft permit also apply to similar text contained in the Technical Support Document. For the sake of brevity, those comment, concerns, and corrections are not being repeated here.

Response 1: Since the original TSD will not be modified, the corrections made to the Significant Source Modification and Significant Permit Modification that were addressed in this ATSD should be sufficient clarifications to those sections of the TSD.

Comment 2: Appendix B – Stack/Vent Information

Stack and vent information provided in Appendix B – Stack/Vent Information is outdated. However, the Stack/Vent Description (with comments) on pages 194-199 of the TSD does provide the correct stack information and should be referred to rather the four page table in Appendix B of the TSD for purposes of the proposed project.

Response 2: The Stack/Vent Information has been changed. Please see new Appendix B.

Comment 3: Appendix C – Control Technology / PSD BACT Analysis

Page 10: The first paragraph states that the most stringent PM/PM10 BACT limit is for a corn gluten dryer at Cargill, Inc., Iowa. Based on the descriptions and limits in the preceding table in Appendix C, it appears the statement actually pertains to Cargill's corn germ dryer.

Response 3: This paragraph has a typographical error. It should read as follows:

Tate & Lyle's proposed BACT for the combination of germ, feed, fiber, and meal dryers is a scrubber in series with 2 thermal oxidizers since the material being emitted is organic, with a limit of 0.031 gr/dscf of PM/PM10 (condensable and filterable). Each of the other entries from this table limits the PM/PM10 from only one operation, rather than all fiber, germ, feed, and meal dryers. Although the table shows Cargill, Inc., Iowa with the most stringent PM/PM10 BACT limit, the characteristic of the air stream from a **corn germ dryer** ~~corn gluten dryer~~ is not comparable with Tate & Lyle air stream from the combination of germ, feed, fiber, and meal dryers. Therefore, Tate & Lyle's scrubber in series with 2 thermal oxidizers with a grain loading of 0.031 gr/dscf is considered BACT for the germ, feed, fiber, and meal dryers.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Prevention of Significant Deterioration (PSD) and Part 70 Significant Source Modification, and a Significant Permit Modification

Source Description and Location

Source Name:	Tate & Lyle, Sagamore
Source Location:	2245 North Sagamore Parkway, Lafayette, IN 47902
County:	Tippecanoe
SIC Code:	2046
Operation Permit No.:	T 157-6009-00003
Operation Permit Issuance Date:	June 28, 2004
Significant Source Modification No.:	157-22808-00003
Significant Permit Modification No.:	157-23285-00003
Permit Reviewer:	Dr. Trip Sinha

Existing Approvals

The source was issued Part 70 Operating Permit No. 157-6009-00003 on June 28, 2004. The source has since received the following approvals:

(a) First Significant Source Modification (SSM) 157-18847-00003, issued on November 19, 2004;

(b) First Significant Permit Modification (SPM) 157-19702-00003, issued on November 19, 2004;

(c) Second Significant Permit Modification (SPM) 157-18915-00003, issued on December 9, 2004;

(d) First Administrative Amendment 157-20551-00003, issued on March 17, 2005; and

(e) Second Significant Source Modification (SSM) and PSD Permit 157-18832-00003, issued on September 13, 2005; and

(f) Third Significant Permit Modification (SPM) 157-20671-00003, issued on November 1, 2005.

County Attainment Status

The source is located in Tippecanoe County.

Pollutant	Status
PM_{10}	Attainment
$PM_{2.5}$	Attainment
SO_2	Attainment
NO_2	Attainment
8-hour Ozone	Attainment

Pollutant	Status
CO	Attainment
Lead	Attainment

(a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC emissions and NOx emissions are considered when evaluating the rule applicability relating to ozone. Tippecanoe County has been designated as attainment or unclassifiable for ozone. Therefore, VOC Emissions and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

(b) Tippecanoe County has been classified as attainment for $PM_{2.5}$. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for $PM_{2.5}$ emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for $PM_{2.5}$ emissions, it has directed states to regulate PM_{10} emissions as a surrogate for $PM_{2.5}$ emissions.

(c) Tippecanoe County has been classified as attainment or unclassifiable for CO, lead, NO_2, PM_{10}, and SO_2. Therefore, these emissions including PM emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(d) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD applicability.

Source Status

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Pollutant	Emissions (tons/year)
PM	>250
PM_{10}	>250
SO_2	>250
VOC	>250
CO	<100
NO_x	>250

(a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

(b) These emissions are based upon 2004 OAQ emission data submitted by Tate & Lyle.

The table below summarizes the potential to emit HAPs for the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

HAPs	Potential To Emit (tons/year)
Single HAP	>10
Total HAPs	>25

This existing source is a major source of HAPs, as defined in 40 CFR 63.41, because HAP emissions are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2004 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM_{10}	238
SO_2	1,563
VOC	601
CO	56
NO_x	581
HAP	
Acetaldehyde	11
Propylene Oxide	12.7
Hydrochloric Acid	64.4
Hydrofluoric Acid	7.8
Formaldehyde	6
Total HAPs	95.9

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Tate & Lyle on March 16, 2006, relating to several changes needed to accommodate the planned expansion of the plant permitted by PSD and SSM No. 157-18832-00003.

Tate & Lyle received a Prevention of Significant Deterioration (PSD) permit on September 13, 2005 (Significant Source Modification No. 157-18832-00003) to increase the corn grind capacity of the existing corn wet milling facility to 100,000 bushels/day (110,000 bushels/day peak). Tate & Lyle is proposing several modifications to its corn milling operations described in the September 13, 2005 PSD permit including the addition of new emission units. These involve the replacement of several corn receiving and conveying dust collectors with a single large baghouse, the addition of several emission units to the wet milling operations to ensure the facility will be able to meet the design grind rate of 100,000 bushels/day, and replacement of the existing feed dryers with a new closed loop flash drying system for fiber. The new RST fiber dryer will become a RST feed dryer. Because the existing rotary feed dryers will be shutdown, due to the result of installation of the new fiber flash dryer, many of the current material handling systems in the feedhouse will also be shutdown further decreasing particulate emissions from the feedhouse. Modifications to the corn cleanings transfer, the feed cooling and feed milling systems are also proposed. Finally, installation of new outdoor meal and germ storage bins and loadout systems are proposed to allow the existing feed, meal, and germ storage building to be renovated and used for the installation of the wet milling equipment for the grind expansion.

Several additions and modifications to the starch finishing facilities are proposed that include changes to the roll dryer system, starch spray dryer #1 and #2 systems, and starch packer #3 system. Relocation of the new roll dryers described in the September 2005 PSD permit is necessary due to space considerations which results in separate milling and bin transfer systems being proposed for the existing roll dryers and the new roll dryers. No changes are required for the existing roll dryer system but the existing milling system collectors will not be shutdown and will remain operational. Airflow for the milling system for the new roll dryers will be increased slightly and a new bin transfer system will be constructed. Addition of a new spray dryer #2 mill and reconfiguration of the bin storage systems, including two new bins, are proposed for the #1 and #2 spray dryer systems. The #3 starch packer will be modified to allow the simultaneous packaging of four different starch products at one time. The installation of two new starch transfer receivers and a second house dust collector are proposed as part of this design.

PSD Minor limits are being retained for the following emissions units since they are not being modified or deleted as originally envisioned in the September 13, 2005 PSD permit. These existing limits are included in Condition D.6.3(b) of that permit:

(1) Product Storage Bin #10 (41V10)

(2) Product Storage Bin #11 (41V11)

(3) Roll Dryer Mill (41G200)

(4) Roll Dryer Mill (41G201)

This modification will not result in an increase in the grind and starch finishing capacity beyond the rates permitted by PSD and Significant Source Modification No. 157-18832-00003.

Enforcement Actions

There are no pending enforcement actions.

Stack Summary

See Appendix B of this document for detailed stack descriptions.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

Permit Level Determination – Part 70

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency”.

This source modification is subject to 326 IAC 2-7-10.5(f)(1), because this modification is subject to 326 IAC 2-2. Additionally, the modification will be incorporated into the Part 70 Operating Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12 (d), because the application requesting a Part 70 permit modification does not qualify as a minor permit modification or as an administrative amendment.

Net Effect of the Modification

The table below summarizes the net emission changes from the modification.

Process Emission Units	PM	PM_{10}	SO_2	VOC	NOx
Emission Change from the Modification	-15.2	-15.2	-6.7	-3.3	0.0

The PSD applicability was not based on the PTE or emission changes from the modification, but rather, the 326 IAC 2-2, PSD requirements, are applicable to this modification because the emission units being modified went through PSD review in the issued PSD permit 157-18832-00003.

Federal Rule Applicability Determination

The following federal rules are applicable to the source due to this modification:

(a) 326 IAC 12 and 40 CFR 60, Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units)

Fiber Flash Dryer (21D501) is subject to the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (326 IAC 12 and 40 CFR 60, Subpart Dc), which is incorporated by reference as 326 IAC 12. The Permittee will comply with the provisions of 40 CFR 60 Subpart Dc as detailed in the Federal Rule Applicability section above.

Nonapplicable portions of the NSPS will not be included in the permit.
Fiber Flash Dryer (21D501) is subject to the following portions of Subpart Dc (326 IAC12).

(1) 40 CFR 60.40c(a)
(2) 40 CFR 60.41c
(3) 40 CFR 60.48c(a), (g), (i), and (j)

The provisions of 40 CFR 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to Fiber Flash Dryer (21D501) described in this section except when otherwise specified in 40 CFR 60, Subpart Dc.

40 CFR 60, Subpart Dc was amended February 27, 2006 under Federal Register notice 71 FR 9884. However, pursuant to 326 IAC 1-1-3, the version of the rule referenced by 326 IAC 12 is the version in existence on July 1, 2005. Therefore, the amendments are not included in the state rules, and the boilers at this source are subject to both versions of the rule. All the requirements of 326 IAC 12 are the same as the requirements listed under Federal Rule Applicability except 40 CFR 60.48c(g).

Since the requirement of the old version of rule 40 CFR 60.48c(g) is more stringent than the amended version of rule 40 CFR 60.48c(g), the old rule 40 CFR 60.48c(g) will be also applicable to Fiber Flash Dryer (21D501). The condition to comply with the requirements of the old rule 40 CFR 60.48c(g) shall expire when the revisions made to 40 CFR 60 Subpart Dc, as amended on February 27, 2006, become effective as Indiana Law. This condition is not federally enforceable.

(b) (326 IAC 20 and 40 CFR 63, Subpart DDDDD (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters)

Fiber Flash Dryer (21D501) is subject to 40 CFR 63, Subpart DDDDD, because it is a large new gaseous fuel process heater.

Nonapplicable portions of the NESHAP will not be included in the permit. Fiber Flash Dryer (21D501) is subject to the following portions of Subpart DDDDD.

(1) 40 CFR 63.7485
(2) 40 CFR 63.7490(a)(2)
(3) 40 CFR 63.7490(b)
(4) 40 CFR 63.7495(a)
(5) 40 CFR 63.7495(d)
(6) 40 CFR 63.7499
(7) 40 CFR 63.7500(a)(1)
(8) 40 CFR 63.7505(a)
(9) 40 CFR 63.7505(b)
(10) 40 CFR 63.7505(e)
(11) 40 CFR 63.7510(a)
(12) 40 CFR 63.7510(c)
(13) 40 CFR 63.7510(g)
(14) 40 CFR 63.7515(e)
(15) 40 CFR 63.7515(g)
(16) 40 CFR 63.7520(a)
(17) 40 CFR 63.7520(b)
(18) 40 CFR 63.7520(d)
(19) 40 CFR 63.7520(e)
(20) 40 CFR 63.7520(f)
(21) 40 CFR 63.7530(a)
(22) 40 CFR 63.7540(a)
(23) 40 CFR 63.7540(b)
(24) 40 CFR 63.7540(d)
(25) 40 CFR 63.7545(a)
(26) 40 CFR 63.7545(c)
(27) 40 CFR 63.7545(d)
(28) 40 CFR 63.7545(e)(1)
(29) 40 CFR 63.7545(e)(2)
(30) 40 CFR 63.7545(e)(6)
(31) 40 CFR 63.7545(e)(7)
(32) 40 CFR 63.7545(e)(9)
(33) 40 CFR 63.7550(a)
(34) 40 CFR 63.7550(b)(1)
(35) 40 CFR 63.7550(b)(2)
(36) 40 CFR 63.7550(b)(3)
(37) 40 CFR 63.7550(b)(4)
(38) 40 CFR 63.7550(b)(5)
(39) 40 CFR 63.7550(c)(1)
(40) 40 CFR 63.7550(c)(2)
(41) 40 CFR 63.7550(c)(3)

(42) 40 CFR 63.7550(c)(5)
(43) 40 CFR 63.7550(c)(9)
(44) 40 CFR 63.7550(c)(10)
(45) 40 CFR 63.7550(d)(1)
(46) 40 CFR 63.7550(d)(2)
(47) 40 CFR 63.7550(d)(3)
(48) 40 CFR 63.7550(f)
(49) 40 CFR 63.7555(a)(1)
(50) 40 CFR 63.7555(a)(2)
(51) 40 CFR 63.7555(a)(3)
(52) 40 CFR 63.7560(a)
(53) 40 CFR 63.7560(b)
(54) 40 CFR 63.7560(c)
(55) 40 CFR 63.7565
(56) 40 CFR 63.7570(a)
(57) 40 CFR 63.7575

Table 1
Table 5
Table 9
Table 10

The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to Fiber Flash Dryer (21D501) (except when otherwise specified in 40 CFR 63 Subpart DDDDD, Table 10.

(c) 326 IAC 12 and 40 CFR 60, Subpart Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units)

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, were constructed in 1966, which is before June 19, 1984, the applicability date of this rule. Therefore, the requirements of 326 IAC 12 and 40 CFR 60, Subpart Db are not applicable to these boilers.

(d) 326 IAC 20-1 and 40 CFR 63, Subpart DDDDD (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters)

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, are subject to the National Emission Standards for Hazardous Air Pollutants, 40 CFR 63, Subpart DDDDD.

The existing boilers are subject to only the initial notification requirements in 40 CFR 63.9(b) (i.e., they are not subject to the emission limits, work practice standards, performance testing, monitoring, SSMP, site-specific monitoring plans, recordkeeping and reporting requirements of this subpart or any other requirements in subpart A of this part).

(1) 40 CFR 63.7485
(2) 40 CFR 63.7490(a)(1) and (d)
(3) 40 CFR 63.7495(b) and (d)
(4) 40 CFR 63.7499
(5) 40 CFR 63.7506(b)(1)
(6) 40 CFR 63.7545(a) & (b)(1)
(7) 40 CFR 63.7575

The Permittee has already complied with the initial notification.

(e) Compliance Assurance Monitoring (CAM) (40 CFR 64)

Large pollutant-specific emissions unit is the emissions unit, which has the potential to emit (taking into account control devices to the extent appropriate under the definition of this term in 40 CFR 64.1) the applicable regulated air pollutant in an amount equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source. There are no large pollutant-specific emissions units in this modification. For all other pollutant-specific emissions units subject to 40 CFR 64.5(b) and not subject to 40 CFR 64.5(a), the Permittee shall submit the information required under 40 CFR 64.4 as part of an application for a renewal of a part 70 permit.

State Rule Applicability Determination

The following state rules are applicable to the source due to this modification:

326 IAC 2-2 (PSD)

PSD applicability is discussed under the Permit Level Determination - PSD section.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of this modification will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-2-3 (PM/PM_{10} PSD BACT Analysis)

A complete PM/PM_{10} BACT analysis is included in Appendix C.

The following emissions units are subject to PM/PM_{10} BACT requirements because they are new or modified emission units:

(a) New Emission Units

Feed, Meal, Germ Production Operations:

(1) Feed hammer Mill (21G351)

(2) Feed Hammer Mill (21G352)

(3) Feed Milling Loadout Conveyor (12U314)

(4) Gluten Meal Transfer Receiver (12FAA)

(5) Gluten Meal Storage Bin (12VAA)

(6) Gluten Truck & Rail Loadouts (12UAA & 12UBB)

(7) Germ Storage Bin (12VCC)

(8) Germ Rail Loadout Conveyor (12UCC)

Starch Drying and Handling Operation:

(9) Product Bin #KK (41VKK)

(10) Product Bin #47 (41V47)

(11) Spray Dryer #2 Mill (30GAA)

Starch Packaging and Loadout Operations:

(12) Malto Product Transfer to Bag Packer #3 (41F182)

(13) Malto Products Bag Packer #3 (41Z1)

(14) Dry Starch Reacted Product Transfer to Bag Packer #3 (41F183),

(15) Dry Starch Reacted Products Bag Packer #3 (41Z2)

(16) Bag Packer #3 House Dust Collector (41F186)

<u>Modified Emissions Units:</u>

Corn Receiving and Conveying Operation:

(1) Vibrating corn cleaning system (14JAA) - BACT is redetermined.

(2) Bucket Elevator from Silos to Steeps (14UBB) - BACT is redetermined.

Starch Drying and Handling Operation:

(3) Roll Dryer System Mill (19G401)

(4) Product Transfer from roll dryer system 19G401 to 41V17 and 41V18 (41C35)

(5) Product Bin #17 (41V17)

(6) Product Bin #18 (41V18)

(7) Product Bin #44 (33V44)

(8) Product Bin #45 (41V45)

(9) Product Bin #46 (41V46)

Starch Packaging and Loadout Operations:

(10) Spray Cook Starch Product Transfer to Bag Packer #3 (41F7)

(11) O.S. Starch Product Transfer to Bag Packer #3 (41F181)

(12) Spray Cook/O.S. Starch Products Bag Packer #3 (41Z3)

(13) Roll Dried Starch Product Transfer to Bag Packer #3 (41F18)

(14) Roll Dried Starch Products Bag Packer #3 (41Z5

Emission Units	Control Device ID	Type of Control Device	PM/PM_{10} Emissions Rate (gr/dscf)	Total PM $/PM_{10}$ (Filterable and Condensable) Emissions Rate (lbs/hr)	Opacity
14JAA 14UBB	08F300 Also controlling emissions units 21FMM, 12V101, 12V102, 12U2, 12U4, 12U5, 13V1 to 13V5, 13VAA, 13VBB, 13U6 to 13U8, 8U39, 8U41, 14U9, 14V1, 14J4, 14J5, and 21F2	Baghouse	0.004	1.18	3%
21G351 21G352 12U314	21F312	Scrubber	0.0089 gr/scf	0.204	8%
12FAA	12FAA	Baghouse	0.005	0.4	
12VAA 12UAA 12UBB	12FBB	Baghouse	0.005	0.12	3%
12VCC 12UCC	12FCC	Baghouse	0.005	0.17	3%
19G401	19F402	Baghouse	0.005	0.73	3%
30GAA	30FAA	Baghouse	0.005	0.73	8%
41VKK	41FPP	Baghouse	0.005	0.01	3%
41V45	41F45	Baghouse	0.005	0.08	3%
41V46	41F46	Baghouse	0.005	0.08	3%
33V44	33F44	Baghouse	0.005	0.08	3%
41V47	41F47	Baghouse	0.005	0.08	3%
41F7 and 41F181 (41Z3)	41F7 and 41F181	Baghouse	0.005	0.11	3%
41F18 (41Z5)	41F18	Baghouse	0.005	0.11	3%
41F182 (41Z1)	41F182	Baghouse	0.005	0.11	3%
41F183 (41Z2)	41F183	Baghouse	0.005	0.11	3%
41F186	41F186	Baghouse	0.005	0.65	3%

(b) New Emissions Units

Feed, Meal, Germ Production Operations:

(1) Fiber Flash Dryer (21D501)

(2) Fiber Flash Dryer Furnace (21B501)

(3) RST Germ Dryer (21D401) (Permitted by PSD permit 157-18832-00003, but not constructed)

(4) Gluten Flash Dryer (48D101) (Permitted by PSD permit 157-18832-00003, but not constructed)

(5) RST Feed Dryer (21D301) (Permitted by PSD permit 157-18832-00003, but not constructed)

The following combined emission limits are established as BACT for the feed, fiber, germ, and gluten dryers; and the fiber dryer furnace:

(1) the PM and PM_{10} (Filterable and Condensable) emissions from the thermal oxidizers and the fiber dryer furnace shall each not exceed 0.031 gr/dscf;

(2) the total PM and total PM_{10} (Filterable and Condensable) emissions from the thermal oxidizers and the fiber dryer furnace shall each be limited to 7.38 lbs/hr; and

(3) the exhaust opacity of the combined gas flow from the thermal oxidizers and the fiber dryer furnace shall not exceed 8%.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-1(c)(1), the following emissions units are exempt from 326 IAC 6-3-2 because 326 IAC 2-2-3, prevention of significant deterioration (PSD) best available control technology (BACT), has been determined for these emissions units:

(1) 13VAA

(2) 13VBB

(3) 14JAA

(4) 14UBB

(5) 21FMM

(6) 21DAA (New ID 21D301)

(7) 21DBB (New ID 21D401)

(8) 48DAA (New ID 48D101)

(9) 45BVAA

(10) 20VAA

(11) 20VBB

(12) 18AVAA

(13) 41VAA

(14) 33VAA

(15) 33RAA

(16) 33VBB

(17) 33VCC

(18) 33VDD

(19) 33FEE

(20) 19G401

(21) 07VDD

(22) 07VEE

(23) 07VAA

(24) 07VBB

(25) 07VCC

(26) 41V45

(27) 41V46

(28) 44GAA

(29) 44GBB

(30) 40G20

(31) 40G21

(32) 7V20

(33) 7V21

(34) 7V22

(35) 7V23

(36) 44DAA

(37) 46D200

(38) 51DAA

(39) 31V1

(40) 31F10

(41) 31V3

(42) 31V4, and

(43) 31V5

326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating)

Pursuant to 326 IAC 6-2-4 (Particulate Emissions Limitations for Sources of Indirect Heating), the allowable particulate matter (PM) emissions from the fiber flash dryer furnace shall be limited to 0.20 lb/MMBtu. The above particulate emissions rates were determined from the following formula:

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

Where:

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

Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever 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 = 666 MMBtu/hr).

326 IAC 2-2-3 (SO_2 PSD BACT Analysis)

A complete SO_2 BACT analysis is included in Appendix C.

The following emissions units are subject to SO_2 BACT requirements because they are new or modified emissions units:

(a) <u>New Emissions Units</u>

Wet Milling Operations:

(1) Germ Cooler Rotary Airlock Valves (21D3) (formerly as Germ Dryer 21D3)

(2) Gluten Vacuum Filter (21F5)

(3) Gluten Vacuum Filter Pump (21C105)

These emissions units will be controlled by the same scrubber for the aspiration system as allowed by PSD permit 157-18832-00003. The following SO_2 BACT established in PSD permit 157-18832-00003 for the wet milling operations will not change due to inclusion of the above new equipment:

(1) When the inlet SO_2 concentration to the scrubber is greater than 150 ppmvw, the scrubber shall have a minimum SO_2 control efficiency of 90%, and the scrubber outlet SO_2 emission rate shall not exceed 8.17 lbs/hr SO_2; and

(2) When the inlet SO_2 concentration to the scrubber is 150 ppmvw or less, the scrubber shall have an outlet SO_2 concentration of less than 15 ppmvw, and the scrubber outlet SO_2 emission rate shall not exceed 8.17 lbs/hr.

(b) New Emissions Units

Feed, Meal, Germ Production Operations:

(1) Fiber Flash Dryer (21D501)

(2) RST Germ Dryer (21D401) (Permitted by PSD permit 157-18832-00003, but not constructed)

(3) Gluten Flash Dryer (48D101) (Permitted by PSD permit 157-18832-00003, but not constructed)

(4) RST Feed Dryer (21D301) (Permitted by PSD permit 157-18832-00003, but not constructed)

The following have been established as SO_2 BACT for the dryers.

(1) When the inlet SO_2 concentration to the scrubber is more than 100 ppmvw, the scrubber shall have a minimum SO_2 control efficiency of 90%, and the scrubber outlet SO_2 emission rate shall not exceed 4.4 lbs/hr, and

(2) When the inlet SO_2 concentration to the scrubber is 100 ppmvw or less, the scrubber shall have an outlet SO_2 concentration of 10 ppmvw or less, and the scrubber outlet SO_2 emission rate shall not exceed 4.4 lbs/hr.

326 IAC 2-2-3 (VOC PSD BACT Analysis)

A complete VOC BACT analysis is included in Appendix C.

The following emissions units are subject to VOC BACT requirements because they are new or modified emissions units:

(a) Wet Mill Aspiration System

New Emissions Units

(1) Germ Cooler Rotary Airlock Valves (21D3) (formerly Germ Dryer 21D3)

(2) Gluten Vacuum Filter (21F5)

(3) Gluten Vacuum Filter Pump (21C105)

These emissions units will be controlled by the same scrubber for the aspiration system as permitted by PSD permit 157-18832-00003. The following VOC BACT, established in the PSD permit 157-18832-00003 for the wet milling operations, will not change due to inclusion of the above new emissions units:

The VOC BACT has been determined to be the use of an absorption system using wet scrubber to control VOC emissions from the wet milling operation and the scrubber shall have a minimum VOC control efficiency of 25%, and the scrubber outlet VOC emissions rate shall not exceed 27 lbs/hr.

(b) Dryers

<u>New Emission Units</u>

Feed, Meal, Germ Production Operations:

(1) Fiber Flash Dryer (21D501)

(2) Fiber Flash Dryer Furnace (21B501)

(3) RST Germ Dryer (21D401) (Permitted by PSD permit 157-18832-00003, but not constructed)

(4) Gluten Flash Dryer (48D101) (Permitted by PSD permit 157-18832-00003, but not constructed)

(5) RST Feed Dryer (21D301) (Permitted by PSD permit 157-18832-00003, but not constructed)

VOC BACT for the above dryers has been determined to be the use of a scrubber followed by a regenerative thermal oxidation system, and

(1) When the inlet VOC to the scrubber is more than 100 lbs/hr, the scrubber, and thermal oxidizers shall have a minimum overall VOC control efficiency of 95%, and the outlet thermal oxidizer VOC emission rate shall not exceed 3.16 lbs/hr; and

(2) When the inlet VOC rate to the scrubber is 100 lbs/hr or less, the thermal oxidizers shall have an outlet VOC concentration of less than 10 ppmvw, and the outlet VOC emissions rate shall not exceed 3.16 lbs/hr.

VOC BACT for Fiber Flash Dryer Furnace (21B501) has been determined to be good combustion practices.

326 IAC 2-2-3 (NOx PSD BACT Analysis)

A complete NOx BACT analysis is included in Appendix C.

The following emissions units are subject to NOx BACT requirements because they are new or modified emissions units:

Feed, Meal, Germ Production Operations:

(1) Fiber Flash Dryer Furnace (21B501)

(2) Gluten Flash Dryer (48D101) (Permitted by PSD permit 157-18832-00003, but not constructed)

(3) Thermal Oxidizers (48F201) (Permitted by PSD permit 157-18832-00003, but not constructed)

(4) Thermal Oxidizers (48F202) (Permitted by PSD permit 157-18832-00003, but not constructed)

The NOx BACT for Fiber Flash Dryer Furnace (21B501), Gluten Flash Dryer (48D101), and Thermal Oxidizers (48F201 and 41F202) has been determined to be the use of low NOx burners with the emission rates of 0.06 lbs/MMBtu and a combined emissions rate of 6.0 lbs/hr.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

(a) Wet Milling Operation

The emissions units in the wet milling operations are parts of a facility where 326 IAC 7-1.1 is applicable. However, there are no limits or restrictions in 326 IAC 7-1.1-2, which apply to the emission units because the emission units are not combustion units.

(b) Feed, Meal, Germ Production Operations:

Gluten flash dryer (48D101) and New Fiber Flash Dryer (21D501)

These emission units have potential to emit (PTE) of twenty-five (25) tons per year of sulfur dioxide each and they are combustion units. Therefore, 326 IAC 7-1.1 is applicable. However, there are no limits or restrictions in 326 IAC 7-1.1-2, which apply to the emission units because they do not combust coal or oil.

326 IAC 8-1-6 (General VOC Reduction Requirements)

(a) Wet Milling Operation

(1) Germ Cooler Rotary Airlock Valves (21D3) (formerly Germ Dryer 21D3)

(2) Gluten Vacuum Filter (21F5)

(3) Gluten Vacuum Filter Pump (21C105)

Since these emission units have potential emissions of less than 25 tons per year, they are not subject to 326 IAC 8-1-6 (General Reduction Requirements).

(b) Feed, Meal, Germ Production Operations:

(1) Fiber Flash Dryer (21D501)

This emissions unit is subject to 326 IAC 8-1-6 (General Reduction Requirements) because the potential emissions of volatile organic compounds of the Fiber flash dryer are greater than twenty-five (25) tons per year, and it was constructed after January 1, 1980. Therefore, the BACT (best available control technology) requirements apply to the above dryer.

Compliance with the VOC BACT requirements under 326 IAC 2-2-3(3) satisfies the requirements of 326 IAC 8-1-6.

326 IAC 1-7 (Stack Height Provisions)

The new stack SV17 is subject to 326 IAC 1-7 because it is an exhaust gas stack through which 25 tons per year or more of particulate matter and SO_2 each will be emitted. Therefore, the stack SV17 is subject to the stack height provisions of 326 IAC 1-7-4.

326 IAC 2-2 PSD Minor Limit for Particulate

(a) PSD Minor limits are being retained for the following emissions units since they are not being modified or deleted as originally envisioned in the PSD permit 157-18832-00003, issued on September 13, 2005. These existing limits are included in Condition D.6.3(b) of that permit:

(1) Product Storage Bin #10 (41V10)

(2) Product Storage Bin #11 (41V11)

(3) Roll Dryer Mill (41G200)

(4) Roll Dryer Mill (41G201)

(b) 41C30, 41C35, 41V14, 41V15, 41V17, 41V18, and 33V44 are going through PSD review. 41F200 is venting to 41G200. 41F201 is venting to 41G201. The exhaust from 30F13, Product Transfer to Milling, will vent to the intakes of bins 41V45, 41V46, 41V47, and 33V44. 41G200 and 41G201 are being vented to stack 355. The majority of the gases venting to stack 355 have 3% opacity limit. The 3% opacity from 41G200 and 41G201 can comply with the current emissions limits. See proposed revision to Condition D.6.3(b)(3) below:

Pursuant to CP 157-5294-00003, issued September 5, 1996, A157-6170-00003, issued July 26, 1996, A 157-6571-00003, issued October 3, 1996, and in order to comply with 326 IAC 6-3-2:

(1) The PM_{10} emissions from emission units 41G200, 41V10, 41V11, 41G201, 41F13, 30D1, 30G1, are limited as indicated in the table below:

Emission Unit	Stack	PM_{10} emission limit (pounds per hour)	PM_{10} emission limit (tons per 12 mo)
Roll Dryer Mill 41G200	355	0.28	1.22
Product Bin #10 (41V10) and Product Bin #11 (41V11)	97 98	0.03	0.14
Roll Dryer Mill 41G201	355	0.39	1.69
Bulk Bag Dump Station (41F13)	344	0.03	0.11
Spray Dryer (30D1)	82	4.45	19.49
Dryer Mill (30G1)	84	0.95	4.17

*12 mo. - Twelve consecutive month period with compliance determined at the end of each month.

(2) The opacity from facilities 41G200 and 41G201, shall not exceed three percent (3%).

(3) Following modification or shutdown of the facilities listed in Section D.6.3(b)(1), as described in Section D.6.1(a), Section D.6.3(b) shall continue only to apply to facilities 41G200, 41V10, 41V11, 41G201, 41F13, 30D1, and 30G1.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source=s failure to take the appropriate corrective actions within a specific time period.

The Compliance Determination Requirements applicable to this modification are as follows:

Testing

Emissions Unit	Control Device	Timeframe for Performance Testing	Pollutant	Frequency of Testing	Limit or Requirement
14UBB 14JAA Also controlling emissions units 21FMM, 12V101, 12V102, 12U2, 12U4, 12U5, 13V1 to 13V5, 13VAA, 13VBB, 13U6 to 13U8, 8U39, 8U41, 14U9, 14V1, 14J4, 14J5, and 21F2	08F300	Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup	PM/PM_{10} and Opacity	Every 5 years	0.004 gr/dscf, 1.18 lbs/hr, and 3% opacity
12FAA	12FAA	Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup	PM/PM_{10} and Opacity	Every 5 years	0.005 gr/dscf, 0.4 lbs/hr, and 3% opacity
12VCC and12UCC	12FCC	Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup	PM/PM_{10} and Opacity	Every 5 years	0.005 gr/dscf, 0.17 lbs/hr, and 3% opacity

Emissions Unit	Control Device	Timeframe for Performance Testing	Pollutant	Frequency of Testing	Limit or Requirement
19G401	19F402	Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup	PM/PM_{10} and Opacity	Every 5 years	0.005 gr/dscf, 0.73 lbs/hr, and 3% opacity
30GAA	30FAA	Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup	PM/PM_{10} and Opacity	Every 5 years	0.005 gr/dscf, 0.73 lbs/hr, and 8% opacity
41F186	41F186	Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup	PM/PM_{10} and Opacity	Every 5 years	0.005 gr/dscf, 0.65 lbs/hr, and 3% opacity
21D501, 21B501, 21D401, 48D101, and 21D301	Stack 17	Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup	PM/PM_{10} and Opacity	Every 5 years	0.015 gr/scf, 7.39 lbs/hr, and 8% opacity

Emissions Unit	Control Device	Timeframe for Performance Testing	Pollutant	Frequency of Testing	Limit or Requirement
14V400, 14V401, 14V402, 14VDD, 14VEE, 14VFF, 14VGG, 14VHH, 18FAA, 8 Building Process Tanks and screens, 21F6, 21C6, 21FNN, 15V210, 14V17, 14V18, 14V20, 14V96, 15J14, 15J24, 15J53, 15J5A, 15V110, 15V111, 15V112, 15V113, 15V114, 15V139, 15V17, 15V19, 15V2, 15V21, 15V22, 15V23, 15V24, 15V27, 15V30, 15V31, 15V34, 15V35, 15V36, 15V37, 15V38, 15V40, 15V41, 15V42, 15V43, 15J100, 15J15, 15J16, 15J17, 15J18, 15J19, 15J20, 15J21, 15J22, 15J220, 15J221, 15J86, 15J87, 15J88, 15J89, 15J99, 15V25, 15V26, 15V33, 14V10, 14V11, 14V12, 14V13, 14V14, 14V15, 14V16, 14V19, 14V3, 14V4, 14V5, 14V6, 14V7, 14V8, 14V9, 15J101, 15J200, 15J201, 18F510, 18V520, 18V522, 21F100, 21F101, 21U23, 21V130, 21V159, 21V56, 21V57, 21V58, 21V59, 21C7, 21F7, 21C8, 21F8, 21C9, 21F9, 21C10, 21F10, 15J60-15J67, 15J80-15J85, 15J68-15J71, 15J92, 15J 212, 5J213, 15J72-15J75, 15J91, 15J76-15J79, 15J90, 15J214, 15J215, 15J217-15J219, and 18V413.	15F401 (Old ID 15FAA) Scrubber	Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup	SO_2	Every 5 years	(1)When the inlet SO_2 > 150 ppmvw, then 90% eff., and ≤ 8.17 lbs/hr (2)When the inlet SO_2 ≤ 150 ppmvw, then SO_2 ≤ 15 ppmvw and ≤ 8.17 lbs/hr
		Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup	VOC	Every 5 years	A minimum VOC control efficiency of 25% and a maximum VOC emissions rate of 27 lbs/hr
21D501, 21D401, 48D101, and 21D301	21F13	Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup	SO_2	Every 5 years	(1) When the inlet SO_2 > 100 ppmvw, then 95% Eff., and ≤ 4.4 lbs/hr (2) When the inlet SO_2 ≤ 100 ppmvw, then SO_2 ≤ 10 ppmvw and ≤ 4.4 lbs/hr

Emissions Unit	Control Device	Timeframe for Performance Testing	Pollutant	Frequency of Testing	Limit or Requirement
	48F201 or 48 F202	Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup	VOC	Every 5 years	(1) When the inlet VOC > 100 lbs/hr, then 95% Eff., and ≤ 3.16 lb/hr (2) When the inlet VOC ≤ 100 lbs/hr, then VOC ≤ 10 ppmvw and ≤ 3.16 lbs/hr
48D101, 48F201, 48F202, and 21B501	Low NOx Burners	Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup	NOx	Every 5 years	0.06 lb/MMBtu and combined emissions rate of 6 lbs/hr
21D501	None	within 180 days after startup of the fiber flash dryer	CO	Annually	400 ppm of CO by volume on a dry basis corrected to 3 percent oxygen

Testing is not required for 21F312, 12FBB, 41FPP, 41F20, 41F21, 41F22, 41F23, 33F44, 41F45, 41F46, 41F47, 41F7, 41F181, 41F18, 41F182, and 41F183 because they have small gas flows.

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

Control	Parameter	Frequency	Range	Excursions and Exceedances
08F300 Baghouse	Pressure Drop	Daily	1 to 8 inches	Response Steps
	Visible Emissions	Daily	Normal-Abnormal	
15F401 Scrubber	Ph of scrubbing liquid	Daily	7 to 9	Response Steps
	Liquid recirculation rate	Daily	400 gpm	Response Steps
12FAA Baghouse	Pressure Drop	Daily	3 to 6 inches of water or a range established during the last stack test	Response Steps
	Visible emissions	Daily	Normal-Abnormal	Response Steps

Control	Parameter	Frequency	Range	Excursions and Exceedances
12FBB Baghouse	Pressure Drop	Daily	3 to 6 inches of water or a range established during the last stack test	Response Steps
	Visible emissions	Daily	Normal-Abnormal	Response Steps
12FCC Baghouse	Pressure Drop	Daily	3 to 6 inches of water or a range established during the last stack test	Response Steps
	Visible emissions	Daily	Normal-Abnormal	Response Steps
21F13 Scrubber	Ph	Daily	5 to 8 or the range established during the latest stack test	Response Steps
	Liquid recirculation rate	Daily	400 gpm	Response Steps
21F311 Scrubber	Liquid recirculation rate	Daily	Normal range, as specified by the manufacturer, or a minimum flow rate established during the latest stack test	Response Steps
21F312 Scrubber	Liquid recirculation rate	Daily	Normal range, as specified by the manufacturer, or a minimum flow rate established during the latest stack test	Response Steps
	Visible emissions	Daily	Normal-Abnormal	Response Steps
48F201 RTO	3- hour average temperature	Continuously	1400°F	Response Steps
48F202 RTO	3- hour average temperature	Continuously	1400°F	Response Steps
19F402 Baghouse	Water Pressure Drop	Daily	1 to 8 inches of water or a range established during the latest stack test	Response Steps
	Visible Emissions	Daily	Normal-Abnormal	Response Steps
41F20 Baghouse	Water Pressure Drop	Daily	1 to 8 inches	Response Steps
	Visible Emissions	Daily	Normal-Abnormal	Response Steps
41F21 Baghouse	Water Pressure Drop	Daily	1 to 8 inches	Response Steps
	Visible	Daily	Normal-Abnormal	Response Steps

Control	Parameter	Frequency	Range	Excursions and Exceedances
30FAA Baghouse	Water Pressure Drop	Daily	1 to 8 inches	Response Steps
	Visible Emissions	Daily	Normal-Abnormal	Response Steps
41F7 Baghouse	Water Pressure Drop	Daily	1 to 8 inches	Response Steps
	Visible Emissions	Daily	Normal-Abnormal	Response Steps
41F18 Baghouse	Water Pressure Drop	Daily	1 to 8 inches	Response Steps
	Visible Emissions	Daily	Normal-Abnormal	Response Steps
41F181 Baghouse	Water Pressure Drop	Daily	1 to 8 inches	Response Steps
	Visible Emissions	Daily	Normal-Abnormal	Response Steps
41F182 Baghouse	Water Pressure Drop	Daily	1 to 8 inches	Response Steps
	Visible Emissions	Daily	Normal-Abnormal	Response Steps
41F183 Baghouse	Water Pressure Drop	Daily	1 to 8 inches	Response Steps
	Visible Emissions	Daily	Normal-Abnormal	Response Steps
41F186 Baghouse	Water Pressure Drop	Daily	1 to 8 inches	Response Steps
	Visible Emissions	Daily	Normal-Abnormal	Response Steps

Baghouses 41F16, 41F17, 41FPP, 41F22, 41F23, 33F44, 41F45, 41F46, and 41F47 are bin vents and have small PM/PM_{10} emissions rates. Therefore, compliance monitoring of these baghouses is not required.

Proposed Changes

(a) All references to IDEM, OAQ's mailing address have been revised as follows:

Indiana Department of Environmental Management
Office of Air Quality
100 North Senate Avenue, ~~P.O. Box 6015~~
Indianapolis, Indiana ~~46206-6015~~ **46204-2251**

(b) All references to the IDEM, OAQ, Compliance Section telephone number have been revised as follows: ~~317-233-5674~~ **317-233-0178.**

All references to the IDEM, OAQ, Compliance Section facsimile number have been revised as follows: ~~317-233-5967~~ **317-233-6865.**

(c) General Construction Conditions have been added in SECTION B, as B.1 Permit No Defense, B.2 Effective Date of the Permit, B.3 Revocation of the Permit, and B.4 Modification to Construction Conditions. Subsequent Conditions have been re-numbered accordingly.

(d) Upon further review, IDEM has determined that it is not necessary to include a condition requiring a preventive maintenance plan in each individual Section D of the permit. Rather, a general condition has been placed in Section B of the permit, which will apply to the entire source. All PMP conditions in D-sections have been deleted, and (a) in Section B has been revised. Additionally, IDEM has determined that the Permittee is not required to keep records of all preventive maintenance. However, where the Permittee seeks to demonstrate that an emergency has occurred, the Permittee must provide, upon request, records of preventive maintenance in order to establish that the lack of proper maintenance did not cause or contribute to the deviation. Therefore, IDEM has deleted paragraph (b) of Condition B.10, now B.14– Preventive Maintenance and has amended Condition B.11, now B.15 – Emergency Provisions.

(e) For clarification purposes, B.20, now B.24 - Operational Flexibility has been revised.

(f) IDEM has changed the rule cite in Condition C.1, because the rule has changed for processes which have a maximum process weight rate less than 100 pounds per hour.

(g) IDEM has deleted Condition C.6 Operation of Equipment, as it is no longer applicable. Subsequent Conditions have been re-numbered accordingly.

(h) Upon further review, IDEM has determined that no additional monitoring will be required during COM downtime, until the COM has been down for twenty-four (24) hours. This allows the Permittee to focus on the task of repairing the COM during the first twenty-four (24) hour period. After twenty-four (24) hours of COM downtime, the Permittee will be required to conduct Method 9 readings for thirty (30) minutes. Once Method 9 readings are required to be performed, the readings should be performed twice per day at least 4 or 6 hours apart, rather than once every four (4) hours, until a COMS is back in service. Condition C.12, now C.11 has been revised accordingly.

(i) IDEM realizes that the specifications of Condition C.14 - Pressure Gauge and Other Instrument Specifications, can only be practically applied to analog units, and has therefore clarified the condition to state that the condition only applies to analog units. Upon further review, IDEM has also determined that the accuracy of the instruments is not nearly as important as whether the instrument has a range that is appropriate for the normal expected reading of the parameter. Therefore, the language in Condition C.15, now C.14 has been revised.

(j) IDEM has reconsidered the requirement to develop and follow a Compliance Response Plan. The Permittee will still be required to take reasonable response steps when a compliance monitoring parameter is determined to be out of range or abnormal. Replacing the requirement to develop and follow a Compliance Response Plan with a requirement to take reasonable response steps will ensure that the control equipment is returned to proper operation as soon as practicable, while still allowing the Permittee the flexibility to respond to situations that were not anticipated. The Section D conditions that refer to this condition have been revised to reflect the new condition title, and changes have been made to the condition C.18, now C.17.

(k) IDEM has revised Condition C.20, now C.19 – Emission Statement to reflect the new rule.

(l) IDEM has revised C.21, now C.20 – Record Keeping Requirements and C.22, now C.21 – Reporting Requirements to reflect the New Source Review (NSR) rules for existing major sources.

(m) IDEM has revised the Broken or Failed Bag Detection condition in D sections.

(1) Paragraph (a) of the Broken or Failed Baghouse condition has been deleted. For multi-compartment baghouses, the permit will not specify what actions the Permittee needs to take in response to a broken bag. However, a requirement has been added to Particulate Control [326 IAC 2-7-6(6)] requiring the Permittee to notify IDEM if a broken bag is detected and the control device will not be repaired for more than ten (10) days. This notification allows IDEM to take any appropriate actions if the emission unit will continue to operate for a long period of time while the control device is not operating in optimum condition.

D.e.x Particulate Control [326 IAC 2-7-6(6)]

(a) ....

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

(2) Paragraph (b) of the Broken or Failed Baghouse condition has been revised.

D.x.e Broken or Failed Bag Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

~~In the event that bag failure has been observed:~~

~~(a) For multi-compartment units, the affected baghouse compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of~~

~~any response actions taken up to the time of notification.~~

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

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

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

(n) On March 3, 2003, U.S.EPA published a notice for a Conditional Approval of Implementation Plan: Indiana@ in the Federal Register / Vol. 68, No.41 at pages 9892 through 9895. This notice grants conditional approval to the PSD State Implementation Plan (SIP) under provisions of 40 CFR 51.166 and 40 CFR 52.770 while superseding the delegated PSD SIP authority under 40 CFR 52.793. The effective date for these provisions is April 2, 2003. Therefore, the PSD permits will be issued under the authority of 326 IAC 2-2 and will no longer be issued under the provision of 40 CFR 52.21 and 40 CFR 124. Therefore, the references to 40 CFR 52.21 have been deleted throughout the permit.

(o) The 326 IAC 6-3 revisions that became effective on June 12, 2002 were approved into the State Implementation Plan on September 23, 2005. These rules replace the previous version of 326 IAC 6-3 (Process Operations) that had been part of the SIP; therefore, the requirements of the previous version of 326 IAC 6-3-2 are no longer applicable to this source. All conditions in Section Ds have been revised to reflect the new rule.

(p) Upon further review, IDEM has determined that it is the Permittee's responsibility to include routine control device inspection requirements in the applicable preventive maintenance plan. Since the Permittee is in the best position to determine the appropriate frequency of control device inspections and the details regarding which components of the control device should be inspected, the conditions requiring control device inspections have been removed from the permit. In addition, the requirement to keep records of the inspections has been removed.

(q) It has been decided that it is best to have this requirement under compliance determination in the specific D conditions, and remove C.7.

(r) Items (1) through (3), (5) through (8), and (11) below will no longer be subject to PSD BACT, because these emission units will be removed from service upon start up of the modified system. The exhaust from item (11) will be used to convey starch to the Spray Dryer #2 System bins. Items (4), (9) and (10), which went through PSD review, will remain in operation. Item (4) will be installed as the RST feed dryer (21D301) as originally permitted in PSD permit No. 157-18832-00003. This is the same dryer but it will be used for a different product. Items (9) and (10) will not be expanded as originally permitted in PSD permit No. 157-18832-00003.

(1) Feed Dryer (21D6)

(2) Feed Dryer (21D7)

(3) Feed Dryer (21D8)

(4) RST Fiber Pre-Dryer (21DAA) - This dryer

(5) Feed Storage Bins 8V121, 8V123, 8V124,

(6) Meal Storage Bin 8V63,

(7) Meal/Germ Storage Bin 8V53,

(8) Germ Storage Bin 8V54,

(9) Product Storage Bin #10 (41V10).

(10) Product Storage Bin #11 (41V11), and

(11) Product Transfer to Milling (30F13),

(s) The description of the operation in A.2 section is "Corn Receiving and Handling" Operations. Therefore, description in D.1 section has been changed to be consistent with description in A.2 section.

(t) Operation Permits issued by IDEM pursuant to 326 IAC 2-1-4 (now repealed) are not federally enforceable permits, nor are the terms of such permit “applicable requirements” which must be incorporated into the Title V permit. Therefore, references to such operation permit nos. in the permit conditions have been deleted.

(u) All references to continuous monitor or other instruments, which have already been installed, have been deleted mailing address have been deleted.

(v) To be consistent with other sections, "furnish the Commissioner a written report of the results of such performance tests" has been deleted from "Testing Requirements" condition in D sections. This requirement is included in Condition C.8 in Section C of Part 70 Operations Permit.

(w) All references to "Section C" in SSM 157-22808-00003 mean Section C of Part 70 Operations Permit.

The changes listed below have been made to Part 70 Significant Source Modification SSM 157-18832-00003 and Operating Permit No. 157-6009-00003. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold:**

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:	**2245 North Sagamore Parkway, Lafayette, IN 47902** ~~2200 E. Eldorado St., Decatur, IL 62521~~
Source Phone Number:	**(765) 448-7123** ~~(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

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

The emissions unit numbers have been renumbered because of the additions and deletions of the emissions units from SSM 157-18832-00003 and SPM 157-20671-00003.

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

(a) Corn Receiving and **Handling**~~Conveying~~ Operations, consisting of:

(1) One (1) Railcar Corn Dump Hopper, identified as 12V101, constructed in 1966, with emissions controlled by baghouse **08F300**~~21F1~~, **and** exhausting to stack **433** ~~136~~;

(2) One (1) Truck Corn Dump Hopper, identified as 12V102, constructed in 1966, with emissions controlled by baghouse **08F300**~~21F1~~, **and** exhausting to stack **433**~~136~~;

(3) One (1) Bucket Corn Elevator, identified as 12U2, constructed in 1976, with emissions controlled by baghouse **08F300**~~21F1~~, **and** exhausting to stack **433**~~136~~;

(4) Two (2) Corn Transfer Conveyors, identified as 12U4 and 12U5, constructed in 1966, with emissions controlled by baghouse **08F300**~~21F1~~, **and** exhausting to stack **433**~~136~~;

(5) Three (3) Corn Transfer Conveyors, identified as 13U6 through 13U8, constructed in 1986, with emissions controlled by baghouse **08F300**~~21F17~~, **and** exhausting to stack **433**~~136~~;

(6) Two (2) Co-Product Loadout Conveyors, identified as 8U39 and 8U41, constructed in 1966, with emissions controlled by baghouse **08F300** ~~21F17~~, **and** exhausting to stack **433**~~136~~**. These two conveyors will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(7) One (1) Bucket Elevator from Silos to Steeps, identified as 14U9, constructed in 1966, with emissions controlled by baghouse **08F300**~~14F2~~, **and** exhausting to stack **433**~~126~~;

(8) One (1) Corn Weigher, identified as 14V1, constructed in 1986, with emissions controlled by baghouse **08F300**~~14F2~~, **and** exhausting to stack **433**~~126~~;

(9) Two (2) Corn Cleaners, identified as 14J4 and 14J5, constructed in 1992, with emissions controlled by baghouse **08F300**~~14F2~~, **and** exhausting to stack **433** ~~126~~;

(10) One (1) Corn Cleanings Pneumatic Transfer, identified as 21F2, constructed in 1966, with emissions controlled by baghouse 21F2, **and** exhausting to stack 137. **This emissions unit will be shutdown upon operation of the new baghouse 08F300**;

(11) Five (5) Corn Storage Silos, identified as 13V1, 13V2, 13V3, 13V4 and 13V5, constructed in 1966, with emissions controlled by baghouse **08F300**~~21F1~~, **and** exhausting to stack **433**~~136~~;

(12) Two (2) Corn Storage Silos, identified as 13VAA and 13VBB, to be constructed **in 2006/2007**, with emissions controlled by baghouse **08F300**~~21F1~~, **and** exhausting to stack **433**~~136~~;

(13) One (1) Vibrating Corn Cleaning System, identified as 14JAA, to be constructed **in 2006/2007**, with emissions controlled by baghouse **08F300**~~14F2~~, **and** exhausting to stack **433**~~126~~;

(14) One (1) Bucket Elevator from Silos to Steeps, identified as 14UBB, **to be** constructed ~~in 1966~~ **in 2006/2007**, with emissions controlled by baghouse **08F300**~~14F2~~, **and** exhausting to stack **433**~~126~~; and

(15) One (1) Vibrating Corn Cleaning Pneumatic Transfer, identified as 21FMM, to be constructed **in 2006/2007**, with emissions controlled by baghouse **08F300**~~21FMM~~, **and** exhausting to stack **433**~~394~~**.**

(b) Wet Milling Operations, consisting of:

(1) One (1) Fiber Dewatering Screen, identified as 21F100, constructed in 1990, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(2) One (1) Fiber Dewatering Screen, identified as 21F101, constructed in 1997, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(3) One (1) Germ Distribution Conveyor, identified as 21U23, constructed in 1978, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(4) One (1) Gluten Filter Receiver Tank, identified as 21V57, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(5) One (1) Germ Scrubber Water Tank, identified as 21V130, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(6) One (1) Gluten Filter Bowl Drain Tank, identified as 21V159, constructed in 1990, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(7) One (1) Gluten Filter Wash Bar Trough Drain Tank, identified as 21V59, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, exhausting to stack 17;

(8) One (1) Fiber Filtrate Tank, identified as 21V58, constructed in 1990, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(9) One (1) Heavy Steep water Tank, identified as 21V56, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(10) One (1) Monitor Tank, identified as 15V210, constructed in 1990, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(11) Fourteen (14) Corn Steep tanks, identified as 14V3 through 14V16, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(12) Seven (7) Grit Starch Screens, identified as Grit Starch Screens 15J15-15J19, 15J21, and 15J22, constructed in 1990, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(13) One (1) Steeped Corn Separator, identified as 15J5A, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(14) One (1) First Pass Germ Feed Tank, identified as 15V23, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(15) Steeped Corn Surge Hopper, identified as 15V21, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(16) One (1) Second Pass Germ Feed Tank, identified as 15V25, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(17) One (1) Grit Starch Feed Tank, identified as 15V26, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(18) Two (2) Germ Wash Screens, identified as 15J99 and 15J100, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(19) Three (3) Germ Washing Screens, identified as 15J101, 15J200, and 15J201, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(20) One (1) Light Steep water Receiver, identified as 14V19, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(21) Germ Wash Screens, identified as 15J53, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(22) One (1) Third Grind Tank, identified as 15V27, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(23) One (1) Clamshell Wash Water Tank, identified as 15V2, constructed in 1991, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(24) One (1) Clamshell Starch Receiver Tank, identified as 15V42, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(25) One (1) Second Grind Receiver Tank, identified as 15V24, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(26) One (1) First Grind receiver Tank, identified as 15V22, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(27) One (1) Steeped Corn Tank, identified as 14V17, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(28) One (1) Germ Water Tank, identified as 15V139, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(29) Thirty-six (36) Fiber Wash Screens, identified as 1st Stage through 5th Stage Fiber Wash Screens, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(30) One (1) Dent Starch Slurry Storage Tank, identified as 15V43, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, and exhausting to stack 17;

(31) One (1) Steep water Head Tank, identified as 14V18, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(32) One (1) Mill Acid Tank, identified as 14V96, constructed in 1966, with emissions

controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(33) One (1) Primary Wash Box, identified as 15V17, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(34) One (1) Primary Wash Box, identified as 15V19, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(35) Five (5) Fiber Wash Receivers, identified as 15V110 through 15V114, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(36) One (1) Process Water Tank, identified as 15V30, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(37) One (1) Primary Wash Water Tank, identified as 15V41, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(38) One (1) Wash Water Surge Tank, identified as 15V38, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(39) One (1) Primary Feed Tank, identified as 15V34, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(40) One (1) Primary Underflow Tank, identified as 15V35, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(41) One (1) Gluten Thickener Feed Tank, identified as 15V36, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(42) One (1) Heavy Gluten Tank, identified as 15V37, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(43) One (1) Clarifier Feed Tank, identified as 15V40, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(44) One (1) MST Feed Tank, identified as 15V31, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(45) One (1) Gluten Vacuum Filter Pump, identified as 21C7, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(46) One (1) Gluten Vacuum Filter Pump, identified as 21C8, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to

stack 17;

(47) One (1) Gluten Vacuum Filter Pump, identified as 21C9, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(48) One (1) Gluten Vacuum Filter Pump, identified as 21C10, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(49) One (1) Gluten Vacuum Filter, identified as 21F7, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(50) One (1) Gluten Vacuum Filter, identified as 21F8, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(51) One (1) Gluten Vacuum Filter, identified as 21F9, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(52) One (1) Gluten Vacuum Filter, identified as 21F10, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(53) One (1) High DS Starch Filter, identified as 18F510, constructed in 1995, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(54) One (1) High DS Starch Tank, identified as 18V520, constructed in 1995, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(55) One (1) High DS Starch Wash Water Tank, identified as 18V522, constructed in 1995, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(56) Two (2) Second Grind Screens, identified as 15J14, and 15J24, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(57) Six (6) Sixth Stage Fiber Wash Screens, identified as 15J86, 15J87, 15J88, 15J89, 15J220, and 15J221, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(58) One (1) Steep Acid Tank, identified as 14V20, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(59) One (1) Fiber Supply Tank, identified as 15V33, constructed in 2000, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(60) Eight (8) Steep Tanks, identified as **14V400, 14V401, 14V402**~~14VAA, 14VBB, 14VCC~~, 14VDD, 14VEE, 14VFF, 14VGG and 14VHH, to be constructed **in**

2006/2007, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(61) One (1) High DS Starch Vacuum Filter, identified as 18FAA, to be constructed **in 2006/2007**, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(62) Two (2) Water Tube Germ Cooler rotary airlock valves, identified as 21D3 (constructed/permitted in PSD 157-18832-00003, formerly operating as Germ Dryer 21D3), with pneumatic transfer blowback air controlled by an alkaline scrubber 15F401, exhausting to stack 17;

(63) One (1) proposed Gluten Vacuum Filter, identified as 21F5, to be constructed in 2006/2007 with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(64) One (1) proposed Gluten Vacuum Filter Pump, identified as 21C105, to be constructed in 2006/2007, with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(65) One (1) Gluten Vacuum Filter, identified as **21F6**~~21FAA~~, to be constructed **in 2006/2007**, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(66) One (1) Gluten Vacuum Filter Pump, identified as **21C6**~~21CBB~~, to be constructed **in 2006/2007**, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(67) Fiber Dewatering Screens, identified as 21FNN, to be constructed **in 2006/2007**, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17; and

(68) **8 Bldg.**~~18 Bldg.~~ Process Tanks and screens, to be constructed, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17.

(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, **and** exhausting indoors to stack 1**. The Feed Hopper 21V60 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(2) One (1) Meal Hopper, identified as 21V61, constructed in 1965, with emissions controlled by baghouse 21F15, **and** exhausting indoors to stack 2. **The Meal Hopper 21V61 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(3) One (1) Rail Loadout Conveyor, identified as 12U11, constructed in 1991, with emissions controlled by baghouse 12F40, **and** exhausting to stack 3**. The Rail Loadout Conveyor 12U11 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(4) One (1) RST **Feed Dryer**~~ Fiber Pre-Dryer~~, identified as **21D301**~~21DAA~~. PM and PM_{10} emissions are controlled by product collector/cyclone **21F301**~~21FCC~~, then PM, PM_{10} and sulfur dioxide emissions controlled by scrubber 21F13, then VOC

emissions controlled by Thermal Oxidation Units **48F201 and 48F202**~~48FGG and 48FHH~~, before exhausting to stack 17;

(5) One (1) RST Germ Dryer, identified as **21D401**~~21DBB~~, PM and PM_{10} emissions are controlled by product collectors/cyclones **21F401**~~21FEE~~, then PM, PM_{10} and sulfur dioxide emissions controlled by scrubber 21F13, then VOC emissions controlled by Thermal Oxidation Units **48F201 and 48F202**~~48FGG and 48FHH~~, before exhausting to stack 17. This new dryer will replace the three existing dryers;

(6) Three (3) existing steam tube dryers constructed in 1966, identified as 21D1, 21D2, and 21D3, PM and PM_{10} are controlled by scrubber 21F13, and exhausting to stack 17. These dryers will be shutdown after the new germ dryer starts up;

(7) One (1) **natural gas or biogas fired** Gluten Flash Dryer, **with a heat input capacity of 30 MMBtu/hr**, identified as **48D101**~~48DAA~~. PM and PM10 emissions are controlled by product collectors/cyclones **48F101-48F102**~~48FAA-48FFF~~, then PM, PM_{10} and sulfur dioxide emissions controlled by scrubber 21F13, then VOC emissions controlled by Thermal Oxidation Units **48F201 and 48F202**~~48FGG and 48FHH~~, before exhausting to stack 17;

(8) One (1) Fiber Flash Dryer, identified as 21D501, PM and PM_{10} emissions are controlled by product collectors/cyclones 21F501-21F502, then PM, PM_{10} and sulfur dioxide emissions are controlled by scrubber 21F13, then VOC emissions controlled by Thermal Oxidation Units 48F201 and 48F202, before exhausting to stack 17;

(9) One (1) natural gas or biogas fired Fiber Flash Dryer Furnace, identified as 21B501, with a heat input capacity of 60 MMBtu/hr, with emissions uncontrolled, and exhausting to stack 17. This emissions unit is part of Fiber Flash Dryer 21D501 for the purposes of NSPS, 40 CFR 60, Subpart Dc, and NESHAP, 40 CFR 63, Subpart DDDDD. This emissions unit is subject to 40CFR 60, Subpart Dc. Under National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters (e.g., the Boiler NESHAP (40 CFR 63, Subpart DDDDD)), this Fiber Flash Dryer Furnace is considered a new large gaseous fuel unit;

(10) One (1) Feed Cooler, identified as 21D8 (formerly operating as Meal Dryer 21D8), with emissions controlled by scrubber 21F311, exhausting as combustion air into the furnace of Gluten Flash Dryer 48D101 and/or the Fiber Flash Dryer Furnace 21B501, and/or with PM and PM_{10} emissions controlled by Thermal Oxidation Units 48F201 and 48F202, before exhausting to stack 17;

(11) One (1) 21D6 natural gas, No. 2 fuel oil, or biogas fired Feed Dryer, identified as 21D6, constructed in 1966, with a heat input capacity of 30 MMBtu/hr. PM and PM10 emissions controlled by integral product collector/cyclone 21F26, then sulfur dioxide emissions controlled by scrubber 21F13, ~~then VOC emissions controlled by Thermal Oxidation Units 48FGG and 48FHH,~~ before exhausting to stack 17. **Dryer 21D6 will be shutdown upon startup and operation of the RST Feed Dryer and Fiber Flash Dryer;**

(12) One (1) 21D7 natural gas, No. 2 fuel oil, or biogas fired Feed or Meal Dryer, identified as 21D7, constructed in 1966, with a heat input capacity of 30 MMBtu/hr. PM and PM10 emissions controlled by integral product

collector/cyclone 21F27, then sulfur dioxide emissions controlled by scrubber 21F13, ~~then VOC emissions controlled by Thermal Oxidation Units 48FGG and 48FHH,~~ before exhausting to stack 17. **Dryer 21D7 will be shutdown upon startup and operation of the RST Feed Dryer and Fiber Flash Dryer;**

(13) One (1) 21D8 natural gas, No. 2 fuel oil fired, or biogas fired Meal Dryer or backup Feed Dryer ~~-~~identified as 21D8, constructed in 1966, with a heat input capacity of 30 MMBtu/hr. PM and PM_{10} emissions are controlled by integral product collector/cyclone 21F28, then sulfur dioxide emissions controlled by scrubber 21F13, ~~then VOC emissions are controlled by Thermal Oxidation Units 48FGG and 48FHH,~~ before exhausting to stack 17**. Dryer 21D8 will be shutdown upon startup and operation of the RST Feed Dryer and Fiber Flash Dryer;**

(14) One (1) Feed Storage Bin, identified as 8V121, constructed in 1966, with emissions controlled by baghouse 8F1, **and** exhausting to stack 110**. Bin 8V121 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(15) One (1) Feed Storage Bin, identified as 8V122, constructed in 1966, with emissions controlled by baghouse 8F2, **and** exhausting to stack 111**. Bin 8V122 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(16) One (1) Feed Storage Bin, identified as 8V123, constructed in 1966, with emissions controlled by baghouse 8F3, **and** exhausting to stack 112**. Bin 8V123 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(17) One (1) Feed Storage Bin, identified as 8V124, constructed in 1966, with emissions controlled by baghouse 8F4, **and** exhausting to stack 113**. Bin 8V124 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(18) One (1) Feed/Meal Storage Bin, identified as 8V62, constructed in 1966, with emissions controlled by baghouse 8F62, **and** exhausting to stack 114**. Bin 8V62 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(19) One (1) Meal Storage Bin, identified as 8V63, constructed in 1966, with emissions controlled by baghouse 8F63, **and** exhausting to stack 115**. Bin 8V63 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(20) One (1) Meal/Germ Storage Bin, identified as 8V53, constructed in 1966, with emissions controlled by baghouse 8F53, **and** exhausting to stack 116**. Bin 8V53 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(21) One (1) Germ Storage Bin, identified as 8V54, constructed in 1966, with emissions controlled by baghouse 8F54, **and** exhausting to stack 117**. Bin 8V54 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(22) Two (2) Air Conveying Lines to Loadout, identified as AC23 and AC24,

constructed in 1966, with emissions controlled by baghouse 12F39, **and** exhausting to stack 125**. The AC23 and AC24 air conveying line controlled by baghouse 12F39 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(23) One (1) Feed Mill, identified as 21G51, constructed in 1965, with emissions controlled by baghouse 21F37, **and** exhausting to stack 141. **Feed Mill 21G51, controlled by baghouse 21F37, will be shutdown upon startup and operation of the new feed mills**;

(24) One (1) Feed Mill, identified as 21G52, constructed in 1965, with emissions controlled by baghouse 21F38, **and** exhausting to stack 142. **Feed Mill 21G52, controlled by baghouse 21F37, will be shutdown upon startup and operation of the new feed mills**;

(25) **One (1) Feed Mill, identified as 21G351, with emissions controlled by scrubber 21F312, and exhausting to stack 444;**

(26) **One (1) Feed Mill, identified as 21G352, with emissions controlled by scrubber 21F312, and exhausting to stack 444;**

(27) One (1) D6 Dryer Air Conveying Line to Feed Mill, identified as AC6, constructed in 1966, with emissions controlled by baghouse 21F32, **and** exhausting to stack 143**. The AC6 conveying line controlled by baghouse 21F32 will be shutdown upon startup and operation of the RST Feed Dryer and Fiber Flash Dryer**;

(28) One (1) D7 Dryer Air Conveying Line to Feed Mill, identified as AC7, constructed in 1966, with emissions controlled by baghouse 21F35, **and** exhausting to stack 144**. The AC7 conveying line controlled by baghouse 21F35 will be shutdown upon startup and operation of the RST Feed Dryer and Fiber Flash Dryer;**

(29) One (1) **48D101**~~D8~~ Dryer Air Conveying Line~~ to Feed Mill, ~~identified as AC8, constructed in 1966, with emissions controlled by baghouse 21F36, **and** exhausting to stack 145. **The AC8 air conveying line controlled by baghouse 21F36 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(30) One (1) Bag Dump Station, identified as 8V99, constructed in 1966, with emissions controlled by baghouse 8F99, **and** exhausting indoors to stack 285. **Bag Dump Station 8V99 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems.**~~; and~~

(31) Two (2) Natural Gas ~~/ Biogas ~~Fired Thermal Oxidation Units, identified as **48F201 and 48F202**~~48FGG and 48FHH~~, with heat input capacity of 5 million Btu per hour each;

(32) One (1) Corn Cleanings Receiver, identified as 21F304, with emissions controlled by scrubber 21F311, exhausting as combustion air into the furnace of Gluten Flash Dryer 48D101 and/or the Fiber Flash Dryer Furnace 21B501 and/or with PM and PM_{10} emissions controlled by Thermal Oxidation Units 48F201 and 48F202, before exhausting to stack 17;

(33) One (1) Feed Loadout Hopper, identified as 21V125, with emissions

aspirated to the inlet of Feed Cooler 21D8 to be used as cooling air;

(34) One (1) Feed Milling Loadout Conveyor, identified as 21U314, with emissions controlled by scrubber 21F312, and exhausting to stack 444;

(35) One (1) Gluten Meal Transfer to Storage Bin, identified as 12FAA, with emissions controlled by baghouse 12FAA, and exhausting to stack 445;

(36) One (1) Gluten Meal Storage Bin, identified as 12VAA, with emissions controlled by baghouse 12FBB, and exhausting to stack 447;

(37) Two (2) Gluten Truck and Rail Loadout Conveyors, identified as 12UAA and 12UBB, with emissions controlled by baghouse 12FBB, and exhausting to stack 447;

(38) One (1) Germ Storage Bin, identified as 12VCC, with emissions controlled by baghouse 12FCC, and exhausting to stack 446; and

(39) One (1) Germ Rail Loadout Conveyor, identified as 12UCC, with emissions controlled by baghouse 12FCC, and exhausting to stack 446.

(d) Syrup Refining Operations, consisting of:

(1) One (1) GMH Storage Silo, identified as 9V32, constructed in 1966, with emissions controlled by baghouse 9F32, **and** exhausting to stack 119;

(2) One (1) Filteraid Storage Silo, identified as 9V31, constructed in 1966, with emissions controlled by baghouse 9F31, **and** exhausting to stack 123;

(3) One (1) Powdered Carbon Unloading, identified as 9C30, constructed in 1966, with emissions controlled by baghouse 9F30, **and** 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, **and** exhausting to stack 129;

(5) One (1) Soda Ash Storage Tank, identified as 9C40, constructed in 1966, with emissions controlled by eductor/scrubber 9E1, **and** exhausting to stack 149;

(6) One (1) HCl Storage Tank (Concentrated), identified as 9V101, constructed in 1995, with emissions controlled by scrubber 9F102, **and** exhausting to stack 156;

(7) One (1) Jet Cooker system/Jet Conversion Flash Chamber, identified as 18V413, constructed in 1966, **with SO_2 and VOC emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17** ~~uncontrolled, exhausting to stack 166~~;

(8) One (1) Jet Cooker system/Acid Reject Flash Chamber, identified as 18V312, constructed in 1966, with emissions uncontrolled, **and** exhausting to stack 320;

(9) One (1) Powdered Carbon Storage Silo, identified as 9V30, constructed in 1966, with emissions controlled by baghouse 9F37, **and** exhausting to stack 321; and

(10) One (1) Refinery Reprocess Bag Dump, identified as 45C43, constructed in 2000, with emissions controlled by baghouse 45F43, **and** exhausting indoors.

(e) Starch Modification Operations, consisting of:

(1) One (1) Non-PO Reactor, identified as 45V115, constructed in 1966, **and** exhausting to stack 11;

(2) One (1) Non-PO Reactor, identified as 45V116, constructed in 1966, **and** exhausting to stack 12;

(3) One (1) Non-PO Reactor, identified as 45V222, constructed in 1973, **and** exhausting to stack 31;

(4) One (1) PO Reactor, identified as 45V223, constructed in 1973, with emissions controlled by scrubber 45F212, **and** exhausting to stack 50;

(5) One (1) PO Reactor, identified as 45V240, constructed in 1986, with emissions controlled by scrubber 45F212, **and** exhausting to stack 50;

(6) One (1) PO Reactor, identified as 45V241, constructed in 1986, with emissions controlled by scrubber 45F212, **and** exhausting to stack 50;

(7) One (1) PO Reactor, identified as 45V242, constructed in 1986, with emissions controlled by scrubber 45F212, **and** exhausting to stack 50;

(8) One (1) PO Reactor, identified as 45V243, constructed in 1986, with emissions controlled by scrubber 45F212, **and** exhausting to stack 50;

(9) One (1) PO Reactor, identified as 45V246, constructed in 1988, with emissions controlled by scrubber 45F212, **and** exhausting to stack 50;

(10) One (1) PO Reactor, identified as 45V247, constructed in 1988, with emissions controlled by scrubber 45F212, **and** exhausting to stack 50;

(11) One (1) PO Reactor, identified as 45V248, constructed in 1991, with emissions controlled by scrubber 45F212, **and** 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, **and** exhausting to stack 50;

(14) One (1) PO Reactor, identified as 45V280, constructed in 2002, with emissions controlled by scrubber 45F212, **and** exhausting to stack 50;

(15) One (1) PO Reactor, identified as 45V281, constructed in 2002, with emissions controlled by scrubber 45F212, **and** 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, **and** exhausting to stack 64;

(17) One (1) Tri-Polyphosphate Storage Bin, identified as 9V103, constructed in 1988, with emissions controlled by baghouse 9F103, **and** exhausting to stack 68;

(18) Two (2) Flash 2 Slurry Hold Tanks, identified as 40V20 and 40V21, constructed in

1990, with emissions uncontrolled, **and** exhausting to stack 80;

(19) Four (4) Belt Dryer Feed Tanks, identified as 45V117 through 45V120, constructed in 1966, with emissions uncontrolled, **and** exhausting to stack 180;

(20) Two (2) Spray Dryer Feed Tanks, identified as 30V1 and 30V2, constructed in 1986, with emissions uncontrolled, **and** exhausting to stack 195;

(21) Three (3) Spray Dryer Process Tanks, identified as 40V11, 40V12, and 40V14, constructed in 1988, with emissions uncontrolled, **and** 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, **and** 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, **and** exhausting to stack 250;

(25) Three (3) Flash 3 Larox Filters, identified as 43F71, 43F72, and 43F73, constructed in 1995, with emissions uncontrolled, **and** exhausting to stack 260;

(26) One (1) Flash 3 Larox Air Release Tank, identified as 43V85, constructed in 1995, with emissions uncontrolled, **and** exhausting to stack 261;

(27) Two (2) Flash 3 Slurry Hold Tanks, identified as 43V71 and 43V72, constructed in 1995, with emissions uncontrolled, **and** exhausting to stack 273;

(28) One (1) Flash 1 Starch Hold Tank, identified as 40V50, constructed in 1996, with emissions uncontrolled, **and** exhausting to stack 289;

(29) One (1) Conveyor 40U2, identified as 40U2, constructed in 1985, with emissions uncontrolled, **and** exhausting to stack 315;

(30) One (1) Flash 1 Slurry Hold Tank, identified as 40V1, constructed in 1985, with emissions uncontrolled, **and** exhausting to stack 315;

(31) One (1) Filtrate Reineveldt Centrifuge Flash Dryer 1, identified as 40Y1, with emissions uncontrolled, constructed in 1985, **and** exhausting to stack 315;

(32) One (1) Flash 3 Larox Air Release Tank, identified as 43V86, constructed in 1995, with emissions uncontrolled, **and** exhausting to stack 318;

(33) One (1) Starch Feed Bin, identified as 33V1, constructed in 1995, with emissions controlled by baghouse 33F1, **and** exhausting **via vent 236** to stack **355.** ~~236;~~

(34) One (1) Starch Feed Bin, identified as 33V2, constructed in 1995, with emissions controlled by baghouse 33F2, **and** exhausting **via vent 237** to stack **355.** ~~237;~~

(35) One (1) Low Pressure Dry Starch Reactor, identified as 33R1, constructed in 1995, with emissions controlled by baghouses 33F101 and 33F102, **and** exhausting to stack 238;

(36) One (1) Catalyst Bin, identified as 33V5, constructed in 1995, with emissions

controlled by baghouse 33F5, **and** 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, **and** exhausting to stack 240;

(38) One (1) Reactor Surge Bin, identified as 50V61, constructed in 1997, with emissions controlled by baghouse 50F161, **and** exhausting **via vent 241** to stack **361.** ~~241;~~

(39) One (1) Reactor Surge Bin, identified as 50V62, constructed in 1997, with emissions controlled by baghouse 50F162, **and** exhausting **via vent 242** to stack **361.** ~~242;~~

(40) One (1) Dry Starch Product Screening Receiver, identified as 50F48, constructed in 1997, with emissions controlled by baghouse 50F48, **and** exhausting **via vent 243** to stack **355.** ~~243;~~

(41) One (1) Dry Starch Blend Bin, identified as 33V42, constructed in 1995, with emissions controlled by baghouse 33F42, **and** exhausting **via vent 244** to stack **355** ~~244~~;

(42) One (1) Dry Starch Blend Bin, identified as 33V43, constructed in 1995, with emissions controlled by baghouse 33F43, **and** exhausting **via vent 245** to stack **355** ~~245~~;

(43) One (1) Dry Starch Blend Bin, identified as 33V40, constructed in 1995, with emissions controlled by baghouse 33F40, **and** exhausting **via vent 246** to stack **355** ~~246~~;

(44) One (1) Dry Starch Blend Bin, identified as 33V41, constructed in 1995, with emissions controlled by baghouse 33F41, **and** exhausting **via vent 247** to stack **355** 247;

(45) One (1) Dry Starch Product Screening Receiver, identified as 50F45, constructed in 1997, with emissions controlled by baghouse 50F45, **and** exhausting **via vent 262** to stack **355**; ~~262; and~~

(46) One (1) Flash 2 Air Release Tank, identified **as** 40V16, constructed in 2002, with emissions uncontrolled, exhausting to stack 251;

(47) Six (6) Propylated Starch Reactors, identified as **45V292, 45V293, 45V294, 45V295, 45V296**~~45VAA, 45VBB, 45VCC, 45VDD, 45VEE~~ and 45VFF, with VOC emissions controlled by packed bed scrubbers 45FAA or 45F212, **and** exhausting to stack 399 or stack 50;

(48) One (1) Sodium Sulfate Storage Bin, identified as 45BVAA, with emissions controlled by baghouse 45BFAA, **and** exhausting to stack 400;

(49) Two (2) Flash 4 Slurry Hold Tanks, identified as 44V1 and 44V2, with emissions uncontrolled, **and** exhausting to stack 419;

(50) Three (3) Flash 4 Larox Filters, identified as 44FKK, 44FLL and 44FMM, with emissions uncontrolled, **and** exhausting to stack 420;

(51) One (1) Flash 4 Larox Filter Feed Tank, identified as 44V3, with emissions uncontrolled, **and** exhausting to stack 420;

(52) One (1) Flash 4 Larox Air Release Tank, identified as 44V4, with emissions uncontrolled, **and** exhausting to stack 421;

(53) One (1) Flash 4 Larox Air Release Tank, identified as 44V5, with emissions uncontrolled, **and** exhausting to stack 422;

(54) Two (2) Spray dryer 2 Feed Tanks, identified as **46V200 and 46V297**~~46V1 and 46V2~~, with emissions uncontrolled, **and** exhausting to stack**s** 423 **and 434**;

(55) One (1) Spray dryer 2 **Waste Surge**~~Overflow~~ Tank, identified as **46V213**~~46V3~~ with emissions uncontrolled, **and** exhausting to stack 424;

(56) One (1) Spray dryer 2 **Sweco**~~Bowl Drain~~ Tank, identified as **46V201**~~46V4~~ with emissions uncontrolled, **and** exhausting to stack **436**~~424~~;

(57) One (1) Spray dryer 2 Under Flow Tank, identified as **46V204**~~46V5~~ with emissions uncontrolled, **and** exhausting to stack **435**~~424~~;

(58) One (1) Raw Starch Storage Bin, identified as 20VAA, with emissions controlled by baghouse 20FAA, **and** exhausting to stack 369;

(59) One (1) Raw Starch Storage Bin, identified as 20VBB, with emissions controlled by baghouse 20FBB, **and** exhausting to stack 370;

(60) One (1) Starch Slurry Storage Tank, identified as 18AVAA, with emissions controlled by baghouse 18AFAA, **and** exhausting to stack 371;

(61) One (1) Starch Feed Bin, identified as 41VAA, with emissions controlled by baghouse 41FKK, **and** exhausting to stack 372;

(62) One (1) Starch Weigh Bin, identified as 33VAA, with emissions controlled by baghouse 33FAA, **and** exhausting to stack 373;

(63) One (1) Dextrin Fluidizer Reactor, identified as 33RAA, with emissions controlled by cyclone 33FBB and baghouse 33FCC, **and** exhausting to stack 374;

(64) One (1) Dextrin Fluidizer Surge Bin, identified as 33VBB, with emissions controlled by baghouse 33FDD, **and** exhausting via vent 375 to stack 355;

(65) One (1) Dextrin Blending and Storage Bin, identified as 33VCC, with emissions controlled by baghouse 33FFF, **and** exhausting via vent 377 to stack 355;

(66) One (1) Dextrin Blending and Storage Bin, identified as 33VDD, with emissions controlled by baghouse 33FGG, **and** exhausting via vent 378 to stack 355; and

(67) One (1) Dextrin Product Screening Receiver, identified as 33FEE, with emissions controlled by baghouse 33FEE, **and** exhausting via vent 376 to stack 355.

(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, **and** exhausting to stack 69;

(2) One (1) Pneumatic Product Transfer, identified as 40F7, constructed in 1986, with emissions controlled by 40F7, **and** exhausting to stack 70;

(3) One (1) Starch Storage Bin #8, identified as 7V8, constructed in 1986, with emissions controlled by baghouse 7F8, **and** exhausting to stack 71;

(4) One (1) Starch Storage Bin #9, identified as 7V9, constructed in 1986, with emissions controlled by baghouse 7F9, **and** 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, **and** exhausting to stack 73;

(6) One (1) Starch Product Bin #20, identified as 7V20, constructed in 1992, with emissions controlled by baghouse 7F20, **and** exhausting to stack 76;

(7) One (1) Starch Product Bin #21, identified as 7V21, constructed in 1992, with emissions controlled by baghouse 7F21, **and** exhausting to stack 77;

(8) One (1) Starch Product Bin #22, identified as 7V22, constructed in 1992, with emissions controlled by baghouse 7F22, **and** exhausting to stack 78;

(9) One (1) Starch Grinder/Mill #1, identified as 40G20, constructed in 1990, with emissions controlled by baghouse 40F28, exhausting via vent 286 to stack 360;

(10) One (1) Starch Grinder/Mill #2, identified as 40G21, constructed in 1990, with emissions controlled by baghouse 40F29, **and** exhausting via vent 287 to stack 360;

(11) One (1) Grinder Feed Collector 40F27, identified as 40F27, constructed in 1990, **and** 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, **and** exhausting to stack 265;

(13) One (1) Flash #3 Mill, identified as 40G88, constructed in 1996, with emissions controlled by baghouse 40F88, **and** 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, **and** exhausting to stack 267;

(15) One (1) Starch Bin #34, identified as 7V34, constructed in 1995, with emissions controlled by baghouse 7F34, **and** exhausting to stack 268;

(16) One (1) Starch Bin #35, identified as 7V35, constructed in 1995, with emissions controlled by baghouse 7F35, **and** exhausting to stack 269;

(17) One (1) Adipic Acid Storage Bin, identified as 43V90, constructed in 1996, with emissions controlled by baghouse 43F90, **and** exhausting to stack 274;

(18) One (1) Starch Transfer Bin #91, identified as 7V91, constructed in 1999, with emissions controlled by baghouse 7F91, **and** exhausting to stack 345;

(19) One (1) Starch Transfer Bin #92, identified as 7V92, constructed in 1999, with emissions controlled by baghouse 7F92, **and** exhausting to stack 346;

(20) One (1) Starch Roll Dryer #1, identified as 41D1, constructed in 1986, with emissions uncontrolled, **and** exhausting to stack 91;

(21) One (1) Starch Roll Dryer #2, identified as 41D2, constructed in 1986, with emissions uncontrolled, **and** exhausting to stack 92;

(22) One (1) Starch Roll Dryer #3, identified as 41D3, constructed in 1986, with emissions uncontrolled, **and** exhausting to stack 93;

(23) One (1) Starch Roll Dryer #4, identified as 41D4, constructed in 1993, with emissions uncontrolled, **and** exhausting to stack 94;

(24) One (1) Starch Roll Dryer #5, identified as 41D5, constructed in 1995, with emissions uncontrolled, **and** exhausting to stack 232;

(25) One (1) Starch Roll Dryer #6, identified as 41D6, constructed in 1995, with emissions uncontrolled, **and** exhausting to stack 233;

(26) One (1) Starch Roll Dryer #7, identified as 41D7, constructed in 1997, with emissions uncontrolled, **and** exhausting to stack 234;

(27) One (1) Starch Roll Dryer #8, identified as 41D8, constructed in 2000, with emissions uncontrolled, **and** exhausting to stack 235;

(28) One (1) Pneumatic Product Transfer Roll Dryer, identified as **41F200**~~41F210~~, constructed in 1986, with emissions controlled by baghouse **41F200**~~41F210~~, **and** exhausting to the intake of mill **41G200**~~41G202~~;

(29) One (1) Roll Dryer Mill, identified as 41G200, constructed in 1986, with emissions controlled by baghouse 41F210, and exhausting via vent 96 to stack 355;

(30) One (1) Product Bin #10, identified as 41V10, constructed in 1993, with emissions controlled by baghouse 41F10, **and** exhausting to stack 97;

(31) One (1) Product Bin #11, identified as 41V11, constructed in 1993, with emissions controlled by baghouse 41F11, **and** exhausting to stack 98;

(32) One(1) Roll Dryer Mill, identified as 41G201, constructed in 1993, with emissions controlled by baghouse 41F211, and exhausting via vent 100 to stack 355;

(33) One (1) Pneumatic Product Transfer Roll Dryer, identified as 41F201, constructed in 1993, with emissions controlled by baghouse 41F201, **and** exhausting to the intake of mill **41G201**~~41G202~~;

(34) One (1) Starch Product Bin #44, identified as 33V44, constructed in 1995, with emissions controlled by baghouse 33F44, **and** exhausting to stack 248;

(35) One (1) Bulk Bag Dump Station, identified as 41F13, constructed in 2000, with emissions controlled by baghouse 41F13, **and** exhausting indoors 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, **and** exhausting to stack 82;

(37) One (1) Product Transfer to Milling, identified as 30F13, constructed in 1987, ~~with emissions~~ **and exhausting to the intakes of bins 41V45, 41V46, 41V47, and 33V44**~~controlled by baghouse 30F13, exhausting via vent 83 to stack 360~~;

(38) One (1) Dryer Mill, identified as 30G1, constructed in 1987, with emissions controlled by baghouse 30F15, **and** exhausting via vent 84 to stack 360;

(39) One (1) Product Transfer to Bins #14**,** #15, **and #KK,** identified as 41C30, constructed in 1987, with emissions controlled by baghouses 41F14**,**~~ and~~ 41F15, **and 41FMM, and** exhausting via vent 85 into stack 355;

(40) One (1) Product Transfer to Bins #17~~,~~**and** #18~~, #44 and EE~~, identified as 41C35, constructed in 1987, with emissions controlled by baghouses 41F20~~,~~ **and** 41F21~~,~~ ~~41F54, and 41FEE~~, **and** exhausting via vent 86 into stack 355;

(41) One (1) Product Bin #14, identified as 41V14, constructed in 1987, with emissions controlled by baghouse 41F16, **and** exhausting to stack 87;

(42) One (1) Product Bin #15, identified as 41V15, constructed in 1987, with emissions controlled by baghouse 41F17, **and** exhausting to stack 88;

(43) One (1) Product Bin #17, identified as 41V17, constructed in 1987, with emissions controlled by baghouse 41F22, **and** exhausting to stack 89;

(44) One (1) Product Bin #18, identified as 41V18, constructed in 1987, with emissions controlled by baghouse 41F23, **and** 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, **and** exhausting to stack 104;

(47) One (1) Product Bin #5, identified as 7V46, constructed in 1966, with emissions controlled by baghouse 7F69, **and** exhausting to stack 105;

(48) One (1) Product Bin #4, identified as 7V47, constructed in 1966, with emissions controlled by baghouse 7F70, **and** exhausting to stack 106;

(49) One (1) Product Bin #3, identified as 7V48, constructed in 1966, with emissions controlled by baghouse 7F71, **and** exhausting to stack 107;

(50) One (1) Product Bin #2, identified as 7V49, constructed in 1966, with emissions controlled by baghouse 7F72, **and** exhausting to stack 108;

(51) One (1) Product Bin #1, identified as 7V50, constructed in 1966, with emissions controlled by baghouse 7F73, **and** exhausting to stack 109;

(52) One (1) Belt Dryer Mill, identified as 25G1, constructed in 1968, with emissions controlled by baghouse 25F2, **and** 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, **and** 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, **and** exhausting via vent 349 to stack 361;

(56) One (1) Agglomeration Blender Receiver/Baghouse, identified as 50F106, constructed in 2001, with emissions controlled by baghouse 50F106, **and** exhausting via vent 350 to stack 361;

(57) Starch Roll Dryer #**301**~~9~~, identified as **19D301**~~41D9~~, **to be constructed in 2006/2007,** with emissions uncontrolled, **and** exhausting to stack 405;

(58) Starch Roll Dryer #**302**~~10~~, identified as **19D302**~~41D10~~, **to be constructed in 2006/2007,** with emissions uncontrolled, **and** exhausting to stack 406;

(59) Starch Roll Dryer #**303**~~11~~, identified as **19D303**~~41D11~~, **to be constructed in 2006/2007,** with emissions uncontrolled, **and** exhausting to stack 407;

(60) Starch Roll Dryer #12, identified as 41D12, **to be constructed in 2006/2007,** with emissions uncontrolled, **and** exhausting to stack 408;

(61) Starch Roll Dryer #13, identified as 41D13, **to be constructed in 2006/2007,** with emissions uncontrolled, **and** exhausting to stack 409;

(62) Starch Roll Dryer #14, identified as 41D14, to **be constructed in 2006/2007,** with emissions uncontrolled, **and** exhausting to stack 410;

(63) One (1) Roll Dryer Mill Feed Collector Baghouse, identified as **19F400**~~41FAA,~~ **to be constructed in 2006/2007,** with emissions controlled by baghouse **19F400**~~41FAA~~, **and** exhausting **to the intake of Mill 19G401**~~via vent 365 to stack 355~~;

(64) One (1) Roll Dryer System Mill, identified as **19G401**~~41G202~~, **to be constructed in 2006/2007,** with emissions controlled by baghouse **19F402**~~41F202~~, **and** exhausting via vent 366 to stack **404**~~355~~;

(65) One (1) Starch Blend Bin #1, identified as 07VDD, **to be constructed in 2006/2007,** with emissions controlled by baghouse 07FDD, **and** exhausting to stack 383;

(66) One (1) Starch Blend Bin #2, identified as 07VEE, **to be constructed in**

2006/2007, with emissions controlled by baghouse 07FEE, **and** exhausting to stack 384;

(67) One (1) Product Bin #AA, identified as 07VAA, **to be constructed in 2006/2007,** with emissions controlled by baghouse 07FAA, **and** exhausting to stack 385;

(68) One (1) Product Bin #BB, identified as 07VBB, **to be constructed in 2006/2007,** with emissions controlled by baghouse 07FBB, **and** exhausting to stack 386;

(69) One (1) Product Bin #CC, identified as 07VCC, **to be constructed in 2006/2007,** with emissions controlled by baghouse 07FCC, **and** exhausting to stack 387;

(70) One (1) Product Bin **#45**~~#EE~~, identified as **41V45**~~41VEE~~, **to be constructed in 2006/2007,** with emissions controlled by baghouse **41F45**~~41FEB~~, **and** exhausting to stack 226.

(71) One (1) Product Bin **#46**~~#HH~~, identified as **41V46**~~41VHH~~, **to be constructed in 2006/2007,** with emissions controlled by baghouse **41F46**~~41FHH~~, **and** exhausting to stack 255;

(72) One (1) Mill #3, identified as 44GAA, **to be constructed in 2006/2007,** with emissions controlled by baghouse 44FII, **and** exhausting via vent 389 to stack 388;

(73) One (1) Mill #4, identified as 44GBB, **to be constructed in 2006/2007,** with emissions controlled by baghouse 44FJJ, **and** exhausting via vent 390 to stack 388;

(74) One (1) Natural Gas Fired Spray Dryer #2, identified as **46D200**~~46DAA~~, **to be constructed in 2006/2007,** with heat input capacity of 45 million Btu per hour, with PM and PM_{10} emissions controlled by cyclones **46F221 through 46F224**~~46FAA through 46FFF~~ and baghouses **46F231 through 46F232**~~46FGG through 46FLL~~, **and** exhausting via vent 360 to stack 360. Nitrogen oxide (NO_X) emissions are controlled by low-NO_X burners rated at 0.04 lb/MMBtu;

(75) One (1) Natural Gas Fired Spray Dryer #3, identified as 51DAA, **to be constructed in 2006/2007,** with heat input capacity of 16 million Btu per hour, with emissions controlled by cyclones 51FAA and 51FBB and baghouse 51FCC, **and** exhausting via vent 361 to stack 361. Nitrogen oxide (NO_X) emissions are controlled by low-NO_X burners rated at 0.04 lb/MMBtu; ~~and~~

(76) One (1) Natural Gas Fired Starch Flash Dryer #4, identified as 44DAA, **to be constructed in 2006/2007,** with heat input capacity of 40 million Btu per hour, with emissions controlled by cyclones 44FAA through 44FFF and wet scrubber 44FGG, **and** exhausting to stack 388. Nitrogen oxide (NO_X) emissions are controlled by low-NO_X burners rated at 0.04 lb/MMBtu**;**~~.~~

(77) One (1) Spray Dryer #2 Mill, identified as 30GAA, to be constructed in 2006/2007, with emissions controlled by baghouse 30FAA, and exhausting via vent 431 to stack 360;

(78) One (1) Product Bin #47, identified as 41V47, to be constructed in 2006/2007, with emissions controlled by baghouse 41F47, and exhausting via vent 432; and

(79) One (1) Product Bin #KK, identified as 41VKK, to be constructed in 2006/2007, with emissions controlled by baghouse 41FPP, and exhausting via vent 443.

(g) Starch Packaging and Loadout Operations, consisting of:

(1) One (1) Product Bin #6/House Vacuum System, identified as 17V6 and 17F5, constructed in 1984, with emissions controlled by baghouse 17F6, **and** exhausting via vent 190 into stack 177;

(2) One (1) Product Transfer to Main Packer #1, identified as 16F5, constructed in 1966, with emissions controlled by baghouse 16F5, **and** 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, **and** exhausting to stack 102;

(4) One (1) Packer #1, identified as 17Z38, constructed in 1966, with emissions controlled by baghouse 17F10, **and** exhausting into stack 177;

(5) One (1) Reprocess Bag/Tote Dump, identified as 17U58, constructed in 1997, with emissions controlled by baghouse 17F58, **and** 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, **and** exhausting to stack 177;

(7) One (1) Bag Packer #2, identified as 17Z01, constructed in 1995, with emissions controlled by baghouse 17F01, **and** exhausting to stack 177;

(8) One (1) **Spray Cook Starch Product Transfer to Bag Packer #3 (41Z3)**~~Spray Dryer Product Transfer to Bag Packer #3 (North Spouts)~~, identified as 41F7, constructed in 1986, with emissions controlled by baghouse 41F7, **and** exhausting via vent 184 to stack 355;

(9) One (1) **Spray Cook/O.S. Starch Products Bag Packer #3** ~~Spray Dryer Products Bag Packer #3 (North Spouts)~~, identified as 41Z-3, constructed in 1986, with emissions controlled by baghouse 41F7 **or baghouse 41F181**, **and** exhausting via vent 184 to stack 355;

(10) One (1) **Roll Dried Starch Product Transfer to Bag Packer #3 (41Z5)**~~Roll Dried, Dry Starch Reaction System, & Malto Products transfer to Bag Packer #3 (South Spouts)~~, identified as 41F18, constructed in 1986, with emissions controlled by baghouse 41F18, **and** exhausting via vent 186 to stack 355;

(11) One (1) **Roll Dried Starch Products Bag Packer #3**~~Roll Dried, Dry Starch Reaction System, & Malto Bag Packer #3 (South Spouts)~~, identified as 41Z-5, constructed in 1986, with emissions controlled by baghouse 41F18, **and** exhausting via vent 186 to stack 355;

(12) One (1) Bag Packer #4, identified as 17Z03, constructed in 1995, with emissions controlled by baghouses 17F03 and 17F04, **and** exhausting via vent 332 to stack 356;

(13) One (1) House Dust Collection System for Bag Packer #4, identified as 17F15, constructed in 1995, with emissions controlled by baghouse 17F15, **and**

exhausting via vent 333 to stack 356;

(14) One (1) Bag Packer #3 House Dust Collector, identified as 41F44, constructed in 1995, with emissions controlled by baghouse 41F44, **and** exhausting via vent 256 to stack 361;

(15) One (1) Product Transfer for #1 Bulk Bagger, identified as 16F25, constructed in 1988, with emissions controlled by baghouse 16F25, **and** exhausting via vent 191 into stack 177;

(16) One (1) Bulk Bagger #2, identified as 17Z14, constructed in 1996, with emissions controlled by baghouse 17F14, **and** 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, **and** exhausting via vent 208 to stack 355;

(18) One (1) Bulk Starch Rail Loadout (Track #10), identified as 20F60, constructed in 1993, with emissions controlled by baghouse 20F60, **and** exhausting via vent 79 to stack 404;

(19) One (1) Starch Truck/Rail Loadout (Track #9), identified as 20F61, constructed in 1966, with emissions controlled by baghouse 20F61, **and** exhausting via vent 135 to stack 404;

(20) One (1) J4 Starch Rail Loadout System, identified as 16F100, constructed in 1989, with emissions controlled by baghouse 16F100, **and** exhausting via vent 183 into stack 177;

(21) One (1) Dextrin/Roll/Spray Cooked Starch Bulk Truck Loadout, identified as 33 Bldg. Truck Loadout, constructed in 1988, with emissions controlled by baghouses 41F6 and 41FLL, **and** 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, **and** exhausting via vent 264 to stack 404;

(23) One (1) Bulk #1 Product Screening System, identified as 20F1, constructed in 1997, with emissions controlled by baghouse 20F1, **and** exhausting via vent 330 to stack 404;

(24) One (1) Bulk #2 Product Screening System, identified as 20F50, constructed in 1997, with emissions controlled by baghouse 20F50, **and** exhausting via vent 331 to stack 404;

(25) One (1) Spray Dryer #3 Packer Baghouse (Pneumatically transferred), identified as 51FDD, with emissions controlled by baghouse 51FDD, **and** exhausting via vent 362 to stack 361;

(26) Two (2) Packer #6 Product Receivers, identified as 17FBB and 17FDD, with emissions controlled by baghouses 17FBB and 17FDD, **and** exhausting via vent 380 to stack 356;

(27) One (1) Packer #6 House Dust Collector, identified as 17FCC, with emissions controlled by baghouse 17FCC, **and** exhausting via vent 381 to stack 356;

(28) One (1) Bulk Bagger #4 Product Receiver, identified as 17FAA, with emissions controlled by baghouse 17FAA, **and** exhausting via vent 382 to stack 356;

(29) One (1) #3 Bulk Starch Rail Loadout Receiver, identified as 20FAA, with emissions controlled by baghouse 20FAA, **and** exhausting via vent 263 to stack 404;

(30) One (1) #3 Bulk Loadout Screening System Filter Receiver, identified as 20FBB, with emissions controlled by baghouse 20FBB, **and** exhausting via vent 393 to stack 404;

(31) One (1) Bag Dump Station Bin Vent, identified as 18FBB, with emissions controlled by baghouse 18FBB, **and** exhausting indoors via vent 426; ~~and~~

(32) One (1) O.S. Starch Product Transfer to Bag Packer #3 **(41Z3)**~~(South Spouts)~~, identified as **41F181**~~41FCC~~, with emissions controlled by baghouse **41F181**~~41FCC~~, **and** exhausting via vent **184**~~223~~ to stack 355.

(33) One (1) Malto Product Transfer to Bag Packer #3 (41Z1), identified as 41F182, with emissions controlled by baghouse 41F182, and exhausting via vent 428 to stack 355;

(34) One (1) Malto Products Bag Packer #3, identified as 41Z1, with emissions controlled by baghouse 41F182, and exhausting via vent 428 to stack 355;

(35) One (1) Dry Starch Reacted Product Transfer to Bag Packer #3 (41Z2), identified as 41F183, with emissions controlled by baghouse 41F183, and exhausting via vent 429 to stack 355;

(36) One (1) Dry Starch Reacted Products Bag Packer #3, identified as 41Z2, with emissions controlled by baghouse 41F183, and exhausting via vent 429 to stack 355; and

(37) One (1) Bag Packer #3 House Dust Collector, identified as 41F186, with emissions controlled by baghouse 41F186, and exhausting via vent 430 to stack 355.

(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, and 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, and exhausting to stack 200;

(3) One (1) Coal Storage Silo, identified as 31V3, constructed in 1984, with emissions controlled by baghouse 31F21, and exhausting to stack 203;

(4) One (1) Coal Day Bin, identified as 31V4, constructed in 1984, with emissions controlled by baghouse 31F19, and exhausting to stack 204;

(5) One (1) Coal Day Bin, identified as 31V5, constructed in 1984, with emissions controlled by baghouse 31F20, and exhausting to stack 205; **and**

(6) One (1) Utilities Lime Storage Silo, identified as 31V10, constructed in 1984, with emissions controlled by baghouse 31F18, and exhausting to stack 201**.**~~;~~

(i) Utility area, consisting of:

(1) Three (3) natural gas or ~~No. 2~~ fuel oil **No. 2**-fired Boilers, identified as 11B1, 11B2, and 11B3, each with a heat input capacity of 125 MMBtu/hr, constructed in 1966, with emissions uncontrolled, and exhausting to stack 197. **Under National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters (e.g., the Boiler NESHAP (40 CFR 63, Subpart DDDDD)), these boilers are considered existing large liquid fuel boilers; and**

(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-NOx burners, using natural gas, ~~No. 2~~ fuel oil **No. 2**, or coal and starch mixture as supplement fuels, with emissions controlled by baghouse 31F2, and exhausting to stack 202**. Under National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters (e.g., the Boiler NESHAP (40 CFR 63, Subpart DDDDD)), this boiler is considered an existing large solid fuel boiler.**~~;~~

(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, 21D7, **and** 21D8, **fiber flash dryer furnace 21B501; and gluten flash dryer 48D101**; and if the biogas produced exceeds ~~the dryers'~~ **these emissions units' capacity**, ~~and~~ 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 PM_{10}, 10 tons per year SO_2, NOx, 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 **(10)** dewatering presses. [326 IAC 6-3-2]

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

SECTION B GENERAL CONSTRUCTION CONDITIONS

B.1 Permit No Defense [IC 13-11 through 13-20] [IC 13-22 through 13-25] [IC 13-17]

This permit 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.

B.2 Effective Date of the Permit [IC 13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.3 Revocation of Permits [326 IAC 2-2-8]

Pursuant to 326 IAC 2-2-8(a)(1), this permit to construct shall expire if construction is not commenced within eighteen (18) months after receipt of this approval, if construction is discontinued for a period of eighteen (18) months or more, or if construction is not completed within a reasonable time. The IDEM may extend the eighteen (18) month period upon satisfactory showing that an extension is justified.

B.4 Modification to Construction Conditions [326 IAC 2]

All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for revisions pursuant to 326 IAC 2.

GENERAL OPERATION CONDITIONS

B.~~1~~**5** Definitions [326 IAC 2-7-1]

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

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

(a) This permit, T157-6009-00003, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

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

B.~~3~~**7** Term of Conditions [326 IAC 2-1.1-9.5]

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

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

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

B.~~4~~**8** Enforceability [326 IAC 2-7-7]

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

B.~~5~~**9** Severability [326 IAC 2-7-5(5)]

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

B.~~6~~**10** Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

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

B.~~7~~**11** Duty to Provide Information [326 IAC 2-7-5(6)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the Aresponsible official@ as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.

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

B.~~8~~**12** Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

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

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

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

B.~~9~~**13** Annual Compliance Certification [326 IAC 2-7-6(5)]

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204**-2251**

and

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

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

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

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

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

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

B.~~10~~**14** Preventive Maintenance Plan [326 IAC 2-7-5(1), (3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) ~~If required by specific condition(s) in Section D of this permit, t~~**T**he Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, ~~including the following information on each facility:~~ **for the source as described in 326 IAC 1-6-3. At a minimum, the PMPs shall include:**

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

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

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

~~(b)~~ ~~The Permittee shall implement the PMPs, including any required record keeping as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.~~

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

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

B.~~11~~**15** Emergency Provisions [326 IAC 2-7-16]

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

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

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

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

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

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

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: ~~317-233-5674~~ **317-233-0178** (ask for Compliance Section)
Facsimile Number: ~~317-233-5967~~ **317-233-6865**

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204**-2251**

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

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

(A) A description of the emergency;

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

(C) Corrective actions taken.

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

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

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

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

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

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

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

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

B.~~12~~**16** Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

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

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

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

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

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

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

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

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

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

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

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

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

B.~~13~~**17** Prior Permits Superseded [326 IAC 2-1.1-9.5] [326 IAC 2-7-10.5]

(a) All terms and conditions of permits established prior to T157-6009-00003 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

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

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

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

B.~~14~~**18** Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

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

B.~~15~~**19** Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204**-2251**

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

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

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

B.~~16~~**20** Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 AC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

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

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

(1) That this permit contains a material mistake**;**~~.~~

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

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

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

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

B.~~17~~**21** Permit Renewal [326 IAC 2-7-3] [326 IAC 2-7-4] [326 IAC 2-7-8(e)]

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

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204**-2251**

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

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

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

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

B.~~18~~**22** Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

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

(b) Any application requesting an amendment or modification of this permit shall be submitted to:
Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue,
Indianapolis, Indiana 46204**-2251**

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

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

B.~~19~~**23** Permit Revision under Economic Incentives and Other Programs [326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

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

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

B.~~20~~**24** Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

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

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

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

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

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue,
Indianapolis, Indiana 46204**-2251**

and

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

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

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

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

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

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

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

(3) Any change in emissions; and

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

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

(c) Emission Trades [326 IAC 2-7-20(c)]

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

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]

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

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

B.~~21~~**25** Source Modification Requirement [326 IAC 2-7-10.5] [326 IAC 2-2-2]

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

(b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2-2.

B.~~22~~**26** Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-17-3-2][IC13-30-3-1]

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

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

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

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

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

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

B.~~23~~**27** Transfer of Ownership or Operational Control [326 IAC 2-7-11]

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

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

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204**-2251**

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

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

B.~~24~~**28** Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)] [326 IAC 2-1.1-7]

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

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

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

B.~~25~~**29** Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 Particulate **Matter** Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour ~~[40 CFR 52 Subpart P]~~ [326 IAC 6-3-2]

(a) ~~Pursuant to 40 CFR 52 Subpart P, particulate matter emissions from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.~~

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

C.2 Opacity [326 IAC 5-1]

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

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

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

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

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3(a)(2)(A) and (B) are not federally enforceable.

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

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

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

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

~~C.6 Operation of Equipment [326 IAC 2-7-6(6)]~~

~~Except as otherwise provided by statute or rule, or in this permit, all pollution control equipment listed in this permit and used to comply with an applicable requirements shall be operated at all times that the emission units vented to the control equipment are in operation.~~

~~C.76 Stack Height [326 IAC 1-7]~~

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

C.~~8~~**7** Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

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

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

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

      (A) Asbestos removal or demolition start date**,**~~;~~

      (B) Removal or demolition contractor**,**~~;~~ or

      (C) Waste disposal site.

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

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

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality

100 North Senate Avenue
Indianapolis, Indiana 46204**-2251**

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

(e) Procedures for Asbestos Emission Control

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

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

(g) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

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

C. ~~9~~**8** Performance Testing [326 IAC 3-6]

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

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204**-2251**

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

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

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

Compliance Requirements [326 IAC 2-1.1-11]

C. ~~10~~**9** Compliance Requirements [326 IAC 2-1.1-11]

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

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

C. ~~11~~**10** Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204**-2251**

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

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

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

C. ~~12~~**11** Maintenance of Continuous Opacity Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

(a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous opacity monitoring systems (COMS) and related equipment. **For a boiler, the COMS shall be in operation at all times that the induced draft fan is in operation.**

(b) **All COMS shall meet the performance specifications of 40 CFR 60, Appendix B, Performance Specification No. 1, and are subject to monitor system certification requirements pursuant to 326 IAC 3-5.**

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

(**d**~~c~~) Whenever a ~~continuous opacity monitor (COM)~~ **COMS** is malfunctioning or will be down for ~~calibration~~, maintenance, or repairs for a period of ~~four (4) hours~~ **twenty-four (24) hours** or more, a ~~calibrated~~ backup COM**S** ~~shall be brought~~ **is not** online within ~~four (4)~~ **twenty-four (24)** hours of shutdown of the primary COM**S**, ~~if possible. If this is not~~

~~possible, visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of one (1) hour beginning four (4) hours after the start of the malfunction or down time.~~ **the Permittee shall provide a certified opacity reader~~(s)~~, who may be an employee~~s~~ of the Permittee or an independent contractor~~s~~, to self-monitor the emissions from the emission unit stack.**

~~(1) If the reading period begins less than one hour before sunset, readings shall be performed until sunset. If the first required reading period would occur between sunset and sunrise, the first reading shall be performed as soon as there is sufficient daylight.~~

~~(2) Method 9 opacity readings shall be repeated for a minimum of one (1) hour at least once every four (4) hours during daylight operations, until such time that the continuous opacity monitor is back in operation.~~

~~(3) All of the opacity readings during this period shall be reported in the Quarterly Deviation and Compliance Monitoring Reports.~~

(1) Visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of five (5) consecutive six (6) minute averaging periods beginning not more than twenty-four (24) hours after the start of the malfunction or down time.

(2) Method 9 opacity readings shall be repeated for a minimum of five (5) consecutive six (6) minute averaging periods at least twice per day during daylight operations, with at least four (4) hours between each set of readings, until a COMS is online.

(3) Method 9 readings may be discontinued once a COMS is online.

(4) Any opacity exceedances determined by Method 9 readings shall be reported with the Quarterly Opacity Exceedances Reports.

(**e**~~d~~) Nothing in this permit, shall excuse the Permittee from complying with the requirements to operate a continuous opacity monitoring system pursuant to 326 IAC 3-5.

C. ~~13~~**12** Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204**-2251**

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

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

(b) The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment in accordance with applicable federal regulations and 326 IAC 3-5.

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

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

(1) All documentation relating to:

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

(B) required corrective action or compliance plan activities.

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

(3) All records of corrective and preventive action**;**~~.~~

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

(A) Date of facility downtime**,**~~.~~

(B) Time of commencement and completion of each downtime**,**~~.~~

(C) Reason for each downtime**,**~~.~~

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

(1) Date of downtime**,**~~.~~

(2) Time of commencement**,**~~.~~

(3) Duration of each downtime**,**~~.~~

(4) Reasons for each downtime**,**~~.~~**and**

(5) Nature of system repairs and adjustments.

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

C. ~~14~~**1**3 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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

C. ~~15~~**14** ~~Pressure Gauge and Other~~ Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

(a) ~~Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed~~ **When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device** shall have a scale such that the expected ~~normal~~ **maximum** reading **for the normal range** shall be no less than twenty percent (20%) of full scale ~~and be accurate within plus or minus two percent (2%) of full scale reading~~.

~~(b) Whenever a condition in this permit requires the measurement of voltage or current across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two five percent (2%) of full scale reading.~~

~~(c) Whenever a condition in this permit requires the measurement of a temperature or flow rate, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (2%) of full scale reading.~~

~~(d) The Preventive Maintenance Plan for the pH meter shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one pH point.~~

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

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

C. ~~16~~**15** Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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

(a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on June 29, 1999.

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

C. ~~17~~**16** Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

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

C. ~~18~~**17** ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedances** [326 IAC 2-7-5] [326 IAC 2-7-6]

~~(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. If a Permittee is required to have an Operation, Maintenance and Monitoring (OMM) Plan under 40 CFR 60/63, such plans shall be deemed to satisfy the requirements for a CRP for those compliance monitoring conditions. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:~~

~~(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.~~

~~(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan to include such response steps taken.~~

~~The OMM Plan shall be submitted within the time frames specified by the applicable 40 CFR60/63 requirement.~~

~~(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:~~

~~(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan; or~~

~~(2) If none of the reasonable response steps listed in the Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.~~

~~(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be ten (10) days or more until the unit or device will be shut down, then the Permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down. The notification shall also include the status of the applicable compliance monitoring parameter with respect to normal, and the results of the response actions taken up to the time of notification.~~

~~(4) Failure to take reasonable response steps shall be considered a deviation from the permit.~~

~~(c) The Permittee is not required to take any further response steps for any of the following reasons:~~

~~(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.~~

~~(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.~~

~~(3) An automatic measurement was taken when the process was not operating.~~

~~(4) The process has already returned or is returning to operating within Anormal@ parameters and no response steps are required.~~

~~(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.~~

~~(e) The Permittee shall record all instances when, in accordance with Section D, response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.~~

~~(f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.~~

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

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

(1) initial inspection and evaluation;

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

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

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

(1) monitoring results,

(2) review of operation and maintenance procedures and records, and

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

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

(e) The Permittee shall maintain the following records:

(1) monitoring data,

(2) monitor performance data, if applicable, and

(3) corrective actions taken.

C. ~~19~~**18** Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

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

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

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

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

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

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

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

(1) Indicate estimated actual emissions of **criteria** pollutants **from the source, in compliance with 326 IAC 2-6; and** ~~listed in 326 IAC 2-6-4(a);~~

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

(b) ~~The annual emission statement covers the twelve (12) consecutive months time period starting January 1 and ending December 31.~~ The ~~annual emission~~ statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204**-2251**

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

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

C.~~21~~**20** General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] **[326 IAC 2-3]**

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

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

(c) If there is a reasonable possibility that a “project” (as defined in 326 IAC 2-2-1 (qq) **and/or 326 IAC 2-3-1 (ll))** at an existing emissions unit, other than projects at a Clean Unit), which is not part of a “major modification” (as defined in 326 IAC 2-2-1 (ee**) and/or 326 IAC 2-3-1 (z))** may result in significant emissions increase and the Permittee elects to utilize the “projected actual emissions” (as defined in 326 IAC 2-2-1 (rr) **and/or 326 IAC 2-3-1 (mm)),** the Permittee shall comply with following:

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

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

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

C. ~~22~~**21** General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] **[326 IAC 2-3]**

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

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204**-2251**

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

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

~~(e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.~~

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

(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq) for that regulated NSR pollutant; and

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

~~(f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C- General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (qq)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ at the same time the annual compliance certification is submitted pursuant to Section B.9:~~

~~(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx), for that regulated NSR pollutant, and~~

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

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

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

(2) The annual emissions calculated in accordance with (c)(2) and (3) in Section C- General Record Keeping Requirements,

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

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

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Air Compliance Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251.

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

Stratospheric Ozone Protection

C. ~~23~~**22** Compliance with 40 CFR 82 and 326 IAC 22-1

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

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

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

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

SECTION D.1 FACILITY OPERATION CONDITIONS

(a) Corn Receiving and **Handling**~~Conveying~~ Operations, consisting of:

(1) One (1) Railcar Corn Dump Hopper, identified as 12V101, constructed in 1966, with emissions controlled by baghouse **08F300**~~21F1~~, **and** exhausting to stack **433**~~136~~;

(2) One (1) Truck Corn Dump Hopper, identified as 12V102, constructed in 1966, with emissions controlled by baghouse **08F300**~~21F1~~, **and** exhausting to stack **433**~~136~~;

(3) One (1) Bucket Corn Elevator, identified as 12U2, constructed in 1976, with emissions controlled by baghouse **08F300**~~21F1~~, **and** exhausting to stack **433**~~136~~;

(4) Two (2) Corn Transfer Conveyors, identified as 12U4 and 12U5, constructed in 1966, with emissions controlled by baghouse **08F300**~~21F1~~, **and** exhausting to stack **433**~~136~~;

(5) Three (3) Corn Transfer Conveyors, identified as 13U6 through 13U8, constructed in 1986, with emissions controlled by baghouse **08F300**~~21F17~~, **and** exhausting to stack **433**~~136~~;

(6) Two (2) Co-Product Loadout Conveyors, identified as 8U39 and 8U41, constructed in 1966, with emissions controlled by baghouse **08F300**~~21F17~~, **and** exhausting to stack **433**~~136~~**. These two conveyors will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(7) One (1) Bucket Elevator from Silos to Steeps, identified as 14U9, constructed in 1966, with emissions controlled by baghouse **08F300**~~14F2~~, **and** exhausting to stack **433**~~126~~;

(8) One (1) Corn Weigher, identified as 14V1, constructed in 1986, with emissions controlled by baghouse **08F300**~~14F2~~, **and** exhausting to stack **433**~~126~~;

(9) Two (2) Corn Cleaners, identified as 14J4 and 14J5, constructed in 1992, with emissions controlled by baghouse **08F300**~~14F2~~, **and** exhausting to stack **433**~~126~~;

(10) One (1) Corn Cleanings Pneumatic Transfer, identified as 21F2, constructed in 1966, with emissions controlled by baghouse 21F2, **and** exhausting to stack 137. **This emissions unit will be shutdown upon operation of the new baghouse 08F300**;

(11) Five (5) Corn Storage Silos, identified as 13V1, 13V2, 13V3, 13V4 and 13V5, constructed in 1966, with emissions controlled by baghouse **08F300**~~21F1~~, **and** exhausting to stack **433**~~136~~;

(12) Two (2) Corn Storage Silos, identified as 13VAA and 13VBB, to be constructed **in**

2006/2007 with emissions controlled by baghouse **08F300**~~21F1~~, **and** exhausting to stack **433**~~136~~;

(13) One (1) Vibrating Corn Cleaning System, identified as 14JAA, to be constructed **in 2006/2007**, with emissions controlled by baghouse **08F300**~~14F2~~, **and** exhausting to stack **433**~~126~~;

(14) One (1) Bucket Elevator from Silos to Steeps, identified as 14UBB, **to be constructed in 2006/2007** ~~constructed in 1966~~, with emissions controlled by baghouse **08F300**~~14F2~~, **and** exhausting to stack **433**~~126~~; and

(15) One (1) Vibrating Corn Cleaning Pneumatic Transfer, identified as 21FMM, to be constructed **in 2006/2007**, with emissions controlled by baghouse **08F300**~~21FMM~~, **and** exhausting to stack **433**~~394~~.

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

D.1.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

Pursuant to 326 IAC 2-2-3:

(a) The following emission units shall be controlled for PM and PM_{10} using best available control technology (BACT):

(1) Vibrating Corn Cleaning Screen Aspiration System 14JAA,

(2) Corn Storage Silo 13VAA,

(3) Corn Storage Silo 13VBB,

(4) Vibrating Corn Cleaning Pneumatic Transfer 21FMM, and

(5) Corn Bucket Elevator – Silo to Steeps 14UBB.

(b) Best available control technology (BACT) for PM and PM_{10} (Filterable and Condensable) is an emission rate of ~~0.005~~ **0.004** gr/dscf for baghouse~~s~~ **08F300**~~14F2, 21F1and 21FMM, and 0.01 gr/dscf for baghouse 14F2~~**;** ~~and~~

(1) The total PM /PM_{10} (Filterable and Condensable) emissions from baghouse **08F300**~~14F2~~, which controls Vibrating Corn Cleaning System 14JAA, and **Corn Bucket Elevator** 14UBB**, Corn Storage Silos 13VAA and 13VBB, and Vibrating Corn Cleaning Pneumatic Transfer 21FMM** in addition to emission units **12V101, 12V102, 12U2, 12U4, 12U5, 13V1, 13V2, 13V3, 13V4, 13V5, 13U6, 13U7, 13U8, 8U39, 8U41,** 14V1, 14J4, 14J5 and 14U9, shall be limited to **1.18** ~~0.84~~ pounds per hour**;**~~.~~ **and**

~~(2) The total PM /PM10 (Filterable and Condensable) emissions from baghouse 21F1, which controls Corn Silos 13VAA and 13VBB in addition to emission units 12V101, 12V102, 12U2, 12U4, 12U5, 13V1, 13V2, 13V3, 13V4 and 13V5, shall be limited to 0.86 pounds per hour.~~

~~(3) The total PM /PM10 (Filterable and Condensable) emissions from baghouse 21FMM, which controls Vibrating Corn Cleaning Pneumatic Transfer 21FMM, shall be limited to 0.015 pounds per hour.~~

(**2**4) The opacity from the baghouse **08F300**~~s 14F2, 21F1, and 21FMM~~ **shall** not exceed 3%.

D.1.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]
~~[40 CFR 52, Subpart P]~~

Pursuant to 326 IAC 6-3-2 **(Particulate Emissions Limitations for Manufacturing Processes)**, particulate emissions from emission units 12V101, 12V102, 12U2, 12U4, 12U5, 13U6, 13U7, 13U8, 8U39, 8U41, 14V1, 14J4, 14J5, 14U9, ~~21F2,~~ 13V1, 13V2, 13V3, 13V4, 13V5, ~~13VAA, 13VBB, 14JAA, 14UBB, and 21FMM~~ (all emission units exhausting to stack~~s~~ **433** ~~136, 126, 137 and 394~~) 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:

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

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = 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 throughput of the respective facility is treated as confidential.

~~D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]~~

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

Compliance Determination Requirements

D.1.**3**4 Particulate Control

(a) In order to comply with Conditions D.1.1 and D.1.2, baghouse **08F300**~~s 21F1, 21F17, 14F2, 21F2 and 21FMM~~, used for PM and PM_{10} control, shall be in operation and control emissions from emission units 12V101, 12V102, 12U2, 12U4, 12U5, 13U6, 13U7, 13U8, 8U39, 8U41, 1~~-~~4V1, 14J4, 14J5, 14U9, ~~21F2,~~ 13V1, 13V2, 13V3, 13V4, 13V5, 13VAA, 13VBB, 14JAA, 14UBB, and 21FMM (all emission units exhausting to stack~~s~~ **433**~~136, 126, 137 and 394~~) at all times when an emission unit that the baghouse control~~s~~ is in operation.

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

D.1.**4**~~5~~ Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

~~(a)~~ Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup of Vibrating Corn Cleaning System~~s~~ 14JAA, ~~and~~ **Bucket Elevator** 14UBB, **Corn Silos 13VAA and 13VBB, and Vibrating Corn Cleaning Pneumatic Transfer 21FMM,** the Permittee shall perform PM and PM_{10} testing on baghouse **08F300**~~14F2~~ to verify compliance with Condition D.1.1 (b) (1), utilizing methods as approved by the Commissioner, and furnish the Commissioner a written report of the results of such performance tests.

~~(b) Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup of Corn Silos 13VAA and 13VBB, the Permittee shall perform PM, and PM10 testing on baghouse 21F1 to verify compliance with Condition D.1.1(b)(2), utilizing methods as approved by the Commissioner, and furnish the Commissioner a written report of the results of such performance tests.~~

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

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

D.1.**5**~~6~~ Visible Emissions Notations

(a) Visible emission notations of the ~~exhaust from~~ stack **433**~~s 136, 126, 137, and 394~~ **exhaust** shall be performed once per ~~shift~~ **day** during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

(e) ~~The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an~~ **If** abnormal emission**s** ~~is~~ **are** observed**, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances**. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records and Reports~~, **Response to Excursions or Exceedances** shall be considered a deviation from this permit.

D.1.**6**~~7~~ Monitoring for Baghouses

(a) The Permittee shall record the ~~total static~~ pressure drop across baghouse~~s~~ **08F300**~~s 21F1, 21F17, 14F2 and 21FMM~~, used in conjunction with emissions units 12V101, 12V102, 12U2, 12U4, 12U5, 13U6, 13U7, 13U8, 8U39, 8U41, 14V1, 14J4, 14J5, 14U9, 13V1, 13V2, 13V3, 13V4, 13V5, 13VAA, 13VBB, 14JAA, 14UBB, and 21FMM, at least once per ~~shift~~ **day** when the respective emission units are in operation.

(b) When, for any one reading, the pressure drop across the baghouse is outside of the normal range of 1 and 8 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~~ Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records and Reports~~Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(c) The instruments used for determining the pressure shall comply with Section C - ~~Pressure Gauge and other~~ Instrument Specifications of this permit, and shall be calibrated at least once every six (6) months.

~~D.1.8 Baghouse Inspections~~

~~(a) An external inspection of baghouse, controlling particulate emissions from emission units 12V101, 12V102, 12U2, 12U4, 12U5, 13V1, 13V2, 13V3, 13V4, 13V5, 13VAA, 13VBB, 14U9, 14V1, 14J4, 14J5, 14JAA, 14UBB, and 21FMM shall be performed at least once per calendar quarter. Inspections required by this condition shall not be performed in consecutive~~ months~~.~~

~~(b) An internal inspection of all bags, controlling particulate emissions from emission units 12V101, 12V102, 12U2, 12U4, 12U5, 13U6, 13U7, 13U8, 8U39, 8U41, 14V1, 14J4, 14J5, 14U9, 13V1, 13V2, 13V3, 13V4, 13V5, 13VAA, 13VBB, 14JAA, 14UBB, and 21FMM (bags in baghouse) 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.~~

~~(c) Inspections shall also be performed each time that a respective baghouse that has been secured and tagged as being out of service. All defective bags shall be replaced.~~

D.1.**7**~~9~~ 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.~~

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

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

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

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

D.1.**8**~~10~~ Record Keeping Requirements

(a) To document compliance with Condition D.1.**5**~~6~~, the Permittee shall maintain records of the visible emission notations of the stack exhaust.

(b) To document compliance with Condition D.1.**6**~~7~~, the Permittee shall maintain records of the ~~total static~~ pressure drop during normal operation.

~~(c) To document compliance with Condition D.1.8, the Permittee shall maintain records of the results of the inspections.~~

~~(d) To document compliance with Condition D.1.3, the Permittee shall maintain of records of any additional inspections prescribed by the Preventive Maintenance Plan.~~

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

Clean Unit [326 IAC 2-2.2-2]

D.1.**9**~~11~~ Clean Unit [326 IAC 2-2.2-2]

(a) Pursuant to 326 IAC 2-2.2-2**:**~~,~~

The following emissions units are classified as Clean Units for PM/PM_{10}:

New Emission Units:

(1) Vibrating Corn Cleaning Screen Aspiration System 14JAA**,**

(2) Corn Storage Silo 13VAA**,**

(3) Corn Storage Silo 13VBB**,**

(4) Vibrating Corn Cleaning Pneumatic Transfer 21FMM**,**

(5) Corn Bucket Elevator – Silo to Steeps 14UBB**,**

Existing Units:

(1) Railcar Corn Dump Hopper 12V101**,**

(2) Truck Corn Dump Hopper 12V102**,**

(3) Bucket Corn Elevator 12U2**,**

(4) Two (2) Corn Transfer Conveyors 12U4 and 12U5**,**

(5) Bucket Elevator from Silos to Steeps 14U9**,**

(6) Corn Weigher, identified as 14V1**,**

(7) Two Corn Cleaners 14J4 and 14J5**, and**

(8) Five Corn Storage Silos 13V1, 13V2, 13V3, 13V4, and 13V5.

(b) The Clean Unit designations for the above emissions units are in effect for ten (10) years after the issuance date of the source modification permit or the date the emission's unit control technology is placed in service, whichever is later.

SECTION D.2 FACILITY OPERATION CONDITIONS

(b) Wet Milling Operations, consisting of:

(1) One (1) Fiber Dewatering Screen, identified as 21F100, constructed in 1990, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(2) One (1) Fiber Dewatering Screen, identified as 21F101, constructed in 1997, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(3) One (1) Germ Distribution Conveyor, identified as 21U23, constructed in 1978, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(4) One (1) Gluten Filter Receiver Tank, identified as 21V57, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(5) One (1) Germ Scrubber Water Tank, identified as 21V130, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(6) One (1) Gluten Filter Bowl Drain Tank, identified as 21V159, constructed in 1990, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(7) One (1) Gluten Filter Wash Bar Trough Drain Tank, identified as 21V59, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(8) One (1) Fiber Filtrate Tank, identified as 21V58, constructed in 1990, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(9) One (1) Heavy Steep water Tank, identified as 21V56, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(10) One (1) Monitor Tank, identified as 15V210, constructed in 1990, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(11 Fourteen (14) Corn Steep tanks, identified as 14V3 through 14V16, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(12) Seven (7) Grit Starch Screens, identified as Grit Starch Screens 15J15-15J19, 15J21, and 15J22, constructed in 1990, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(13) One (1) Steeped Corn Separator, identified as 15J5A, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(14) One (1) First Pass Germ Feed Tank, identified as 15V23, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(15) Steeped Corn Surge Hopper, identified as 15V21, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(16) One (1) Second Pass Germ Feed Tank, identified as 15V25, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(17) One (1) Grit Starch Feed Tank, identified as 15V26, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(18) Two (2) Germ Wash Screens, identified as 15J99 and 15J100, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(19) Three (3) Germ Washing Screens, identified as 15J101, 15J200, and 15J201, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(20) One (1) Light Steep water Receiver, identified as 14V19, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(21) Germ Wash Screens, identified as 15J53, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(22) One (1) Third Grind Tank, identified as 15V27, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(23) One (1) Clamshell Wash Water Tank, identified as 15V2, constructed in 1991, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(24) One (1) Clamshell Starch Receiver Tank, identified as 15V42, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(25) One (1) Second Grind Receiver Tank, identified as 15V24, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(26) One (1) First Grind receiver Tank, identified as 15V22, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(27) One (1) Steeped Corn Tank, identified as 14V17, constructed in 1966, with emissions

controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(28) One (1) Germ Water Tank, identified as 15V139, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(29) Thirty-six (36) Fiber Wash Screens, identified as 1st Stage through 5th Stage Fiber Wash Screens, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(30) One (1) Dent Starch Slurry Storage Tank, identified as 15V43, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, and exhausting to stack 17;

(31) One (1) Steep water Head Tank, identified as 14V18, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(32) One (1) Mill Acid Tank, identified as 14V96, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(33) One (1) Primary Wash Box, identified as 15V17, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(34) One (1) Primary Wash Box, identified as 15V19, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(35) Five (5) Fiber Wash Receivers, identified as 15V110 through 15V114, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(36) One (1) Process Water Tank, identified as 15V30, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(37) One (1) Primary Wash Water Tank, identified as 15V41, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(38) One (1) Wash Water Surge Tank, identified as 15V38, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(39) One (1) Primary Feed Tank, identified as 15V34, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(40) One (1) Primary Underflow Tank, identified as 15V35, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(41) One (1) Gluten Thickener Feed Tank, identified as 15V36, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(42) One (1) Heavy Gluten Tank, identified as 15V37, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(43) One (1) Clarifier Feed Tank, identified as 15V40, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(44) One (1) MST Feed Tank, identified as 15V31, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(45) One (1) Gluten Vacuum Filter Pump, identified as 21C7, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(46) One (1) Gluten Vacuum Filter Pump, identified as 21C8, constructed in 1966, with

emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(47) One (1) Gluten Vacuum Filter Pump, identified as 21C9, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(48) One (1) Gluten Vacuum Filter Pump, identified as 21C10, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(49) One (1) Gluten Vacuum Filter, identified as 21F7, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(50) One (1) Gluten Vacuum Filter, identified as 21F8, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(51) One (1) Gluten Vacuum Filter, identified as 21F9, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(52) One (1) Gluten Vacuum Filter, identified as 21F10, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(53) One (1) High DS Starch Filter, identified as 18F510, constructed in 1995, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(54) One (1) High DS Starch Tank, identified as 18V520, constructed in 1995, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(55) One (1) High DS Starch Wash Water Tank, identified as 18V522, constructed in 1995, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(56) Two (2) Second Grind Screens, identified as 15J14, and 15J24, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(57) Six (6) Sixth Stage Fiber Wash Screens, identified as 15J86, 15J87, 15J88, 15J89, 15J220, and 15J221, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(58) One (1) Steep Acid Tank, identified as 14V20, constructed in 1966, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(59) One (1) Fiber Supply Tank, identified as 15V33, constructed in 2000, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(60) Eight (8) Steep Tanks, identified as **14V400, 14V401, 14V402**~~14VAA, 14VBB, 14VCC~~, 14VDD, 14VEE, 14VFF, 14VGG, and 14VHH, to be constructed **in 2006/2007**, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(61) One (1) High DS Starch Vacuum Filter, identified as 18FAA, to be constructed **in 2006/2007**, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(62) Two (2) Water Tube Germ Cooler rotary airlock valves, identified as 21D3 (constructed/permitted in PSD 157-18832-00003, formerly operating as Germ Dryer 21D3), with pneumatic transfer blowback air controlled by an alkaline scrubber 15F401, exhausting to stack 17;

(63) One (1) proposed Gluten Vacuum Filter, identified as 21F5, to be constructed in 2006/2007 with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(64) One (1) proposed Gluten Vacuum Filter Pump, identified as 21C105, to be constructed in 2006/2007 with emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17;

(65) One (1) Gluten Vacuum Filter, identified as **21F6**~~21FAA~~, to be constructed **in 2006/2007**, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(66) One (1) Gluten Vacuum Filter Pump, identified as **21C6**~~21CBB~~, to be constructed **in 2006/2007**, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17;

(67) Fiber Dewatering Screens, identified as 21FNN, to be constructed **in 2006/2007**, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17; and

(68) **8 Bldg.**~~18 Bldg.~~ Process Tanks and screens, to be constructed **in 2006/2007**, with emissions controlled by an alkaline scrubber **15F401**~~15FAA~~, **and** exhausting to stack 17.

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

D.2.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3:

(a) The following emission units shall be controlled for sulfur dioxide (SO_2) and VOC using the BACT:

New Emission Units:

(1) Steep Tanks **14V400, 14V401, 14V402**~~14VAA, 14VBB, 14VCC~~, 14VDD, 14VEE, 14VFF, 14VGG and 14VHH**;**

(2) High DS Starch Vacuum Filter 18FAA**;**

(**3**~~2~~) **Two (2) Germ Cooler Rotary Airlock Valves 21D3 (currently operating as Germ Dryer 21D3)**;

(**4**~~3~~) The **"8 Building"**~~"18 Building"~~ Process Tanks and screens**;**

(**5**~~4~~) Gluten Vacuum Filter**s 21F5 and 21F6**~~21FAA~~**;**

(**6**~~5~~) Gluten Vacuum Filter Pump**s 21C105 and 21C6**~~21CBB~~**;**

(**7**~~6~~) Fiber Dewatering Screens 21FNN**; and**.

Existing Units:

15V210, 14V17, 14V18, 14V20, 14V96, 15J14, 15J24, 15J53, 15J5A, 15V110, 15V111, 15V112, 15V113, 15V114, 15V139, 15V17, 15V19, 15V2, 15V21, 15V22, 15V23, 15V24, 15V27, 15V30, 15V31, 15V34, 15V35, 15V36, 15V37, 15V38, 15V40, 15V41, 15V42, 15V43, 15J100, 15J15, 15J16, 15J17, 15J18, 15J19, 15J20, 15J21, 15J22, 15J220, 15J221, 15J86, 15J87, 15J88, 15J89, 15J99, 15V25, 15V26, 15V33, 14V10, 14V11, 14V12, 14V13, 14V14, 14V15, 14V16, 14V19, 14V3, 14V4, 14V5, 14V6, 14V7, 14V8, 14V9, 15J101, 15J200, 15J201, 18F510, 18V520, 18V522, 21F100, 21F101, 21U23, 21V130, 21V159, 21V56, 21V57, 21V58, 21V59, 21C7, 21F7, 21C8, 21F8, 21C9, 21F9, 21C10, 21F10, 15J60-15J67, 15J80-15J85, 15J68-15J71, 15J92, 15J 212, 15J213, 15J72-15J75, 15J91, 15J76-15J79, 15J90, 15J214, 15J215, 15J217-15J219, **and** 18V413

(b) For these units, the BACT for SO_2 ~~and VOC~~ is the use of alkaline scrubber **15F401**~~15FAA~~**;** and:

~~(1) the scrubber shall have a minimum 90% control efficiency of SO_2 and shall not exceed 8.17 lbs/hr SO_2 in the scrubber outlet, when the inlet SO_2 concentration to the scrubber is more than 150 ppmvw, and~~

~~(2) the scrubber shall have an outlet SO_2 concentration of less than15 ppmvw, and shall not exceed 8.17 lbs/hr SO_2 in the scrubber outlet if the inlet concentration of SO_2 is 150 ppmvw or less; and~~

~~(3) the scrubber shall have a minimum 25% control efficiency of VOC and shall not exceed 27.0 lbs/hr.~~

(1) When the inlet SO_2 concentration to the scrubber is greater than 150 ppmvw, the scrubber shall have a minimum SO_2 control efficiency of 90%, and the scrubber outlet SO_2 emission rate shall not exceed 8.17 lbs/hr SO_2; and

(2) When the inlet SO_2 concentration to the scrubber is 150 ppmvw or less, the scrubber shall have an outlet SO_2 concentration of less than 15 ppmvw, and the scrubber outlet SO_2 emission rate shall not exceed 8.17 lbs/hr.

(c) For these units, the BACT for VOC is the use of an absorption system using wet scrubber 15F401; and

(1) The scrubber shall have a minimum VOC control efficiency of 25%, and shall not exceed 27 lbs/hr.

~~D.2.2 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 emission units and their control devices.~~

Compliance Determination Requirements

D.2.**2**~~3~~ Sulfur Dioxide (SO_2) and Volatile Organic Compounds (VOC) Control

In order to comply with Condition D.2.1, the scrubber **15F401**~~15FAA~~ used for SO_2 and VOC control, shall be in operation and control SO2 and VOC emissions at all times when an emission unit that is being aspirated to the scrubber is in operation.

D.2.**3**~~4~~ Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

(a) Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup of the steep tanks, the Permittee shall perform SO_2 and VOC testing on scrubber **15F401**~~15FAA~~ in order to verify compliance with D.2.1(b)(1), (2), and (c), utilizing methods as approved by the Commissioner~~, and furnish the Commissioner a written report of the results of such performance tests~~.

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

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

D.2.**4**~~5~~ Monitoring for Scrubber

(a) The Permittee shall monitor the pH of the scrubbing liquor and the scrubber**'s** recirculation rate at least once per **day** ~~shift~~ from scrubber **15F401**~~15FAA~~.

(b) ~~The Compliance Response Plan for the scrubber shall contain troubleshooting contingency and response steps for when~~ **If** the pH ~~and flow rate~~ reading~~s~~ ~~are~~ **is** outside of the normal range **or the 1-hr average flow rate reading is** below **the minimum flow rate** for any one reading**, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances.**

  (1) The normal pH range for Scrubber **15F401**~~15FAA~~ is 7~~.0~~ to 9~~.0~~ or a range established during the latest stack test. The minimum flow rate for Scrubber **15F401**~~15FAA~~ is 400 gpm or a minimum rate established during the latest stack test.

(c) A pH ~~or flow~~ reading that is outside of the normal range **or the 1-hr average flow rate that is below the minimum flow rate for any one 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~~**Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

(d) The instruments used for determining the ~~pressure~~ **pH and flow rate** shall comply with Section C - ~~Pressure Gauge and other~~ Instrument Specifications of this permit, and shall be calibrated at least once every six (6) months.

~~D.2.6 Scrubber Inspections~~

~~External Inspections of scrubber 15FAA shall be performed semiannually. 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.~~

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

D.2.**5**~~7~~ Record Keeping Requirements

(a) To document compliance with Condition D.2.**4**~~5~~, the Permittee shall maintain records of the pH and scrubber recirculation rate from scrubber **15F401**~~15FAA~~ ~~at least once per shift~~.

~~(b) To document compliance with Conditions D.2.6, the Permittee shall maintain records of the results of the inspections.~~

~~(c) To document compliance with Condition D.2.2, the Permittee shall maintain of records of any additional inspections prescribed by the Preventive Maintenance Plan.~~

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

Clean Unit [326 IAC 2-2.2-2]

D.2.**6**~~8~~ Clean Unit [326 IAC 2-2.2-2]

Pursuant to 326 IAC 2-2.2-2,

(a) The following emissions units are classified as Clean Units for SO_2 and VOC:

New Emission Units:

(1) Steep Tanks **14V400, 14V401, 14V402**~~14VAA, 14VBB, 14VCC~~, 14VDD, 14VEE, 14VFF, 14VGG and 14VHH**;**~~.~~

(1) High DS Starch Vacuum Filter 18FAA**;**~~.~~

(2) The "~~1~~8 Building" Process Tanks and screens**;**~~.~~

(3) Gluten Vacuum Filter **21F6**~~21FAA~~**;**~~.~~

(4) Gluten Vacuum Filter Pump **21C6**~~21CBB~~**;**

(5) Fiber Dewatering Screens 21FNN**; and**

Existing Units:

15V210, 14V17, 14V18, 14V20, 14V96, 15J14, 15J24, 15J53, 15J5A, 15V110, 15V111, 15V112, 15V113, 15V114, 15V139, 15V17, 15V19, 15V2, 15V21, 15V22, 15V23, 15V24, 15V27, 15V30, 15V31, 15V34, 15V35, 15V36, 15V37, 15V38, 15V40, 15V41, 15V42, 15V43, 15J100, 15J15, 15J16, 15J17, 15J18, 15J19, 15J20, 15J21, 15J22, 15J220, 15J221, 15J86, 15J87, 15J88, 15J89, 15J99, 15V25, 15V26, 15V33, 14V10, 14V11, 14V12, 14V13, 14V14, 14V15, 14V16, 14V19, 14V3, 14V4, 14V5, 14V6, 14V7, 14V8, 14V9, 15J101, 15J200, 15J201, 18F510, 18V520, 18V522, 21F100, 21F101, 21U23, 21V130, 21V159, 21V56, 21V57, 21V58, 21V59, 21C7, 21F7, 21C8, 21F8, 21C9, 21F9, 21C10, 21F10, 15J60-15J67, 15J80-15J85, 15J68-15J71, 15J92, 15J 212, 15J213, 15J72-15J75, 15J91, 15J76-15J79, 15J90, 15J214, 15J215, 15J217-15J219, **and** 18V413**.**

(b) The Clean Unit designations for the above emissions units are in effect for ten (10) years after the issuance date of the source modification permit or the date the emission's unit control technology is placed in service, whichever is later.

SECTION D.3 FACILITY OPERATION CONDITIONS

(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, **and** exhausting indoors to stack 1**. The Feed Hopper 21V60 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(2) One (1) Meal Hopper, identified as 21V61, constructed in 1965, with emissions controlled by baghouse 21F15, **and** exhausting indoors to stack 2. **The Meal Hopper 21V61 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(3) One (1) Rail Loadout Conveyor, identified as 12U11, constructed in 1991, with emissions controlled by baghouse 12F40, **and** exhausting to stack 3**. The Rail Loadout Conveyor 12U11 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(4) One (1) RST **Feed Dryer**~~Fiber Pre-Dryer~~, identified as **21D301**~~21DAA~~. PM and PM_{10} emissions are controlled by product collector/cyclone **21F301**~~21FCC~~, then PM, PM_{10} and sulfur dioxide emissions controlled by scrubber 21F13, then VOC emissions controlled by Thermal Oxidation Units **48F201 and 48F202**~~48FGG and 48FHH~~, before exhausting to stack 17;

(5) One (1) RST Germ Dryer, identified as **21D401**~~21DBB~~, PM and PM_{10} emissions are controlled by product collectors/cyclones **21F401**~~21FEE~~, then PM, PM_{10} and sulfur dioxide emissions controlled by scrubber 21F13, then VOC emissions controlled by Thermal Oxidation Units **48F201 and 48F202**~~48FGG and 48FHH~~, before exhausting to stack 17. This new dryer will replace the three existing dryers;

(6) Three (3) existing steam tube dryers constructed in 1966, identified as 21D1, 21D2, and 21D3, PM and PM_{10} are controlled by scrubber 21F13, and exhausting to stack 17. These dryers will be shutdown after the new germ dryer starts up;

(7) One (1) **natural gas or biogas fired** Gluten Flash Dryer, **with a heat input capacity of 30 MMBtu/hr**, identified as **48D101**~~48DAA~~. PM and PM10 emissions are controlled by product collectors/cyclones **48F101-48F102**~~48FAA-48FFF~~, then PM, PM_{10} and sulfur dioxide emissions controlled by scrubber 21F13, then VOC emissions controlled by Thermal Oxidation Units **48F201 and 48F202**~~48FGG and 48FHH~~, before exhausting to stack 17;

(8) One (1) Fiber Flash Dryer, identified as 21D501, PM and PM_{10} emissions are controlled by product collectors/cyclones 21F501-21F502, then PM, PM_{10} and sulfur dioxide emissions are controlled by scrubber 21F13, then VOC emissions controlled by Thermal Oxidation Units 48F201 and 48F202, before exhausting to stack 17;

(9) One (1) natural gas or biogas fired Fiber Flash Dryer Furnace, identified as 21B501, with a heat input capacity of 60 MMBtu/hr, with emissions uncontrolled, and

exhausting to stack 17. This emissions unit is part of Fiber Flash Dryer 21D501 for the purposes of NSPS, 40 CFR 60, Subpart Dc, and NESHAP, 40 CFR 63, Subpart DDDDD. This emissions unit is subject to 40CFR 60, Subpart Dc. Under National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters (e.g., the Boiler NESHAP (40 CFR 63, Subpart DDDDD)), this Fiber Flash Dryer Furnace is considered a new large gaseous fuel unit;

(10) **One (1) Feed Cooler, identified as 21D8 (formerly operating as Meal Dryer 21D8), with emissions controlled by scrubber 21F311, exhausting as combustion air into the furnace of Gluten Flash Dryer 48D101 and/or, the Fiber Flash Dryer Furnace 21B501, and/or with PM and PM_{10} emissions controlled by Thermal Oxidation Units 48F201 and 48F202, before exhausting to stack 17;**

(11) One (1) 21D6 natural gas, No. 2 fuel oil, or biogas fired Feed Dryer, identified as 21D6, constructed in 1966, with a heat input capacity of 30 MMBtu/hr. PM and PM10 emissions controlled by integral product collector/cyclone 21F26, then sulfur dioxide emissions controlled by scrubber 21F13, ~~then VOC emissions controlled by Thermal Oxidation Units 48FGG and 48FHH,~~ before exhausting to stack 17. **Dryer 21D6 will be shutdown upon startup and operation of the RST Feed Dryer and Fiber Flash Dryer;**

(12) One (1) 21D7 natural gas, No. 2 fuel oil, or biogas fired Feed or Meal Dryer, identified as 21D7, constructed in 1966, with a heat input capacity of 30 MMBtu/hr. PM and PM10 emissions controlled by integral product collector/cyclone 21F27, then sulfur dioxide emissions controlled by scrubber 21F13, ~~then VOC emissions controlled by Thermal Oxidation Units 48FGG and 48FHH,~~ before exhausting to stack 17. **Dryer 21D7 will be shutdown upon startup and operation of the RST Feed Dryer and Fiber Flash Dryer;**

(13) One (1) 21D8 natural gas, No. 2 fuel oil fired, or biogas fired Meal Dryer or backup Feed Dryer identified as 21D8, constructed in 1966, with a heat input capacity of 30 MMBtu/hr. PM and PM_{10} emissions are controlled by integral product collector/cyclone 21F28, then sulfur dioxide emissions controlled by scrubber 21F13, ~~then VOC emissions are controlled by Thermal Oxidation Units 48FGG and 48FHH,~~ before exhausting to stack 17**. Dryer 21D8 will be shutdown upon startup and operation of the RST Feed Dryer and Fiber Flash Dryer;**

(14) One (1) Feed Storage Bin, identified as 8V121, constructed in 1966, with emissions controlled by baghouse 8F1, **and** exhausting to stack 110**. Bin 8V121 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(15) One (1) Feed Storage Bin, identified as 8V122, constructed in 1966, with emissions controlled by baghouse 8F2, **and** exhausting to stack 111**. Bin 8V122 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(16) One (1) Feed Storage Bin, identified as 8V123, constructed in 1966, with emissions controlled by baghouse 8F3, **and** exhausting to stack 112**. Bin 8V123 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(17) One (1) Feed Storage Bin, identified as 8V124, constructed in 1966, with emissions controlled by baghouse 8F4, **and** exhausting to stack 113**. Bin 8V124 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(18) One (1) Feed/Meal Storage Bin, identified as 8V62, constructed in 1966, with emissions controlled by baghouse 8F62, **and** exhausting to stack 114**. Bin 8V62 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(19) One (1) Meal Storage Bin, identified as 8V63, constructed in 1966, with emissions controlled by baghouse 8F63, **and** exhausting to stack 115**. Bin 8V63 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(20) One (1) Meal/Germ Storage Bin, identified as 8V53, constructed in 1966, with emissions controlled by baghouse 8F53, **and** exhausting to stack 116**. Bin 8V53 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(21) One (1) Germ Storage Bin, identified as 8V54, constructed in 1966, with emissions controlled by baghouse 8F54, **and** exhausting to stack 117**. Bin 8V54 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(22) Two (2) Air Conveying Lines to Loadout, identified as AC23 and AC24, constructed in 1966, with emissions controlled by baghouse 12F39, **and** exhausting to stack 125**. The AC23 and AC24 air conveying line controlled by baghouse 12F39 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(23) One (1) Feed Mill, identified as 21G51, constructed in 1965, with emissions controlled by baghouse 21F37, **and** exhausting to stack 141. **Feed Mill 21G51, controlled by baghouse 21F37, will be shutdown upon startup and operation of the new feed mills**;

(24) One (1) Feed Mill, identified as 21G52, constructed in 1965, with emissions controlled by baghouse 21F38, **and** exhausting to stack 142. **Feed Mill 21G52, controlled by baghouse 21F37, will be shutdown upon startup and operation of the new feed mills**;

(25) **One (1) Feed Mill, identified as 21G351, with emissions controlled by scrubber 21F312, and exhausting to stack 444;**

(26) **One (1) Feed Mill, identified as 21G352, with emissions controlled by scrubber 21F312, and exhausting to stack 444;**

(27) One (1) D6 Dryer Air Conveying Line to Feed Mill, identified as AC6, constructed in 1966, with emissions controlled by baghouse 21F32, **and** exhausting to stack 143**. The AC6 conveying line controlled by baghouse 21F32 will be shutdown upon startup and operation of the RST Feed Dryer and Fiber Flash Dryer**;

(28) One (1) D7 Dryer Air Conveying Line to Feed Mill, identified as AC7, constructed in 1966, with emissions controlled by baghouse 21F35, **and** exhausting to stack 144**. The AC7 conveying line controlled by baghouse 21F35 will be shutdown upon startup and operation of the RST Feed Dryer and Fiber Flash Dryer**;

(29) One (1) **48D101**~~D8~~ Dryer Air Conveying Line~~, to Feed Mill,~~ identified as AC8, constructed in 1966, with emissions controlled by baghouse 21F36, **and** exhausting to stack 145. **The AC8 conveying line controlled by baghouse 21F36 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**;

(30) One (1) Bag Dump Station, identified as 8V99, constructed in 1966, with emissions controlled by baghouse 8F99, **and** exhausting indoors to stack 285. **Bag Dump Station 8V99 will be shutdown upon startup and operation of the new germ and meal storage and loadout systems**; ~~and~~

(31) Two (2) Natural Gas ~~/ Biogas~~ Fired Thermal Oxidation Units, identified as **48F201 and 48F202**~~48FGG and 48FHH~~, with heat input capacity of 5 million Btu per hour each;

(32) One (1) Corn Cleanings Receiver, identified as 21F304, with emissions controlled by scrubber 21F311, exhausting as combustion air into the furnace of Gluten Flash Dryer 48D101 and/or the Fiber Flash Dryer Furnace 21B501 and/or with PM and PM_{10} emissions controlled by Thermal Oxidation Units 48F201 and 48F202 before exhausting to stack 17;

(33) One (1) Feed Loadout Hopper, identified as 21V125, with emissions aspirated to the inlet of Feed Cooler 21D8 to be used as cooling air;

(34) One (1) Feed Milling Loadout Conveyor, identified as 21U314, with emissions controlled by scrubber 21F312, and exhausting to stack 444;

(35) One (1) Gluten Meal Transfer to Storage Bin, identified as 12FAA, with emissions controlled by baghouse 12FAA, and exhausting to stack 445;

(36) One (1) Gluten Meal Storage Bin, identified as 12VAA, with emissions controlled by baghouse 12FBB, and exhausting to stack 447;

(37) Two (2) Gluten Truck and Rail Loadout Conveyors, identified as 12UAA and 12UBB, with emissions controlled by baghouse 12FBB, and exhausting to stack 447;

(38) One (1) Germ Storage Bin, identified as 12VCC, with emissions controlled by baghouse 12FCC, and exhausting to stack 446; and

(39) One (1) Germ Rail Loadout Conveyor, identified as 12UCC, with emissions controlled by baghouse 12FCC, and exhausting to stack 446.

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

D.3.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

Pursuant to 326 IAC 2-2-3:

(a) The following emission units shall be controlled for PM and PM_{10}, SO_2, VOC, and NOx using the BACT:

~~(1) Feed Dryer (21D6)~~

~~(2) Feed Dryer (21D7)~~

~~(3) Feed Dryer (21D8)~~

(**1**~~4~~) RST **Feed Dryer (21D301)**~~Fiber Pre-Dryer (21DAA)~~ – No NOx Emissions,

(**2**~~5~~) Rotary Steam Tube Germ Dryer (**21D401**~~21DBB or 21D1 to 21D3~~) – No NOx Emissions,

(**3**~~6~~) Gluten Flash Dryer **(48D101)**~~(48DAA)~~,

(**4**~~7~~) **Fiber Flash Dryer (21D501),**

(**5**~~8~~) **Fiber Flash Dryer Furnace (21B501) – BACT only for NOx,**

(**6**~~9~~) **Feed Cooler 21D8 (Formerly Meal Dryer 21D8), and**

(**7**~~10~~) Regenerative Thermal Oxidizers **(48F201and 48F202)**~~(48FGG and 48FHH)~~ – BACT only for NOx.

(b) The following combined emission limits are established as BACT for the above dryers:

~~The BACT for PM, and PM_{10} (Filterable and Condensable) is an emission rate of 0.015 gr/scf; and~~

~~(1) the total PM, and PM_{10} (Filterable and Condensable) emissions from the thermal oxidizer shall be limited to 7.7 lbs/hr each; and~~

~~(2) the opacity from the thermal oxidizer shall not exceed 8%.~~

For these units, the BACT for PM/PM_{10} is the use of scrubber (21F13) and thermal oxidizers (48F201 and 48F202). The following emission limits are the BACT requirements for PM/PM_{10}:

(1) the PM and PM_{10} (Filterable and Condensable) emissions from the thermal oxidizers and the fiber dryer furnace shall each not exceed 0.031 gr/dscf;

(2) the total PM and total PM_{10} (Filterable and Condensable) emissions from the thermal oxidizers and the fiber dryer furnace shall each be limited to 7.38 lbs/hr; and

(3) the exhaust opacity of the combined gas flow from the thermal oxidizers and the fiber dryer furnace shall not exceed 8%.

(c) For these units**, except the Fiber Flash Dryer Furnace 21B501 and Feed Cooler 21D8**, the BACT for SO_2 is the use of pH adjusted scrubber 21F13. The following emission limits are the BACT requirements for SO_2:

~~(1) The scrubber shall have a minimum 90% control efficiency of SO_2, and shall not exceed 5.97 lbs/hr SO_2 in the scrubber outlet, when the inlet SO_2 concentration to the scrubber is more than 100 ppmvw, and~~

~~(2) the scrubber shall have an outlet SO_2 concentration of less than 10 ppmvw and shall not exceed 5.97 lbs/hr SO_2 in the scrubber outlet if the inlet concentration of SO_2 is 100 ppmvw or less.~~

(1) When the inlet SO_2 concentration to the scrubber is more than 100 ppmvw, the scrubber shall have a minimum SO_2 control efficiency of 90%, and the

scrubber outlet SO_2 emission rate shall not exceed 4.4 lbs/hr; and

(2) When the inlet SO_2 concentration to the scrubber is 100 ppmvw or less, the scrubber shall have an outlet SO_2 concentration of 10 ppmvw or less, and the scrubber outlet SO_2 emission rate shall not exceed 4.4 lbs/hr.

(d) For these units**, except the Fiber Flash Dryer Furnace 21B501**, the BACT for VOC is the use of the scrubber 21F13 followed by the regenerative thermal oxidizers (**48F201 and 48F202)** ~~48FGG and 48FHH~~. **The following emission limits are the BACT requirements for VOC:**

~~(1) When the inlet VOC emission rate to the scrubber is more than 100 lbs/hr, the scrubber and thermal oxidizers shall have a minimum overall 95% control efficiency of VOC, and shall not exceed 4.29 lbs/hr VOC in the thermal oxidizer outlet; and~~

~~(2) If the inlet emission rate of VOC to the scrubber is 100 lbs/hr or less the thermal oxidizers shall have an outlet VOC concentration of less than 10 ppmvw and shall not exceed 4.29 lbs/hr VOC in the thermal oxidizer outlet.~~

(1) When the inlet VOC to the scrubber is more than 100 lbs/hr, the scrubber and thermal oxidizers shall have a minimum overall VOC control efficiency of 95%, and the outlet thermal oxidizer VOC emission rate shall not exceed 3.16 lbs/hr; and

(2) When the inlet VOC rate to the scrubber is 100 lbs/hr or less, the thermal oxidizers shall have an outlet VOC concentration of less than 10 ppmvw and the outlet VOC emissions rate shall not exceed 3.16 lbs/hr.

(e) For Fiber Flash Dryer Furnace 21B501, the BACT for VOC is good combustion practices;

(**f**~~e~~) For these units**, including the fiber flash dryer furnace** and the regenerative thermal oxidizer**s**, except the rotary steam tube germ dryer, and the rotary steam tube **feed dryer** ~~fiber predryer~~, the BACT for NOx is the use of low-NO_X burners rated at 0.06 lb/MMBtu or less**,** and the total NOx emissions from these burners exhausting to stack S/V 17 shall not exceed 6~~.0~~ lbs/hr;

(**g**~~f~~) The following **new and** existing emission units shall be controlled for PM and PM_{10} (Filterable and Condensable) using best available control technology (BACT):

(1) Feed Storage Bins 8V121, 8V123, 8V124**;**

(2) Meal Storage Bin 8V63**;**

(3) Meal/Germ Storage Bin 8V53**;**

(4) Germ Storage Bin 8V54**;**

(5) Gluten Meal Transfer to Storage Bin 12FAA;

(6) Gluten Meal Storage Bin and Loadout 12VAA, 12UAA, and 12UBB; and

(7) Germ Storage Bin and Loadout 12VCC and 12UCC.

For these units, the BACT for PM and PM_{10} **(Filterable and Condensable)** is the use of **baghouses** ~~fabric filter dust collectors~~ rated at a maximum emission rate of 0.005 gr/dscf; and shall meet the following emissions limitations:

(1) the total PM /PM_{10} (Filterable and Condensable) emissions from **the following baghouses, shall be limited to** ~~baghouses 8F1, 8F3, 8F4, 8F63, 8F53, and 8F54 shall be limited to 0.08 lbs/hr each; and~~

Emission Unit	**Baghouse**	**Lbs/hr**
8V121	**8F1**	**0.08**
8V123	**8F3**	**0.08**
8V124	**8F4**	**0.08**
8V63	**8F63**	**0.08**
8V53	**8F53**	**0.08**
8V54	**8F54**	**0.08**
12FAA	**12FAA**	**0.40**
12UAA, 12UBB, 12VAA	**12FBB**	**0.12**
12UCC, 12VCC	**12FCC**	**0.17**

and;

(2) the opacity from the baghouses shall not exceed 3%.

(h) The following existing and new emission units shall be controlled for PM and PM_{10} (Filterable and Condensable) using best available control technology (BACT):

(1) Feed Mill 21G351,

(2) Feed Mill 21G352, and

(3) Feed Milling Loadout Conveyor 12U314.

For these units, the BACT for PM and PM_{10} (Filterable and Condensable) is the use of a wet scrubber limited to an emission rate of 0.0089 gr/scf; and

(1) the total PM /PM_{10} (Filterable and Condensable) emissions from scrubber 21F312 shall be limited to 0.204 lb/hr; and

(2) the opacity from the scrubber shall not exceed 8%.

D.3.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2] ~~**[40 CFR 52, Subpart P]**~~

Pursuant to 326 IAC 6-3-2 **(Particulate Emissions Limitations for Manufacturing Processes)**, particulate emissions from facilities 21D1, 21D2, 21D3, 21D6, 21D7, 21D8, 21V60, 21V61, 12U11, 8V121 through 8V124, 8V62, 8V63, 8V53, 8V54, AC23, AC24, 21G51, 21G52, AC6, AC7, AC8, and 8V99 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:

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

P = 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:

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

D.3.3 Sulfur Dioxide (SO_2) [326 IAC 7-1.1-2] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1-2 (SO_2 Emissions Limitations), the SO_2 emissions from combustion in dryers 21D6, 21D7, and 21D8 shall not exceed five-tenths (0.5) pounds per million Btu (MMBtu) per dryer when combusting No. 2 fuel oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average. **This condition will expire upon the operation of new feed dryers, RST Feed Dryer and Fiber Flash Dryer.**

~~D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]~~

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

D.3.4 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating)

Pursuant to 326 IAC 6-2-4 (Particulate Emissions Limitations for Sources of Indirect Heating), the allowable particulate matter (PM) emissions from fiber flash dryer furnace shall be limited to 0.20 lb/MMBtu. The above particulate emissions rate was determined from the following formula:

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

Where:

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

Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever 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 = 666 MMBtu/hr).

Compliance Determination Requirement

D.3.5 Sulfur Dioxide Emissions and Sulfur Content

Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate compliance with Condition D.3.3 utilizing one of the following options:

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

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

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

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

A determination of noncompliance pursuant to the methods specified above shall not be refuted by evidence of compliance pursuant to the other method.

This condition will expire upon the operation of new feed dryers, RST Feed Dryer and Fiber Flash Dryer.

D.3.6 Particulate, Volatile Organic Compounds (VOC), and Sulfur Dioxide (SO_2) Control

~~In order to comply with Conditions D.3.1(b), (c), and (d), the scrubber (21F13), (for particulate, VOC, and SO_2 control) shall be in operation and control emissions from emission units 21D1, 21D2, 21D3, 21D6, 21D7, 21D8, 21DAA, 21DBB and 48DAA) at all times when any emission unit that it controls is in operation. Only three of the four dryers 21D6, 21D7, 21D8, and 48DAA shall operate at one time.~~ **In order to comply with Conditions D.3.1(b),(c), and (d), the scrubber (21F13), and thermal oxidizers (48F201 and 48F202) (for particulate, VOC, and SO_2 control) shall be in operation and control emissions from emission units 21D301, 21D401, 48D101, and 21D501 at all times when the material feed system to any emission unit that it controls is in operation. Scrubber 21F311 shall be in operation and control particulate emissions from emission units 21D8 and 21F304 and exhaust as combustion air into the furnace of Gluten Flash Dryer 48D101 and/or the Fiber Flash Dryer Furnace 21B501 and/or Thermal Oxidation Units 48F201 and 49F202 at all times when the material feed system to any emission unit that it controls is in operation.**

D.3.7 Particulate Control

(a) In order to comply with Conditions D.3.1~~(b),~~ (**g**~~f~~) and D.3.2, baghouses, including those integral to the process, 21F14, 21F15, 12F40, 8F1, 8F2, 8F3, 8F4, 8F62, 8F63, 8F53, 8F54, 12F39, 21F37, 21F38, 21F32, 21F35, 21F36, ~~and~~ 8F99**, 12FAA, 12FBB, and 12FCC** for particulate control shall be in operation and control particulate emissions from emission units 21V60, 21V61, 12U11, 8V121 through 8V124, 8V62, 8V63, 8V53, 8V54, AC23, AC24, 21G51, 21G52, AC6, AC7, AC8, 8V99**, 12FAA, 12VAA, 12UAA, 12UBB, 12VCC, and 12UCC** at all times when any emission unit that it controls is in operation.

(b) In order to comply with Condition D.3.1(h), scrubber 21F312 for particulate control shall be in operation and control particulate emissions from emission units 21G351, 21G352, and 21U314 at all times when any emission unit that it controls is in operation.

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

actions taken up to the time of notification.

D.3.8 Volatile Organic Compounds (VOC) Control

In order to comply with Condition D.3.1(d), the scrubber**s** 21F13 **and 21F311**, and the Regenerative Thermal Oxidization Units **48F201 and 48F202**~~48FGG and 48FHH~~ for VOC control, shall be in operation and control emissions from emission units ~~21D1, 21D2, 21D3, 21D6, 21D7, 21D8~~, **21D301, 21D401, 48D101, and 21D501**~~21DAA, 21DBB and 48DAA~~ at all times when **the material feed system to** any emission unit that it controls is in operation.

D.3.9 Thermal Oxidizer Temperature

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizers for measuring operating temperature. For purposes of this condition continuous shall mean temperature measurement no less than once per minute. The output of this system shall be recorded as 3 - hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the 3 - hour average temperature of 1400°F.

(b) The Permittee shall determine the 3 - hour average temperature from the most recent valid stack test that demonstrates compliance with limits in condition D.3.1(d), as approved by IDEM.

(c) On and after the date the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the 3- hour average temperature as observed during the compliant stack test.

D.3.10 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) Within 60 days after achieving the maximum production rate for dryers **21D301, 21D401, 48D101, and 21D501**~~21DAA, 21DBB, and 48DAA~~ but no later than 180 days after startup of the dryers, the Permittee shall perform PM, PM_{10}, opacity, VOC, and SO_2 testing on scrubber 21F13 and Thermal Oxidation Units (**48F201 and 48F202)**~~48FGG and 48FHH~~ in order to determine compliance with **Conditions** D.3.1 (b), (c), and (d) utilizing methods as approved by the Commissioner~~, and furnish the Commissioner a written report of the results of such performance tests~~.

(b) Within 60 days after achieving the maximum production rate for but no later than 180 days after startup of the emissions units 12FAA, 12VCC, and 12UCC, the Permittee shall perform PM, PM_{10}, and opacity testing on baghouses 12FAA, and 12FCC, in order to determine compliance with Condition D.3.1 (g) utilizing methods as approved by the Commissioner.

(c) Within sixty (60) days after achieving maximum production rate for dryers 48D101, 48F201, 48F202, and 21B501 but no later than one hundred and eighty (180) days after the startup of operation, the Permittee shall conduct performance tests to measure the NOx to determine compliance with Condition D.3.1 utilizing methods as approved by the Commissioner

These tests shall be repeated for PM, PM_{10} (PM_{10} includes filterable and condensable PM_{10}), opacity, VOC, SO_2, and NOx, 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.

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

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

D.3.11 Monitoring for Scrubber

(a) The Permittee shall monitor the pH of the scrubbing liquor and the scrubber's recirculation rate~~s~~ at least once per ~~shift~~ **day** from scrubber 21F13.

(b) ~~The Compliance Response Plan for the scrubber shall contain troubleshooting contingency and response steps for when~~ **If** the pH reading~~s~~ ~~are~~ **is** outside of the normal range, ~~and~~ **or the 1-hr average flow rate reading is** below **the** minimum flow rate for any one reading**, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances.**

(1) The normal pH range for scrubber 21F13 is 5~~.0~~ to 8~~.0~~ or the range established during the latest stack test. The minimum 1-hr average flow rate for Scrubber 21F13 is 400 gpm or a minimum flow rate established during the latest stack test.

(c) The Permittee shall monitor the scrubbers' recirculation rates at least once per day from scrubber 21F311 controlling particulate emissions from the feed cooler 21D8 and scrubber 21F312 controlling particulate emissions from 21G351, 21G352, and 12U314. If the 1-hr average flow rate reading is below the flow rate as specified by the manufacturer, or a minimum flow rate established during the latest stack test for any one reading, the Permittee shall take reasonable response steps in accordance with Section C.-. Response to Excursions or Exceedances.

(**d** ~~c~~) A ~~pH~~ ~~or~~ flow reading that is outside of the normal range or **the 1-hr average flow rate that is** below the minimum flow rate for any one 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~~**Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

(e) The instruments used for determining the pH and flow rate shall comply with Section C - ~~Pressure Gauge and other~~ Instrument Specifications and shall be calibrated at least once every six (6) months. The loss of monitoring data due to the calibration of an instrument while the equipment is in operation does not constitute a deviation from this permit.

~~D.3.12 Scrubber Inspections~~

~~An external inspection shall be performed semiannually for scrubber 21F13. 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.3.**12**~~13~~ Visible Emissions Notations

(a) ~~Visible emission notations of the exhaust from stacks 3 and 17 shall be performed once per shift during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.~~

~~(b)~~ Visible emission notations of the ~~exhaust from~~ stacks **3, 17,** 110, 111, 112, 113, 114, 115, 116, ~~and~~ 117, **444, 445, 446 and 447 exhaust** shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

(**e**~~f~~) ~~The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an~~ **If** abnormal emission**s** ~~is~~ **are** observed**, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances**. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records and Reports~~**Response to Excursions or Exceedances,** shall be considered a deviation from this permit.

D.3.**13**~~14~~ Monitoring for Baghouses

(a) The Permittee shall record the ~~total static~~ pressure drop across the baghouse 12F40, used in conjunction with facility 12U11, **baghouses 12 FAA, 12FBB, and 12FCC** at least once per **day**~~shift~~ when the respective facilities are in operation.

(b) The Permittee shall record the ~~total static~~ pressure drop across the baghouse, used in conjunction with facilities 8V121 through 8V124, 8V62, 8V63, 8V53, and 8V54 at least once per day when the respective facilities are in operation.

(c) When, for any one reading, the pressure drop across the baghouse ~~are~~ is outside of 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~~**Response to Excursions or Exceedances**. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records and Reports~~**Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

(d) The instruments used for determining the pressure shall comply with Section C - ~~Pressure Gauge and other~~ Instrument Specifications of this permit, and shall be calibrated at least once every six (6) months.

~~D.3.15 Baghouse Inspections~~

~~(a) An external inspection of the baghouse controlling particulate emissions from facility 12U11, shall be performed at least once per calendar quarter. Inspections required by this condition shall not be performed in consecutive months.~~

~~(b) An internal inspection of all bags, controlling particulate emissions from facilities 12U11, 8V121 through 8V124, 8V62, 8V63, 8V53, and 8V54, 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.~~

~~(c) Inspections shall also be performed each time that a respective baghouse that has been secured and tagged as being out of service. All defective bags shall be replaced.~~

D.3.**14**~~16~~ Broken or Failed Bag Detection

In the event that bag failure has been observed:

~~(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records and Reports, shall be considered a deviation from this permit. If operations continue after bag failure 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.~~

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

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

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

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

D.3.**15**~~17~~ Record Keeping Requirements

(a) To document compliance with Condition D.3.3, 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, and

(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 all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.~~

(b) To document compliance with Condition D.3.11 (a), the Permittee shall maintain records of the pH and scrubber**'s** recirculation rate from scrubber 21F13.

(c) To document compliance with Condition D.3.11(c), the Permittee shall maintain records of the scrubbers' recirculation rates from scrubbers 21F311 and 21F312.

(**d**~~c~~) To document compliance with Condition D.3.9, the Permittee shall maintain records of the operating temperatures of thermal oxidation units (**48F201 and 48F202)** ~~48FGG and 48FHH~~.

(**e**~~d~~) To document compliance with Condition D.3.**12**~~13~~, the Permittee shall maintain records of the visible emission notations of the stack**s** exhaust.

(**f**~~e~~) To document compliance with Condition D.3.**13** ~~14~~**,** the Permittee shall maintain records of the ~~total static~~ pressure drop during normal operation.

~~(f) To document compliance with Conditions D.3.12 and D.3.15, the Permittee shall maintain records of the results of the inspections.~~

~~(g) To document compliance with Condition D.3.4, the Permittee shall maintain of records of any additional inspections prescribed by the Preventive Maintenance Plan.~~

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

Clean Unit [326 IAC 2-2.2-2]

D.3.**16**~~18~~ Clean Unit [326 IAC 2-2.2-2]

Pursuant to 326 IAC 2-2.2-2**:**~~,~~

(a) The following emissions units are classified as Clean Units for PM/PM_{10}:

(1) Feed Storage Bins 8V121, 8V123, 8V124**;**

(2) Meal Storage Bin 8V63**,**

(3) Meal/Germ Storage Bin 8V53**, and**

(4) Germ Storage Bin 8V54**.**

(b) The following emissions unit~~s~~ **is** ~~are~~ classified as Clean Unit~~s~~ for PM/PM_{10}, SO_2**,** and VOC:

~~(1) Feed Dryer (21D6)~~

~~(2) Feed Dryer (21D7)~~

~~(3) Feed Dryer (21D8)~~

~~(4) RST Fiber Pre-Dryer (21DAA)~~

~~(5) Rotary Steam Tube Germ Dryer (21DBB or 21D1 to 21D3)~~

(**1**~~6~~) Gluten Flash Dryer (**48D101**~~48DAA~~),

(2) RST Feed Dryer (21D301), and

(3) RST Germ Dryer (21D401).

(c) The following emissions units are classified as Clean Units for NOx:

~~(1) Feed Dryer (21D6)~~

~~(2) Feed Dryer (21D7)~~

~~(3) Feed Dryer (21D8)~~

(**1**~~4~~) Gluten Flash Dryer **(48D101)**~~(48DAA)~~ **and**

(**2**~~5~~) Regenerative Thermal Oxidizers (**48F201 and 48F202**~~48FGG and 48FHH~~) **–** ~~BACT only for NOx~~.

(d) The Clean Unit designations for the above emissions units are in effect for ten (10) years after the issuance date of the source modification permit or the date the emission's unit control technology is placed in service, whichever is later.

New Source Performance Standard (NSPS) Requirements [326 IAC 2-7-5(1)] [326 IAC 12] [40 CFR 60, Subpart Dc]

D.3.17 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for Fiber Flash Dryer Furnace except as otherwise specified in 40 CFR Part 60, Subpart Dc.

(b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

**Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251**

NSPS Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] [326 IAC 12] [40 CFR 60, Subpart Dc]

D.3.18 Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (Boiler NSPS) [40 CFR 60, Subpart Dc]

Pursuant to 40 CFR 60.48c(g), the Permittee shall record and maintain records of the amounts of natural gas and biogas combusted in Fiber Flash Dryer Furnace 21B501 during each calendar month.

D.3.19 State Only Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (Boiler NSPS) [326 IAC12]

Pursuant to 326 IAC 12, the Permittee shall record and maintain records of the amounts of natural gas and biogas combusted in Fiber Flash Dryer Furnace 21B501 each day. This condition expires when the revisions made to 40 CFR 60 Subpart Dc, as amended on February 27, 2006, become effective as Indiana Law. This condition is not federally enforceable.

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)] [326 IAC 20-1] [40 CFR Part 63, Subpart A] [40 CFR Part 63, Subpart DDDDD]

D.3.20 General Provisions Relating to NESHAP DDDDD [326 IAC 20-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.7505, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, for Fiber Flash Dryer Furnace 21B501, as specified in Appendix A of 40 CFR Part 63, Subpart DDDDD in accordance with the schedule in 40 CFR 63, Subpart DDDDD.

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

**Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251**

and

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

D.3.21 NESHAP DDDDD [40 CFR Part 63, Subpart DDDDD]

Pursuant to CFR Part 63, Subpart DDDDD, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart DDDDD, for Fiber Flash Dryer Furnace 21B501, as specified as follows:

§ 63.7485 Am I subject to this subpart?

You are subject to this subpart if you own or operate a process heater as defined in §63.7575 that is located at, or is part of, a major source of HAP as defined in §63.2, except as specified in §63.7491.

§ 63.7490 What is the affected source of this subpart?

(a) This subpart applies to new affected sources as described in paragraphs (a)(2) of this section.

(2) The affected source of this subpart is each new process heater located at a major source as defined in §63.7575.

(b) A process heater is new if you commence construction of the process heater after January 13, 2003, and you meet the applicability criteria at the time you commence construction.

§ 63.7495 When do I have to comply with this subpart?

(a) If you have a new process heater, you must comply with this subpart by upon startup of your process heater.

(d) You must meet the notification requirements in §63.7545 according to the schedule in §63.7545 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the work practice standards in this subpart.

Emission Limits and Work Practice Standards

§ 63.7499 What are the subcategories of boilers and process heaters?

The subcategories of process heaters are large gaseous fuel. Each subcategory is defined in §63.7575.

§ 63.7500 What emission limits, work practice standards, and operating limits must I meet?

(a) You must meet the requirements in paragraphs (a)(1) of this section.

(1) You must meet work practice standard in Table 1 to this subpart that applies to your process heater, except as provided under §63.7507.

General Compliance Requirements

§ 63.7505 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the work practice standards in this subpart at all times, except during periods of startup, shutdown, and malfunction.

(b) You must always operate and maintain your affected source according to the provisions in §63.6(e)(1)(i).

(e) If you have an applicable work practice standard, you must develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6(e)(3).

[69 FR 55253, Sept. 13, 2004, as amended at 71 FR 20467, Apr. 20, 2006]

Testing, Fuel Analyses, and Initial Compliance Requirements

§ 63.7510 What are my initial compliance requirements and by what date must I conduct them?

(a) For affected sources that elect to demonstrate compliance with any of the emission limits of this subpart through performance testing, your initial compliance requirements include conducting performance tests according to §63.7520 and Table 5 to this subpart.

(c) For affected sources that have an applicable work practice standard, your initial compliance requirements depend on the subcategory and rated capacity of process heater. If your process heater has a heat input capacity less than 100 MMBtu per hour, your initial compliance demonstration is conducting a performance test for carbon monoxide according to Table 5 to this subpart.

(g) If your new affected source commences construction after November 12, 2004, you must demonstrate initial compliance with the promulgated work practice standards no later than 180 days after startup of the source.

§ 63.7515 When must I conduct subsequent performance tests or fuel analyses?

(e) If you have an applicable work practice standard for carbon monoxide and your process heater has a heat input capacity less than 100 MMBtu per hour, you must conduct annual performance tests for carbon monoxide according to §63.7520. Each annual performance test must be conducted between 10 and 12 months after the previous performance test.

(g) You must report the results of performance tests within 60 days after the completion of the performance tests. The reports for all subsequent performance tests should include all applicable information required in §63.7550.

§ 63.7520 What performance tests and procedures must I use?

(a) You must conduct all performance tests according to §63.7(c), (d), (f), and (h). You must also develop a site-specific test plan according to the requirements in §63.7(c) if you elect to demonstrate compliance through performance testing.

(b) You must conduct each performance test according to the requirements in Table 5 to this subpart.

(d) You must conduct each performance test under the specific conditions listed in Table 5 to this subpart. You must conduct performance tests at the maximum normal operating load These requirements could result in the need to conduct more than one performance test.

(e) You may not conduct performance tests during periods of startup, shutdown, or malfunction.

(f) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.

§ 63.7530 How do I demonstrate initial compliance with the emission limits and work practice standards?

(a) You must demonstrate initial compliance with work practice standard that applies to you by conducting initial performance tests according to §63.7520 and Table 5 to this subpart.

§ 63.7540 How do I demonstrate continuous compliance with the emission limits and work practice standards?

(a) You must demonstrate continuous compliance with work practice standard in Tables 1 to this subpart.

(b) You must report each instance in which you did not meet work practice standard in Tables 1 to this subpart that apply to you. You must also report each instance during a startup, shutdown, or malfunction when you did not meet each work practice standard. These instances are deviations from the emission limits and work practice standards in this subpart. These deviations must be reported according to the requirements in §63.7550.

(d) Consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the EPA Administrator's satisfaction that you were operating in accordance with §63.6(e)(1). The EPA Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e).

[69 FR 55253, Sept. 13, 2004, as amended at 71 FR 20467, Apr. 20, 2006]

Notification, Reports, and Records

§ 63.7545 What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h) that apply to you by the dates specified.

(c) As specified in §63.9(b)(4) and (b)(5), if you startup your new affected source on or after November 12, 2004, you must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source.

(d) If you are required to conduct a performance test you must submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin.

(e) If you are required to conduct an initial compliance demonstration as specified in §63.7530(a), you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii). For each initial compliance demonstration, you must submit the Notification of Compliance Status, including all performance test results, before the close of business on the 60th day following the completion of the performance test and/or other initial compliance demonstrations according to §63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (9), as applicable.

(1) A description of the affected source(s) including identification of which subcategory the source is in, the capacity of the source, a description of the add-on controls used on the source description of the fuel(s) burned, and justification for the fuel(s) burned during the performance test.

(2) Summary of the results of all performance tests, and calculations conducted to demonstrate initial compliance including all established operating limits.

(6) A signed certification that you have met all applicable emission limits and work practice standards.

(7) A summary of the carbon monoxide emissions monitoring data and the maximum carbon monoxide emission levels recorded during the performance test to show that you have met any applicable work practice standard in Table 1 to this subpart.

(9) If you had a deviation from any emission limit or work practice standard, you must also submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report.

§ 63.7550 What reports must I submit and when?

(a) You must submit each report in Table 9 to this subpart that applies to you.

(b) Unless the EPA Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 9 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for your source in §63.7495.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.7495.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) The compliance report must contain the information required in paragraphs (c)(1) through (11) of this section.

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(5) A summary of the results of the annual performance tests.

(9) If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in §63.10(d)(5)(i).

(10) If there are no deviations from any emission limits or operating limits in this subpart that apply to you, and there are no deviations from the requirements for work practice standards in this subpart, a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.

(d) For each deviation from the requirements for work practice standards in this subpart that occurs at an affected source, the compliance report must contain the information in paragraphs (c)(1) through (10) of this section and the information required in paragraphs (d)(1) through (4) of this section. This includes periods of startup, shutdown, and malfunction.

(1) The total operating time of each affected source during the reporting period.

(2) A description of the deviation and which emission limit, operating limit, or work practice standard from which you deviated.

(3) Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 9 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

§ 63.7555 What records must I keep?

(a) You must keep records according to paragraphs (a)(1) through (3) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in §63.10(b)(2)(xiv).

(2) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests or other compliance demonstrations, performance evaluations and opacity observations as required in §63.10(b)(2)(viii).

§ 63.7560 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records off site for the remaining 3 years.

Other Requirements and Information

§ 63.7565 What parts of the General Provisions apply to me?

Table 10 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

§ 63.7570 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

§ 63.7575 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in §63.2 (the General Provisions), and in this section as follows:

Annual capacity factor **means the ratio between the actual heat input to a boiler or process heater from the fuels burned during a calendar year, and the potential heat input to the boiler or process heater had it been operated for 8,760 hours during a year at the maximum steady state design heat input capacity.**

Deviation. **(1) Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:**

(i) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard;

(ii) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(iii) Fails to meet work practice standard in this subpart during startup, shutdown, or malfunction, regardless or whether or not such failure is permitted by this subpart.

(2) A deviation is not always a violation. The determination of whether a deviation constitutes a violation of the standard is up to the discretion of the entity responsible for enforcement of the standards.

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

Fossil fuel **means natural gas, petroleum, coal, and any form of solid, liquid, or gaseous fuel derived from such materials.**

Fuel type **means each category of fuels that share a common name or classification. Examples include, but are not limited to, bituminous coal, subbituminous coal, lignite, anthracite, biomass, construction/demolition material, salt water laden wood, creosote treated wood, tires, residual oil. Individual fuel types received from different suppliers are not considered new fuel types except for construction/demolition material.**

Gaseous fuel **includes, but is not limited to, natural gas, process gas, landfill gas, coal derived gas, refinery gas, and biogas. Blast furnace gas is exempted from this definition.**

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

Large gaseous fuel subcategory **includes any process heater that burns gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has an annual capacity factor of greater than 10 percent.**

Natural gas **means:**

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

(2) Liquid petroleum gas, as defined by the American Society for Testing and Materials in ASTM D1835–03a, "Standard Specification for Liquid Petroleum Gases" (incorporated by reference, see §63.14(b)).

Period of natural gas curtailment or supply interruption **means a period of time during which the supply of natural gas to an affected facility is halted for reasons beyond the control of the facility. An increase in the cost or unit price of natural gas does not constitute a period of natural gas curtailment or supply interruption.**

Process heater **means an enclosed device using controlled flame, that is not a boiler, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to a heat transfer material for use in a process unit, instead of generating steam. Process heaters are devices in which the combustion gases do not directly come into contact with process materials. Process heaters do not include units used for comfort heat or space heat, food preparation for on-site consumption, or autoclaves.**

Responsible official **means responsible official as defined in 40 CFR 70.2.**

Work practice standard **means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.**

Tables to Subpart DDDDD of Part 63

Table 1 to Subpart DDDDD of Part 63—Emission Limits and Work Practice Standards

As stated in § 63.7500, you must comply with the following applicable work practice standards:

If your process heater is in this subcategory	For the following pollutants	You must meet the following limits and work practice standards. . .
New reconstructed large gaseous fuel.	Carbon Monoxide.....	400 ppm by volume on a dry basis corrected to 3 percent oxygen (3-run average for units less than 100 MMBtu/hr).

Table 5 to Subpart DDDDD of Part 63—Performance Testing Requirements

As stated in § 63.7520, you must comply with the following requirements for performance test for new affected sources:

To conduct a performance test for the following pollutant . . .		You must . . .	Using . . .
Carbon Monoxide	a	Select the sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of this chapter.
	b	Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B in appendix A to part 60 of this chapter, or ASTM D6522-00 (IBR, see § 63.14(b)), or ASME PTC 19, Part 10 (1981) (IBR, see § 63.14(i)).
	c	Measure the moisture content of the stack gas	Method 4 in appendix A to part 60 of this chapter.
	d	Measure the carbon monoxide emission concentration.	Method 10, 10A, or 10B in appendix A to part 60 of this chapter, or ASTM D6522-00 (IBR, see § 63.14(b)) when the fuel is natural gas.

Table 9 to Subpart DDDDD of Part 63—Reporting Requirements

As stated in § 63.7550, you must comply with the following requirements for reports:

You must submit a(n)		The report must contain . . .	You must submit the report . . .
1. Compliance report........	a..	Information required in § 63.7550(c)(1) through (11); and	Semiannually according to the requirements in § 63.7550(b).
	b	If there are no	

	deviations from any emission limitation (emission limit and operating limit) that applies to you and there are no deviations from the requirements for work practice standards in Table 8 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period; and	
	c If you have a deviation from any emission limitation (emission limit and operating limit) or work practice standard during the reporting period, the report must contain the information in § 63.7550(d); and	
	d. If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in § 63.10(d)(5)(i)	
2. An immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is	a Actions taken for the event; and	i By fax or telephone within 2 working days after starting actions inconsistent with the plan; and

not consistent with your startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard.				
	b	The information in § 63.10(d)(5)(ii)	ii	By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority.

Table 10 to Subpart DDDDD of Part 63—Applicability of General Provisions to Subpart DDDDD

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.1	Applicability	Initial Applicability Determination; Applicability After Standard Established; Permit Requirements; Extensions, Notifications.	Yes.
§ 63.2	Definitions	Definitions for part 63 standards.	Yes.
§ 63.3	Units and Abbreviations	Units and abbreviations for part 63 standards.	Yes.
§ 63.4	Prohibited Activities	Prohibited Activities; Compliance date; Circumvention, Severability.	Yes.
§ 63.5	Construction Reconstruction	Applicability; applications; approvals.	Yes.
§ 63.6(b)(1)-(4)	Compliance Dates for New sources	Standards apply upon startup	Yes.
§ 63.6(b)(5)	Notification	Must notify if commenced construction	Yes.
§ 63.6(e)(1)-(2)	Operation & Maintenance.	Operate to minimize emissions at all times; and Correct malfunctions as soon as practicable; and Operation and maintenance requirements	Yes.

	..	independently enforceable; information Administrator will use to determine if operation and maintenance requirements were met.	
§ 63.6(e)(3)	.Startup, Shutdown, and ...Malfunction Plan (SSMP).	Requirement for SSM and startup, shutdown, malfunction plan; and content of SSMP.	Yes.
§ 63.6(f)(1)	.Compliance Except During SSM. .	Comply with emission standards at all times except during SSM.	Yes.
§ 63.6(f)(2)-(3)	Methods for Determining Compliance ...	Compliance based on performance test, operation and maintenance plans, records, inspection.	Yes.
§ 63.7(a)(1)	.Performance Test Dates	Dates for Conducting Initial Performance Testing and Other Compliance Demonstrations.	Yes.
§ 63.7(a)(3	..Section 114 Authority.......	Administrator may require a performance test under CAA Section 114 at any time.	Yes.
§ 63.7(b)(1)	.Notification of Performance Test.	Must notify Administrator 60 days before the test.	No.
§ 63.7(c)	...Quality Assurance/Test Plan.	Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with: test plan approval procedures; and performance audit requirements; and internal and external QA procedures for testing.	Yes.
§ 63.7(d)	..Testing Facilities	Requirements for testing facilities.	.Yes.
§ 63.7(e)(1)	Conditions for Conducting Performance Tests. 1	Performance tests must be conducted under representative conditions; and	No.
	2	Cannot conduct performance tests during SSM; and	Yes.
	3	Not a deviation to exceed standard during SSM; and	Yes.
	..............4.	Upon request of Administrator, make available records necessary to determine conditions of performance tests.	Yes.

§ 63.7(e)(2)Conditions for Conducting Performance Tests.	**Must conduct according to rule and EPA test methods unless Administrator approves alternative.**	**Yes.**
§ 63.7(e)(3)Test Run Duration...........	**Must have three separate test runs; and Compliance is based on arithmetic mean of three runs; and conditions when data from an additional test run can be used.**	**Yes.**
§ 63.7(e)(4).Interaction with other sections of the Act.	**Nothing in § 63.7(e)(1) through (4) can abrogate the Administrator's authority to require testing under Section 114 of the Act.**	**Yes.**
§ 63.7(f)...Alternative Test Method......	**Procedures by which Administrator can grant approval to use an alternative test method.**	**Yes.**
§ 63.7(g).Performance Test Data Analysis.	**Must include raw data in performance test report; and must submit performance test data 60 days after end of test with the Notification of Compliance Status; and keep data for 5 years.**	**Yes.**
§ 63.9(a).Notification Requirements	**Applicability and State Delegation.**	**Yes.**
§ 63.9(b)(1)-(5)Initial Notifications ...	**Submit notification 120 days after effective date; and Notification of intent to construct and Notification of commencement of construct; Notification of startup; and Contents of each.**	**Yes.**
§ 63.9(c).Request for Compliance Extension	**Can request if cannot comply by date or if installed BACT.**	**Yes.**
§ 63.9(h)(1)-(6)Notification of Compliance Status	**Contents; and due 60 days after end of performance test or other compliance demonstration, and when to submit to Federal vs. State authority.**	**Yes.**
§ 63.9(i).......Adjustment of Submittal Deadlines.	**Procedures for Administrator to approve change in when notifications must be submitted.**	**Yes.**
§ 63.9(j).......Change in Previous	**Must submit within 15 days**	**Yes.**

	Information.	after the change.	
§ 63.10(a)	Recordkeeping/Reporting	Applies to all, unless compliance extension; and when to submit to Federal vs. State authority; and procedures for owners of more than 1 source.	Yes.
§ 63.10(b)(1)	Recordkeeping/Reporting	General Requirements; and keep all records readily available and keep for 5 years.	Yes.
§ 63.10(b)(2)(i)-(v)	Records related to Startup, Shutdown, and Malfunction.	Occurrence of each of operation (process, equipment); and actions during startup, shutdown, and malfunction.	Yes.
§ 63.10(b)(2)(vii)-(ix)	Records	Measurements to demonstrate compliance with emission limitations; and performance test,	Yes.
§ 63.10(b)(2)(xiv)	Records	All documentation supporting Initial Notification and Notification of Compliance Status.	Yes.
§ 63.10(b)(3)	Records	Applicability Determinations.	Yes.
§ 63.10(d)(1)	General Reporting Requirements.	Requirement to report	Yes.
§ 63.10(d)(2)	Report of Performance Test Results.	When to submit to Federal or State authority.	Yes.
§ 63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension.	Yes.
§ 63.10(d)(5)	Startup, Shutdown, and Malfunction Reports.	Contents and submission	Yes.
§ 63.14	Incorporation by Reference	Test methods incorporated by reference.	Yes.
§ 63.15	Availability of Information.	Public and confidential Information.	Yes.

D.3.22 One Time Deadlines Relating to Boiler NESHAP [40 CFR Part 63, Subpart DDDDD]

(a) **The Permittee must submit an Initial Notification not later than 15 days after the actual date of startup of Fiber Flash Dryer Furnace.**

(b) **The Permittee must conduct the initial performance tests no later than 180 days after startup of the source. The Permittee must submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin. The Permittee must submit a notification of compliance status, including all performance test results, before the close of business on the 60th day following the completion of the performance test report for Fiber Flash Dryer Furnace.**

SECTION D.4 FACILITY OPERATION CONDITIONS

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

(d) Syrup Refining Operations, consisting of:

(1) One (1) GMH Storage Silo, identified as 9V32, constructed in 1966, with emissions controlled by baghouse 9F32, **and** exhausting to stack 119;

(2) One (1) Filteraid Storage Silo, identified as 9V31, constructed in 1966, with emissions controlled by baghouse 9F31, **and** exhausting to stack 123;

(3) One (1) Powdered Carbon Unloading, identified as 9C30, constructed in 1966, with emissions controlled by baghouse 9F30, **and** 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, **and** exhausting to stack 129;

(5) One (1) Soda Ash Storage Tank, identified as 9C40, constructed in 1966, with emissions controlled by eductor/scrubber 9E1, **and** exhausting to stack 149;

(6) One (1) HCl Storage Tank (Concentrated), identified as 9V101, constructed in 1995, with emissions controlled by scrubber 9F102, **and** exhausting to stack 156;

(7) One (1) Jet Cooker system/Jet Conversion Flash Chamber, identified as 18V413, constructed in 1966, **with SO_2 and VOC emissions controlled by an alkaline scrubber 15F401, and exhausting to stack 17** ~~uncontrolled, exhausting to stack 166~~;

(8) One (1) Jet Cooker system/Acid Reject Flash Chamber, identified as 18V312, constructed in 1966, with emissions uncontrolled, **and** exhausting to stack 320;

(9) One (1) Powdered Carbon Storage Silo, identified as 9V30, constructed in 1966, with emissions controlled by baghouse 9F37, **and** exhausting to stack 321; and

(10) One (1) Refinery Reprocess Bag Dump, identified as 45C43, constructed in 2000, with emissions controlled by baghouse 45F43, **and** exhausting indoors.

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 Limitations for Manufacturing Processes)**, 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:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour; and
P = 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:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = 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 are 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.**2**~~3~~ Particulate Control **[326 IAC 2-7-6(6)]**

(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.

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

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

D.4.**3**~~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~~ **If** ~~A~~**a**n inadequate scrubber recirculation flow is observed, **the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances**. 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~~**Response to Excursions or Exceedances,** shall be considered a deviation from this permit.

~~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.**4**~~6~~ Visible Emissions Notations

(a) Visible emission notations of the ~~exhaust from~~ stacks 119 and 321 **exhaust** 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 **once per day when** ~~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~~ **If** ~~an~~ abnormal emission**s** ~~is~~ **are** observed**, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances**. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records and Reports~~, **Response to Excursions or Exceedances** shall be considered a deviation from this permit.

D.4.**5**~~7~~ 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) **If** ~~When~~, for any one reading, the pressure drop across the baghouse~~s~~ **is** ~~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~~ **Response to Excursions or Exceedances**. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records and Reports~~ **Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

(c) The instruments used for determining the pressure shall comply with Section C - ~~Pressure Gauge and other~~ Instrument Specifications of this permit, and shall be calibrated at least once every six (6) months.

~~D.4.8 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 each time that a respective baghouse that has been secured and tagged as being out of service. All defective bags shall be replaced.~~

D.4.**6**~~9~~ 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.~~

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

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

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

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

D.4.**7**~~10~~ Record Keeping Requirements

(a) To document compliance with Condition D.4.**3**~~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.**4**~~6~~, the Permittee shall maintain records of the visible emission notations of the stack exhaust.

(c) To document compliance with Condition D.4.**5**~~7~~, 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.4.8, 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.~~

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

SECTION D.5 FACILITY OPERATION CONDITIONS

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

(e) Starch Modification Operations, consisting of:

(1) One (1) Non-PO Reactor, identified as 45V115, constructed in 1966, **and** exhausting to stack 11;

(2) One (1) Non-PO Reactor, identified as 45V116, constructed in 1966, **and** exhausting to stack 12;

(3) One (1) Non-PO Reactor, identified as 45V222, constructed in 1973, **and** exhausting to stack 31;

(4) One (1) PO Reactor, identified as 45V223, constructed in 1973, with emissions controlled by scrubber 45F212, **and** exhausting to stack 50;

(5) One (1) PO Reactor, identified as 45V240, constructed in 1986, with emissions controlled by scrubber 45F212, **and** exhausting to stack 50;

(6) One (1) PO Reactor, identified as 45V241, constructed in 1986, with emissions controlled by scrubber 45F212, **and** exhausting to stack 50;

(7) One (1) PO Reactor, identified as 45V242, constructed in 1986, with emissions controlled by scrubber 45F212, **and** exhausting to stack 50;

(8) One (1) PO Reactor, identified as 45V243, constructed in 1986, with emissions controlled by scrubber 45F212, **and** exhausting to stack 50;

(9) One (1) PO Reactor, identified as 45V246, constructed in 1988, with emissions controlled by scrubber 45F212, **and** exhausting to stack 50;

(10) One (1) PO Reactor, identified as 45V247, constructed in 1988, with emissions controlled by scrubber 45F212, **and** exhausting to stack 50;

(11) One (1) PO Reactor, identified as 45V248, constructed in 1991, with emissions controlled by scrubber 45F212, **and** 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, **and** exhausting to stack 50;

(14) One (1) PO Reactor, identified as 45V280, constructed in 2002, with emissions controlled by scrubber 45F212, **and** exhausting to stack 50;

(15) One (1) PO Reactor, identified as 45V281, constructed in 2002, with emissions controlled by scrubber 45F212, **and** 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, **and** exhausting to stack 64;

(17) One (1) Tri-Polyphosphate Storage Bin, identified as 9V103, constructed in 1988, with emissions controlled by baghouse 9F103, **and** exhausting to stack 68;

(18) Two (2) Flash 2 Slurry Hold Tanks, identified as 40V20 and 40V21, constructed in 1990, with emissions uncontrolled, **and** exhausting to stack 80;

(19) Four (4) Belt Dryer Feed Tanks, identified as 45V117 through 45V120, constructed in 1966, with emissions uncontrolled, **and** exhausting to stack 180;

(20) Two (2) Spray Dryer Feed Tanks, identified as 30V1 and 30V2, constructed in 1986, with emissions uncontrolled, **and** exhausting to stack 195;

(21) Three (3) Spray Dryer Process Tanks, identified as 40V11, 40V12, and 40V14, constructed in 1988, with emissions uncontrolled, **and** 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, **and** 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, **and** exhausting to stack 250;

(25) Three (3) Flash 3 Larox Filters, identified as 43F71, 43F72, and 43F73, constructed in 1995, with emissions uncontrolled, **and** exhausting to stack 260;

(26) One (1) Flash 3 Larox Air Release Tank, identified as 43V85, constructed in 1995, with emissions uncontrolled, **and** exhausting to stack 261;

(27) Two (2) Flash 3 Slurry Hold Tanks, identified as 43V71 and 43V72, constructed in 1995, with emissions uncontrolled, **and** exhausting to stack 273;

(28) One (1) Flash 1 Starch Hold Tank, identified as 40V50, constructed in 1996, with emissions uncontrolled, **and** exhausting to stack 289;

(29) One (1) Conveyor 40U2, identified as 40U2, constructed in 1985, with emissions uncontrolled, **and** exhausting to stack 315;

(30) One (1) Flash 1 Slurry Hold Tank, identified as 40V1, constructed in 1985, with emissions uncontrolled, **and** exhausting to stack 315;

(31) One (1) Filtrate Reineveldt Centrifuge Flash Dryer 1, identified as 40Y1, with emissions uncontrolled, constructed in 1985, **and** exhausting to stack 315;

(32) One (1) Flash 3 Larox Air Release Tank, identified as 43V86, constructed in 1995, with emissions uncontrolled, **and** exhausting to stack 318;

(33) One (1) Starch Feed Bin, identified as 33V1, constructed in 1995, with emissions controlled by baghouse 33F1, **and** exhausting **via vent 236** to stack **355**~~236~~;

(34) One (1) Starch Feed Bin, identified as 33V2, constructed in 1995, with emissions controlled by baghouse 33F2, **and** exhausting **via vent 237** to stack **355**~~237;~~

(35) One (1) Low Pressure Dry Starch Reactor, identified as 33R1, constructed in 1995, with emissions controlled by baghouses 33F101 and 33F102, **and** exhausting to stack 238;

(36) One (1) Catalyst Bin, identified as 33V5, constructed in 1995, with emissions controlled by baghouse 33F5, **and** 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, **and** exhausting to stack 240;

(38) One (1) Reactor Surge Bin, identified as 50V61, constructed in 1997, with emissions controlled by baghouse 50F161, **and** exhausting **via vent 241** to stack **361**~~241~~;

(39) One (1) Reactor Surge Bin, identified as 50V62, constructed in 1997, with emissions controlled by baghouse 50F162, **and** exhausting **via vent 242** to stack **361**~~242~~;

(40) One (1) Dry Starch Product Screening Receiver, identified as 50F48, constructed in 1997, with emissions controlled by baghouse 50F48, **and** exhausting **via vent 243** to stack **355**~~243~~;

(41) One (1) Dry Starch Blend Bin, identified as 33V42, constructed in 1995, with emissions controlled by baghouse 33F42, **and** exhausting **via vent 244** to stack **355**~~244~~;

(42) One (1) Dry Starch Blend Bin, identified as 33V43, constructed in 1995, with emissions controlled by baghouse 33F43, **and** exhausting **via vent 245** to stack **355** ~~245~~;

(43) One (1) Dry Starch Blend Bin, identified as 33V40, constructed in 1995, with emissions controlled by baghouse 33F40, **and** exhausting **via vent 246** to stack **355** ~~246~~;

(44) One (1) Dry Starch Blend Bin, identified as 33V41, constructed in 1995, with emissions controlled by baghouse 33F41, **and** exhausting **via vent 247** to stack **355**~~247~~;

(45) One (1) Dry Starch Product Screening Receiver, identified as 50F45, constructed in 1997, with emissions controlled by baghouse 50F45, **and** exhausting **via vent 262** to stack **355**; ~~262; and~~

(46) One (1) Flash 2 Air Release Tank, identified ~~s~~ **as** 40V16, constructed in 2002, with emissions uncontrolled, exhausting to stack 251;

(47) Six (6) Propylated Starch Reactors, identified as **45V292, 45V293, 45V294, 45V295, 45V296**~~45VAA, 45VBB, 45VCC, 45VDD, 45VEE~~ and 45VFF, with VOC emissions controlled by packed bed scrubbers 45FAA or 45F212, **and** exhausting to stack 399 or stack 50;

(48) One (1) Sodium Sulfate Storage Bin, identified as 45BVAA, with emissions controlled by

baghouse 45BFAA, **and** exhausting to stack 400;

(49) Two (2) Flash 4 Slurry Hold Tanks, identified as 44V1 and 44V2, with emissions uncontrolled, **and** exhausting to stack 419;

(50) Three (3) Flash 4 Larox Filters, identified as 44FKK, 44FLL and 44FMM, with emissions uncontrolled, **and** exhausting to stack 420;

(51) One (1) Flash 4 Larox Filter Feed Tank, identified as 44V3, with emissions uncontrolled, **and** exhausting to stack 420;

(52) One (1) Flash 4 Larox Air Release Tank, identified as 44V4, with emissions uncontrolled, **and** exhausting to stack 421;

(53) One (1) Flash 4 Larox Air Release Tank, identified as 44V5, with emissions uncontrolled, **and** exhausting to stack 422;

(54) Two (2) Spray dryer 2 Feed Tanks, identified as **46V200 and 46V297**~~46V1 and 46V2~~, with emissions uncontrolled, **and** exhausting to stack**s** 423 **and 434**;

(55) One (1) Spray dryer 2 **Waste Surge**~~Overflow~~ Tank, identified as **46V213**~~46V3~~ with emissions uncontrolled, **and** exhausting to stack 424;

(56) One (1) Spray dryer 2 **Sweco**~~Bowl Drain~~ Tank, identified as **46V201**~~46V4~~ with emissions uncontrolled, **and** exhausting to stack **436**~~424~~;

(57) One (1) Spray dryer 2 Under Flow Tank, identified as **46V204**~~46V5~~ with emissions uncontrolled, **and** exhausting to stack **435**~~424~~;

(58) One (1) Raw Starch Storage Bin, identified as 20VAA, with emissions controlled by baghouse 20FAA, **and** exhausting to stack 369;

(59) One (1) Raw Starch Storage Bin, identified as 20VBB, with emissions controlled by baghouse 20FBB, **and** exhausting to stack 370;

(60) One (1) Starch Slurry Storage Tank, identified as 18AVAA, with emissions controlled by baghouse 18AFAA, **and** exhausting to stack 371;

(61) One (1) Starch Feed Bin, identified as 41VAA, with emissions controlled by baghouse 41FKK, **and** exhausting to stack 372;

(62) One (1) Starch Weigh Bin, identified as 33VAA, with emissions controlled by baghouse 33FAA, **and** exhausting to stack 373;

(63) One (1) Dextrin Fluidizer Reactor, identified as 33RAA, with emissions controlled by cyclone 33FBB and baghouse 33FCC, **and** exhausting to stack 374;

(64) One (1) Dextrin Fluidizer Surge Bin, identified as 33VBB, with emissions controlled by baghouse 33FDD, **and** exhausting via vent 375 to stack 355;

(65) One (1) Dextrin Blending and Storage Bin, identified as 33VCC, with emissions controlled by baghouse 33FFF, **and** exhausting via vent 377 to stack 355;

(66) One (1) Dextrin Blending and Storage Bin, identified as 33VDD, with emissions controlled by baghouse 33FGG, **and** exhausting via vent 378 to stack 355; and

(67) One (1) Dextrin Product Screening Receiver, identified as 33FEE, with emissions controlled by baghouse 33FEE, **and** exhausting via vent 376 to stack 355.

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

D.5.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

Pursuant to 326 IAC 2-2-3:

(a) The following emission units shall be controlled for PM and PM_{10} using best available control technology (BACT):

(1) Sodium Sulfate Storage Bin 45BVAA,

(2) Raw Starch Storage Bin 20VAA**,**

(3) Raw Starch Storage Bin 20VBB**,**

(4) Starch Slurry Storage Tank 18AVAA**,**

(5) Starch Feed Bin 41VAA**,**

(6) Starch Weigh Bin 33VAA**,**

(7) Dextrin Fluidizer Reactor 33RAA**,**

(8) Dextrin Fluidizer Surge Bin 33VBB**,**

(9) Dextrin Blending and Storage Bin 33VCC**,**

(10) Dextrin Blending and Storage Bin 33VDD**, and**

(11) Dextrin Product Screening Receiver 33FEE

For these units, the BACT for PM, and PM_{10} (Filterable and Condensable) is the use of **baghouses** ~~fabric filter dust collectors~~ with an emission rate of 0.005 gr/dscf and

(1) as given in the following table:

Emission Units	**Control Device ID**	**Total PM /PM_{10} (Filterable and Condensable) Emissions Rate (lbs/hr)**
45BVAA	45BFAA	0.06
20VAA	20FAA	0.09
20VBB	20FBB	0.09
18AVAA	18AFAA	0.06
41VAA	41FKK	0.09
33VAA	33FAA	0.05
33RAA	33FCC	0.16
33VBB	33FDD	0.04
33VCC	33FFF	0.13
33VDD	33FGG	0.13

Emission Units	Control Device ID	Total PM /PM_{10} (Filterable and Condensable) Emissions Rate (lbs/hr)
33FEE	33FEE	0.07; and

(2) the opacity from the baghouses shall not exceed 3%.

(b) The following emission units shall be controlled for VOC using BACT:

Six (6) Propylated Starch Reactors, identified as **45V292, 45V293, 45V294, 45V295, 45V296,** ~~45VAA, 45VBB, 45VCC, 45VDD, 45VEE~~ and 45VFF.

VOC BACT has been determined to be the use of a low pH packed bed scrubber and hydrolysis and

(1) a VOC emission rate of 3.25 lb per 100,000 lb of acid-killed starch and 6~~.0~~ lb per 100,000 lbs of non-acid-killed starch for Propylene Oxide Starch Reactors ((equivalent to minimum 95% overall control efficiency); and

(2) the combined propylene oxide input to emission units **45V292, 45V293, 45V294, 45V295, 45V296**~~45VAA, 45VBB, 45VCC, 45VDD, 45VEE~~, 45VFF, 40V1, 40U2, 40Y1, 40V50, 40V20, 40V21, 40V15, 40V16, 40F51, 40F52, 40F53, 40F54, 40U23, 43V71, 43V72, 43F71, 43F72, 43F73, 43V85, 43V86, 45V117, 45V118, 45V119, 45V120, 30V1, 30V2, 40V12, 40V11, 40V14, 45V223, 45V240, 45V241, 45V242, 45 V243, 45V246, 45V247, 45V248, 45V270, 45V271, 45V280, 45V281, 44V1, 44V2, 44V3, 44V4, 44V5, 44FKK, 44FLL, 44FMM, **46V200, 46V201, 46V204, 46V213, 46V297**~~46V1, 46V2, 46V3, 46V4, 46V5~~, 40D1, 40D20, 43D71, 41D1, 41D2, 41D3, 41D4, 41D5, 41D6, 41D7, 41D8, **19D301, 19D302, 19D303**~~41D9, 41D10, 41D11~~, 41D12, 41D13, 41D14, 30D1, 16D4, 16D5, 44DAA, and **46D200**~~46DAA~~ shall not exceed 1500 tons per twelve consecutive month period for propylated starch reactions that do not undergo the acid-kill step.

D.5.2 Prevention of Significant Deterioration Minor Limit [326 IAC 2-2]

Pursuant to CP 157-4195-00003, issued August 25, 1995, as amended by A 157-6170-00003, issued July 26, 1996, the particulate matter emissions are limited as indicated in the table below:

Facility	Stack	PM/PM_{10} emission limit (lb/hr)	PM/PM_{10} emission limit (ton/12mo*)
Starch Feed Bin (33V1)	236	0.29	1.26
Starch Feed Bin (33V2)	237	0.29	1.26
Low Pressure Dry Starch Reactor (33R1)	238	0.078	0.34
Catalyst Storage Bin (33V5)	239	0.034	0.15
Dry Starch Blend Bins (33V42, 33V43, 33V40, and 33V41)	244, 245, 246, 247	0.55	2.4
Dry Starch Product Screening Receiver (50F45)	262	0.07	0.31

*12 mo. - Twelve consecutive month period with compliance determined at the end of each month.

Compliance with these limits shall render the requirements of 326 IAC 2-2 not applicable to emission units 33V1, 33V2, 33R1, 33V5, 33V42, 33V43, 33V40, 33V41 and 50F45.

D.5.3 Sulfur Dioxide (SO_2) Emission Limitation

The amount of acid-thinned starch produced from the reactors 45V115, 45V116, and 45V222 is limited to fifty million (50,000,000) pounds per twelve (12) consecutive month period with compliance determined at the end of each month.

This voluntary limit, based on sulfur dioxide (SO_2) emissions of 43 pounds SO_2 per 100,000 pounds of acid-thinned starch, has been incorporated to limit the potential to emit SO_2 from reactors 45V115, 45V116, and 45V222 to 10.8 tons per year.

D.5.4 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2] ~~[40 CFR 52, Subpart P]~~

Pursuant to 326 IAC 6-3-2 **(Particulate Emissions Limitations for Manufacturing Processes)**, particulate emissions from emission units 45V250, 9V103, 33V1, 33V2, 33R1, 33V5, 33R2, 50V61, 50V62, 33V42, 33V43, 33V40, 33V41, 50F45, **and** 50F48~~, 45BVAA, 20VAA, 20VBB, 18AVAA, 41VAA, 33VAA, 33RAA, 33VBB, 33VCC, 33VDD, and 33FEE~~ 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:

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

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = 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 throughput of the respective facilities is being treated as confidential.

D.5.5 Volatile Organic Compounds (VOC) BACT [326 IAC 8-1-6] [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3, and 326 IAC 8-1-6, the VOC BACT for emission units 45V223, 45V240, 45V241, 45V242, 45V243, 45V246, 45V247, 45V248, 45V270, 45V271, 45V280, and 45V281, **45V292, 45V293, 45V294, 45V295, 45V296**~~45VAA, 45VBB, 45VCC, 45VDD, 45VEE~~ and 45VFF shall be the use of the scrubbers 45F212, and 45FAA ; and

(a) The VOC emissions from the scrubbers 45F212, and 45FAA controlling emissions from emission units 45V223, 45V240, 45V241, 45V242, 45V243, 45V246, 45V247, 45V248, 45V270, 45V271, 45V280, 45V281, **45V292, 45V293, 45V294, 45V295, 45V296,**~~45VAA, 45VBB, 45VCC, 45VDD, 45VEE~~ and 45VFF shall not exceed 3.25 lb**s** per 100,000 lb**s** of acid-killed starch and 6~~.0~~ lb**s** per 100,000 lb**s** of non-acid-killed starch (equivalent to a minimum 95% overall control efficiency)**;**~~.~~ **and**

(b) The combined propylene oxide input to emission units (listed in Section D.5), **45V292, 45V293, 45V294, 45V295, 45V296**~~45VAA, 45VBB, 45VCC, 45VDD, 45VEE~~, 45VFF, 40V1, 40U2, 40Y1, 40V50, 40V20, 40V21, 40V15, 40V16, 40F51, 40F52, 40F53, 40F54, 40U23, 43V71, 43V72, 43F71, 43F72, 43F73, 43V85, 43V86, 45V117, 45V118, 45V119, 45V120, 30V1, 30V2, 40V12, 40V11, 40V14, 45V223, 45V240, 45V241, 45V242, 45V243, 45V246, 45V247, 45V248, 45V270, 45V271, 45V280, 45V281, 44V1, 44V2, 44V3, 44V4, 44V5,44FKK, 44FLL, 44FMM, **46V200, 46V201, 46V204, 46V213, and 46V297**~~46V1, 46V2, 46V3, 46V4, 46V5~~**; and** (listed in Section D.6) 40D1, 40D20, 43D71, 41D1, 41D2, 41D3, 41D4, 41D5, 41D6, 41D7, 41D8, **19D301, 19D302, 19D303**~~41D9, 41D10, 41D11~~, 41D12, 41D13, 41D14, 30D1, 16D4, 16D5, 44DAA, and **46D200**~~46DAA~~ shall not exceed 1,500 tons per twelve consecutive month period for propylated starch reactions that do not undergo the acid-kill step with compliance determined at the end of each month.

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

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

Compliance Determination Requirements

D.5.**6**~~7~~ Volatile Organic Compounds (VOC) Control

Pursuant to CP 157-10232-00003, issued October 12, 1999, and in order to comply with Conditions D.5.1(b) and D.5.5(a), scrubbers 45FAA, and 45F212, shall be in operation and control VOC emissions from emission units 45V223, 45V240, 45V241, 45V242, 45V243, 45V246, 45V247, 45V248, 45V270, 45V271, 45V280, 45V281, **45V292, 45V293, 45V294, 45V295, 45V296**~~45VAA, 45VBB, 45VCC, 45VDD, 45VEE~~ and 45VFF at all times any of those emission units are in operation.

D.5.7~~8~~ Particulate Control

(a) In order to comply with Conditions D.5.1(a), D.5.2 and D.5.4, baghouses, including those integral to the process, 45F25, 45F25a, 9F103, 33F1, 33F2, 33F101, 33F102, 33F5, 33F201, 33F202, 50F161, 50F162, 50F48, 33F42, 33F43, 33F40, 33F41, 50F45, 45BFAA, 20FAA, 20FBB, 18AFAA, 41FKK, 33FAA, 33FCC, 33FDD, 33FEE, 33FFF, and 33FGG for particulate control shall be in operation and control particulate emissions at all times when an emission unit that it controls is in operation.

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

D.5.**8**~~9~~ Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

(a) Within 60 days after achieving the maximum production rate, but no later than 180 days after startup, the Permittee shall perform PM and PM_{10} testing on Dextrim Fluidizer Reactor baghouse 33FCC, and one of Dextrim storage and blending bins baghouses 33FFF or 33FGG, to verify compliance with Condition D.5.1(a), utilizing methods as approved by the Commissioner~~, and furnish the Commissioner a written report of the results of such performance tests~~.

(b) Within 60 days after achieving the maximum production rate, but no later than 180 days after startup, the Permittee shall perform VOC testing on packed bed scrubber 45FAA, to verify compliance with Condition D.5.1(b), utilizing methods as approved by the Commissioner~~, and furnish the Commissioner a written report of the results of such performance tests~~.

(c) Within 60 days after achieving the maximum production rate, but no later than 180 days after startup of emission unit **45V292**~~45VAA~~, the Permittee shall perform VOC testing on 45F212, to verify compliance with Condition D.5.5(a), utilizing methods as approved by the Commissioner~~, and furnish the Commissioner a written report of the results of such performance tests~~.

These tests shall be repeated at least once every five years from the date of this valid compliance demonstration. PM_{10} includes filterable and condensable PM_{10}.Testing shall be conducted in accordance with Section C - Performance Testing.

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

D.5.**9**~~10~~ Visible Emissions Notations

(a) Visible emission notations of the ~~exhaust from~~ stack**s 64, 68, 240,** 355**, and 361 exhaust**~~, exhausting emissions from emission units 33V1, 33V2, 33V40, 33V41, 33V42, 33V43, 50F48, 50 F45, 33VBB, 33VCC, 33VDD and 33FEE; in addition to emission units (listed in Section D.6) 41C30, 41C35, 41FAA, 41G202; and emission units (listed in Section D.7) 41F7, 1Z5, 41F18, 41Z3, 41F8, 41F81, 41F82, and 41FCC,~~ shall be performed once per **day** ~~shift~~ during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

~~(b) Visible emission notations of the exhaust from stack 361, exhausting emissions from emission units 50V61 and 50V62 in addition to emission units (listed in Section D.6) 50D101, 50F106, 51DAA; and emission unit (listed in Section D.7) 41F44 and 51FDD, shall be performed once per shift during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.~~

~~(c) Visible emission notations of the exhaust from stacks 64, 68, and 240 shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.~~

(**b**~~d~~) 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**~~e~~) 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**~~f~~) 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**~~g~~) ~~The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an~~ **If** abnormal emission**s** ~~is~~ **are** observed**, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances**. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records and Reports~~**Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

D.5.**10**~~11~~ Monitoring for Scrubbers

(a) The Permittee shall monitor the pH of the scrubbing liquid and exhaust air stream pressure drop across the scrubber at least once per ~~shift~~ **day** for each of scrubbers 45FAA and 45F212.The normal pH range for scrubber 45FAA is 0.5 to 4~~.0~~ or the range established during the latest stack test. The normal pH range for scrubber 45F212 is 0.5 to 4~~.0~~ or the range established during the latest stack test. The normal pressure drop range for scrubber 45FAA and fan is 1 to 6~~.0~~ **inches of water** or the range established during the latest stack test. The normal pressure drop range for scrubber 45F212 and fan is 1 to 6~~.0~~ inches **of water** or the range established during the latest stack test.

(b) A continuous monitoring system shall be installed and operated at all times when either scrubber 45FAA or 45F212 is in operation. The monitoring system shall continuously measure and record the scrubbers' recirculation rate for each of the scrubbers 45FAA and 45F212. The minimum flow rate for scrubber 45FAA is 390 gallon per minute or a minimum flow rate established during the latest stack test. The minimum flow rate for scrubber 45F212 is 390 gallon per minute or a minimum flow rate established during the latest stack test.

(c) ~~The Compliance Response Plan for the scrubbers shall contain troubleshooting contingency and response steps for~~ ~~when~~ **If the** pH or pressure drop reading~~s~~ ~~are~~ **is** outside of the normal range ~~for any one reading~~ or ~~when any~~ **the 1-hr average** flow rate is below the minimum flow rate **for any one reading, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances**.

(d) A pH or pressure drop that is outside of the normal range or the **1-hr average** flow rate reading that is below the minimum flow rate is not a deviation from this permit. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records and Reports~~**Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

(e) The instruments used for determining the pH, pressure drop, and flow rate shall comply with Section C - ~~Pressure Gauge and other~~ **I**nstrument Specifications and shall be calibrated at least once every six (6) months. The loss of monitoring data due to the calibration of an instrument while the equipment is in operation does not constitute a deviation from this permit.

~~D.5.12 Scrubbers Inspections~~

~~External inspection of scrubbers 45FAA and 45F212 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.5.**11**~~13~~ Monitoring for Baghouses

(a) The Permittee shall record the ~~total static~~ pressure drop across baghouses 45BFAA,

20FAA, 20FBB, 18AFAA, 41FKK, 33FAA, 33FCC, 33FDD, 33FEE, 33FFF and 33FGG, used in conjunction with emission units 45BVAA, 20VAA, 20VBB, 18AVAA, 41VAA, 33VAA, 33RAA, 33VBB, 33VCC, 33VDD, and 33FEE, at least once per **day** ~~shift~~ when the respective facilities are in operation.

(b) The Permittee shall record the ~~total static~~ pressure drop across baghouses 50F161 and 50F162, used in conjunction with emission units 50V61 and 50V62, at least once per **day** ~~shift~~ when the respective emission units are in operation.

(c) The Permittee shall record the ~~total static~~ pressure drop across baghouses 45F25, 45F25a, 9F103, 33F201, and 33F202, used in conjunction with facilities 45V250, 9V103, and 33R2, at least once per day when the respective facilities are in operation.

(d) ~~When~~ **If**, for any one reading, the pressure drop across the baghouse~~s are~~ **is** outside of the normal range of 1 and 8~~.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~~ **Response to Excursions or Exceedances**. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records and Reports~~**Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

(e) The instruments used for determining the pressure shall comply with Section C - ~~Pressure Gauge and other~~ Instrument Specifications of this permit, and shall be calibrated at least once every six (6) months.

~~D.5.14 Baghouse Inspections~~

~~(a) An external inspection of the baghouses controlling particulate emissions from emission units 45BVAA, 20VAA, 20VBB, 18AVAA, 41VAA, 33VAA, 33RAA, 33VBB, 33VCC, 33VDD, and 33FEE shall be performed at least once per calendar quarter. Inspections required by this condition shall not be performed in consecutive months.~~

~~(b) An external inspection of the baghouses controlling particulate emissions from facilities 50V61 and 50V62, shall be performed at least once per calendar quarter. Inspections required by this condition shall not be performed in consecutive months.~~

~~(c) An internal inspection of all bags, controlling particulate emissions from facilities 45V250, 9V103, and 33R2, 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.~~

~~(d) Inspections shall also be performed each time that a respective baghouse that has been secured and tagged as being out of service. All defective bags shall be replaced.~~

D.5.**12**~~15~~ 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.~~

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

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

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

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

D.5.**13**~~16~~ Record Keeping Requirements

(a) To document compliance with Condition D.5.3, the Permittee shall maintain monthly records of the amount of acid-thinned starch produced from 45V115, 45V116, and 45V222.

(b) To document compliance with Condition D.5.5(b), the Permittee shall maintain monthly records for propylated starch reactions that do not undergo the acid-kill step to facilities **45V292, 45V293, 45V294, 45V295, 45V296**~~45VAA, 45VBB, 45VCC, 45VDD, 45VEE~~, 45VFF, 40V1, 40U2, 40Y1, 40V50, 40V20, 40V21, 40V15, 40V16, 40F51, 40F52, 40F53, 40F54, 40U23, 43V71, 43V72, 43F71, 43F72, 43F73, 43V85, 43V86, 45V117, 45V118, 45V119, 45V120, 30V1, 30V2, 40V12, 40V11, 40V14, 45V223, 45V240, 45V241, 45V242, 45V243, 45V246, 45V247, 45V248, 45V270, 45V271, 45V280, 45V281, 44V1, 44V2, 44V3, 44V4, 44V5, 44FKK, 44FLL, 44FMM, **46V200, 46V201, 46V204, 46V213, 46V297**~~46V1, 46V2, 46V3, 46V4, 46V5~~, 40D1, 40D20, 43D71, 41D1, 41D2, 41D3, 41D4, 41D5, 41D6, 41D7, 41D8, **19D301, 19D302, 19D303**~~41D9, 41D10, 41D11~~, 41D12, 41D13, 41D14, 30D1, 16D4, 16D5, 44DAA, and **46D200**~~46DAA~~. Note that this record is the same record as required in Condition D.6.**11**~~14~~(a).

(c) To document compliance with Condition D.5.**9**~~10~~, the Permittee shall maintain records of visible emission notations of the stacks exhaust.

(d) To document compliance with Condition D.5.**10** ~~11~~, the Permittee shall maintain records of the following with respect to each of scrubbers 45FAA and 45F212:

(1) The pH of the scrubbing liquid and exhaust air stream pressure drop across the scrubber ~~at least once per shift~~, and

(2) The scrubber recirculation rate as read by the continuous monitor.

(e) To document compliance with Condition D.5.**11**~~13~~, the Permittee shall maintain records of the ~~total static~~ pressure drop during normal operation.

~~(f) To document compliance with Conditions D.5.12, and D.5.14, the Permittee shall maintain records of the results of the inspections.~~

~~(g) To document compliance with Condition D.5.6, the Permittee shall maintain of records~~ of any additional inspections prescribed by the Preventive Maintenance Plan.

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

Clean Unit [326 IAC 2-2.2-2]

D.5.**14**~~17~~ Clean Unit [326 IAC 2-2.2-2]

Pursuant to 326 IAC 2-2.2-2**:**~~,~~

(a) The following emissions units are classified as Clean Units for PM/PM_{10}:

(1) Sodium Sulfate Storage Bin 45BVAA,

(2) Raw Starch Storage Bin 20VAA,

(3) Raw Starch Storage Bin 20VBB,

(4) Starch Slurry Storage Tank 18AVAA,

(5) Starch Feed Bin 41VAA,

(6) Starch Weigh Bin 33VAA,

(7) Dextrin Fluidizer Reactor 33RAA,

(8) Dextrin Fluidizer Surge Bin 33VBB,

(9) Dextrin Blending and Storage Bin 33VCC,

(10) Dextrin Blending and Storage Bin 33VDD, and

(11) Dextrin Product Screening Receiver 33FEE.

(b) Pursuant to 326 IAC 2-2.2-2, the following emissions units are classified as Clean Units for VOC:

Six (6) Propylated Starch Reactors, identified as **45V292, 45V293, 45V294, 45V295, 45V296,** ~~45VAA, 45VBB, 45VCC, 45VDD, 45VEE~~ and 45VFF.

(c) The Clean Unit designations for the above emissions units are in effect for ten (10) years after the issuance date of the source modification permit or the date the emission's unit control technology is placed in service, whichever is later.

SECTION D.6 FACILITY OPERATION CONDITIONS

(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, **and** exhausting to stack 69;

(2) One (1) Pneumatic Product Transfer, identified as 40F7, constructed in 1986, with emissions controlled by 40F7, **and** exhausting to stack 70;

(3) One (1) Starch Storage Bin #8, identified as 7V8, constructed in 1986, with emissions controlled by baghouse 7F8, **and** exhausting to stack 71;

(4) One (1) Starch Storage Bin #9, identified as 7V9, constructed in 1986, with emissions controlled by baghouse 7F9, **and** 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, **and** exhausting to stack 73;

(6) One (1) Starch Product Bin #20, identified as 7V20, constructed in 1992, with emissions controlled by baghouse 7F20, **and** exhausting to stack 76;

(7) One (1) Starch Product Bin #21, identified as 7V21, constructed in 1992, with emissions controlled by baghouse 7F21, **and** exhausting to stack 77;

(8) One (1) Starch Product Bin #22, identified as 7V22, constructed in 1992, with emissions controlled by baghouse 7F22, **and** exhausting to stack 78;

(9) One (1) Starch Grinder/Mill #1, identified as 40G20, constructed in 1990, with emissions controlled by baghouse 40F28, **and** exhausting via vent 286 to stack 360;

(10) One (1) Starch Grinder/Mill #2, identified as 40G21, constructed in 1990, with emissions controlled by baghouse 40F29, **and** exhausting via vent 287 to stack 360;

(11) One (1) Grinder Feed Collector 40F27, identified as 40F27, constructed in 1990, **and** 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, **and** exhausting to stack 265;

(13) One (1) Flash #3 Mill, identified as 40G88, constructed in 1996, with emissions controlled by baghouse 40F88, **and** 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, **and** exhausting to stack 267;

(15) One (1) Starch Bin #34, identified as 7V34, constructed in 1995, with emissions controlled by baghouse 7F34, **and** exhausting to stack 268;

(16) One (1) Starch Bin #35, identified as 7V35, constructed in 1995, with emissions controlled by baghouse 7F35, **and** exhausting to stack 269;

(17) One (1) Adipic Acid Storage Bin, identified as 43V90, constructed in 1996, with emissions controlled by baghouse 43F90, **and** exhausting to stack 274;

(18) One (1) Starch Transfer Bin #91, identified as 7V91, constructed in 1999, with emissions controlled by baghouse 7F91, **and** exhausting to stack 345;

(19) One (1) Starch Transfer Bin #92, identified as 7V92, constructed in 1999, with emissions controlled by baghouse 7F92, **and** exhausting to stack 346;

(20) One (1) Starch Roll Dryer #1, identified as 41D1, constructed in 1986, with emissions uncontrolled, **and** exhausting to stack 91;

(21) One (1) Starch Roll Dryer #2, identified as 41D2, constructed in 1986, with emissions uncontrolled, **and** exhausting to stack 92;

(22) One (1) Starch Roll Dryer #3, identified as 41D3, constructed in 1986, with emissions uncontrolled, **and** exhausting to stack 93;

(23) One (1) Starch Roll Dryer #4, identified as 41D4, constructed in 1993, with emissions uncontrolled, **and** exhausting to stack 94;

(24) One (1) Starch Roll Dryer #5, identified as 41D5, constructed in 1995, with emissions uncontrolled, **and** exhausting to stack 232;

(25) One (1) Starch Roll Dryer #6, identified as 41D6, constructed in 1995, with emissions uncontrolled, **and** exhausting to stack 233;

(26) One (1) Starch Roll Dryer #7, identified as 41D7, constructed in 1997, with emissions uncontrolled, **and** exhausting to stack 234;

(27) One (1) Starch Roll Dryer #8, identified as 41D8, constructed in 2000, with emissions uncontrolled, **and** exhausting to stack 235;

(28) One (1) Pneumatic Product Transfer Roll Dryer, identified as **41F200**~~41F210~~, constructed in 1986, with emissions controlled by baghouse **41F200**~~41F210~~, **and** exhausting to the intake of mill **41G200**~~41G202~~;

(29) One (1) Roll Dryer Mill, identified as 41G200, constructed in 1986, with emissions controlled by baghouse 41F210, and exhausting via vent 96 to stack 355;

(30) One (1) Product Bin #10, identified as 41V10, constructed in 1993, with emissions controlled by baghouse 41F10, **and** exhausting to stack 97;

(31) One (1) Product Bin #11, identified as 41V11, constructed in 1993, with emissions controlled by baghouse 41F11, **and** exhausting to stack 98;

(32) One(1) Roll Dryer Mill, identified as 41G201, constructed in 1993, with emissions controlled by baghouse 41F211, and exhausting via vent 100 to stack 355;

(33) One (1) Pneumatic Product Transfer Roll Dryer, identified as 41F201, constructed in 1993, with emissions controlled by baghouse 41F201, **and** exhausting to the intake of mill **41G201**~~41G202~~;

(34) One (1) Starch Product Bin #44, identified as 33V44, constructed in 1995, with emissions controlled by baghouse 33F44, **and** exhausting to stack 248;

(35) One (1) Bulk Bag Dump Station, identified as 41F13, constructed in 2000, with emissions controlled by baghouse 41F13, **and** exhausting indoors 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, **and** exhausting to stack 82;

(37) One (1) Product Transfer to Milling, identified as 30F13, constructed in 1987, ~~with emissions~~ **and exhausting to the intakes of bins 41V45, 41V46, 41V47, and 33V44**~~controlled by baghouse 30F13, exhausting via vent 83 to stack 360~~;

(38) One (1) Dryer Mill, identified as 30G1, constructed in 1987, with emissions controlled by baghouse 30F15, **and** exhausting via vent 84 to stack 360;

(39) One (1) Product Transfer to Bins #14**,** ~~&~~ #15, **and #KK,** identified as 41C30, constructed in 1987, with emissions controlled by baghouses 41F14**,** 41F15, **41FMM, respectively, and** exhausting via vent 85 into stack 355;

(40) One (1) Product Transfer to Bins #17~~,~~**and** #18, ~~#44 and EE~~, identified as 41C35, constructed in 1987, with emissions controlled by baghouses 41F20~~,~~ **and** 41F21~~,~~ ~~41F54, and 41FEE~~, **respectively, and** exhausting via vent 86 into stack 355;

(41) One (1) Product Bin #14, identified as 41V14, constructed in 1987, with emissions controlled by baghouse 41F16, **and** exhausting to stack 87;

(42) One (1) Product Bin #15, identified as 41V15, constructed in 1987, with emissions controlled by baghouse 41F17, **and** exhausting to stack 88;

(43) One (1) Product Bin #17, identified as 41V17, constructed in 1987, with emissions controlled by baghouse 41F22, **and** exhausting to stack 89;

(44) One (1) Product Bin #18, identified as 41V18, constructed in 1987, with emissions controlled by baghouse 41F23, **and** 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, **and** exhausting to stack 104;

(47) One (1) Product Bin #5, identified as 7V46, constructed in 1966, with emissions controlled by baghouse 7F69, **and** exhausting to stack 105;

(48) One (1) Product Bin #4, identified as 7V47, constructed in 1966, with emissions controlled by baghouse 7F70, **and** exhausting to stack 106;

(49) One (1) Product Bin #3, identified as 7V48, constructed in 1966, with emissions controlled by baghouse 7F71, **and** exhausting to stack 107;

(50) One (1) Product Bin #2, identified as 7V49, constructed in 1966, with emissions controlled by baghouse 7F72, **and** exhausting to stack 108;

(51) One (1) Product Bin #1, identified as 7V50, constructed in 1966, with emissions controlled by baghouse 7F73, **and** exhausting to stack 109;

(52) One (1) Belt Dryer Mill, identified as 25G1, constructed in 1968, with emissions controlled by baghouse 25F2, **and** 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, **and** 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, **and** exhausting via vent 349 to stack 361;

(56) One (1) Agglomeration Blender Receiver/Baghouse, identified as 50F106, constructed in 2001, with emissions controlled by baghouse 50F106, **and** exhausting via vent 350 to stack 361;

(57) Starch Roll Dryer #**301**~~9~~, identified as **19D301**~~41D9~~, **to be constructed in 2006/2007,** with emissions uncontrolled, **and** exhausting to stack 405;

(58) Starch Roll Dryer #**302**~~10~~, identified as **19D302**~~41D10~~, **to be constructed in 2006/2007,** with emissions uncontrolled, **and** exhausting to stack 406;

(59) Starch Roll Dryer #**303**~~11~~, identified as **19D303**~~41D11~~, **to be constructed in 2006/2007,** with emissions uncontrolled, **and** exhausting to stack 407;

(60) Starch Roll Dryer #12, identified as 41D12, **to be constructed in 2006/2007,** with emissions uncontrolled, **and** exhausting to stack 408;

(61) Starch Roll Dryer #13, identified as 41D13, **to be constructed in 2006/2007,** with emissions uncontrolled, **and** exhausting to stack 409;

(62) Starch Roll Dryer #14, identified as 41D14, to **be constructed in 2006/2007,** with emissions uncontrolled, **and** exhausting to stack 410;

(63) One (1) Roll Dryer Mill Feed Collector Baghouse, identified as **19F400**~~41FAA,~~ **to be constructed in 2006/2007,** with emissions controlled by baghouse

19F400~~41FAA~~, **and** exhausting **to the intake of Mill 19G401**~~via vent 365 to stack 355~~;

(64) One (1) Roll Dryer System Mill, identified as **19G401**~~41G202~~, **to be constructed in 2006/2007,** with emissions controlled by baghouse **19F402**~~41F202~~, **and** exhausting via vent 366 to stack **404**~~355~~;

(65) One (1) Starch Blend Bin #1, identified as 07VDD, **to be constructed in 2006/2007,** with emissions controlled by baghouse 07FDD, **and** exhausting to stack 383;

(66) One (1) Starch Blend Bin #2, identified as 07VEE, **to be constructed in 2006/2007,** with emissions controlled by baghouse 07FEE, **and** exhausting to stack 384;

(67) One (1) Product Bin #AA, identified as 07VAA, **to be constructed in 2006/2007,** with emissions controlled by baghouse 07FAA, **and** exhausting to stack 385;

(68) One (1) Product Bin #BB, identified as 07VBB, **to be constructed in 2006/2007,** with emissions controlled by baghouse 07FBB, **and** exhausting to stack 386;

(69) One (1) Product Bin #CC, identified as 07VCC, **to be constructed in 2006/2007,** with emissions controlled by baghouse 07FCC, **and** exhausting to stack 387;

(70) One (1) Product Bin #**45**~~#EE~~, identified as **41V45**~~41VEE~~, **to be constructed in 2006/2007,** with emissions controlled by baghouse **41F45**~~41FEB~~, **and** exhausting to stack 226.

(71) One (1) Product Bin #**46**~~#HH~~, identified as **41V46**~~41VHH~~, **to be constructed in 2006/2007,** with emissions controlled by baghouse **41F46**~~41FHH~~, **and** exhausting to stack 255;

(72) One (1) Mill #3, identified as 44GAA, **to be constructed in 2006/2007,** with emissions controlled by baghouse 44FII, **and** exhausting via vent 389 to stack 388;

(73) One (1) Mill #4, identified as 44GBB, **to be constructed in 2006/2007,** with emissions controlled by baghouse 44FJJ, **and** exhausting via vent 390 to stack 388;

(74) One (1) Natural Gas Fired Spray Dryer #2, identified as **46D200**~~46DAA~~, **to be constructed in 2006/2007,** with heat input capacity of 45 million Btu per hour, with PM and PM_{10} emissions controlled by cyclones **46F221 through 46F224**~~46FAA through 46FFF~~ and baghouses **46F231 through 46F232**~~46FGG through 46FLL~~, **and** exhausting via vent 360 to stack 360. Nitrogen oxide (NO_X) emissions are controlled by low-NO_X burners rated at 0.04 lb/MMBtu;

(75) One (1) Natural Gas Fired Spray Dryer #3, identified as 51DAA, **to be constructed in 2006/2007,** with heat input capacity of 16 million Btu per hour, with emissions controlled by cyclones 51FAA and 51FBB and baghouse 51FCC, **and** exhausting via vent 361 to stack 361. Nitrogen oxide (NO_X) emissions are controlled by low-NO_X burners rated at 0.04 lb/MMBtu; ~~and~~

(76) One (1) Natural Gas Fired Starch Flash Dryer #4, identified as 44DAA, **to be constructed in 2006/2007,** with heat input capacity of 40 million Btu per hour,

with emissions controlled by cyclones 44FAA through 44FFF and wet scrubber 44FGG, **and** exhausting to stack 388. Nitrogen oxide (NO_X) emissions are controlled by low-NO_X burners rated at 0.04 lb/MMBtu**;**~~.~~

(77) One (1) Spray Dryer #2 Mill, identified as 30GAA, to be constructed in 2006/2007, with emissions controlled by baghouse 30FAA, and exhausting via vent 431 to stack 360;

(78) One (1) Product Bin #47, identified as 41V47, to be constructed in 2006/2007, with emissions controlled by baghouse 41F47, and exhausting via vent 432; and

(79) One (1) Product Bin #KK, identified as 41VKK, to be constructed in 2006/2007, with emissions controlled by baghouse 41FPP, and exhausting via vent 443.

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

D.6.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3:

(a) The following emission units shall be controlled for PM and PM_{10} using BACT:

(1) Product Storage Bin #AA (07VAA),

(2) Product Storage Bin #BB (07VBB),

(3) Product Storage Bin #CC (07VCC),

(4) Starch Blend Bin #1 (07VDD),

(5) Starch Blend Bin #2 (07VEE),

~~(6) Product Storage Bin #10 (41V10),~~

~~(7) Product Storage Bin #11 (41V11),~~

(**6**~~8~~) Product Storage Bin #**46 (41V46)**~~#HH (41VHH)~~,

~~(9) Roll Dryer Mill Feed Collector (41FAA),~~

(**7**~~10~~) Roll Dryer System Mill **(19G401)** ~~(41G202)~~,

~~(11) Product Transfer to Milling (30F13),~~

(**8**~~12~~) Product Transfer to Bins 14**,** ~~&~~ 15**, & #KK** (41C30),

(**9**~~13~~) Product Transfer to Bins 17~~,~~ **&** 18~~, 44, & EE~~ (41C35),

(**10**~~14~~) Product Bin 14 (41V14),

(**11**~~15~~) Product Bin 15 (41V15),

(**12**~~16~~) Product Bin 17 (41V17),

(**13**~~17~~) Product Bin 18 (41V18),

(**14**~~18~~) Product Storage Bin #**45 (41V45)** ~~#EE (41VEE),~~

(**15**~~19~~) Product **Storage** Bin (33V44),

(**16**~~20~~) Mill #3 (44GAA),

(**17**~~21~~) Mill #4 (44GBB),

(**18**~~22~~) Starch Grinder/Mill #1 (40G20),

(**19**~~23~~) Starch Grinder/Mill #2 (40G21), (**20**~~24~~) Starch Product Bin #20 (7V20),

(**21**~~25~~) Starch Product Bin #21 (7V21),

(**22**~~26~~) Starch Product Bin #22 (7V22),

(**23**~~27~~) Starch Product Bin #23 (7V23),

(**24**) **Spray Dryer #2 Mill (30GAA),**

(**25**) **Product Bin #47 (41V47), and**

(**26**) **Product Bin #KK (41VKK).**

For these units, the BACT for PM and PM_{10} (Filterable and Condensable) is the use of ~~fabric filter dust collectors~~**baghouses** rated at a maximum emission rate of 0.005 gr/dscf; and

(1) The total PM/PM_{10} (Filterable and Condensable) emissions from the following baghouses, shall be limited to

Emission Unit	**Baghouse**	**Lbs/hr**
07VAA	07FAA	0.12
07VBB	07FBB	0.12
07VCC	07FCC	0.12
07VDD	07FDD	0.12
07VEE	07FEE	0.12
~~41V10~~	~~41F10~~	~~0.05~~
~~41V11~~	~~41F11~~	~~0.05~~
41V46~~41VHH~~	**41F46**~~41FHH~~	**0.08**~~0.05~~
~~41FAA~~	~~41FAA~~	~~0.19~~
19G401~~41G202~~	**19F402**~~41F202~~	**0.73**~~0.56~~
~~30F13~~	~~30F13~~	~~0.07~~
41C30	41F14**,**~~, and~~ 41F15**, & 41FMM**	0.08
41C35	41F20 **&**~~,~~ 41F21~~, 41F54, 41FEE~~	0.08
41V14	41F16	0.01
41V15	41F17	0.01
41V17	41F22	0.01
41V18	41F23	0.01
41V45~~41VEE~~	**41F45**~~41FEB~~	**0.08**~~0.01~~
33V44	33F44	**0.08**~~0.03~~
44GAA	44FII	0.14
44GBB	44FJJ	0.14
40G20	40F28	0.14
40G21	40F29	0.14
7V20	7F20	0.09
7V21	7F21	0.09
7V22	7F22	0.09
7V23	7F33	0.09 ~~and~~

Emission Unit	**Baghouse**	**Lbs/hr**
30GAA	**30FAA**	**0.73**
41V47	**41F47**	**0.08**
41VKK	**41FPP**	**0.01; and**

(2) except for ~~30F13,~~ 40F28, 40F29, 44FII, ~~and~~ 44FJJ, **and 30 FAA**, the opacity from the baghouse exhausts shall not exceed 3%. The opacity from the baghouses ~~30F13,~~ 40F28, 40F29, 44FII, ~~and~~ 44FJJ, **and 30 FAA** shall not exceed 8%.

(b) The following emission units shall be controlled for PM and PM_{10} using BACT:

(1) Spray Dryer #2 **(46D200)**~~(46DAA)~~ and

(2) Spray Dryer #3 (51DAA)**.**

The BACT for PM, and PM_{10} is an emission rate of 0.008 gr/scf; and

(1) The total PM/PM_{10} (Filterable and Condensable) emissions from spray dryer #2 shall be limited to 6.61 lbs/hr;

(2) The total PM/PM_{10} (Filterable and Condensable) emissions from spray dryer #3 shall be limited to 2.20 lbs/hr; and

(3) The opacity from the baghouses' exhausts shall not exceed 8%.

(**c**~~b~~) The following emission units shall be controlled for PM and PM_{10} using BACT:

(1) Starch Flash Dryer #2 (40D20) **and**

(2) Starch Flash Dryer #4 (44DAA)**.**

For starch flash dryers, BACT for PM, and PM_{10} is an emission rate of 0.008 gr/acf; and

(1) The total PM/PM_{10} (Filterable and Condensable) emissions from starch flash dryer #2 shall be limited to 7.54 lbs/hr; ~~and~~

(2) The total PM/PM_{10} (Filterable and Condensable) emissions from starch flash dryer #4 shall be limited to 7.54 lbs/hr; and

(3) The opacity from the scrubber exhausts shall not exceed 8%.

(**d**~~c~~) For the following emission units, BACT for NOx is the use of low-NO_X burners rated at 0.04 lb/MMBtu or less and shall not exceed the emission rates as given below:

	Lbs/hr
Starch Spray Dryer #2 **(46D200)**~~(46DAA)~~	1.8
Starch Spray Dryer #3 (51DAA)	0.64
Starch Flash Dryer #4 (44DAA)	1.6

D.6.2 Prevention of Significant Deterioration Minor Limit ~~[40 CFR 52.21]~~ [326 IAC 2-2]

(a) Pursuant to CP 157-9182-00003, issued April 2, 1998, A 157-10447-00003, issued October 26, 1999, A 157-15029-00003, issued October 24, 2001, and SSM 157-14974-00003, issued December 17, 2002, the PM emissions from emission units 43D71, 40G88, 7V34, 7V35, 7V91, and 7V92 are limited as indicated in the table below:

Facility	Stacks	PM/PM_{10} Limit (pounds per hour)	PM/PM_{10} Limit (tons per 12 mo)
Starch Flash Dryer #3 (43D71)	265	7.54	33~~.0~~
Flash #3 Mill (40G88)	266	0.23	0.99
Starch Product Bins (7V34, 7V35, 7V91, 7V92)	268, 269, 345, 346	0.2 each	0.89 each

*12 mo. - Twelve consecutive month period with compliance determined at the end of each month.

Compliance with these limits will render the requirements of ~~40 CFR 52.21 and~~ 326 IAC 2-2 not applicable to emission units 43D71, 40G88, 7V34, 7V35, 7V91, and 7V92.

(b) Pursuant to CP (79) 1599, issued February 28, 1986, and OP 79-10-90-0406, issued October 16, 1987, the PM emissions from emission unit 40D1 shall not exceed 1.2 lbs/hr and 5.3 tons per twelve month consecutive period with compliance determined at the end of each month. Compliance with this limit shall render the requirements of ~~40 CFR 52.21 and~~ 326 IAC 2-2 not applicable to emission unit 40D1.

(c) Pursuant to A 157-6180-00003, issued on August 12, 1996, and CP 157-4569-00003, issued September 21, 1995:

(1) The PM/PM_{10} emissions from emissions unit 43V90 shall not exceed 1.2 lbs/hr. Compliance with these limits is equivalent to total PM/PM_{10} emissions of less than 15 tons per year and will render the requirements of ~~40 CFR 52.21 and~~ 326 IAC 2-2 not applicable to emission unit 43V90.

D.6.3 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2] ~~[40 CFR 52, Subpart P]~~

(a) Pursuant to 326 IAC 6-3-2 **(Particulate Emissions Limitations for Manufacturing Processes)**, particulate emissions from emission units 40D1, 40F7, 7V8, 7V9, 40D20, ~~7V20, 7V21, 7V22, 40G20, 40G21,~~ 43D71, 40G88, ~~7V23~~, 7V34, 7V35, 43V90, 7V91, 7V92, **41G200,** 41V10, 41V11~~,~~ **41G201,** ~~33V44,~~ 41F13, 30D1, ~~30F13, 30G1, 41C30, 41C35, 41V14, 41V15, 41V17, 41V18,~~ 7F25, 7F26, 7V46, 7V47, 7V48, 7V49, 7V50, 25G1, 25F1, 16D4, 16D5, 50D101, **and** 50F106~~, 41FAA, 41G202, 07VDD, 07VEE, 07VAA, 07VBB, 07VCC, 41VEE, 41VHH, 44GAA, 44GBB, 44DAA, 51DAA~~ 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:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour; and
P = 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:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = 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 throughput of the respective facilities is treated as confidential.

(b) Pursuant to CP 157-5294-00003, issued September 5, 1996, A157-6170-00003, issued July 26, 1996, A 157-6571-00003, issued October 3, 1996, and in order to comply with 326 IAC 6-3-2:

(1) The PM_{10} emissions from emission units ~~41F210,~~ 41G200, 41V10, 41V11, 41G201, ~~41F201,~~ **and** 41F13, 30D1, ~~30F13,~~ 30G1~~, 41C30, 41C35, 41V14, 41V15, 41V17, 41V18, and 33V44~~ are limited as indicated in the table below:

Emission Unit	**Stack**	**PM_{10} emission limit (pounds per hour)**	**PM_{10} emission limit (tons per 12 mo)**
~~Pneumatic Product Transfer Roll Dryer 41F210 (ID changed from F210 to F200)~~	~~95~~	~~0.21~~	~~0.94~~
Roll Dryer Mill 41G200	96 **to 355**	0.28	1.22
Product Bin #10 (41V10) and Product Bin #11 (41V11)	97 98	0.03	0.14
Roll Dryer Mill 41G201	100 **to 355**	0.39	1.69
~~Pneumatic Product Transfer to Roll Dryer 41F201~~	~~101~~	~~0.3~~	~~1.3~~
Bulk Bag Dump Station (41F13)	344	0.03	0.11
Spray Dryer (30D1)	82	4.45	19.49
~~Product Transfer to Milling (30F13)~~	~~83~~	~~0.07~~	~~0.31~~
Dryer Mill (30G1)	84	0.95	4.17
~~Product Transfer to Bins #14, #15 (41C30), Product Transfer to Bins #17, #18 and #44 (41C35)~~	~~85~~ ~~86~~	~~0.13~~	~~0.57~~
~~Product Bin #14 (41V14), Product Bin #15 (41V15), Product Bin #17 (41V17) and Product Bin #18 (41V18)~~	~~87~~ ~~88~~ ~~89~~ ~~90~~	~~0.02~~	~~0.22~~
~~Product Bin #44 (33V44)~~	~~248~~	~~0.05~~	

*12 mo. - Twelve consecutive month period with compliance determined at the end of each month.

(2) The opacity from facilities ~~41F210,~~ 41G200 **(stack 355)**, ~~41F201,~~ **and** 41G201 **(stack 355)** ~~and 33V44~~ shall not exceed **three** ~~zero~~ percent **(3%)** ~~(0%)~~**;**~~.~~ **and**

(c) Pursuant to MSM 157-11907-00003, issued May 16, 2000, and in order to ensure compliance with 326 IAC 6-3-2, the allowable PM emission rate from emission units 50D101 and 50F106 shall not exceed 1.1~~0~~ and 0.1~~0~~ pounds per hour, respectively.

D.6.4 Volatile Organic Compounds: Best Available Control Technology [326 IAC 8-1-6] [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3, and 326 IAC 8-1-6, the VOC BACT for emission units 45V223, 45V240, 45V241, 45V242, 45V243, 45V246, 45V247, 45V248, 45V270, 45V271, 45V280, 45V281, **45V292, 45V293, 45V294, 45V295, 45V296**~~45VAA, 45VBB, 45VCC, 45VDD, 45VEE~~ and 45VFF shall be the use of the scrubbers 45F212, and 45FAA; and

(a) The VOC emissions from scrubbers 45F212, and 45FAA controlling emissions from emission units 45V223, 45V240, 45V241, 45V242, 45V243, 45V246, 45V247, 45V248, 45V270, 45V271, 45V280, 45V281, **45V292, 45V293, 45V294, 45V295, 45V296,** ~~45VAA, 45VBB, 45VCC, 45VDD, 45VEE~~ and 45VFF shall not exceed 3.25 lb**s** per 100,000 lb**s** of acid-killed starch and 6~~.0~~ lb**s** per 100,000 lb**s** of non-acid-killed starch (equivalent to a minimum 95% overall control efficiency).

(b) The combined propylene oxide input to facilities (listed in Section D.5) **45V292, 45V293, 45V294, 45V295, 45V296**~~45VAA, 45VBB, 45VCC, 45VDD, 45VEE~~, 45VFF, 40V1, 40U2, 40Y1, 40V50, 40V20, 40V21, 40V15, 40V16, 40F51, 40F52, 40F53, 40F54, 40U23, 43V71, 43V72, 43F71, 43F72, 43F73, 43V85, 43V86, 45V117, 45V118, 45V119, 45V120, 30V1, 30V2, 40V12, 40V11, 40V14, 45V223, 45V240, 45V241, 45V242, 45V243, 45V246, 45V247, 45V248, 45V270, 45V271, 45V280, 45V281, 44V1, 44V2, 44V3, 44V4, 44V5,44FKK, 44FLL, 44FMM, **46V200, 46V201, 46V204, 46V213, and 46V297**~~46V1, 46V2, 46V3, 46V4, 46V5~~**; and** (listed in Section D.6) 40D1, 40D20, 43D71, 41D1, 41D2, 41D3, 41D4, 41D5, 41D6, 41D7, 41D8, **19D301, 19D302, 19D303**~~41D9, 41D10, 41D11~~, 41D12, 41D13, 41D14, 30D1, 16D4, 16D5, 44DAA; and **46D200**~~46DAA~~ shall not exceed 1,500 tons for propylated starch reactions that do not undergo the acid-kill step per twelve consecutive month period with compliance determined at the end of each month.

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

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

Compliance Determination Requirements

D.6.**5**~~6~~ Particulate Control

(a) In order to comply with Conditions D.6.1, D.6.2 and D.6.3, baghouses, including those integral to the process, 40F7, 7F8, 7F9, 7F20, 7F21, 7F22, 40F28, 40F29, 7F33, 7F34, 7F35, 40F88, 43F90, 7F91, 7F92, 41F210, ~~41F200,~~ 41F10, 41F11, 41F211, ~~41F201,~~ 33F44, 41F13, 30F2, 30F3, ~~30F13,~~ 30F15, 41F14, 41F15, **41FMM,** 41F20, 41F21, ~~41F54,~~ 41F16, 41F17, 41F22, 41F23, 25F1, 25F2, 7F73, 7F72, 7F71, 7F70, 7F69, 7F26, 7F25, 50F102, 50F106, **19F402**~~41FAA, 41F202~~, 07FDD, 07FEE, 07FAA, 07FBB, 07FCC, **41F45**~~41FEB, 41FEE~~, **41F46**~~41FHH~~, 44FII, 44FJJ, **46F231 through 46232,** ~~46FGG through 46FLL, and~~ 51FCC**, 30FAA, 41F47, and 41FPP** for particulate control shall be in operation and control particulate emissions from facilities 40F7, 7V8, 7V9, 7V20, 7V21, 7V22, 40G20, 40G21, 40G88, 7V23, 7V34, 7V35, 43V90, 7V91, 7V92, 41G200, 41V10, 41V11, 41G201, ~~41F201,~~ 33V44, 41F13, 30D1, ~~30F13,~~ 30G1, 41C30, 41C35, 41V14, 41V15, 41V17, 41V18, 7F25, 7F26, 7V46, 7V47, 7V48, 7V49, 7V50, 25G1, 25F1, 50D101, 50F106, ~~41FAA,~~ **19G401** ~~41G202~~, 07VDD, 07VEE, 07VAA, 07VBB, 07VCC, **41V45**~~41VEE~~, **41V46**~~41VHH~~, 44GAA, 44GBB, **46D200,** ~~46DAA, and~~ 51DAA**, 30GAA, 41V47, and 41VKK** at all times those facilities are in operation.

(b) Pursuant to CP 157-5294-00003, issued September 5, 1996, A 157-6571-00003, issued October 3, 1996, and in order to comply with Condition D.6.3, the particulate emissions from facilities ~~41F210~~, 41G200, 41V10, 41V11, 41G201 ~~41F201~~, 41F13, 30D1, ~~30F13~~, 30G1~~, 41C30, 41C35~~, ~~41V14, 41V15, 41V17, 41V18 and 33V44~~ shall be considered in compliance that:

(1) The respective baghouses shall be operated at all times when the facilities are in operation. To facilitate compliance, opacity shall not exceed **three** ~~zero~~ percent (**3** ~~0~~%) **from facilities 41G200, 41V10, 41V11, 41G201, 41F13, and 30D1 and eight percent (8%) from facility 30G1.**

~~(2) Following modification or shutdown of the facilities listed in Section D.6.6(b) or the combination of the baghouse exhausts from those facilities, as described in Section D.6.1(a), Section D.6.6(b), shall no longer be effective.~~

(c) In order to comply with Conditions D.6.1, D.6.2 and D.6.3, scrubbers 40F3, 40F26, 16F26, 17F78, 16F27, 17F79, 43F80, and 44FGG for particulate control shall be in operation and control emissions from facilities 40D1, 40D20, 16D4, 16D5, 43D71, and 44DAA at all times the respective facilities are in operation.

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

D.6.**6**~~7~~ Testing Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

(a) Within 60 days after achieving the maximum production rate but no later than 180 days after startup of the Flash dryer #4 (44DAA), the Permittee shall perform PM and PM_{10} testing on the Starch Flash Dryer #2 (40D20) and the Starch Flash Dryer #4 (44DAA), to verify compliance with Condition D.6.1(b), utilizing methods as approved by the Commissioner~~, and furnish the Commissioner a written report of the results of such performance tests~~.

(b) Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup, the Permittee shall perform PM and PM_{10} testing on one of the storage bins baghouses 07FAA, 07FBB, 07FCC, 07FDD, and 07FEE; the roll dryer mill baghouse **19F402**~~s 41FAA, and 41F202;~~ **and spray dryer #2 mill baghouse 30FAA;** and one of the starch milling baghouses 44FII, 44FJJ, 40F28, and 40F29 to verify compliance with Condition D.6.1(a), utilizing methods as approved by the Commissioner~~, and furnish the Commissioner a written report of the results of such performance tests~~.

These tests shall be repeated at least once every five years from the date of this valid compliance demonstration. PM_{10} includes filterable and condensable PM_{10}. Testing shall be conducted in accordance with Section C - Performance Testing.

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

D.6.**7**~~8~~ Visible Emissions Notations

(a) ~~Visible emission notations of the exhaust from stacks 265, 360, 388, and 177 shall be performed once per~~ **day** ~~shift during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.~~

~~(b)~~ Visible emission notations of the stacks 73, 76, 77, 78, 105, 106, 107, 108, 109, **177, 265,** 266, 267, 268, 269, 274, 345**,** ~~and~~ 346, **355, 360, and 388** exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(**b**~~c~~) For processes operated continuously, not including operations associated with 50D101 or 50F106, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(**c**~~d~~) In the case of batch or discontinuous operations, not including operations associated with 50D101 or 50F106, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

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

(**e**~~f~~) ~~The Compliance Response Plan for these units, not including 50D101 or 50F106, shall contain troubleshooting contingency and response steps for when an~~ **If** abnormal emission**s** ~~is~~ **are** observed**, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances**. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records and Reports~~**Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

(**f**~~g~~) For units 50D101 and 50F106, when ~~an~~ abnormal emission**s** ~~is~~ **are** observed, the Permittee shall complete a Pollution Control Equipment Maintenance and Inspection Log sheet.

D.6.**8**~~9~~ Monitoring for Scrubbers

(a) A continuous monitoring system shall be ~~installed and~~ operated at all times scrubber 40F26 is in operation. The monitoring system shall continuously measure and record the scrubber recirculation rate from scrubber 40F26 controlling emissions from emission unit 40D20. ~~The Compliance Response Plan for the scrubber shall contain troubleshooting contingency and corrective actions for when~~ **If** ~~any~~ **the 1-hour average** recirculation rate is below 300 gallons per minute or a minimum flow rate established during the latest stack test for any one reading**, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances**. A **1-hour average** flow rate reading that is below the minimum flow rate is not a deviation from this permit. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records and Reports~~**Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

(b) A continuous monitoring system shall be ~~installed and~~ operated at all times scrubber

43F80 is in operation. The monitoring system shall continuously measure and record the scrubber recirculation rate from scrubber 43F80 controlling emissions from emission unit 43D71. ~~The Compliance Response Plan for the scrubber shall contain troubleshooting contingency and corrective actions for when~~ **If the 1-hour average** recirculation rate is below 300 gallons per minute or a minimum flow rate established during the latest stack test for any one reading**, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances**. A **1-hour average** flow rate reading that is below the minimum flow rate is not a deviation from this permit. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records and Reports~~**Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

(c) The Permittee shall monitor the scrubber recirculation rate at least once per **day** ~~shift~~ from scrubbers 40F3, 16F26, 17F78, 16F27, and 17F79 controlling emissions from emission units 40D1, 16D4, and 16D5. ~~The Compliance Response Plan for the scrubber shall contain troubleshooting contingency and corrective actions for when~~ **If** the **1-hour average** flow rate reading~~s~~ ~~are~~ **is** outside of the normal range, as specified by the manufacturer, or a minimum flow rate established during the latest stack test for any one reading**, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances**. A **1-hour average** flow rate reading that is outside of the normal range is not a deviation from this permit. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records and Reports~~**Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

(d) A continuous monitoring system shall be installed and operated at all times the scrubber 44FGG is in operation. The monitoring system shall continuously measure and record the scrubber recirculation rate from scrubber 44FGG controlling emissions from emission unit 44DAA. ~~The Compliance Response Plan for the scrubber shall contain troubleshooting contingency and corrective actions for when~~ **If** the **1-hour average** recirculation rate is below 300 gallons per minute or a minimum flow rate established during the latest stack test for any one reading**, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances**. A **1-hour average** flow rate reading that is below the minimum flow rate is not a deviation from this permit. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records and Reports~~**Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

(e) The instruments used for determining the flow rate shall comply with Section C - ~~Pressure Gauge and other~~ Instrument Specifications of this permit and shall be calibrated at least once every six (6) months. The loss of monitoring data due to the calibration of an instrument while the equipment is in operation does not constitute a deviation from this permit.

~~D.6.10 Scrubber Inspections~~

~~(a) An external inspection of the scrubber controlling emissions from emission units 40D20 and 43D71 shall be performed at least 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.~~

~~(b) An external inspection of the scrubbers controlling emissions from emission units 40D1, 16D4, and 16D5 shall be performed at least 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.~~

~~(c) An external inspection of the scrubber 44FGG controlling emissions from emission unit 44DAA shall be performed at least 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.6.**9**~~11~~ Monitoring for Baghouses

(a) The Permittee shall record the ~~total static~~ pressure drop across baghouses 40F88, 43F90, 7F73, 7F72, 7F71, 7F70, 7F69, **19F402**~~41F202~~, **30FAA,** 07FDD, 07FEE, 07FAA, 07FBB, 07FCC, ~~41FEE, 41FHH~~, 44FII, 44FJJ, **46F231 through 46F232**~~41FGG to 41FLL~~, 51FCC 40F28, 40F29, 7F20, 7F21, 7F22, and 7F33 used in conjunction with facilities 40G88, 43V90, 7V46, 7V47, 7V48, 7V49, 7V50, **19G401**~~41G202~~, **30GAA,** 07VDD, 07VEE, 07VAA, 07VBB, 07VCC, ~~41VEE, 41VHH~~, 44GAA, 44GBB, **46D200**~~46DAA~~, 51DAA, 40G20, 40G21, 7V20, 7V21, 7V22, 7V23, 4**1F20, 41F21, and 30FAA** at least once per day when the respective facilities are in operation.

(b) **If**~~When~~, for any one reading, the pressure drop across the baghouse~~s~~ **is**~~are~~ outside of the normal range of 1 and 8~~.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~~ **Response to Excursions or Exceedances**. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records and Reports~~**Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

(c) The instruments used for determining the pressure shall comply with Section C - ~~Pressure Gauge and other~~ Instrument Specifications of this permit, and shall be calibrated at least once every six (6) months.

~~D.6.12 Baghouse Inspections~~

~~(a) An external inspection of baghouses 50F102, 50F106, 41F202, 07FDD, 07FEE, 07FAA, 07FBB, 07FCC, 41FEB, 41FHH, 44FII, 44FJJ, 46FGG through 46FLL, 51FCC 40F28, 40F29, 7F20, 7F21, 7F22, and 7F33 shall be performed at least semi-annually. Inspections required by this condition shall not be performed in consecutive months.~~

~~(b) An internal inspection of all bags, in baghouses 50F102, 50F106, 40F88, 43F90, 7F69, 7F70, 7F71, 7F72, and 7F73, 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.~~

~~(c) 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.6.**10**~~13~~ 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.~~

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

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

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

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

D.6.**11**~~14~~ Record Keeping Requirements

(a) To document compliance with Condition D.6.4, the Permittee shall maintain monthly records for propylated starch reactions that do not undergo the acid-kill step to facilities **45V292, 45V293, 45V294, 45V295, 45V296**~~45VAA, 45VBB, 45VCC, 45VDD, 45VEE~~, 45VFF, 40V1, 40U2, 40Y1, 40V50, 40V20, 40V21, 40V15, 40V16, 40F51, 40F52, 40F53, 40F54, 40U23, 43V71, 43V72, 43F71, 43F72, 43F73, 43V85, 43V86, 45V117, 45V118, 45V119, 45V120, 30V1, 30V2, 40V12, 40V11, 40V14, 45V223, 45V240, 45V241, 45V242, 45V243, 45V246, 45V247, 45V248, 45V270, 45V271, 45V280, 45V281, 44V1, 44V2, 44V3, 44V4, 44V5,44FKK, 44FLL, 44FMM, **46V200, 46V201, 46V204, 46V213, 46V297**~~46V1, 46V2, 46V3, 46V4, 46V5~~, 40D1, 40D20, 43D71, 41D1, 41D2, 41D3, 41D4, 41D5, 41D6, 41D7, 41D8, **19D301, 19D302, 19D303**~~41D9, 41D10, 41D11~~, 41D12, 41D13, 41D14, 30D1,16D4, 16D5, 44DAA, and **46D200**~~46DAA~~. This record is the same record as required in Condition D.5.**13**~~16~~(b).

(b) ~~A log of the information necessary to document compliance with Condition D.6.~~**5**~~6 shall be maintained.~~

(~~c~~) The maximum production capacity of the #2 Flash Dryer System is treated as confidential and shall be kept at the emission source for the life of the facility.

(~~d~~ **c**) To document compliance with Condition D.6.**7**~~8~~, the Permittee shall maintain records of the visible emission notations of the stack**s** exhaust.

(~~e~~ **d**) To document compliance with Conditions D.6.**8**~~9~~(a) and D.6.**8**~~9~~(b), the Permittee shall maintain records of the scrubber**s'** recirculation rate**s** as read by the continuous monitor for 40F26 and 43F80.

(~~f~~ **e**) To document compliance with Condition D.6.**8**~~9~~(c), the Permittee shall maintain records of **the recirculation rates** from the scrubber**s** ~~recirculation rates~~ **identified in Condition D.6.8(c)** ~~at least once per shift from scrubbers 40F3, 16F26, 17F78, 16F27, and 17F79 controlling emissions from facilities 40D1, 16D4, and 16D5~~.

(~~g~~ **f**) To document compliance with Conditions D.6.**8**~~9~~(d), the Permittee shall maintain records of the scrubber's recirculation rate as read by the continuous monitor for scrubber 44FGG.

(~~h~~ **g**) To document compliance with Condition D.6.**9**~~11~~, the Permittee shall maintain records of the ~~total static~~ pressure drop during normal operation.

~~(i) To document compliance with Condition D.6.10 and D.6.12, the Permittee shall maintain records of the results of the inspections.~~

~~(j) To document compliance with Condition D.6.5, the Permittee shall maintain of records of any additional inspections prescribed by the Preventive Maintenance Plan.~~

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

D.6.**12**~~15~~ Reporting Requirements

A quarterly summary of the information used to document compliance with Condition D.6.4(b) 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).

Clean Unit [326 IAC 2-2.2-2]

D.6.**13**~~16~~ Clean Unit [326 IAC 2-2.2-2]

Pursuant to 326 IAC 2-2.2-2**:**~~,~~

(a) The following emissions units are classified as Clean Units for PM/PM_{10}:

(1) Product Storage Bin #AA (07VAA),

(2) Product Storage Bin #BB (07VBB),

(3) Product Storage Bin #CC (07VCC),

(4) Starch Blend Bin #1 (07VDD),

(5) Starch Blend Bin #2 (07VEE),

~~(6) Product Storage Bin #10 (41V10),~~

~~(7) Product Storage Bin #11 (41V11),~~

(**6**~~8~~) Product Storage Bin #**46 (41V46)**~~#HH (41VHH)~~,

~~(9) Roll Dryer Mill Feed Collector (41FAA),~~

(**7**~~10~~) Roll Dryer System Mill **(19G401)** ~~(41G202)~~,

~~(11) Product Transfer to Milling (30F13),~~

(**8**~~12~~) Product Transfer to Bins 14 & 15 (41C30),

(**9**~~13~~) Product Transfer to Bins 17~~,~~ **&** 18~~, 44, & EE~~ (41C35),

(**10**~~14~~) Product Bin 14 (41V14),

(**11**~~15~~) Product Bin 15 (41V15),

(**12**~~16~~) Product Bin 17 (41V17),

(**13**~~17~~) Product Bin 18 (41V18),

(**14**~~18~~) Product Storage Bin #**45 (41V45),** ~~#EE (41VEE),~~

(**15**~~19~~) Product **Storage** Bin (33V44),

(**16**~~20~~) Mill #3 (44GAA),

(**17**~~21~~) Mill #4 (44GBB),

(**18**~~22~~) Starch Grinder/Mill #1 (40G20),

(**19**~~23~~) Starch Grinder/Mill #2 (40G21),

(**20**~~24~~) Starch Product Bin #20 (7V20),

(**21**~~25~~) Starch Product Bin #21 (7V21),

(**22**~~26~~) Starch Product Bin #22 (7V22),

(**23**~~27~~) Starch Product Bin #23 (7V23),

(~~2428~~) Spray Dryer #2 **(46D200)**~~(46DAA),~~

(**25**~~29~~) Spray Dryer #3 (51DAA),

(**26**~~30~~) Starch Flash Dryer #2 (40D20), **and**

(**27**~~31~~) Starch Flash Dryer #4 (44DAA).

(b) The following emissions units are classified as Clean Units for NOx:

(1) Starch Spray Dryer #2 **(46D200)**~~(46DAA)~~,

(2) Starch Spray Dryer #3 (51DAA), **and**

(3) Starch Flash Dryer #4 (44DAA)**.**

(c) The Clean Unit designations for the above emissions units are in effect for ten (10) years after the issuance date of the source modification permit or the date the emission's unit control technology is placed in service, whichever is later.

SECTION D.7 FACILITY OPERATION CONDITIONS

(g) Starch Packaging and Loadout Operations, consisting of:

(1) One (1) Product Bin #6/House Vacuum System, identified as 17V6 and 17F5, constructed in 1984, with emissions controlled by baghouse 17F6, **and** exhausting via vent 190 into stack 177;

(2) One (1) Product Transfer to Main Packer #1, identified as 16F5, constructed in 1966, with emissions controlled by baghouse 16F5, **and** 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, **and** exhausting to stack 102;

(4) One (1) Packer #1, identified as 17Z38, constructed in 1966, with emissions controlled by baghouse 17F10, and exhausting into stack 177;

(5) One (1) Reprocess Bag/Tote Dump, identified as 17U58, constructed in 1997, with emissions controlled by baghouse 17F58, **and** 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, and exhausting to stack 177;

(7) One (1) Bag Packer #2, identified as 17Z01, constructed in 1995, with emissions controlled by baghouse 17F01, **and** exhausting to stack 177;

(8) One (1) **Spray Cook Starch Product Transfer to Bag Packer #3 (41Z3)**~~Spray Dryer Product Transfer to Bag Packer #3 (North Spouts)~~, identified as 41F7, constructed in 1986, with emissions controlled by baghouse 41F7, **and** exhausting via vent 184 to stack 355;

(9) One (1) **Spray Cook/O.S. Starch Products Bag Packer #3** ~~Spray Dryer Products Bag Packer #3 (North Spouts)~~, identified as 41Z-3, constructed in 1986, with emissions controlled by baghouse 41F7 **or baghouse 41F181**, **and** exhausting via vent 184 to stack 355;

(10) One (1) **Roll Dried Starch Product Transfer to Bag Packer #3 (41Z5)**~~Roll Dried, Dry Starch Reaction System, & Malto Products transfer to Bag Packer #3 (South Spouts)~~, identified as 41F18, constructed in 1986, with emissions controlled by baghouse 41F18, **and** exhausting via vent 186 to stack 355;

(11) One (1) **Roll Dried Starch Products Bag Packer #3**~~Roll Dried, Dry Starch~~

~~Reaction System, & Malto Bag Packer #3 (South Spouts)~~, identified as 41Z-5, constructed in 1986, with emissions controlled by baghouse 41F18, **and** exhausting via vent 186 to stack 355;

(12) One (1) Bag Packer #4, identified as 17Z03, constructed in 1995, with emissions controlled by baghouses 17F03 and 17F04, **and** exhausting via vent 332 to stack 356;

(13) One (1) House Dust Collection System for Bag Packer #4, identified as 17F15, constructed in 1995, with emissions controlled by baghouse 17F15, and exhausting via vent 333 to stack 356;

(14) One (1) Bag Packer #3 House Dust Collector, identified as 41F44, constructed in 1995, with emissions controlled by baghouse 41F44, **and** exhausting via vent 256 to stack 361;

(15) One (1) Product Transfer for #1 Bulk Bagger, identified as 16F25, constructed in 1988, with emissions controlled by baghouse 16F25, **and** exhausting via vent 191 into stack 177;

(16) One (1) Bulk Bagger #2, identified as 17Z14, constructed in 1996, with emissions controlled by baghouse 17F14, **and** 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, **and** exhausting via vent 208 to stack 355;

(18) One (1) Bulk Starch Rail Loadout (Track #10), identified as 20F60, constructed in 1993, with emissions controlled by baghouse 20F60, **and** exhausting via vent 79 to stack 404;

(19) One (1) Starch Truck/Rail Loadout (Track #9), identified as 20F61, constructed in 1966, with emissions controlled by baghouse 20F61, **and** exhausting via vent 135 to stack 404;

(20) One (1) J4 Starch Rail Loadout System, identified as 16F100, constructed in 1989, with emissions controlled by baghouse 16F100, **and** exhausting via vent 183 into stack 177;

(21) One (1) Dextrin/Roll/Spray Cooked Starch Bulk Truck Loadout, identified as 33 Bldg. Truck Loadout, constructed in 1988, with emissions controlled by baghouses 41F6 and 41FLL, **and** 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, **and** exhausting via vent 264 to stack 404;

(23) One (1) Bulk #1 Product Screening System, identified as 20F1, constructed in 1997, with emissions controlled by baghouse 20F1, **and** exhausting via vent 330 to stack 404;

(24) One (1) Bulk #2 Product Screening System, identified as 20F50, constructed in 1997, with emissions controlled by baghouse 20F50, **and** exhausting via vent 331 to stack 404;

(25) One (1) Spray Dryer #3 Packer Baghouse (Pneumatically transferred), identified as 51FDD, with emissions controlled by baghouse 51FDD, **and** exhausting via vent 362 to stack 361;

(26) Two (2) Packer #6 Product Receivers, identified as 17FBB and 17FDD, with emissions controlled by baghouses 17FBB and 17FDD, **and** exhausting via vent 380 to stack 356;

(27) One (1) Packer #6 House Dust Collector, identified as 17FCC, with emissions controlled by baghouse 17FCC, **and** exhausting via vent 381 to stack 356;

(28) One (1) Bulk Bagger #4 Product Receiver, identified as 17FAA, with emissions controlled by baghouse 17FAA, **and** exhausting via vent 382 to stack 356;

(29) One (1) #3 Bulk Starch Rail Loadout Receiver, identified as 20FAA, with emissions controlled by baghouse 20FAA, **and** exhausting via vent 263 to stack 404;

(30) One (1) #3 Bulk Loadout Screening System Filter Receiver, identified as 20FBB, with emissions controlled by baghouse 20FBB, **and** exhausting via vent 393 to stack 404;

(31) One (1) Bag Dump Station Bin Vent, identified as 18FBB, with emissions controlled by baghouse 18FBB, **and** exhausting indoors via vent 426; ~~and~~

(32) One (1) O.S. Starch Product Transfer to Bag Packer #3 **(41Z3)**~~(South Spouts)~~, identified as **41F181**~~41FCC~~, with emissions controlled by baghouse **41F181**~~41FCC~~, **and** exhausting via vent **184**~~223~~ to stack 355.

(33) One (1) Malto Product Transfer to Bag Packer #3 (41Z1), identified as 41F182, with emissions controlled by baghouse 41F182, and exhausting via vent 428 to stack 355;

(34) One (1) Malto Products Bag Packer #3, identified as 41Z1, with emissions controlled by baghouse 41F182, and exhausting via vent 428 to stack 355;

(35) One (1) Dry Starch Reacted Product Transfer to Bag Packer #3 (41Z2), identified as 41F183, with emissions controlled by baghouse 41F183, and exhausting via vent 429 to stack 355;

(36) One (1) Dry Starch Reacted Products Bag Packer #3, identified as 41Z2, with emissions controlled by baghouse 41F183, and exhausting via vent 429 to stack 355; and

(37) One (1) Bag Packer #3 House Dust Collector, identified as 41F186, with emissions controlled by baghouse 41F186, and exhausting via vent 430 to stack 355.

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

D.7.1 Prevention of Significant Deterioration BACT Requirements [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3:

(a) the following emission units shall be controlled for PM and PM_{10} using BACT:

(1) Spray Dryer #3 Packer Baghouse (51FDD)**,**

(2) Packer #6 Product Receivers (17FBB and 17FDD)**,**

(3) Packer #6 House Dust Collector (17FCC)**,**

(4) Bulk Bagger #4 Product Receiver (17FAA)**,**

(5) #3 Bulk Starch Rail Loadout Receiver (20FAA)**,**

(6) #3 Bulk Loadout Screening System Filter Receiver (20FBB)**,**

(7) Bulk Starch Rail Loadout (20F60)**,**

(8) Bag Dump Station (18FBB)**,**

(9) Packer #3 Product Receivers and Packers (41F7, 41F181, 41Z3; 41F18, 41Z5; 41F182, 41Z1; and 41F183, and 41Z2); and

(10) Packer #3 House Dust Collector (41F186).

(b) For these units, the BACT for PM and PM_{10} (Filterable and Condensable) is the use of ~~fabric filter dust collectors~~ **baghouses** with an emission rate of 0.005 gr/dscf; and

(1) the total PM /PM_{10} (Filterable and Condensable) emissions shall be limited to as follows:

Emission Unit	Baghouse	Lb/hr
51FDD	51FDD	0.06
17FBB &17FDD	17FBB &17FDD	0.13
17FCC	17FCC	0.67
17FAA	17FAA	0.08
20FAA	20FAA	0.08
20FBB	20FBB	0.09
20F60	20F60	0.09
18FBB	18FBB	0.02~~;~~
41F7	**41F7**	**0.11**
41F181	**41F181**	
41Z3	**41F7 or 41F181**	
41F18	**41F18**	**0.11**
41Z5	**41F18**	
41F182	**41F182**	**0.11**
41Z1	**41F182**	
41F183	**41F183**	**0.11**
41Z2	**41F183**	
41F186	**41F186**	**0.65; and**

(2) The opacity from the stack exhausts except from Spray Dryer #3 Packer Baghouse (51FDD) and Bagdump Station shall not exceed 3%;

(3) The opacity from Spray Dryer #3 Packer Baghouse (51FDD) shall not exceed 8%; and

(4) The Bag Dump Station (18FBB) shall exhaust inside the building.

D.7.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2] ~~[40 CFR 52, Subpart P]~~

(a) Pursuant to 326 IAC 6-3-2 **(Particulate Emissions Limitations for Manufacturing Processes)**, particulate emissions from emission units 17V6, 17F5, 16F5, 17F27, 17Z38, 17U58, 17Z01, 17F2, 41F7, 41Z5, 41F18, 41Z3, 41F44, 17Z03, 17F15, 16F25, 17Z14, 41F8, 41F81, 41F82, ~~20F60~~, 20F61, 16F100, 41F6, 20F78, 20F79, 20F1, 20F50, **and** 41FLL, ~~41FCC~~, ~~51FDD, 17FBB, 17FDD, 17FCC, 17FAA, 20FAA, 20FBB~~, ~~and 18FBB,~~ 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:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour; and
P = 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:

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

(b) Pursuant to CP 157-4160-00003, issued April 5, 1995, and in order to ensure compliance with 326 IAC 6-3-2, the PM emissions from facilities 17Z01, 17F2, 17Z14, and Truck Loadout, are limited as indicated in the table below:

Facility	Stack	PM emission limit (lbs/hr)
Bag Packer #2 (17Z01)	177	0.17
House Dust Collector Bag Packer #2 (17F2)	177	1.1
Bulk Bagger #2 (17Z14)	254	0.08
Pneumatic Truck Loadout (Truck Loadout)	404	0.12

(c) Pursuant to CP 157-5294-00003, issued September 5, 1996, A 157-6571-00003, issued October 3, 1996, revised through the Part 70 permit, and in order to comply with 326 IAC 6-3-2, the particulate matter emissions from facilities 41F8, ~~41FCC~~, 41F81, 41F82, 41F6, and 41FLL are limited as indicated in the table below:

Facility	Stack	PM_{10} emission limit (pounds per hour)	PM_{10} emission limit (tons per 12 mo)
~~Spray Dryer Product Transfer to Bag Packer #3 (41F7) and Spray Dryer Products Starch Bag Packer #3 North Spouts (41Z3)~~	~~355~~	~~0.12~~	~~0.80~~

Facility	Stack	PM_{10} emission limit (pounds per hour)	PM_{10} emission limit (tons per 12 mo)
~~Roll Dried, Dry Starch Reaction System, & Malto Product Transfer to Bag Packer #3 (41F18) and Roll Dried, Dry Starch Reaction System, & Malto Products Bag Packer (South Spouts Packer #3) (41Z5) and O.S. Starch Product Transfer to Bag Packer #3 (41F181)(41FCC)~~	~~355~~	~~0.18~~	
Product Transfer System for #3 Bulk Bagger (41F8, 41F81, and 41F82)	355	0.11	**0.48**~~0.50~~
33 Bldg. Dextrin/Roll /Spray Cooked Starch Bulk Truck Loadout (41F6 and 41FLL)	189	0.04	0.18

*12 mo. - Twelve consecutive month period with compliance determined at the end of each month.

(d) Pursuant to Exemption 157-8071-00003, issued February 7, 1997, the PM emissions from 20F1 and 20F50 are each limited to 1~~.0~~ pound~~s~~ per hour to ensure compliance with 326 IAC 6-3-2.

(e) Pursuant to CP 157-4569-00003, issued September 21, 1995, and A 157-6180-00003:

(1) The PM emissions from 17Z03 (controlled by baghouses 17F15, 17F03 and 17F04) shall not exceed 2.2 pounds per hour (equivalent to less than or equal to 9.63 tons per year) to ensure compliance with 326 IAC 6-3-2**;**~~.~~ and

(2) Only one of the baghouses, 17F03 or 17F04, shall be operated at a time.

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

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

Compliance Determination Requirements

D.7.**3**~~4~~ Particulate Control

(a) In order to comply with Condition D.7.1 and Condition D.7.2, baghouses, including those integral to the process, 17F6, 17F5, 16F5, 17F27, 17F10, 17F58, 17F01, 17F2, **41F7**, **41F18**, 41F44, 17F03, 17F04, 17F15, 16F25, 17F14, 41F8, 41F81, 41F82, 20F60, 20F61, 16F100, 41F6, 20F78, 20F79, 20F1, 20F50, 41FLL, **41F181**~~41FCC~~, 51FDD, 17FBB, 17FDD, 17FCC, 17FAA, 20FAA, 20FBB, ~~and~~ 18FBB**, 41F182, 41F183, and 41F186** for particulate control shall be in operation and control particulate emissions from emission units 17V6, 17F5, 16F5, 17F27, 17Z38, 17U58, 17Z01, 17F2, **41F7, 41Z5, 41F18, 41Z3**, 41F44, 17Z03, 17F15, 16F25, 17Z14, 41F8, 41F81, 41F82, 20F60, 20F61, 16F100, **33 Bldg. Truck Loadout (**41F6 **and 41FLL)**, **20 Building**Truck Loadout **(20F78 and 20F79)**, 20F1, 20F50, ~~41FCC~~ **41F181**, 51FDD, 17FBB, 17FDD, 17FCC, 17FAA, 20FAA, 20FBB, ~~and~~ 18FBB**, 41F182, 41Z1, 41F183, 41Z2, and 41F186** at all times those emission units are in operation.

(b) Pursuant to CP 157-5294-00003, issued September 5, 1996, A 157-6571-00003, issued October 3, 1996, and in order to comply with Condition D.7.1, the particulate emissions from emission units ~~41F7, 41Z5, 41F18, 41Z3~~, 41F8, 41F81, 41F82, and 41F6 shall be considered in compliance that:

(1) the respective baghouses shall be operated at all times when the emission units are in operation. To facilitate compliance, opacity shall not exceed zero percent (0%); ~~and~~

(2) only one of the tote packer product receivers (41F8, 41F81, and 41F82) shall be operated at any one time**;**~~.~~ **and**

(3) Following the routing of emission units ~~41F7, 41Z5, 41F18, 41Z~~3, 41F8, 41F81, and 41F82 to the new starch area stack, S/V 355, opacity limits in D.7.**3**~~4~~(b)(1) shall only apply to emission unit **33 Bldg. Truck Loadout (**41F6 **and 41FLL)**.

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

D.7.**4**~~5~~ Testing Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

(a) Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup, the Permittee shall perform PM and PM_{10} testing on one of the Packer #6 product receiver baghouses 17FBB, and17FDD; and Packer #6 house dust collector 17FCC to verify compliance with Condition D.7.1, utilizing methods as approved by the Commissioner~~, and furnish the Commissioner a written report of the results of such performance tests~~.

(b) Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup of 41F7, 41F181, 41F18, 41F182, and 41F183, the Permittee shall perform PM and PM_{10} testing on one of the Packer #3 product receiver baghouses 41F7, 41F181, 41F18, 41F182, and 41F183; and Packer #3 house dust collector 41F186 to verify compliance with Condition D.7.1, utilizing methods as approved by the Commissioner.

These tests shall be repeated at least once every five years from the date of this valid compliance demonstration. PM_{10} includes filterable and condensable PM_{10}. Testing shall be conducted in accordance with Section C- Performance Testing.

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

D.7.**5**~~6~~ Visible Emissions Notations

(a) Visible emission notations of the ~~exhaust from~~ stacks **102,** 177, 355, 356, 361, and 404 **exhaust** shall be performed once per **day** ~~shift~~ during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

~~(b) Visible emission notations of the exhaust from stack 102 shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are~~

~~normal or abnormal.~~

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

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

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

(**e**~~f~~) ~~The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an~~ **If** abnormal emission**s** ~~is~~ **are** observed**, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances**. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records and Reports~~**Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

D.7.**6**~~7~~ Monitoring for Baghouses

(a) The Permittee shall record the ~~total static~~ pressure drop across baghouses 17F10, 17F01, 41F44, 17F15, 51FDD, 17FBB, 17FDD, 17FCC, 17FAA, 20FAA, 20FBB, ~~and~~ 20F60, **41F7, 41F181, 41F18, 41F182, 41F183, and 41F186** used in conjunction with facilities 17Z38, 17Z01, 41F44, 17F15, 51FDD, 17FBB, 17FDD, 17FCC, 17FAA, 20FBB, ~~and~~ 20F60; **41F7, 41F181, 41Z3; 41F18, 41Z5; 41F182, 41Z1; 41F183, 41Z2; and 41F186** at least once per **day** ~~shift~~ when the respective facilities are in operation.

(b) The Permittee shall record the ~~total static~~ pressure drop across baghouses 17F6, 16F5, 17F27, 20F61 and 16F100, used in conjunction with facilities 17V6, 17F5, 17F27, 20F61, and 16F100, at least once per day when the respective facilities are in operation.

(c) ~~When~~ **If**, for any one reading, the pressure drop across the baghouses are outside of the normal range of 1 and 8~~.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~~ **Response to Excursions or Exceedances**. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records and Reports~~**Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

(d) The instruments used for determining the pressure shall comply with Section C - ~~Pressure Gauge and other~~ Instrument Specifications of this permit, and shall be calibrated at least once every six (6) months.

~~D.7.8 Baghouse Inspections~~

~~(a) An external inspection of 41F44, 17F15, 17F6, 17F10, 17F01, 51FDD, 17FAA, 17FBB, 17FCC, 17FDD, 20FAA, 20FBB, and 20F60 shall be performed at least once per calendar quarter. Inspections required by this condition shall not be performed in consecutive months.~~

~~(b) An internal inspection of all bags in baghouses 51FDD, 17FBB, 17FDD, 17FCC, 17FAA, 20FAA, 20FBB, 20F60, 17F10, 17F01, 41F44, 17F15, 17F6, 17F5, 17F27, 20F61, and 16F100, 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.~~

~~(c) 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.7.7~~9~~ 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.~~

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

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

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

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

D.7.**8**~~10~~ Record Keeping Requirements

(a) To document compliance with Condition D.7.**5**~~6~~, the Permittee shall maintain records of visible emission notations of the stack**s** exhaust.

(b) To document compliance with Condition D.7.**6**~~7~~, the Permittee shall maintain records of the ~~total static~~ pressure drop during normal operation.

~~(c) To document compliance with Condition D.7.8, the Permittee shall maintain records of the results of the inspections.~~

~~(d) To document compliance with Condition D.7.3, the Permittee shall maintain of records of any additional inspections prescribed by the Preventive Maintenance Plan.~~

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

Clean Unit [326 IAC 2-2.2-2]

D.7.**9**~~11~~ Clean Unit [326 IAC 2-2.2-2]

Pursuant to 326 IAC 2-2.2-2**:**~~,~~

(a) The following emissions units are classified as Clean Units for PM/PM_{10}:

(1) Spray Dryer #3 Packer Baghouse (51FDD)**,**

(2) Packer #6 Product Receivers (17FBB and 17FDD)**,**

(3) Packer #6 House Dust Collector (17FCC)**,**

(4) Bulk Bagger #4 Product Receiver (17FAA)**,**

(5) #3 Bulk Starch Rail Loadout Receiver (20FAA)**,**

(6) #3 Bulk Loadout Screening System Filter Receiver (20FBB)**,**

(7) Bulk Starch Rail Loadout (20F60)**, and**

(8) Bag Dump Station (18FBB).

(b) The Clean Unit designations for the above emissions units are in effect for ten (10) years after the issuance date of the source modification permit or the date the emissions unit's control technology is placed in service, whichever is later.

SECTION D.8 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Boiler support Facilities

(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, and 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, and exhausting to stack 200;

(3) One (1) Coal Storage Silo, identified as 31V3, constructed in 1984, with emissions controlled by baghouse 31F21, and exhausting to stack 203;

(4) One (1) Coal Day Bin, identified as 31V4, constructed in 1984, with emissions controlled by baghouse 31F19, and exhausting to stack 204;

(5) One (1) Coal Day Bin, identified as 31V5, constructed in 1984, with emissions controlled by baghouse 31F20, and exhausting to stack 205; **and**

(6) One (1) Utilities Lime Storage Silo, identified as 31V10, constructed in 1984, with emissions controlled by baghouse 31F18, and exhausting to stack 201**.**~~;~~

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

D.8.1 Prevention of Significant Deterioration [326 IAC 2-2]

Pursuant to PSD (79) 1557, issued June 21, 1984, ~~OP 79-08-89-0354, issued February 5, 1986~~, and in order to comply with the requirements of 326 IAC 2-2:

(a) The PM emissions from the coal/ash handling system (facilities 31V1, 31F10, 31V3, 31V4, and 31V5) shall not exceed 0.51 pounds per hour, equivalent to less than or equal to 2.24 tons per year.

This limit, in conjunction with the limited PM emissions from boiler 31B1 (Condition D.9.1), is equivalent to combined PM emissions of less than or equal to 56~~.0~~ tons per year**;**~~.~~ **and**

(b) The particulate matter emissions from the coal/ash handling system (facilities 31V1, 31F10, 31V3, 31V4, and 31V5) shall be controlled by a ~~bag filter~~ **baghouse** providing at least ~~a~~ 99.9% collection efficiency.

D.8.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 **(Particulate Emissions Limitations for Manufacturing Processes)**, particulate emissions from **emissions unit** ~~facilities~~ ~~31V1~~, ~~31F10~~**, 31V10**, ~~31V3, 31V4, and 31V5~~ 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:

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

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = 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 are treated as confidential.

D.8.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.8.**3**~~4~~ Particulate Control

(a) In order to comply with Conditions D.8.1 and D.8.2, baghouses 31F1, 31F22, 31F18, 31F21, 31F19, and 31F20 for particulate control shall be in operation and control particulate emissions from facilities 31V1, 31F10, 31V10, 31V3, 31V4, and 31V5 at all times those facilities are in operation.

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

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

D.8.**4**~~5~~ Visible Emissions Notations

(a) Visible emission notations of the ~~exhaust from~~ stacks 199**,** ~~and~~ 200**, 201, 203, 204, and 205 exhaust** shall be performed once per ~~shift~~ **day** during normal daylight operations when the respective facilities are in operation. A trained employee shall record whether emissions are normal or abnormal.

~~(b) Visible emission notations of the exhaust from stacks 201, 203, 204, and 205 shall be performed once per day during normal daylight operations when the respective facilities are in operation. A trained employee shall record whether emissions are normal or abnormal.~~

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

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

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

(**e**~~f~~) ~~The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an~~ **If** abnormal emission**s** ~~is~~ **are** observed**, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances**. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records and Reports~~**Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

D.8.**5**~~6~~ Monitoring for Baghouses

(a) The Permittee shall record the ~~total static~~ pressure drop across baghouses 31F1 and 31F22, used in conjunction with facilities 31V1 and 31F10, at least once per ~~shift~~ **day** when the respective facilities are in operation.

(b) The Permittee shall record the ~~total static~~ pressure drop across baghouses 31F18, 31F21, 31F19, and 31F20, used in conjunction with facilities 31V10, 31V3, 31V4, and 31V5, at least once per day when the respective facilities are in operation.

(c) When, for any one reading, the pressure drop across the baghouses are outside of 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~~ **Response to Excursions or Exceedances**. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records and Reports~~ **Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

(d) 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.8.7 Baghouse Inspections~~

~~(a) An external inspection of baghouses, controlling particulate emissions from facilities 31V1 and 31F10, shall be performed at least once per calendar quarter. Inspections required by this condition shall not be performed in consecutive months.~~

~~(b) An internal inspection of all bags, controlling particulate emissions from facilities 31V1, 31F10, 31V10, 31V3, 31V4, and 31V5, 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.~~

~~(c) 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.8.**6**~~8~~ 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.~~

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

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

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

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

D.8.**7**~~9~~ Record Keeping Requirements

(a) To document compliance with Condition D.8.**4**~~5~~, the Permittee shall maintain records of visible emission notations of the stack**s** exhaust.

(b) To document compliance with Condition D.8.**5**~~6~~, the Permittee shall maintain records of the ~~total static~~ pressure drop during normal operation.

~~(c) To document compliance with Condition D.8.7, the Permittee shall maintain records of the results of the inspections.~~

~~(d) To document compliance with Condition D.8.3, the Permittee shall maintain of records of any additional inspections prescribed by the Preventive Maintenance Plan.~~

(**c**~~e~~) 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 **No. 2** - fired boilers, identified as 11B1, 11B2 and 11B3, each with a heat input capacity of 125 MMBtu/hr, constructed in 1966, with emissions uncontrolled, and exhausting to stack 197. **Under National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters (e.g., the Boiler NESHAP (40 CFR 63, Subpart DDDDD)), these boilers are considered existing large liquid fuel boilers; and**

(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-NOx burners, using natural gas, ~~No. 2~~ fuel oil **No. 2**, or coal and starch mixture as supplement fuels, with emissions controlled by baghouse 31F2, and exhausting to stack 202**. Under National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters (e.g., the Boiler NESHAP (40 CFR 63, Subpart DDDDD)), this boiler is considered an existing large solid fuel boiler.**~~;~~

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-**3**]

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 (SO_2) 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 (NOx) 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); **and**

(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) **(Particulate Emission Limitation For Sources of Indirect Heating)**, 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 **(Particulate Emission Limitation For Sources of Indirect Heating)**, 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 = 666 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) **(Sulfur Dioxide Emission Limitations)**, 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 #**2**. 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) **(Sulfur Dioxide Emission Limitations)**, 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 ft^3/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.**22**~~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 unit~~s~~ comprise**s** 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 is 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.**8**~~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.~~ **Testing of the coal-fired boiler 31B1 to**

verify compliance with the PSD PM emissions BACT limit in Condition D.9.1, was performed on November 20, 2003. 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.**9**~~10~~ Particulate Control

(a) 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.

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

D.9.**10**~~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 #**2** 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.

(a) 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.**11**~~12~~ Sulfur Dioxide (SO_2) 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.**12**~~13~~ Nitrogen Oxides (NOx) 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.**13**~~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.**14**~~15~~ Opacity Readings

Compliance with the applicable opacity limitations 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~~**Response to Excursions or Exceedances** 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~~ **Response to Excursions or Exceedances**, 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.**13**~~14~~.

D.9.**15**~~16~~ Method 9 Opacity Readings and Visible Emissions Notations

Whenever a continuous opacity monitor (COM**S**) is malfunctioning, the Permittee shall follow the procedures in accordance with Section C - Maintenance of **Continuous** Opacity Monitoring Equipment until such time that the continuous opacity monitor is back in operation.

D.9.**16**~~17~~ SO_2 Monitor Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(1)]

Whenever the SO_2 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**S** shall be brought online within four (4) hours of shutdown of the primary CEM**S**, 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 SO_2 emission limits.

D.9.**17**~~18~~ Visible Emissions Notations

(a) Visible emission notations of the ~~exhaust from~~ stack 197 (exhausting emissions from boilers 11B1, 11B2, and 11B3) **exhaust** shall be performed once per ~~shift~~ **day** 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~~ **If** abnormal emission**s** ~~is~~ **are** observed**, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances**. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records and Reports,~~ **Response to Excursions or Exceedances** shall be considered a deviation from this permit.

~~D.9 19 Baghouse Inspections~~

~~(a) An external inspection shall be performed at least once per calendar quarter of the baghouse controlling the particulate emissions from facility 31B1. Inspections required by this condition shall not be performed in consecutive months.~~

~~(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.**18**~~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.~~

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

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

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

D.9.**19**~~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.**20**~~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**,**~~;~~ **and**

(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~~**11** and D.9.~~13~~**12**, the Permittee shall maintain records of the continuous emission monitoring data for SO_2 and NOx in accordance with 326 IAC 3-5.

(d) To document compliance with Conditions D.9.~~14~~**13** and D.9.~~15~~**14**, 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~~**17**, the Permittee shall maintain records of once per ~~shift~~ **day** 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.~~

(**f**~~g~~) To document compliance with Condition D.9.~~21~~**19**, 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.~~

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

D.9.**21**~~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).

National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters - Notification And Permit Requirements [326 IAC 20-1] [40 CFR 63, Subpart DDDDD]

D.9.**22**~~24~~ National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters - Notification Requirements [326 IAC 20-1] [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 63.7445(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)**,**~~.~~ **and**

(**2**~~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
Indianapolis, Indiana 46204**-2251**

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

(c) Pursuant to 40 CFR 7506(b), three natural gas or fuel oil No. 2-fired boilers, identified as 11B1, 11B2 and 11B3, are subject to only the initial notification requirements in 40 CFR

63.9(b) (i.e., they are not subject to the emission limits, work practice standards, performance testing, monitoring, SSMP, site-specific monitoring plans, recordkeeping and reporting requirements of 40 CFR 63, Subpart DDDDD or any other requirements in 40 CFR 63, Subpart A.). The Permittee has already complied with the notification requirements.

D.9.**23**~~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 **December 13, 2006** ~~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
Indianapolis, Indiana 46204**-2251**

SECTION D.10 FACILITY OPERATION CONDITIONS

(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, 21D7, **and** 21D8, **fiber flash dryer furnace 21B501; and gluten flash dryer 48D101**; and if the biogas produced exceeds ~~the dryers'~~ **these emissions units' capacity**, ~~and~~ then the gas is flared off.

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

D.10.1 Prevention of Significant Deterioration [326 IAC 2-2-3] ~~[40 CFR 52.21]~~

Pursuant to 326 IAC 2-2-3, issued March 31, 1986, the SO_2 BACT for emission unit 34V10 shall be the use of alkaline scrubber 34V11**;**~~,~~ and

(a) the scrubber shall have a minimum **H_2S** ~~90%~~ control efficiency of ~~H_2S~~ **90%,** and shall not exceed 9~~.0~~ lbs/hr SO_2 (equivalent to 4.78 lbs/hr of H_2S) in the scrubber outlet, when the inlet H_2S concentration to the scrubber is more than 1.1% by volume; ~~and~~

(b) the scrubber shall have an outlet H_2S concentration of less than 0.11% by volume, and shall not exceed 9~~.0~~ lbs/hr SO_2 (equivalent to 4.78 lbs/hr H_2S) in the scrubber outlet if the inlet concentration of H_2S is 1.1% by volume or less**;**~~.~~

(c) To determine compliance with Condition D.10.1(a) and (b), the hydrogen sulfide content of the untreated biogas, the hydrogen sulfide content of the biogas treated by the biogas scrubber (34V11), the temperature of the biogas at the time of testing, and the total amount of biogas treated by the scrubber (34V11) shall be measured on a daily basis and used to calculate an average hourly sulfur dioxide emission rate and scrubber removal efficiency. If the biogas is directed to the emergency flare (34Z1), the hydrogen sulfide content of the untreated biogas, the temperature of the untreated biogas at the time of testing, and the total amount of untreated biogas burned by the emergency flare (34Z1) shall be measured on a daily basis and used to calculate a daily sulfur dioxide emission rate**;**~~.~~ **and**

(d) The Permittee shall notify the IDEM, OAQ within two working days of any period if any H_2S is emitted directly to the atmosphere without being burned.

~~D.10.2 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.10.**2**~~3~~ Sulfur Dioxide (SO_2)

In order to comply with Condition D.10.1:

(a) The scrubber (34V11), used to prevent SO_2 emissions by removing H_2S from biogas, shall be in operation at all times when biogas is produced from the anaerobic treatment system (34V10) and used by dryers 21D6, 21D7, ~~and~~ 21D8**;**~~,~~ **fiber flash dryer furnace 21B501; and gluten flash dryer 48D101**~~.~~**;**

(b) The main flare (21Z1), used to control H_2S emissions from the exhaust of scrubber 34V11 shall be in operation at all times biogas is routed to scrubber 34V11~~.~~**;**

(c) When the amount of the biogas produced by anaerobic treatment system 34V10 exceeds the capacities of dryers 21D6, 21D7, ~~and~~ 21D8**;**~~,~~ **fiber flash dryer furnace 21B501; gluten flash dryer 48D101**;~~,~~ and the main flare (21Z1), then the emergency flare (34Z1) shall operate to combust the biogas at all times when biogas may be vented to it~~.~~**; and**

(d) Whenever inspection or maintenance of the biogas scrubber (34V11) or blowers occurs that requires biogas from the anaerobic digester (34V10) be isolated to allow that maintenance to be performed safely, and then the emergency flare (34Z1) shall operate to combust the biogas at all times when biogas may be vented to it.

D.10.**3**~~4~~ Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

H_2S testing on the inlet and outlet of the biogas scrubber (34V11) to verify compliance with the PSD BACT limit in Condition D.10.1 was performed on May 3, 2006. ~~Testing Within 180 days after the issuance of this permit, the Permittee shall perform H_2S testing on the inlet and outlet of the biogas scrubber (34V11) to verify compliance with Condition D.10.1, utilizing methods as approved by the Commissioner and furnish the Commissioner a written report of the results of such performance tests.~~ All hydrogen sulfide measured will be assumed to have been converted to sulfur dioxide in flares 21Z1 and 34Z1**;**~~, and~~ feed dryers 21D6, 21D7, and 21D8**;**~~,~~ **fiber flash dryer furnace 21B501; and gluten dryer 48D101**. 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.

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

D.10.**4**~~5~~ Flare Pilot Flame

The presence of a flare pilot flame (for flares 21Z1 and 34Z1) shall be monitored using a thermocouple, or any other equivalent device, to detect the presence of a flame.

D.10.**5**~~6~~ Monitoring for Scrubber

(a) The Permittee shall monitor the scrubber pH of the scrubbing liquor at least once per **day** ~~shift~~ from scrubber 34V11 used to scrub the biogas from 34V10.

(b) A continuous monitoring system shall be ~~installed and~~ operated at all times scrubber 34V11 is in operation. The monitoring system shall continuously measure and record the scrubber recirculation rate from scrubber 34V11 controlling emissions from emission unit 34V10. ~~The Compliance Response Plan for the scrubber shall contain troubleshooting contingency and corrective actions for when~~ **If** the pH reading~~s~~ ~~are~~ is outside of the normal range, ~~and~~ **or** ~~any~~ **1-hr average flow rate is** below **the** minimum flow rate for any one reading**, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances.**

(1) The normal pH range for Scrubber 34V11 is 9~~.0~~ to 11.5 or the range established during the latest stack test. The minimum 1-hr average flow rate for Scrubber 34V11 is 70 gpm or a minimum flow rate established during the latest stack test.

(c) A pH ~~or flow~~ reading that is outside of the normal range, or **the 1-hr average flow rate that** is **below the minimum flow rate** for any one 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~~**Response to Excursions or Exceedances**, shall be considered a deviation from this permit.

(d) The instruments used for determining the flow rate and pH shall comply with Section C - ~~Pressure Gauge and other~~ Instrument Specifications of this permit and shall be calibrated at least once every six (6) months. The loss of monitoring data due to the calibration of an instrument while the equipment is in operation does not constitute a deviation from this permit.

~~D.10.7 Scrubber Inspections~~

~~An external inspection of scrubber 34V11 shall be performed semiannually. 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.~~

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

D.10.**6**~~8~~ Record Keeping Requirements

(a) To document compliance with Condition D.10.1, the Permittee shall maintain:

(1) A log of the daily H_2S content before and after the scrubber (34V11), temperature, and the total amount of the biogas burned in the main flare (21Z1), feed dryers (21D6, 21D7, ~~and~~ 21D8), **fiber flash dryer furnace (21B501), gluten flash dryer (48D101),** ~~or~~ **and** emergency flare (34Z1)~~. The log shall be kept for at least the past twenty-four (24) month period~~; and

(2) Records of all calculations used to determine the SO_2 emissions from the combustion of biogas in the main flare (21Z1), feed dryers (21D6, 21D7, and **(**21D8), **fiber flash dryer furnace (21B501), gluten flash dryer (48D101),** and emergency flare (34Z1).

(b) To document compliance with Condition D.10.**5**, the Permittee shall maintain records of the scrubber**'s** pH and scrubber**'s** recirculation rate from scrubber 34V11.

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

Clean Unit [326 IAC 2-2.2-2]

D.10.**7**~~9~~ Clean Unit [326 IAC 2-2.2-2]

Pursuant to 326 IAC 2-2.2-2**:**~~,~~

(a) The following emissions unit~~s~~ ~~are~~ **is** classified as Clean Unit~~s~~ for SO_2:

One (1) Wastewater Treatment Anaerobic Digester (34V10)**.**

(b) The Clean Unit designations for the above emissions units are in effect for ten (10) years after the issuance date of the source modification.

SECTION D.11 FACILITY OPERATION CONDITIONS

Specifically Regulated Insignificant Activities

(1) 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]

(2) 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]

(3) Structural steel and bridge fabrication activities using 80 tons of less of welding consumables; [326 IAC 6-3-2]

(4) Covered conveyors for coal or coke conveying of less than or equal to 360 tons per day; [326 IAC 6-3-2]

(5) Uncovered coal conveying of less than or equal to 120 tons per day; [326 IAC 6-3-2]

(6) Coal bunker and coal scale exhausts and associated dust collector vents; [326 IAC 6-3-2]

(7) Vents from ash transport systems not operated at positive pressure; [326 IAC 6-3-2]

(8) Activities with emissions equal to or less than the following thresholds: 5 tons per year PM or PM10, 10 tons per year SO2, NOx, 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; and [326 IAC 6-3-2]

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

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

D.11.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations) for cold cleaning operations constructed after January 1, 1980, the **Permittee**~~owner or operator~~ shall:

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with a facility for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements; and

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.11.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the **Permittee**~~owner or operator~~ of a cold cleaner degreaser facility, construction of which commenced after July 1, 1990, shall ensure that the following control equipment requirements are met:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius ($38^{O}C$) (one hundred degrees Fahrenheit ($100^{O}F$));

(B) The solvent is agitated; or

(C) The solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system**;**~~.~~

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b)**;**~~.~~

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing**;**~~.~~ **and**

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater**;**~~.~~

(B) A water cover when solvent is used is insoluble in, and heavier than, water**;**~~.~~ **and**

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the **Permittee**~~owner or operator~~ of a cold cleaning facility construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:

(1) Close the cover whenever articles are not being handled in the degreaser;

(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases; and

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

D.11.3 Particulate **Emission Limitations for Manufacturing Processes** [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 **(Particulate Emissions Limitations for Manufacturing Processes)**, particulate emissions from the insignificant brazing equipment, cutting torches, soldering equipment, welding equipment, structural steel and bridge fabrication activities, coal and coke conveying, coal bunker, ash transport systems, corn storage silos and dewatering presses shall be limited using one of the following equations (as applicable):

Those activities with a process weight rate of less than 100 pounds per hour shall be limited to 0.551 pounds per hour;

Or depending on the process weight rate:

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

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = 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 are treated as confidential.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Data Section

Part 70 Quarterly Report

Source Name:	**Tate & Lyle - Sagamore Plant**
Source Address:	**2245 North Sagamore Parkway, Lafayette, IN 47902**
Mailing Address:	**2245 North Sagamore Parkway, Lafayette, IN 47902**
Part 70 Permit No.:	**T157-6009-00003**
Parameters:	**PM, SO2, NOx emissions** **Coal consumption and average coal heating value**
Limits:	**Total PM emissions not to exceed 56.0 tons per year** **SO_2 emissions not to exceed 1,215 tons per 12 month consecutive period** **NOx emissions not to exceed 782 tons per 12 month consecutive period** **Coal consumed and average coal heating value determined on a monthly basis**

Months:__________ to ______________ Year:___________

Permit Condition						
D.9.1 (h)	Coal	Consumption	tons			
		Average Heating Value	Btu/lb			
D.9.1 (a)	PM	Emission Limit	lb/MMBtu	0.05	0.05	0.05
		Emissions - This Month	tons			
		Emissions - Previous 11 Months	tons			
		Emissions - 12 Month Total	tons			
D.9.1 (b)	SO_2	Emission Limit	lb/MMBtu	1.2	1.2	1.2
		Emissions - This Month	tons			
		Emissions - Previous 11 Months	tons			
		Emissions - 12 Month Total	tons			
D.9.1 (c)	NOx	Emission Limit	lb/MMBtu	0.7	0.7	0.7
		Emissions - This Month	tons			
		Emissions - Previous 11 Months	tons			
		Emissions - 12 Month Total	tons			

Notes:
PM, SO_2, and NOx emission factors are based on permit limits
PM, SO2, and NOx Emissions (tons/month) = (Coal consumption)*(Average Coal Heating Value)*(Emission Factor)/10^6

No deviation occurred in this quarter. ________________________

Deviation/s occurred in this quarter. __________________________

Deviation has been reported on __________________________

Submitted by: ____

Title / Position: ____

Signature: ____

Date: ____

Phone: ____

Attach a signed certification to complete this report

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT
CERTIFICATION

Source Name:	Tate & Lyle - Sagamore Plant
Source Address:	2245 North Sagamore Parkway, Lafayette, IN 47902
Mailing Address:	~~2200 E. Eldorado St, Decatur, IL 62521~~ **2245 North Sagamore Parkway, Lafayette, IN 47902**
Part 70 Permit No.:	T157-6009-00003

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

Annual Compliance Certification Letter

Test Result (specify)

Report (specify)

Notification (specify)

Affidavit (specify)

Other (specify)

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
Indianapolis, Indiana 46204-2251
Phone: 317-233-~~5674~~0178
Fax: 317-233-~~5967~~6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name:	Tate & Lyle - Sagamore Plant
Source Address:	2245 North Sagamore Parkway, Lafayette, IN 47902
Mailing Address:	~~2200 E. Eldorado St, Decatur, IL 62521~~ **2245 North Sagamore Parkway, Lafayette, IN 47902**
Part 70 Permit No.:	T157-6009-00003

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

This is an emergency as defined in 326 IAC 2-7-1(12) The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-~~5674~~ **0178**, ask for Compliance Section); and The Permittee must submit notice in writing or by facsimile within two (**2**) days (Facsimile Number: 317-233-~~5967~~ **6865**), and follow the other requirements of 326 IAC 2-7-16.

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

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

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

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

Submitted by: ____

Title / Position: ____

Signature: ____

Date: ____

Phone: ____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Data Section

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

Source Name:	Tate & Lyle - Sagamore Plant
Source Address:	2245 North Sagamore Parkway, Lafayette, IN 47902
Mailing Address:	~~2200 E. Eldorado St, Decatur, IL 62521~~ **2245 North Sagamore Parkway, Lafayette, IN 47902**
Part 70 Permit No.:	T157-6009-00003

Natural Gas Only
Alternate Fuel burned
From:_____________ To:_____________

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

Signature:
Printed Name:
Title/Position:
Phone:
Date:

(reproduce this form as necessary)

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Data Section

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name:	Tate & Lyle - Sagamore Plant
Source Address:	2245 North Sagamore Parkway, Lafayette, IN 47902
Mailing Address:	~~2200 E. Eldorado St, Decatur, IL 62521~~ **2245 North Sagamore Parkway, Lafayette, IN 47902**
Part 70 Permit No.:	T157-6009-00003

Months: ___________ to ____________ Year: ______________

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked ANo deviations occurred this reporting period@.
NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.
THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

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

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

Page 2 of 2

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

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

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

Submitted by: ______________________________

Title / Position: ______________________________

Signature: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Data Section

Part 70 Quarterly Report

Source Name:	Tate & Lyle - Sagamore Plant
Source Address:	2245 North Sagamore Parkway, Lafayette, IN 47902
Mailing Address:	~~2200 E. Eldorado St, Decatur, IL 62521~~ **2245 North Sagamore Parkway, Lafayette, IN 47902**
Part 70 Permit No.:	T157-6009-00003
Facility:	Starch production facilities (listed in Section D.5) **45V292, 45V293, 45V294, 45V295, 45V296**~~45VAA, 45VBB, 45VCC, 45VDD, 45VEE~~, 45VFF, 40V1, 40U2, 40Y1, 40V50, 40V20, 40V21, 40V15, 40V16, 40F51, 40F52, 40F53, 40F54, 40U23, 43V71, 43V72, 43F71, 43F72, 43F73, 43V85, 43V86, 45V117, 45V118, 45V119, 45V120, 30V1, 30V2, 40V12, 40V11, 40V14, 45V223, 45V240, 45V241, 45V242, 45V243, 45V246, 45V247, 45V248, 45V270, 45V271, 45V280, 45V281, 44V1, 44V2, 44V3, 44V4, 44V5,44FKK, 44FLL, 44FMM, **46V200, 46V201, 46V204, 46V213, 46V297**~~46V1, 46V2, 46V3, 46V4, 46V5~~, (listed in Section D.6) 40D1, 40D20, 43D71, 41D1, 41D2, 41D3, 41D4, 41D5, 41D6, 41D7, 41D8, **19D301, 19D302, 19D303**~~41D9, 41D10, 41D11~~, 41D12, 41D13, 41D14, 30D1, 16D4, 16D5, 44DAA, and **46D200**~~46DAA~~
Parameter:	Propylene oxide (PO) input **for propylated starch reactions that do not undergo the acid-kill step**
Limit:	Fifteen hundred (1,500) tons propylene oxide per twelve consecutive month period with compliance determined at the end of each month.

YEAR:

Month	VOC Usage This Month	VOC Usage Previous 11 Months	VOC Usage 12 Month Total

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

Submitted by: ______________________________

Title / Position: ______________________________

Signature: ______________________________

Date: ______________________________

Phone**:** ______________________________

Attach a signed certification to complete this

Appendix **B**~~A~~

Stack/Vent Description

Stack/Vent ID (S/V)	Stack Dimension (feet)	Stack Height (feet)	Air Flow Rate (acfm)	Temp. (^{O}F)	Comments
1	0.33	20	300	80	To be shutdown upon operation of new germ and meal loadout system
2	0.33	20	300	80	
3	0.92	70	6,000	80	Height increased by 2005 PSD Permit
11	0.83	70	700	120	
12	0.83	70	700	120	
17	8.00	200	147,000	232	See Note 1
31	0.83	70	700	120	
50	1.00	102	1,200	90	
64	0.94	56	1,500	80	
68	0.50	50	500	60	
69	3.00	120	23,500	100	
70	1.13	73	3,500	100	
71	0.75	57	650	110	
72	0.75	57	650	110	
73	8.17	120	110,000	105	
76	1.08	70	2,100	80	
77	1.08	70	2,100	80	
78	1.08	70	2,100	80	
80	1.50	80	2,600	100	
82	4.00	120	59,000	200	Height increased by 2005 PSD Permit
87	0.75	57	300	120	
88	0.75	57	300	120	
89	0.60	57	300	100	
90	0.60	57	300	100	
91	2.50	30	8,375	110	
92	2.50	30	8,375	110	
93	2.50	30	8,375	110	
94	2.50	30	8,375	110	
95	~~1.33~~	~~36~~	~~5,000~~	~~150~~	Will vent to inlet of Mill 41G200 (S/V 96)
96	~~1.50~~	~~36~~	6,500	150	Will vent to S/V 355
97	0.33	57	300	110	
98	0.33	57	300	110	
100	~~1.70~~	~~36~~	6,500	150	Will vent to S/V 355
101	~~1.70~~	~~48~~	~~5,000~~	~~150~~	Will vent to inlet of Mill 41G201 (S/V 100)
102	1.00	44	1,500	80	
103	0.50	60	300	80	

Stack/Vent ID (S/V)	Stack Dimension (feet)	Stack Height (feet)	Air Flow Rate (acfm)	Temp. (^{O}F)	Comments
104	0.50	60	300	80	
105	0.75	44	750	80	
106	0.75	44	750	80	
107	0.75	44	750	80	
108	0.75	44	750	80	
109	0.75	44	750	80	
110	0.94	60	2,000	90	The eight feed, meal, and germ bins (S/V 110-117) are to be shutdown upon operation of new germ and meal loadout system
111	0.94	60	2,000	90	
112	0.94	60	2,000	90	
113	0.94	60	2,000	90	
114	0.94	60	2,000	90	
115	0.94	60	2,000	90	
116	0.94	60	2,000	90	
117	0.94	60	2,000	90	
119	0.33	90	350	90	
123	0.33	90	350	90	
124	0.50	30	350	90	
125	1.17	35	2,500	80	To be shutdown upon operation of new germ and meal loadout system
126	~~1.50~~	~~110~~	10,000	80	Will vent to 08F300 (S/V 433)
129	0.50	60	350	80	
136	~~7.83~~	~~70~~	23,800	80	Will vent to 08F300 (S/V
137	~~0.50~~	~~80~~	350	80	Will vent to 08F300 (S/V
141	7.83	70	10,000	80	To be shutdown upon operation of new fiber and feed dryers
142	7.83	70	10,000	80	
143	7.83	70	10,000	80	
144	7.83	70	10,000	80	
145	7.83	70	10,000	80	To be shutdown upon operation of new germ and meal loadout system
146	1.00	25	2,800	80	
147	0.67	20	650	80	
149	0.67	30	1,550	90	
156	1.00	15	400	80	
166	~~4.00~~	~~67~~	1,940	212	Will vent to wet mill scrubber (S/V 17)
177	7.00	120	138,825	122	
180	1.33	70	2,000	120	
183	~~0.67~~	~~30~~	2,000	80	Routed to S/V 177 by 2005 PSD Permit
189	0.94	29	1,000	80	
190	~~0.50~~	~~40~~	1,400	80	Routed to S/V 355 by 2005 PSD Permit
191	~~0.92~~	~~38~~	1,500	80	Routed to S/V 177 by 2005

Stack/Vent ID (S/V)	Stack Dimension (feet)	Stack Height (feet)	Air Flow Rate (acfm)	Temp. (^{O}F)	Comments
					PSD Permit
195	1.00	32	200	110	
197	6.00	165	45,000	400	
199	1.00	70	1,000	200	
200	3.00	80	2,100	200	
201	0.33	50	675	80	
202	5.50	200	88,000	326	
203	0.67	95	1,200	80	
204	0.67	90	800	80	
205	0.67	90	800	80	
222	0.67	45	N/A	90	
226	1.50	80	2,000	110	Bin 41V45 - Part of Spray 2 Bins
232	2.50	30	8,375	110	
233	2.50	30	8,375	110	
234	2.50	30	8,375	110	
235	2.50	30	8,375	110	
238	0.50	75	1,200	100	
239	0.67	40	500	70	
240	1.00	75	1,200	100	
244	~~1.38~~	~~50~~	1,000/3,000	70	Routed to S/V 355 by 2005 PSD Permit
245	~~1.38~~	~~50~~	1,000/3,000	70	
246	~~1.38~~	~~50~~	1,000/3,000	70	
247	~~1.38~~	~~50~~	1,000/3,000	70	
248	1.50	80	2,000	110	Bin 33V44 - Will Be Part of Spray 2 Bins
249	1.17	70	2,500	110	
250	0.67	30	N/A	100	
251	0.67	33	N/A	100	
254	0.67	35	1,100	80	
255	1.50	80	2,000	110	Bin 41V46 - Will Be Part of Spray 2 Bins
260	2.11	70	N/A	120	
261	0.67	40	N/A	120	
265	7.75	150	110,000	105	Height increased by 2005 PSD Permit
266	0.67	70	3,300	120	
267	1.38	80	2,100	80	
268	1.38	80	2,900	70	
269	1.38	80	2,900	70	
271	2.57	105	*	*	Flare - Airflow and Temperature Unknown
272	2.17	20	*	*	Flare - Airflow and Temperature Unknown
273	1.00	70	2,600	120	
274	1.00	40	500	70	

Stack/Vent ID (S/V)	Stack Dimension (feet)	Stack Height (feet)	Air Flow Rate (acfm)	Temp. (^{o}F)	Comments
285	0.50	10	500	70	To be shutdown upon operation of new germ and meal loadout system
289	0.50	20	10	110	
315	1.38	20	1,000	110	
318	0.67	25	2,000	120	
320	0.33	64	1,940	212	
321	0.50	90	350	90	
331	*	*	2,200	80	Vents to S/V 404
334	0.50	14	400	80	
344	0.50	9	600	70	Bulk Bag Dump Station - Left off App. A
345	1.38	80	2900	70	Blend Bin 7V91 - Left off Appendix A
346	1.38	80	2900	70	Blend Bin 7V91 - Left off Appendix A
351	0.50	28	600	70	
355	5.30	150	70,690	96	
356	4.00	120	40,000	80	
360	8.00	150	160,862	178	
361	5.75	150	82,623	175	
367	*	*	*	*	Delete - No Source Associated with ID
368	*	*	*	*	Delete - No Source Associated with ID
369	1.38	80	2,200	80	
370	1.38	80	2,200	80	
371	1.00	35	1,500	80	
372	1.38	80	2,100	80	
373	0.67	65	1,100	80	
374	1.50	80	5,000	240	
375	*	*	1,000	160	Vents to S/V 355
376	*	*	1,600	70	Vents to S/V 355
377	*	*	1,000/3,000	70	Vents to S/V 355
378	*	*	1,000/3,000	70	Vents to S/V 355
380	*	*	3,000	80	Vents to S/V 356
383	1.38	80	2,900	70	
384	1.38	80	2,900	70	
385	1.38	80	2,900	80	
386	1.38	80	2,900	80	
387	1.38	80	2,900	80	
388	7.00	150	117,224	107	
394	~~0.50~~	~~80~~	350	80	Will vent to 08F300 (S/V 433)
~~395~~	~~4.75~~	~~82~~	57,931	100	Wet Mill Scrubber - Vents to S/V 17

Stack/Vent ID (S/V)	Stack Dimension (feet)	Stack Height (feet)	Air Flow Rate (acfm)	Temp. (^{O}F)	Comments
~~396~~	~~4.75~~	~~82~~	~~55,000~~	~~80~~	Delete
399	1.17	130	1,200	120	
400	0.94	56	1,500	80	
404	3.50	75	32,613	90	Stack to be located on Roof of 18 Bldg.
405	2.17	45	10,600	120	Dryer 19D301 (2 Fans - 5300 ACFM Each)
406	2.17	45	10,600	120	Dryer 19D302 (2 Fans - 5300 ACFM Each)
407	2.17	45	10,600	120	Dryer 19D303 (2 Fans - 5300 ACFM Each)
408	2.17	45	10,600	120	Roll Dryer 12 (2 Fans - 5300 ACFM Each)
409	2.17	45	10,600	120	Roll Dryer 13 (2 Fans - 5300 ACFM Each)
410	2.17	45	10,600	120	Roll Dryer 14 (2 Fans - 5300 ACFM Each)
419	1.17	65	3,500	90	
420	2.00	65	10,000	90	
421	0.67	50	1,200	90	
422	0.67	50	1,000	90	
423	0.50	45	1,500	100	Spray 2 Feed Tank
424	0.25	15	100	90	Spray 2 Waste Tank (Vents Indoors)
426	0.50	N/A	500	70	Vents Indoors
427	*	*	*	*	Delete - Insignificant Tank Vent for new Sodium Sulfate Bin (S/V 400)
432	1.50	80	2,000	110	Bin 41V47 - Will Be Part of Spray 2 Bins
433	4.00	55	34,500	80	Corn Rec. Dust Collector 08F300
434	0.50	45	1,500	100	Spray 2 Feed Tank
435	0.25	15	25	100	Spray 2 Underflow Tank (Vents Indoors)
436	0.25	15	25	100	Spray 2 Sweeco Tank (Vents Indoors)
443	0.75	57	300	120	Bin 41KK - Will Be Part of Spray 1 Bins
444	1.10	70	3,000	130	Feed Hammermill Scrubber 21F312
445	2.00	45	10,000	110	Gluten Meal Transfer Receiver
446	1.80	80	4,500	130	Germ Bin and Loadout
447	1.10	45	3,000	110	Gluten Bin and Loadout

Note 1: Stack 17 consists of 85,196 acfm @ 322 Deg. F from RTO's and Fiber Dryer Furnace and 57,931 acfm @ 100 Deg. F from Wet Mill Aspiration Scrubber (S/V 395)

Evaluation of Modeling Results due to Changes in Stack Configuration

Modeling Results

POLLUTANT	**TIME AVERAGING PERIOD**	**MAXIMUM MODELED IMPACTS** (ug/m^3)
PM_{10}	Annual	3.2
PM_{10}	24 Hour	26.9

The changes in Tate & Lyle's permit that might increase air quality impacts of the project for PM_{10} were modeled. The changes, which were made to the permit do not affect the modification's peak impact.

Current Configuration under PSD Permit SSM 157-18832-00003 Issued September 13, 2005

S/V No.	Emissions units Description	Equip. ID	Control ID	Airflow acfm	Temp. Deg. F	PM/PM_{10} Limits gr/dscf	lbs/hr	tpy	Comment
	Railcar Corn Dump Hopper	12V101							
	Truck Corn Dump Hopper	12V102							
	Bucket Corn Elevator	12U2							
	Two Corn Transfer Converyors	12U4 & 12U5							
	Five Corn Storage Silos	13V1, 13V2, 13V3, 13V4, and 13V5	21F1	20,500	80	0.005	0.86	3.77	
	Two Corn Storage Silos	13VAA & 13VBB							
136	Three Corn Transfer Conveyors	13U6, 13U7, 13U8							
	Two Co-Product Loadout Conveyors	8U39 & 8U41	21F17	3,300	80	0.01	0.28	1.23	8U39 and 8U41 will be shutdown upon start up of the new germ and meal storage and loadout systems
	Bucket Elevator from Silos to Steeps	14U9							
	Corn Weigher	14V1							
126	Two Corn Cleaners	14J4 & 14J5	14F2	10,000	80	0.01	0.84	3.68	
	Vibrating Corn Cleaning System	14JAA							
	Bucket Elevator from Silos to Steeps	14UBB							
137	Corn Cleanings Pnuematic Transfer	21F2	21F2	350	80	0.01	0.03	0.13	
394	Vibrating Corn Cleaning Pneu. Transfer	21FMM	21FMM	350	80	0.005	0.015	0.066	
	Total PM/PM_{10} PTEs of the emissions units							**8.88**	

Revised Source Configuration by this permit

S/V No.	Emissions units Description	Equip. ID	Control ID	Airflow acfm	Temp. Deg. F	PM/PM_{10} Limits gr/dscf	lbs/hr	tpy	Emissions units status
	Railcar Corn Dump Hopper	12V101							
	Truck Corn Dump Hopper	12V102							
	Bucket Corn Elevator	12U2							
	Two Corn Transfer Converyors	12U4 & 12U5							
	Five Corn Storage Silos	13V1, 13V2, 13V3, 13V4, and 13V5							
	Two Corn Storage Silos	13VAA & 13VBB							
433	Three Corn Transfer Conveyors	13U6, 13U7, 13U8	08F300	34,500	80	0.004	1.18	5.17	
	Bucket Elevator from Silos to Steeps	14U9							
	Corn Weigher	14V1							
	Two Corn Cleaners	14J4 & 14J5							
	Vibrating Corn Cleaning System	14JAA							
	Bucket Elevator from Silos to Steeps	14UBB							
	Corn Cleanings Pnuematic Transfer	21F2							
	Vibrating Corn Cleaning Pneu. Transfer	21FMM							
	Revised PM/PM_{10} PTE of the existing and the permitted emissions units							**5.17**	
	Total PM/PM_{10} PTE of the existing and the permitted emissions units							**8.88**	
	Change in PTE							**-3.71**	

Notes:

(1) Emissions units controlled by the existing 21F17 baghouse (S/V 136) were not modified and the emissions units have no emission limitation but were modeled at 0.01 gr/ac

(2) The emissions units controlled by existing 21F2 bagfilter (S/V 137) were not modified and the emissions units have no emission limitation but were modeled at 0.01 gr/acf.

(3) All existing and permitted emissions units (12V101, 12V102, 12U2, 12U4, 12U5, 13V1, 13V2, 13V3, 13V4, 13V5, 13VAA, 13VBB, 13U6, 13U7, 13U8, 8U39, 8U41, 14U9, 14V1, 14J4, 14J5, 14JAA, 14UBB, 21F2, 21FMM) will be controlled by a single new corn handling baghouse (08F300). The existing bagfilters (12F1, 21F17, 14F2, 21F2) will be removed from the service. Emission units 8U39 and 8U41 will be shutdown upon startup of the new germ and meal storage and loadout systems.

Current Configuration under PSD Permit SSM 157-18832-00003 Issued September 13, 2005

S/V No.	Emissions units Description	Equip. ID	Control ID	Airflow acfm	Temp. Deg. F	PM/PM_{10} Limits gr/dscf	PM/PM_{10} Limits lbs/hr	PM/PM_{10} Limits tpy	Comment
1	Feed Hopper	21V60	21F14	300	80	0.01	0.03	0.13	
2	Meal Hopper	21V61	21F15	300	80	0.01	0.03	0.13	
3	Rail Loadout Conveyor	12U11	12F40	6,000	80	0.01	0.51	2.23	
110	Feed Storage Bin	8V121	8F1	2,000	90	0.005			
111	Feed Storage Bin	8V122	8F2	2,000	90	0.005		0.7	
112	Feed Storage Bin	8V123	8F3	2,000	90	0.005			
113	Feed Storage Bin	8V124	8F4	2,000	90	0.005	0.16		
114	Feed/Meal Storage Bin	8V62	8F62	2,000	90	0.005		0.35	This equipment will be removed from the service.
115	Meal Storage Bin	8V63	8F63	2,000	90	0.005	0.08		
116	Meal/Germ Storage Bin	8V53	8F53	2,000	90	0.005		0.35	
117	Germ Storage Bin	8V54	8F54	2,000	90	0.005	0.08		
125	Two Air Conveying Lines to Loadout	AC23 & AC 24	12F39	2,500	80	0.01	0.21	0.92	
141	Feed Mill	21G51	21F37	10,000	80	0.01	0.86	3.77	
142	Feed Mill	21G52	21F38	10,000	80	0.01	0.86	3.77	
143	D6 Dryer Air Conv. Line to Feed Mill	AC6	21F32	10,000	80	0.01	0.86	3.77	
144	D7 Dryer Air Conv. Line to Feed Mill	AC7	21F35	10,000	80	0.01	0.86	3.77	
145	D8 Dryer Air Conv. Line to Feed Mill	AC8	21F36	10,000	80	0.01	0.86	3.77	
285	Bag Dump Station	8V99	8F99	500	70	0.01	0.04	0.2	
	Total PM/PM_{10} PTEs of the emissions units							**23.8**	

Note:

(1) S/V 1, 2, 3, 125, 141, 142, 143, 144, 145, and 285 have no limits but were modeled at 0.01 gr/acf. S/V 111 and 114 were modeled at 0.005 gr/scf

(2) There are two feed transfer systems, one meal transfer system, and one germ transfer syste. The physical restrictions would allow only four bins out of eight to be used at a time.

Revised Source Configuration by this permit

S/V No.	Emissions units Description	Equip. ID	Control ID	Airflow acfm	Temp. Deg. F	PM/PM_{10} Limits gr/dscf	PM/PM_{10} Limits lbs/hr	PM/PM_{10} Limits tpy
444	Feed Hammer Mill (New)	21G351	21F312	2,685 scfm	130	0.0089 scf	0.204	0.89
	Feed Hammer Mill (New)	21G352						
	Feed Milling Loadout Conveyor (New)	21U314						
445	Gluten Meal Transfer to Storage Bin (New)	12FAA	12FAA	10,000	110	0.005	0.40	1.74
447	Gluten Meal Storage Bin (New)	12VAA	12FBB	3,000	110	0.005	0.12	0.53
	Gluten Truck & Rail Loadout (New)	12UAA, 12UBB						
446	Germ Storage Bin (New)	12VCC	12FCC	4,500	130	0.005	0.17	0.75
	Germ Rail Loadout (New)	12UCC						
	Revised PM/PM_{10} PTE of the new emissions units							**3.91**
	Total PM/PM_{10} PTE of the permitted emissions units that will be removed from the service.							**23.84**
	Change in PTE							**-19.93**

Note:

(1) The feed hopper (21V60), meal hopper (21V61), rail loadout conveyor (12U11), eight feed, meal, and germ storage bins (8V121, 8V122, 8V123, 8V124, 8V62, 8V63, 8V53, and 8V54), Air Conveying Lines AC23 & AC24 (controlled by baghouse 12F39), Air Conveying Line AC8 (controlled by baghouse 21F36), and the bag dump station (8V99) will be shutdown upon startup of the new germ and meal storage loadout systems. Air conveying lines AC6 and AC7 (controlled by baghouses 21F32 and 21F35) will be shutdown upon startup of the new fiber and feed dryers.

Current Configuration under PSD Permit SSM 157-18832-00003 Issued September 13, 2005

S/V No.	Emissions units Description	Equip. ID	Control ID	Airflow acfm	Temp. Deg. F	PM/PM_{10} Limits gr/dscf	lbs/hr	tpy	Comments
95	Pnuematic Product Transfer	41F210	41F210	5,000	150		41F210, exhausts to intake of 41G202		
101	Pnuematic Product Transfer to roll dryer	41F201	41F201	5,000	150		41F201 vents to the intake of Mill 41G202.		
365 to 355	Roll Dryer Mill Feed Collector	41FAA	41FAA	5,000	150	0.005	0.19	0.83	
366 to 355	Roll Dryer System Mill	41G202	41F202	15,000	150	0.005	0.56	2.45	
97	Product Bin #10	41V10	41F10	1,200	110	0.005	0.05	0.22	SSM 157-18832-00003 permit allowed the increase of the airflow from 760 to 1,200 acfm. It is not needed now.
98	Product Bin #11	41V11	41F11	1,200	110	0.005			SSM 157-18832-00003 permit allowed the increase of the airflow from 760 to 1,200 acfm. It is not needed now.
255	Product Bin #HH	41VHH	41FHH	1,200	110	0.005			
	Total PM/PM_{10} PTEs of the emissions units							**3.5**	

Note:
(1) Only one of the Product Bins No. 10 or Product Bin No. 11 can operate at a time.

Revised Source Configuration by this permit

S/V No.	Emissions units Description	Equip. ID	Control ID	Airflow acfm	Temp. Deg. F	PM/PM_{10} Limits gr/dscf	lbs/hr	tpy	Comments
	Pnuematic Product Transfer	41F200 (ID changed from 41F210 to 41F200))	41F200 (ID changed from 41F210 to 41F200)	5,000	150	Vents to 41G200			
	Pnuematic Product Transfer to Roll Dryer	41F201	41F201	5,000	150	Vents to 41G201			
	Roll Dryer Mill Feed Collector	19F400 (ID changed from 41FAA to 19F400)	19F400 (ID changed from 41FAA to 19F400)	15,000	150	Vents to 19G401			Airflow changed to 15,000 acfm
366 to 404	Roll Dryer System Mill	19G401 (ID changed from 41G202 to 19G401)	19F402 (ID changed from 41F202 to 19F402)	18,000	100	0.005	0.73	3.2	Airflow changed to 18,000 acfm
96 to 355	Roll Dryer Mill	41G200	41F210 (ID changed from 41F200 to 41F210)	6,500	150		0.28	1.22	These Roll Dryer Mills will not be shut down.
100 to 355	Roll Dryer Mill	41G201	41F211	6,500	150		0.39	1.69	
97	Product Bin #10	41V10	41F10	760	110		0.03	0.14	No increase in airflow from 760 to 1,200 acfm required.
98	Product Bin #11	41V11	41F11	760	110				No increase in airflow from 760 to 1,200 acfm required.
89	Product Bin #17	41V17	41F22	300	100	0.005	0.01	0.04	Temp. changed from 110°F to 100°F, but there is no change in BACT limits.
90	Product Bin #18	41V18	41F23	300	100	0.005	0.01		Temp. changed from 110°F to 100°F, but there is no change in BACT limits.
86 to 355	Product Transfer from roll dryer system 19G401 to 41V17 and 41V18	41C35	41F20 and 41F21	2,000	110	0.005	0.08	0.35	Temp. changed from 110°F to 100°F, but there is no change in BACT limits.
	Revised PM/PM_{10} PTE of the existing and the permitted emissions units						1.53	**6.64**	
	Total PM/PM_{10} PTE of the existing and the permitted emissions units							**3.5**	
	Change in PTE							**3.14**	

Notes:

(1) The tag numbers for the baghouses controlling the pneumatic product transfer from the roll dryers to mill 41G200 and the baghouse collecting product from mill 41G200 were switched in the permit based on incorrect information from Tate & Lyle. Roll Dryer Mills 41G200 (S/V 96) and 41G201 (S/V100) were to be shutdown but will remain active to serve the eight existing roll dryers. Transfer systems 41F200 (S/V 95) and 41F201 (S/V 101) will vent to the intakes of mills 41G200 and 41G201, respectively. Emissions from 41F200 and 41F201 are currently limited to 0.21 lbs/hr (0.94 tpy) and 0.3 lbs/hr (1.3 tpy), respectively. No modifications are necessary to Bins #10 and #11 to serve the eight existing roll dryers and airflow from these bins will remain at 760 acfm each. Therefore, the BACT limits established in PSD & SSM157-18836-00003 are removed from the permit condition.

(2) The roll dryer mill feed collector (19F400) will vent to the intake of the the roll dryer mill (19G401) and will serve only the six new roll dryers. Airflow rate for the new roll dryer mill (41G202) will be increased to 18,000 cfm at 100 Deg. F. New BACT limit is established based on the new airflow.

(3) Product Bin #HH will become a spray dryer 2 bin rather than a roll dryer bin. Product Bins #17 & #18 and their associated transfer system (41C35) were formerly part of the spray dryer system. This transfer system (S/V 86) and bins (S/V 89 and 90) will become part of the bin transfer system for the six new roll dryers. Exhaust temperature for 41C35 (S/V 86) will decrease from 110 Deg. F to 100 Deg. F but the BACT emission limit will remain at 0.01 lbs/hr.

Current Configuration under PSD Permit SSM 157-18832-00003 Issued September 13, 200

S/V No.	Emissions units Description	Equip. ID	Control ID	Airflow acfm	Temp. Deg. F	PM/PM_{10} Limits gr/dscf	lbs/hr	tpy	Comment
83 to 360	Product Transfer to Milling	30F13	30F13	2,000	150	0.005	0.07	0.31	
85 to 355	Product Transfer to Bins #14 & #15	41C30	41F14, 41F15	2,000	100	0.005	0.08	0.35	
87	Product Bin #14	41V14	41F16	300	120	0.005	0.01	0.04	Only one of the bins can operate at a time.
88	Product Bin #15	41V15	41F17	300	120	0.005	0.01		
86 to 355	Product Transfer to Bins #17, #18, #44, & EE	41C35	41F20, 41F21, 41F54, 41FEE	2,000	110	0.005	0.08	0.35	
89	Product Bin #17	41V17	41F22	300	110	0.005	0.01	0.04	Only one of the bins can operate at a time.
90	Product Bin #18	41V18	41F23	300	110	0.005	0.01		
248	Starch Product Bin #44	33V44	33F44	760	100	0.005	0.03	0.13	
226	Product Bin #EE	41VEE	41FEB	300	100	0.005	0.01	0.04	
	Total PM/PM_{10} PTEs of the emissions units							**1.26**	

Revised Source Configuration by this permi

S/V No.	Emissions units Description	Equip. ID	Control ID	Airflow acfm	Temp. Deg. F	PM/PM_{10} Limits gr/dscf	lbs/hr	tpy	Comment
	Product Transfer to Product Storage Bins 41V45 or 41V46 or 41V47 or 33V44.	30F13	30F13	2,000	150	Vents to Product Storage Filter Recievers 30F15 and 30FAA Unloading Line			Changed to use as starch bins transfer air
85 to 355	Product Transfer to Bins #14, #15, & #KK (New)	41C30	41F14, 41F15, 41FMM (New)	2,000	100	0.005	0.08	0.35	There are no changes in PM/PM_{10} emissions limits established by BACT.
87	Product Bin #14	41V14	41F16	300	120	0.005	0.01	0.04	Only one of the bins (#14, #15, or #KK) can operate at a time; therefore,
88	Product Bin #15	41V15	41F17	300	120	0.005	0.01		
443	Product Bin #KK (New)	41VKK	41FPP	300	120	0.005	0.01		
248	Starch Product Bin #44	33V44	33F44	2,000	110	0.005	0.08	0.35	acfm and temp. changed.
226	Product Bin #45 (Name changed from #EE to #45)	41V45 (ID changed from 41VEE to 41V45)	41F45 (ID changed from 41FEB to 41F45)	2,000	110	0.005	0.08		acfm and temp. changed.
255	Product Bin #46 (Name changed from #HH to #46)	41V46 (ID changed from 41VHH to 41V46)	41F46 (ID changed from 41FHH to 41F46)	2,000	110	0.005	0.08		acfm changed.
432	Product Bin #47 (New)	41V47	41F47	2,000	110	0.005	0.08		
431	Spray Dryer #2 Mill (New)	30GAA	30FAA	18,000	100	0.005	0.73	3.2	
	Revised PM/PM_{10} PTE of the existing, the permitted emissions units but not yet constructed, and the new emissions units							**3.94**	
	Total PM/PM_{10} PTE of the existing and the permitted emissions units before the revision							**1.26**	
	Change in PTE							**2.68**	

Notes:

(1) The exhaust (2000 acfm) from the product transfer to milling collector (30F13) will be used to transfer starch product from the mills to the inlets of Bins 41V45, 41V46, 41V47, & 33V44.

(2) A third maltodextrin bin (41VKK) will be added to the spray dryer #1 system but only one of the bins (#14, #15, or #KK) can operate at a time. Product Bin #46 (#HH) will become a spray dryer #2 system bin rather than a roll dryer bin and a new product bin 41V47 will be added (four total bins for spray dryer 2). Only one of the four spray dryer #2 bin can operate at a time using product transfer air from the milling collector (30F13).

(3) A second new spray dryer mill (30GAA) will be added in parallel with the existing spray dryer mill (30G1) at an airflow rate of 18,000 acfm.

Current Configuration under PSD Permit SSM 157-18832-00003 Issued September 13, 2005									
				Airflow	Temp.	PM/PM_{10} Limits			Comment
S/V No.	Emissions units Description	Equip. ID	Control ID	acfm	Deg. F	gr/dscf	lbs/hr	tpy	
184 to 355	Spray Dryer Products Transfer to Bag Packer #3 (North Spouts)	41F7	41F7	2,700	70		0.12	0.80	
	Spray Dryer Products Bag Packer #3 (North Spouts)	41Z3							
186 to 355	Roll Dried, Dry Starch Reaction System, & Malto Products Transfer to Bag Packer #3 (South Spouts)	41F18	41F18	2,700	80		0.18		
	Roll Dried, Dry Starch Reaction System, & Malto Products Bag Packer #3 (South Spouts)	41Z5							
223 to 355	O.S. Starch Product Transfer to Bag Packer #3 (South Spouts)	41FCC	41FCC	2,700	95				
	Total PTE							**0.80**	

Revised Source Configuration by this permit									
				Airflow	Temp.	PM/PM_{10} Limits			Comment
S/V No.	Emissions units Description	Equip. ID	Control ID	acfm	Deg. F	gr/dscf	lbs/hr	tpy	
184 to 355	Spray Cook Starch Product Transfer to Bag Packer #3	41F7	41F7	2,700	80	0.005	0.11	0.48	Established BACT limits, because it is being modified.
	O.S. Starch Product Transfer to Bag Packer #3	41F181 (ID changed from 41FCC to 41F181)	41F181 (ID changed from 41FCC to 41F181)	2,700	80	0.005			
	Spray Cook/O.S. Starch Products Bag Packer #3	41Z3	41F7 or 41F181						
186 to 355	Roll Dried Starch Products Transfer to Bag Packer #3	41F18	41F18	2,700	80	0.005	0.11	0.48	Established BACT limits, because it is being modified.
	Roll Dried Starch Products Bag Packer #3	41Z5							
428 to 355	Malto Product Transfer to Bag Packer #3 (New)	41F182	41F182	2,700	80	0.005	0.11	0.48	
	Malto Products Bag Packer #3 (New)	41Z1							
429 to 355	Dry Starch Reacted Product Transfer to Bag Packer #3 (New)	41F183	41F183	2,700	80	0.005	0.11	0.48	
	Dry Starch Reacted Products Bag Packer #3 (New)	41Z2							
430 to 355	Bag Packer #3 House Dust Collector (New)	41F186	41F186	16,000	100	0.005	0.65	2.85	
	Revised PM/PM_{10} PTE of the existing, the permitted emissions units but not yet constructed, and the new emissions units							**4.77**	
	Total PM/PM_{10} PTE of the existing and the permitted emissions units before the revision.							**0.8**	
	Change in PTE							**3.97**	

Note:

(1) The existing Packer #3 system is being modified to allow four different products to be packaged simultaneously (41Z1, 41Z2, 41Z3, and 41Z5). An additional house dust collector (41F186) is included as part of this modification. All modified units are subject to 0.005 gr/dscf of PM/PM_{10} as BACT limit.

PM_{10} Emissions to Stack 17

Fiber, Feed, Meal, or Germ Dryer	Dryer Furnace Heat Input MMBtu/hr	Estimated Uncontrolled PM/PM_{10} Emission Rate from Individual Dryers before Scrubber					
		acfm	temp.° F	scfm	gr/scf	lbs/hr	tons/yr
Corn Cleanings Receiver (21F304), Feed Loadout Hopper (21V125), and Feed Cooler (21D8) (Formerly Meal Dryer 21D8)	THe PM/PM_{10} emissions are controlled by a new scrubber (21F311). The exhaust from this feed cooler scrubber will be reused as combustion air for the fiber and meal dryer furnaces and thermal oxidizers, or the exhaust will be directly controlled by the thermal oxidizers. The aspiration of the feed loadout system (12V125) will be routed to the inlet of the feed cooler to serve as cooling air and the exhaust from the new corn cleanings transfer system cyclone (21F304) will also be controlled by the feed cooler scrubber.						
Fiber Flash Dryer (21D501)	Indirect - See Below	20,349	300	24,015	0.03	6.8	29.6
RST Feed Dryer (21D301)	Steam Only	13,096	240				
RST Germ Dryer (21D401)	Steam Only	12,057	240	9,094	0.05	3.90	17.1
Gluten Meal Flash Dryer (48D101)	30	19,339	240	14,587	0.15	18.8	82.1
Total to Feed Dryer Scrubber	**30.0**	**64,873**	**258**	**47,706**	**0.07**	**29.4**	**128.9**
Fiber Flash Dryer Furnace (21B501)	60.0	22,467	425	13,404	0.015	1.72	7.5
Current Dryer Scrubber Inlet (70 KBPD)	**66.0**	**130,000**	**145**	**113,455**	**0.03**	**32.0**	**140**

Combined exhaust from dryers in dscfm = 27,781 dscfm = 0.031 gr/dscf = 7.38 lb/hr

Note:

Airflow to the scrubber from the new RST feed and fiber flash dryers at 100 kbpd is 24,015 scfm. Therefore, Title V PM_{10} uncontrolled emissions at 70 kbpd are reduced by the ratio of 24,015/113,455 scfm assuming the same grain loading to the scrubber in order to calculate uncontrolled feed dryer emissions at 100 kbpd. If uncontrolled emissions were ratioed on the basis of current to future grind (100/70), future uncontrolled emissions would be 200 tpy PM_{10}.

PM_{10} Emission Characteristics (100 kbpd)	Scrubber Inlet	Scrubber Outlet	RTO Exhaust	Fiber Furnace Exhaust	Total S/V 17
Airflow (acfm)	64,873	51,046	62,729	22,467	85,196
Temperature (deg. F)	258	191	291	425	322
Airflow (scfm)	47,706	41,401	44,102	13,404	57,506
Concentration (gr/scf)	0.07	0.020	0.015	0.015	0.015
Emission Rate (lbs/hr)	29.4	7.10	5.67	1.72	**7.39**
Emission Rate (tons/yr)	128.9	31.1	24.8	7.5	32.4
Efficiency		76%	20%	0%	

Overall Efficiency 81%

Note:

(1) The exisiting feed dryers (D6, D7, D8) will be replaced by a new indirectly heated fiber flash dryer. The new RST fiber pre-dryer will become a RST feed dryer. A new furnace (60 mmbtu/hr) will be built to indirectly heat the new fiber flash dryer.

SO_2 Emissions to Stack 17

Fiber, Feed, Meal, or Germ Dryer	Dryer Furnace Heat Input MMBtu/hr	Uncontrolled Emissions tons/year	Uncontrolled Emissions lbs/hr
Fiber Flash Dryer (21D501)	Indirect - See Below	311	71.0
RST Feed Dryer (21D301)	Steam Only		
RST Germ Dryer (21D401)	Steam Only	65.7	15.0
Gluten Meal Flash Dryer (48D101)	30	123.2	28.1
Total	**30**	**500**	**114.2**

	Scrubber Inlet 500 TPY Basis[1]	Scrubber Inlet 90% Eff. Basis[1]	RTO Exhaust[2]
Airflow (ACFM)	64,873	64,873	62,729
Temperature (Deg. F)	258	258	291
Concentration (ppmvw)	240.1	92.4	**10**
Emission Rate (lbs/hr)	114.2	44	**4.4**
Efficiency	**96%**	**90%**	
Fiber Flash Dryer Furnace and RTOs	70 MMBtu	0.2	0.04
Total SO_2 Controlled Emissions to Stack 17		**19.44**	4.44

1. Concentration (ppmvw) = [(Emission Rate, lbs/hr)]*[385.3 ft3/lb-mole]/[(64 lb/lb-mole)*(Airflow, acfm)*(60 min/hr)] * [(460+Temp°F)/(528 R)] * [1E6 parts/million parts]
Scrubber Inlet (550 TPY Basis) = [114.2 lbs/hr]*[385.3 ft3/lb-mole]/[(64 lb/lb-mole)*(64873 acfm)*(60 min/hr)] * [(460+258)/(528 R)] * [1E6 parts/million parts] = 240.2 ppmvw
Scrubber Inlet 90% Eff. Basis = [44 lbs/hr]*[385.3 ft3/lb-mole]/[(64 lb/lb-mole)*(64873 acfm)*(60 min/hr)] * [(460+258)/(528 R)] * [1E6 parts/million parts] = 92.4 ppmvw
2. Emission Rate (lbs/hr) = [(Concentration, ppmvw)*(64 lb/lb-mole)*(Airflow, acfm)*(60 min/hr)]/[385.3 ft3/lb-mole] * [(528 R)/(460+Temp°F)] * [million parts/1E6 parts]
RTO Exhaust = [(10 ppmvw)*(64 lb/lb-mole)*(62,729 acfm)*(60 min/hr)]/[385.3 ft3/lb-mole] * [(528 R)/(460+291)] * [million parts/1E6 parts] = 4.40 lbs/hr

Notes:

(1) 10 ppmvw is established as the emission limit for sulfur dioxide at lower inlet concentration to the alkaline scrubber.

(2) All germ, meal, fiber, and feed dryers share the same emission control system (i.e., alkaline scrubber followed by two RTO's). The exisiting feed dryers (D6, D7, D8) will be replaced by a new indirectly heated fiber flash dryer. The new RST fiber pre-dryer will become a RST feed dryer. A new furnace (60 mmbtu/hr) will be built to indirectly heat the new fiber flash dryer. This furnace exhaust will bypass the scrubber and RTO's since it is comprised of combustion emissions. Airflow to the scrubber is reduced due to elimination of infiltration and combustion gases from the old feed dryers.

(3) Sulfur dioxide emissions from the combustion of natural gas and biogas in the meal dryer is included in the uncontrolled emissions. Sulfur dioxide emissions from the combustion of the natural gas in the RTO's and fiber dryer furnace is 0.04 lb/hr (70 MMBtu/hr * AP-42 Factor of 0.0006 lb/MMBtu = 0.04 lb/hr). The fiber flash dryer furnace is not controlled by the alkaline scrubber since the only sulfur dioxide emissions from the furnace will be the result of the combustion of natural gas or biogas. No fuel oil will be burned in any of the dryer furnaces or RTOs. A BACT limit is established for the control of sulfur dioxide (derived from the combustion of hydrogen sulfide) in biogas burned in the dryers in Section D.10 of the September 2005 PSD permit. Therefore, no additional controls or BACT sulfur dioxide limits are proposed for the fiber flash dryer furnace when burning biogas. The calculated mass emission limit for the scrubber exhaust is lower (4.40 lbs/hr vs. 5.97 lbs/hr) than that in September 2005 PSD permit for the revised system based on expected airflows.

(4) The maximum hourly sulfur dioxide emission rate after the RTO's is calculated on the basis of 10 ppmvw and maximum airflow (minimum heat recovery). Two scrubber inlet concentration cases were evaluated above (500 TPY Uncontrolled and 90% Scrubber Efficiency). To achieve greater than 90% removal (but less than 95% removal) based on outlet conditions, the inlet concentration to the scrubber must be greater than 90 ppmvw (but less than 240 ppmvw). The 90% removal requirement apply only when the inlet concentration to the scrubber exceeds 100 ppmvw. When the inlet concentration is less than 100 ppmvw, the outlet concentration from the RTO's must be less than 10 ppmvw but the 90% control efficiency requirement will not apply.

VOC Emissions to Stack 17

Fiber, Feed, Meal, or Germ Dryer	Dryer Furnace Heat Input MMBtu/hr	Uncontrolled Emissions tons/year	Uncontrolled Emissions lbs/hr
Fiber Flash Dryer (21D501)	Indirect - See Below	256	58.4
RST Feed Dryer (21D301)	Steam Only		
RST Germ Dryer (21D401)	Steam Only	12.8	2.9
Gluten Meal Flash Dryer (48D101)	30	74.4	17.0
Total	**30**	**343**	**78.3**

	Scrubber Inlet 343 TPY Basis[1]	Scrubber Outlet 343TPY Basis[1]	RTO Exhaust 343 TPY Basis[2]
Airflow (ACFM)	64,873	51,046	62,729
Temperature (Deg. F)	258	191	291
Concentration (ppmvw)	229.1	211.2	**10**
Emission Rate (lbs/hr)	78.3	62.6	**3.16**
Emission Rate (tons/yr)			**13.8**
Efficiency		**20%**	**95%**
VOC calculated as ethanol (M.W. = 46)		**Overall Efficiency**	**96.0%**

	Scrubber Inlet 95% RTO Basis[1]	Scrubber Outlet 95% RTO Basis[1]	RTO Exhaust 95% RTO Basis[2]
Airflow (ACFM)	64,873	51,046	62,729
Temperature (Deg. F)	258	191	291
Concentration (ppmvw)	231.1	213	**10**
Emission Rate (lbs/hr)	79	63.2	**3.16**
Efficiency		**20%**	**95%**
VOC calculated as ethanol (M.W. = 46)		**Overall Efficiency**	**96.0%**
Fiber Flash Dryer Furnace and RTOs	**70 MMBtu**		**0.39**
Total VOC Controlled Emissions to Stack 17		**15.52**	**3.54**

1. Concentration (ppmvw) = [(Emission Rate, lbs/hr)]*[385.3 ft3/lb-mole]/[(46 lb/lb-mole)*(Airflow, acfm)*(60 min/hr)] * [(460+Temp °F)/(528 R)] * [1E6 parts/million parts]

Scrubber Inlet 345 TPY Basis = [78.8 lbs/hr]*[385.3 ft3/lb-mole]/[(46 lb/lb-mole)*(64,873 acfm)*(60 min/hr)] * [(460+258)/(528 R)] * [1E6 parts/million parts] = 230.7 ppmvw

Scrubber Outlet 345 TPY Basis = [63.1 lbs/hr]*[385.3 ft3/lb-mole]/[(46 lb/lb-mole)*(51,046 acfm)*(60 min/hr)] * [(460+191)/(528 R)] * [1E6 parts/million parts] = 212.6 ppmvw

Scrubber Inlet 95% RTO Basis = [79 lbs/hr]*[385.3 ft3/lb-mole]/[(46 lb/lb-mole)*(64,873 acfm)*(60 min/hr)] * [(460+258)/(528 R)] * [1E6 parts/million parts] = 231.1 ppmvw

Scrubber Outlet 95% RTO Basis = [63.2 lbs/hr]*[385.3 ft3/lb-mole]/[(46 lb/lb-mole)*(51,046 acfm)*(60 min/hr)] * [(460+191)/(528 R)] * [1E6 parts/million parts] = 213 ppmvw

2. Emission Rate (lbs/hr) = [(Concentration, ppmvw)*(46 lb/lb-mole)*(Airflow, acfm)*(60 min/hr)]/[385.3 ft3/lb-mole] * [(528 R)/(460+ Temp F)] * [million parts/1E6 parts]

RTO Exhaust = [(10 ppmvw)*(46 lb/lb-mole)*(62,729 acfm)*(60 min/hr)]/[385.3 ft3/lb-mole] * [(528 R)/(460+291)] * [million parts/1E6 parts] = 3.16 lbs/hr

Notes:

(1) 10 ppmvw is established as the emission limit for VOC at lower inlet concentration to the alkaline scrubber.

(2) The fiber flash dryer furnace is not controlled since the only VOC emissions from the furnace will be the result of the combustion of natural gas or biogas. VOC emissions from combustion of natural gas and biogas in feed and meal dryers and RTO's is included in uncontrolled and controlled emission rates and are only 0.39 lbs/hr VOC (70 MMBtu/hr * AP-42 Factor of 0.0055 lbs/MMBtu). No fuel oil will be burned in any of the dryer furnaces or RTO's.

(3) - The maximum hourly VOC emission rate after the RTO's is calculated on the basis of 10 ppmvw VOC (calculated as ethanol) and maximum airflow (minimum heat recovery). Two scrubber inlet concentration cases were evaluated above (343 TPY Uncontrolled and 95% RTO/20 % Scrubber Efficiency). To achieve more than 95% VOC removal for the combination of the scrubber and RTO's based on outlet conditions, the mass emission rate to the inlet of the scrubber must be greater than 80 lbs/hr VOC. Therefore, Tate & Lyle requests that the 95% overall removal requirement apply only when the inlet rate to the scrubber exceeds 100 lbs/hr VOC. An inlet concentration limit is not recommended due to numerous compounds comprising total VOC. When the inlet rate is less than 100 lbs/hr, the outlet concentration from the RTO's must be less than 10 ppmvw but the 95% control efficiency requirement will not apply.

NOx Emissions to Stack 17

Feed, Meal, or Germ Dryer	Dryer Furnace Heat Input MMBtu/Hr	Proposed BACT Limit lbs/MMBtu	Proposed BACT Limit lbs/hr	Proposed BACT Limit tons/yr
Fiber Flash Dryer (21D501)	Indirect - See Below	N/A	N/A	N/A
RSTFeed Dryer (21D301)	Steam Only	N/A	N/A	N/A
RST Germ Dryer (21D401)	Steam Only	N/A	N/A	N/A
Gluten Meal Flash Dryer (48D101)	30	0.06	1.8	7.9
Regenerative Thermal Oxidizer (48F201)	5	0.06	0.3	1.3
Regenerative Thermal Oxidizer (48F202)	5	0.06	0.3	1.3
Fiber Flash Dryer Furnace (21B501)	60	0.06	3.6	15.8
Total	**100.0**		**6.0**	**26.3**

Notes:

(1) All germ, meal, fiber, and feed dryers share the same emission control system (i.e., alkaline scrubber followed by two RTO's). The exisiting feed dryers (D6, D7, D8) will be replaced by a new indirectly heated fiber flash dryer. The new RST fiber pre-dryer will become a RST feed dryer. A new furnace (60 MMBtu/hr) will be built to indirectly heat the new fiber flash dryer. This furnace exhaust will bypass the scrubber and RTO's since it is comprised of combustion emissions. It should be noted that existing rotary feed dryers 21D6, 21D7, and 21D8 and the new gluten meal dryer each have a furnace heat input of 30 MMBtu/hr not to exceed 90 MMBtu/hr. The existing rotary feed dryers (21D6, 21D7, and 21D8) will be replaced by the fiber flash dryer system equipped with a 60 MMBtu/hr indirect process heater (furnace). Therefore, there will be no increase in furnace capacity for feed, meal, and germ drying operations.

(2) All of the dryers share the same emission control system (scrubber followed by RTO's) and each of the combustion burners are subject to the same BACT limit on a lb/MMBtu basis. Measurement of natural gas usage at each combustion unit (dryer furnace or RTO) is not anticipated or necessary. Similarily, measurement of biogas is not anticipated or necessary individually for the meal or fiber dryers. Therefore, compliance will be determined at the combined exhaust of the RTO's and fiber dryer furnace to Stack 17 by determining the mass emission rate and by measurement of total natural gas and biogas usage in the feed, meal, and germ drying system.

Emissions Summary

Production Area	Revised PM/PM_{10} Emissions (tons/yr)	Total PM/PM_{10} Emissions of the Permitted Emissions Units (tons/yr)	Change in PM/PM_{10} Emissions (tons/yr)
Corn Receiving	5.17	8.88	-3.71
Feed Production	3.92	23.84	-19.92
Roll Dryers	6.64	3.5	3.14
Spray Dryers 1 and 2	3.94	1.26	2.68
Packer #3 Systems	4.77	0.80	3.97
Decrease in Feed Drying System (from 7.7 lbs/hr to 7.39 lbs/hr)	32.37	33.73	-1.36
Total	**56.8**	**72.0**	**-15.20**

Description	Emissions for Entire Source (tons/year)				
	PM	PM_{10}	SO_2	VOC	NOx
Revised Emissions	**56.8**	**56.8**	**19.44**	**15.52**	**26.28**
Total Emissions of the Permitted Emissions Units (PSD and SSM 157-18832-00003)	**72.0**	**72.0**	**26.15**	**18.79**	**26.28**
Total Change in Emissions from this Revision	**-15.20**	**-15.20**	**-6.71**	**-3.3**	**0.00**

Baseline Actual Emissions

Baseline actual emissions are defined in 326 IAC 2-2-1(xx) as the average actual emissions from any 24 month period of the last 10 years. It includes downward adjustments for noncompliant emissions that may have occurred during the baseline period and for new applicable requirements that apply to emission units since the time of the baseline period.

The baseline actual emissions are expressed by the following equation:

Baseline actual emissions = Average actual emissions from any 24 month period of last 10 years
[Includes fugitive emissions and SSM event emissions]
- any noncompliant emissions that occurred during the 24 month period
- adjustment for applicability of new requirements since baseline period

Proposed Baseline Period

For PM, PM_{10}, SO_2, VOC, and NOx Tate & Lyle has proposed a baseline period of the 24 month period beginning January 1, 2001 and ending December 31, 2002.

Projected Actual Emissions

The projected actual emissions will be based on the maximum annual rate in tons per year at which the applicant is projected to emit a regulated NSR pollutant , less any amount of emissions that could have been accomodated during the selected 24-month baseline period and is not related to the change.

The applicant is projecting to operate the emissions units at its PTE after the modification. The applicant has the capacity to grind and process 70,000 bushels of grain during the baseline period. The applicant operated the plant at 60,000 bushels per day during baseline period. If there was demand for the products in the baseline period, the applicant would have been able to grind and process an additional 10,000 bushels per day without any modification. Therefore, this 10,000 bushels per day grinding and processing capacity will be deducted from the projected actual emissions as it pertains to demand growth and is not related to this change.

Projected Actual Emissions = PTE of the New and Existing Emissions Units - Emissions attributable to Demand Growth

Actual To Projected Actual (ATPA) Emissions

ATPA Emissions = Projected Actual Emissions - Baseline Emissions
= PTE of the New and Existing Emissions Units - Emissions attributable to Demand Growth - Baseline Emissions
= PTE of the New and Existing Emissions Units - (Emissions attributable to Demand Growth + Baseline Emissions)
= PTE of the New and Existing Emissions Units (PTE @ 100,000 Bushels/day) - PTE of the Existing Units in Baseline Period (PTE at 70,000 Bushels/day)

Increase in emissions from this modification = PTE established in this permit - PTE after Sept. 2005 Permit Issuance

Description	(tons/year)				
	PM	PM_{10}	SO_2	VOC	NOx
Revised Emissions after issuance of this permit	56.8	56.8	19.4	15.5	26.3
Total Emissions of the Permitted Emissions Units (PSD and SSM 157-18832-00003)	72.0	72	26.1	18.8	26.3
Total Change in Emissions from this Revision	-15.2	-15.2	-6.7	-3.3	0.0

Appendix B – Stack/Vent Information

Source Name: Tate & Lyle, Sagamore
Source Location: 2245 North Sagamore Parkway, Lafayette, IN 47902
County: Tippecanoe
SIC Code: 2046
Operation Permit No.: T 157-6009-00003
Operation Permit Issuance Date: June 28, 2004
Significant Source Modification No.: 157-22808-00003
Significant Permit Modification No.: 157-23285-00003
Permit Reviewer: Aida De Guzman

Stack/Vent ID (S/V)	Stack Dimension (feet)	Stack Height (feet)	Air Flow Rate (acfm)	Temp. (^{O}F)
1	0.33	20	300	80
2	0.33	20	300	80
3	0.92	70	6,000	80
11	0.83	70	700	120
12	0.83	70	700	120
17	8.00	200	147,000	232
31	0.83	70	700	120
50	1.00	102	1,200	90
64	0.94	56	1,500	80
68	0.50	50	500	60
69	3.00	120	23,500	100
70	1.13	73	3,500	100
71	0.75	57	650	110
72	0.75	57	650	110
73	8.17	120	110,000	105
76	1.08	70	2,100	80
77	1.08	70	2,100	80
78	1.08	70	2,100	80
80	1.50	80	2,600	100
82	4.00	120	59,000	200
87	0.75	57	300	120
88	0.75	57	300	120
89	0.60	57	300	100
90	0.60	57	300	100
91	2.50	30	8,375	110
92	2.50	30	8,375	110
93	2.50	30	8,375	110
94	2.50	30	8,375	110
95				
96			6,500	150
97	0.33	57	300	110

Stack/Vent ID (S/V)	Stack Dimension (feet)	Stack Height (feet)	Air Flow Rate (acfm)	Temp. (^{O}F)
98	0.33	57	300	110
100			6,500	150
101				
102	1.00	44	1,500	80
103	0.50	60	300	80
104	0.50	60	300	80
105	0.75	44	750	80
106	0.75	44	750	80
107	0.75	44	750	80
108	0.75	44	750	80
109	0.75	44	750	80
110	0.94	60	2,000	90
111	0.94	60	2,000	90
112	0.94	60	2,000	90
113	0.94	60	2,000	90
114	0.94	60	2,000	90
115	0.94	60	2,000	90
116	0.94	60	2,000	90
117	0.94	60	2,000	90
119	0.33	90	350	90
123	0.33	90	350	90
124	0.50	30	350	90
125	1.17	35	2,500	80
126			10,000	80
129	0.50	60	350	80
136			23,800	80
137			350	80
141	7.83	70	10,000	80
142	7.83	70	10,000	80
143	7.83	70	10,000	80
144	7.83	70	10,000	80
145	7.83	70	10,000	80
146	1.00	25	2,800	80
147	0.67	20	650	80
149	0.67	30	1,550	90
156	1.00	15	400	80
166			1,940	212
177	7.00	120	138,825	122
180	1.33	70	2,000	120
183			2,000	80
189	0.94	29	1,000	80
190			1,400	80

Stack/Vent ID (S/V)	Stack Dimension (feet)	Stack Height (feet)	Air Flow Rate (acfm)	Temp. (^{O}F)
191			1,500	80
195	1.00	32	200	110
197	6.00	165	45,000	400
199	1.00	70	1,000	200
200	3.00	80	2,100	200
201	0.33	50	675	80
202	5.50	200	88,000	326
203	0.67	95	1,200	80
204	0.67	90	800	80
205	0.67	90	800	80
222	0.67	45	N/A	90
226	1.50	80	2,000	110
232	2.50	30	8,375	110
233	2.50	30	8,375	110
234	2.50	30	8,375	110
235	2.50	30	8,375	110
238	0.50	75	1,200	100
239	0.67	40	500	70
240	1.00	75	1,200	100
244			1,000/3,000	70
245			1,000/3,000	70
246			1,000/3,000	70
247			1,000/3,000	70
248	1.50	80	2,000	110
249	1.17	70	2,500	110
250	0.67	30	N/A	100
251	0.67	33	N/A	100
254	0.67	35	1,100	80
255	1.50	80	2,000	110
260	2.11	70	N/A	120
261	0.67	40	N/A	120
265	7.75	150	110,000	105
266	0.67	70	3,300	120
267	1.38	80	2,100	80
268	1.38	80	2,900	70
269	1.38	80	2,900	70
271	2.57	105		
272	2.17	20		
273	1.00	70	2,600	120
274	1.00	40	500	70
285	0.50	10	500	70
289	0.50	20	10	110
315	1.38	20	1,000	110

Stack/Vent ID (S/V)	Stack Dimension (feet)	Stack Height (feet)	Air Flow Rate (acfm)	Temp. (^{O}F)
318	0.67	25	2,000	120
320	0.33	64	1,940	212
321	0.50	90	350	90
331			2,200	80
334	0.50	14	400	80
344	0.50	9	600	70
345	1.38	80	2900	70
346	1.38	80	2900	70
351	0.50	28	600	70
355	5.30	150	70,690	96
356	4.00	120	40,000	80
360	8.00	150	160,862	178
361	5.75	150	82,623	175
367				
368				
369	1.38	80	2,200	80
370	1.38	80	2,200	80
371	1.00	35	1,500	80
372	1.38	80	2,100	80
373	0.67	65	1,100	80
374	1.50	80	5,000	240
375			1,000	160
376			1,600	70
377			1,000/3,000	70
378			1,000/3,000	70
380			3,000	80
383	1.38	80	2,900	70
384	1.38	80	2,900	70
385	1.38	80	2,900	80
386	1.38	80	2,900	80
387	1.38	80	2,900	80
388	7.00	150	117,224	107
394			350	80
~~395~~			57,931	100
~~396~~				~~80~~
399	1.17	130	1,200	120
400	0.94	56	1,500	80
404	3.50	75	32,613	90
405	2.17	45	10,600	120
406	2.17	45	10,600	120
407	2.17	45	10,600	120
408	2.17	45	10,600	120
409	2.17	45	10,600	120
410	2.17	45	10,600	120

Stack/Vent ID (S/V)	Stack Dimension (feet)	Stack Height (feet)	Air Flow Rate (acfm)	Temp. (^{O}F)
419	1.17	65	3,500	90
420	2.00	65	10,000	90
421	0.67	50	1,200	90
422	0.67	50	1,000	90
423	0.50	45	1,500	100
424	0.25	15	100	90
426	0.50	N/A	500	70
427				
432	1.50	80	2,000	110
433	4.00	55	34,500	80
434	0.50	45	1,500	100
435	0.25	15	25	100
436	0.25	15	25	100
443	0.75	57	300	120
444	1.10	70	3,000	130
445	2.00	45	10,000	110
446	1.80	80	4,500	130
447	1.10	45	3,000	110

Appendix C

CONTROL TECHNOLOGY / PSD BACT ANALYSIS

Tate & Lyle Sagamore Plant

Source Background and Description:

Source Location: **2245 North Sagamore Parkway, Lafayette, Indiana 47902**
County: **Tippecanoe**
SIC Code **2046**
PSD/SSM: **157-22808-00003**

Tate & Lyle operates two corn processing plants in Lafayette, Indiana. The affected plant is the Sagamore plant. This plant has several existing operations that process corn to produce starch and starch products.

The Sagamore corn wet milling facility can be separated into two production components: the grind capacity and the starch finishing capacity. Plant operations also include support operations, including fossil fuel-fired boilers.

The grind capacity includes all processing up to the point of raw starch slurry production. Tate & Lyle received a Prevention of Significant Deterioration (PSD) permit on September 13, 2005 (SSM 157-18832-00003) to increase the corn grind capacity of the existing corn wet milling facility to 100,000 bushels/day (110,000 bushels/day peak). Operation of the facility will be continuous (24 hours/day) except for brief periods of downtime required for maintenance. Typically, the wet milling and feed house sections of the plant will be on-line at least 350 days/year.

Tate & Lyle is proposing several modifications to its corn milling operations described in the September 13, 2005 PSD permit including the addition of new emission units. These involve the replacement of several corn receiving and conveying dust collectors with a single large baghouse, the addition of several emission units to the wet milling operations to ensure the facility will be able to meet the design grind rate of 100,000 bushels/day, and the replacement of the existing feed dryers with a new closed loop flash drying system for fiber. The new RST fiber dryer will become a RST feed dryer. Because the existing rotary feed dryers will be shutdown, as the result of installation of the new fiber flash dryer, many of the current material handling systems in the feedhouse will also be shutdown further decreasing particulate emissions from the feedhouse. Modifications to the corn cleanings and transfer, the feed cooling and the feed milling systems are also proposed. Finally, installation of the new outdoor meal and germ storage bins and the loadout systems are proposed to allow the existing feed, meal, and germ storage building to be renovated and used for installation of wet milling equipment for the grind expansion.

Several additions and modifications to the starch finishing facilities are propos3ed that include changes to the roll dryer system, starch spray dryer #1 and #2 systems, and starch packer #3 system. Relocation of the new roll dryers described in the September 2005 PSD permit is necessary due to the space considerations which results in separate milling and bin transfer systems being proposed for the existing roll dryers and the new roll dryers. No changes are required for the existing roll dryer system but the existing milling system collectors will remain active. Airflow for the milling system for the new roll dryers will be increased slightly and a new bin transfer system will be constructed. Addition of a new spray dryer #2 mill and reconfiguration of the bin storage systems, including two new bins, are proposed for the #1 and #2 spray dryer systems. The #3 starch packer will be modified to allow the simultaneous packaging of four different starch products at one time. Installation of two new starch transfer receivers and a second house dust collector are proposed as part of this design.

This modification is considered part of the expansion project (PSD and SSM 157-18832-00003). The original expansion was subject to the PSD review; therefore, this proposed modification must go through PSD review. The BACT analysis is required for PM, PM_{10}, NOx, VOC, and SO_2 for the modified and new emissions units. Tate & Lyle is also required to perform a BACT analysis under 326 IAC 8-1-6 for any new emission unit with uncontrolled emissions of more than 25 tons per year of VOC.

BACT Definition and Applicability

Federal guidance on BACT requires an evaluation that follows a “top down” process. In this approach, the applicant identifies the best-controlled similar source on the basis of controls required by the regulation or the permit, or the controls achieved in practice. The highest level of the control is then evaluated for technical feasibility.

The five basic steps of a top-down BACT analysis are listed below:

Step 1: Identify Potential Control Technologies

The first step is to identify potentially “available” control options for each emission unit and for each pollutant under review. Available options should consist of a comprehensive list of those technologies with a potentially practical application to the emissions unit in question. The list should include lowest achievable emission rate (LAER) technologies, innovative technologies, and controls applied to similar source categories.

Step 2: Eliminate Technically Infeasible Options

The second step is to eliminate technically infeasible options from further consideration. To be considered feasible, a technology must be both available and applicable. It is important in this step that any presentation of a technical argument for eliminating a technology from further consideration be clearly documented based on physical, chemical, engineering, and source-specific factors related to safe and successful use of the controls.

Step 3: Rank The Remaining Control Technologies By Control Effectiveness

The third step is to rank the technologies not eliminated in Step 2 in order of descending control effectiveness for each pollutant of concern. If the highest ranked technology is proposed as BACT, it is not necessary to perform any further technical or economic evaluation, except for the environmental analyses.

Step 4: Evaluate The Most Effective Controls And Document The Results

The fourth step entails an evaluation of energy, environmental, and economic impacts for determining a final level of control. The evaluation begins with the most stringent control option and continues until a technology under consideration cannot be eliminated based on adverse energy, environmental, or economic impacts.

Step 5: Select BACT

The fifth and final step is to select as BACT the most effective of the remaining technologies under consideration for each pollutant of concern. BACT must, at a minimum, be no less stringent than the level of control required by any applicable New Source Performance Standard (NSPS) and National Emissions Standard for Hazardous

Air Pollutants (NESHAP) or state regulatory standards applicable to the emission units included in the permits.

PM and PM10 BACT:

The primary PM and PM10 emissions sources from this modification are from the wet milling operation, feed hammermills, feed, germ, and meal transfer and handling operation, starch drying and handling, corn receiving and conveying.

Step 1: Identify Potential Control Technologies

PM and PM_{10} emissions are generally controlled through the use of add-on control equipment designed to capture the emissions prior to the time they are exhausted to the atmosphere. In cases where the material being emitted is organic, particulate matter may be controlled through a combustion process. Generally, PM and PM_{10} emissions are controlled through one of the following mechanisms:

(1) Mechanical collectors (such as cyclones or multiclones) -

(2) Electrostatic precipitators -

(3) Fabric filter dust collectors -

(4) Wet scrubbers -

The choice of which technology is most appropriate for a specific application depends upon several factors, including particle size to be collected, particle loading, stack gas flow rate, stack gas physical characteristics (e.g., temperature, moisture content, presence of reactive materials), and desired collection efficiency.

Step 2: Eliminate Technically Infeasible Options

(1) Mechanical collectors (such as cyclones or multiclones) - Mechanical collectors are used whenever the particle size distributions generated by the process are relatively large (greater than 5 micrometers) and if the control efficiency requirements are in the low-to-moderate range of 50 to 90%, since these systems have a lower control efficiencies. They are also used as the pre-collector of large discard materials generated in some processes. Removal of this material is necessary to protect high-efficiency particulate control systems downstream from the mechanical collectors.

Mechanical collectors are not applicable to industrial sources that generate sticky and/or wet particulate matter, as in parts of Tates & Lyle's operation. These materials can accumulate on the cyclone body wall or the inlet spinner vanes of conventional multi-cyclone collectors. Therefore, this technology is not technically feasible and no further evaluation will be made.

(2) Electrostatic Precipitators – An electrostatic precipitator (ESP) uses nonuniform, high-voltage fields to apply large electrical charges to particles moving through the field. The charged particles move toward an oppositely charged collection surface, where they accumulate. Electrostatic precipitators can have very high efficiencies due to the strong electrical forces applied to the small particles. These types of collectors can be used when the gas stream is *not* explosive and does *not* contain entrained droplets or other sticky material. The composition of the particulate matter is very important because it influences the electrical

conductivity within the dust layers on the collection plate. This technology is not technically feasible for corn wet milling industry since the gas stream may contain entrained droplets and sticky material. In addition, the combustible dusts (starch, corn dust, fiber, feed, etc.) present in the gas stream can be ignited by a spark and spread fire to the system and the plant. Therefore, this technology is not technically feasible and no further evaluation will be made.

(3) Fabric filter dust collectors – This control technology is technically feasible on certain operation. However, it is not a technically feasible option, to control particulate matter emissions from the feed hammermills due to fire and dust explosion concerns associated with the feed hammermills (potential metal to metal sparks from small pieces of metal entering the feed mill). Feed cannot be screened in the same manner that starch is screened prior to milling. Tate & Lyle has experienced multiple incidents with feed hammermills aspirated to baghouses often resulting in the baghouse itself being destroyed by fire or explosion. A baghouse also increases the potential to spread the fire to other parts of the process downstream from the hammermills. Feed milling baghouses have already been replaced by scrubbers at the other three wet milling facilities operated by Tate & Lyle. Therefore, this control option will be further evaluated for control of PM, and PM10 from other operations.

(4) Wet Scrubbers – All particulate wet scrubber designs utilize particle and/or droplet inertia as the fundamental force to transfer particles from the gas stream to the liquid stream. Within the scrubber, particle-laden air is forced to contact the liquid droplets, sheets of liquid on a packing material, or jets of liquid from a plate. Particles with too much inertia impact on the water droplet, water sheet, or water jet instead of passing around the "target" with the gas stream. Very often wet scrubbers are used as an alternative for Fabric Filters when there are potentially combustible or explosive particulate matter, gases, or vapors in the gas stream being treated. This control option is technically feasible for Tate & Lyle's operation. This control option will be further evaluated for control of PM, PM10, SO_2, and VOC.

Step 3: Rank The Remaining Control Technologies By Control Effectiveness

The highest ranked control technology is baghouse. Control efficiency can easily exceed 99.9%.

The second ranked control technology is wet scrubber. Control efficiencies are in the range of 95% to 99%.

(a) Hammermill Operation (Feed Hammermills, (21G351, 21G352) & Loadout Conveyor (12U314):

Operation	Control Technology	Permit Issuance Date/Permit No.	Company Name	Basis – BACT/LAER
Proposed Hammermill/Loadout	Wet Scrubber - 0.0089 gr/scf, 0.204 lb/hr PM/PM10, 8% opacity	Proposed	Tate & Lyle	BACT
Existing BACT – Feed Mills or Hammermills	No BACT determined	PSD 157-18832		

Operation	Control Technology	Permit Issuance Date/Permit No.	Company Name	Basis – BACT/LAER
Fiber Hammermill Aspiration I	Fabric Filter– 0.005 gr/scf PM/PM10, 0.466 lb/hr	IA-0057	Cargill, Inc. – Eddyville, Iowa	BACT

Baghouses are not technically feasible to control particulate matter emissions from the feed hammermills due to safety concerns from fire and explosion, caused by sparks from small pieces of metal that gets into the feed mill. Due to this safety concern, the industry is slowly replacing baghouse controls with wet scrubbers for feed hammermills. Although the RACT/BACT/LAER Clearinghouse shows Cargill, Inc. as using a baghouse, the source employs sifters and screens prior to hammermilling. However, pieces of metal still get into the system, and cause fires. Cargill, Inc. has had the same fire and safety concern. The cost of installing a baghouse would be comparable to the installation cost of a wet scrubber, but the risk of fire and injury makes the use of a baghouse technically infeasible. Therefore, Tate & Lyle's wet scrubber with a grain loading of 0.0089 gr/scf and 0.204 lb/hr PM/PM10 emission limit is considered BACT for hammermill/loadout operations.

(b) Gluten Meal - Transfer Receiver (12FAA), Storage Bin (12VAA), Truck and Rail Loadouts (12UAA & 12UBB), Germ Production – Storage Bin (12VCC), Rail Loadout Conveyor (12UCC):

Operation	Control Technology	Permit Issuance Date	Company Name	Basis – BACT/ LAER
Proposed: Gluten Meal - Transfer Receiver (12FAA),	Baghouse - 0.005 gr/dscf, 3% opacity, and a limit of 0.40 lb/hr PM/PM10	Proposed	Tate & Lyle Sagamore Plant, Lafayette, Indiana	BACT
Storage Bin (12VAA), Truck and Rail Loadouts (12UAA & 12UBB),	Baghouse - 0.005 gr/scf, 3% opacity, and a combined limit of 0.12 lb/hr PM/PM10			
Germ Production – Storage Bin (12VCC), Rail Loadout Conveyor (12UCC)	Baghouse - 0.005 gr/scf, 3% opacity, and a combined limit of 0.17 lb/hr PM/PM10			
Existing storage/handling units	Baghouse - 0.005 gr/scf and 3% opacity (no limit on baghouse efficiency)	PSD 157-18832		
Dry Gluten Transfer System, Germ Storage/ Receiver	Baghouse – 0.005 gr/dscf PM/PM10	6/10/97	Grain Processing - Indiana	BACT
Gluten Transfer	Baghouse - Efficiency not listed, 0.005 gr/dscf, 1.7 lb/hr PM/PM10	12/12/97	Minnesota Corn Processor - Minnesota	BACT

Operation	Control Technology	Permit Issuance Date	Company Name	Basis – BACT/ LAER
Feed Loadout Truck System	Baghouse – 0.005 gr/dscf PM/PM10, 1.286 lb/hr PM10	IA-0053	Cargill, Inc. – Eddyville, Iowa	BACT
Germ Storage Aspiration	Bag Filter – 0.005 gr/dscf PM/PM10, 0.168 lb/hr PM10			

Several entries have been identified in the RACT/BACT/LAER Clearinghouse for corn Germ oil meal and soybean meal. However, these entries were not included, because they are not comparable to Tate & Lyle's production of corn gluten meal. The Germ oil meal is a by-product of corn oil extraction, which is not a process used at Tate and Lyle's Sagamore facility. The Germ oil meal and soybean meal are completely different by-products in terms of particle size and properties.

The RACT/BACT/LAER Clearinghouse, including sources permitted by other state agencies, listed BACT for the Gluten Meal Loadout/Storage, using a Baghouse or Bag Filter with a limit of 0.005 gr/dscf for PM /PM0. Tate & Lyle proposes to use a baghouse with a limit of 0.005 gr/dscf and a 3 % opacity. This proposed BACT meets the most stringent BACT. Therefore, no further evaluation of this operation is required under the EPA's top-down BACT approach, and an economic, energy, or environmental impact analysis is not required as part of the BACT evaluation for this operation.

(c) New Starch Drying and Handling Units– Product Bin (41VKK, 41V47), Spray Dryer #2 mill (30GAA), Starch Packaging and Loadout Operations – Malto Product Transfer to Bag Packer #3 (41F182), Malto Products Bag Packer #3 (41Z1), Dry Starch Reacted Product Transfer to Bag Packer #3 (41F183), Dry Starch Reacted Product Bag Packer #3 (41Z2), Bag Packer #3 House Dust Collector (41F186),

Modified Units - Roll Dryer System Mill (19G401), Product Transfer from roll dryer system 19G401 to 41V17 and 41V18 (41C35), Product Transfer to Bins. #14, #15, & #KK (41C30), Product Bin #17 (41V17), Product Bin #18 (41V18), Product Bin #44 (33V44), Product Bin #45 (41V45), Product Bin #46 (41V46), Starch Packaging and Loadout Operations - Spray Cook Starch Product Transfer to Bag Packer #3 (41F7), O.S. Starch Product Transfer to Bag Packer #3 (41F181), Spray Cook/O.S. Starch Products Bag Packer #3 (41Z3), Roll Dried Starch Product Transfer to Bag Packer #3 (41F18), Roll Dried Starch Products Bag Packer #3 (41Z5)

Operation	Control Technology	Permit Issuance Date	Company Name	Basis – BACT/ LAER
<u>Proposed:</u> Product Transfer to Bins #14, #15, & #KK (41C30)	Baghouse - 0.005 gr/dscf, 3% opacity 0.08 lb/hr PM/PM10	Proposed	Tate & Lyle – Sagamore Plant, Lafayette, Indiana	BACT

Operation	Control Technology	Permit Issuance Date	Company Name	Basis – BACT/ LAER
Product Transfer from Roll Dryer System (41C35)	Baghouse - 0.005 gr/dscf, 3% opacity 0.08 lb/hr PM/PM10			
Product Bin 41V17	Baghouse - 0.005 gr/dscf, 3% opacity 0.01 lb/hr PM/PM10			
Product 41V18	Baghouse - 0.005 gr/dscf, 3% opacity 0.01 lb/hr PM/PM10			
Spray Dryer #2 Mill (30GAA)	Baghouse - 0.005 gr/dscf, 8% opacity 0.73 lb/hr PM/PM10			
Starch Bin #KK (41VKK)	Baghouse - 0.005 gr/dscf, 3% opacity 0.01 lb/hr PM/PM10			
Starch Bin #44 (33V44)	Baghouse - 0.005 gr/dscf, 3% opacity 0.08 lb/hr PM/PM10			
Starch Bin #45 (41V45)	Baghouse - 0.005 gr/dscf, 3% opacity 0.08 lb/hr PM/PM10			
Starch Bin #46 (41V46)	Baghouse - 0.005 gr/dscf, 3% opacity 0.08 lb/hr PM/PM10			
Starch Bin #47 (41V47)	Baghouse - 0.005 gr/dscf, 3% opacity 0.08 lb/hr PM/PM10			
Spray Cook Starch Product Transfer to Bag Packer #3 (41F7), O.S. Starch Product Transfer to Bag Packer #3 (41F181), Spray Cook/O.S. Starch Products Bag Packer #3 (41Z3)	Baghouse (41F181 or 41F7) - 0.005 gr/dscf, 3% opacity, combined limit of 0.11 lb/hr PM/PM10			
Rolled Dried Starch Products Bag Packer #3 (41Z5), Rolled Dried Starch Products Bag Packer #3 (41Z5)	Baghouse (41F18) - 0.005 gr/dscf, combined limit of 0.11 lb PM/PM10, 3% opacity			

Operation	Control Technology	Permit Issuance Date	Company Name	Basis – BACT/ LAER
Malto Product Transfer to Bag Packer #3 (41F182), Malto Product Bag Packer #3 (41Z1)	Baghouse (41F182) 0.005 gr/dscf, combined limit of 0.11 lb PM/PM10, 3% opacity			
Dry Starch Reacted Product Transfer to Bag Packer #3 (41F183), Dry Starch Reacted Products Bag Packer #3 (41Z2)	Baghouse (41F183) 0.005 gr/dscf, combined limit of 0.11 lb PM/PM10, 3% opacity			
Bag Packer #3 House Dust Collector (41F186)	Baghouse (41F186) 0.005 gr/dscf, limit of 0.65 lb PM/PM10, 3% opacity			
Existing BACT for product handling, transfer, and storage bins	Fabric filters dust collectors – individually limited to 0.005 gr/dscf of PM/PM10 and lb/hr and 3% opacity	PSD 157-18832		
Starch Blending Bins/Loading/ Handling	Baghouse – 0.005 gr/dscf PM10 0.09 lb/hr PMPM10	6/10/97	Grain Processing - Indiana	BACT

The RACT/BACT/LAER Clearinghouse listed only Grain Processing Corporation, Washington, Indiana with starch handling and storing operations. The BACT required for this operation was the operation of a baghouse with a PM/PM10 emissions limit of 0.005 grains per dry standard cubic foot of air (gr/dscf), and 0.09 lb/hr. Tate & Lyle is meeting this BACT limit for starch handling and storing with a baghouse as the control and a limit of 0.005 gr/dscf PM/PM10 emissions and a 3% opacity. Therefore, no further evaluation of this operation is required under the EPA's top-down BACT approach, and an economic, energy, or environmental impact analysis is not required as part of the BACT evaluation for this operation.

(d) New Feed, Meal, Germ Production Operations - Fiber Flash Dryer (21D501), Fiber Flash Dryer Furnace (21B501), RST Germ Dryer (21D401) (Permitted by PSD permit 157-18832-00003, but not constructed), Gluten Meal Flash Dryer (48D101) (Permitted by PSD permit 157-18832-00003, but not constructed), RST Feed Dryer (21D301) (Permitted by PSD permit 157-18832-00003, but not constructed).

Operation	Control Technology	Permit Issuance Date	Company Name	Basis - BACT/ LAER
Proposed: Fiber Flash Dryer (21D501) (indirect fired) Fiber Flash Dryer Furnace (21B501) (60 mmBtu/hr) (no process emissions except combustion emissions) RST Germ Dryer (21D401) (steam only) Gluten Meal Flash Dryer (48D101) (30 MMBtu/hr) RST Feed Dryer (21D301) (steam only) Corn Cleaning Receiver (21F304), Feed Loadout Hopper (21V125), Feed Cooler (21D8) (Formerly Meal Dryer (21D8)	All units except Fiber Flash Dryer Furnace (21B501) are controlled by a Scrubber in series with 2 thermal oxidizers – 0.031 gr/dscf PM/PM10 after each RTO, 7.38 lbs/hr PM/PM10, and 8% opacity. Fiber Flash Dryer Furnace (21B501) vents directly to the stack.	Proposed	Tate & Lyle – Sagamore Plant, Lafayette, Indiana	
Existing BACT for Feed, meal fiber, and germ dryers	Controlled by thermal oxidizer – 0.015 gr/scf, limit of 7.7 lb/hr PM/PM10 combined limit, and 8% opacity	PSD 157-18832		
Feed Dryer	Cyclones – 8.4 lb PM/hr	-	Corn Products	-
Fiber Dryer	Wet scrubber – 5 lbs PM/hr	-	Cargill, Inc.- Iowa	-
Corn Germ Dryer	Wet scrubber with Caustic – 0.01 gr/dscf PM/PM10			
Corn Gluten Dryer	Venturie scrubber – 0.3 gr/dscf PM, 0.019 gr/dscf PM10, 20% opacity	12/12/97	Minnesota Corn Processors – Lyon County, Minnesota	BACT

Tate & Lyle's proposed BACT for the combination of germ, feed, fiber, and meal dryers is a scrubber in series with 2 thermal oxidizers since the material being emitted is organic, with a limit of 0.031 gr/dscf of PM/PM10 (condensable and filterable). Each of the other entries from this table limits the PM/PM10 from only one operation, rather than all fiber, germ, feed, and meal dryers. Although the table shows Cargill, Inc., Iowa with the most stringent PM/PM10 BACT limit, the characteristic of the air stream from a corn germ dryer is not comparable with Tate & Lyle air stream from the combination of germ, feed, fiber, and meal dryers. Therefore, Tate & Lyle's scrubber in series with 2 thermal oxidizers with a grain loading of 0.031 gr/dscf is considered BACT for the germ, feed, fiber, and meal dryers.

(e) Corn Receiving, Cleaning, and Conveying Operation – Vibrating Corn Cleaning (14JAA), Bucket Elevator from Silos to Steeps (14UBB)

Operation	Control Technology	Permit Issuance Date	Company Name	Basis – BACT/ LAER
Proposed: Modified Vibrating Corn Cleaning (14JAA) and Bucket Elevator from Silos to Steeps (14UBB)	Baghouse – 0.004 gr/dscf, 1.18 lb/hr PM/PM10, and 3% opacity	Proposed	Tate & Lyle Sagamore Plant, Lafayette, Indiana	BACT
Existing BACT for Vibrating corn cleaning system, transfer, and silos	Baghouses – 0.005 gr/dscf, individual lb/hr limit, and 3% opacity	PSD 157-18832		
Grain Receiving	Baghouse – 99.8% efficiency, 0.004 gr/dscf PM/PM10 3-hr average, 0 % opacity 6 minute average	8/4/04	Red Trail Energy, LLC – Stark County, North Dakota	BACT
Corn Dump Pit, Auger, Corn Elevator	Baghouse – 0.004 gr/dscf, 0.17 lb/hr PM only	1/21/04	Ace Ethanol, LLC, Stanley, Wisconsin	BACT
Grain Receiving/Transport/Storage	Baghouse -97% efficiency	8/14/03	United Wisconsin Grain Producers – Columbia County, Wisconsin	BACT
Corn Receiving and Cleaning	Baghouse – 0.01 gr/dscf PM/PM10	12/12/97	Minnesota Corn Processors – Lyon County, Minnesota	BACT

The RACT/BACT/LAER Clearinghouse listed all sources identified, with different levels of BACT. Red Trail Energy, LLC, Stark County, North Dakota, has the most stringent BACT on the grain receiving operation, which is the use of a baghouse with a limit of 0.004 gr/dscf of PM/PM10 on 3-hour average, and 0% opacity as a 6 minute average. However, this plant has not been built. Therefore, the most stringent BACT is from Ace Ethanol, LLC, Stanley, Wisconsin with a baghouse to control PM/PM10, limited at 0.004 gr/dscf. Tate & Lyle proposed a baghouse as the control for the corn cleaning, transfer and storage with a limit of 0.004 gr/dscf for PM/PM10 and a 3% opacity, which meets the most stringent BACT from Ace Ethanol, LLC. Therefore, no further evaluation of this operation is required under the EPA's top-down BACT approach, and an economic, energy, or environmental impact analysis is not require as part of the BACT for this operation.

BACT Conclusion for PM/PM10

The BACT for PM/PM10 from the following operations has been determined to be as follows:

Operation	BACT for PM/PM10
Hammermill/Loadout	Wet Scrubber - 0.0089 gr/scf, 0.204 lb/hr PM/PM10, 8% opacity
Gluten Meal - Transfer Receiver (12FAA),	Baghouse - 0.005 gr/dscf, 3% opacity, and a limit of 0.40 lb/hr PM/PM10
Product Transfer to Bins #14, #15, & #KK (41C30)	Baghouse -, 0.005 gr/dscf, 3% opacity 0.08 lb/hr PM/PM10
Fiber Flash Dryer (21D501) (indirect fired) Fiber Flash Dryer Furnace (21B501) (60 mmBtu/hr) (no process emissions except combustion emissions) RST Germ Dryer (21D401) (steam only) Gluten Meal Flash Dryer (48D101) (30 MMBtu/hr) RST Feed Dryer (21D301) (steam only) Corn Cleaning Receiver (21F304), Feed Loadout Hopper (21V125), Feed Cooler (21D8) (Formerly Meal Dryer (21D8)	All units except Fiber Flash Dryer Furnace (21B501) are controlled by a Scrubber in series with 2 thermal oxidizers – 0.031 gr/dscf PM/PM10 after each RTO, 7.38 lbs/hr PM/PM10, and 8% opacity. Fiber Flash Dryer Furnace (21B501) vents directly to the stack.
Modified Vibrating Corn Cleaning (14JAA) and Bucket Elevator from Silos to Steeps (14UBB)	Baghouse – 0.004 gr/dscf, 1.18 lb/hr PM/PM10, and 3% opacity

Sulfur Dioxide (SO_2) BACT:

The primary SO_2 sources are from various, meal, feed, and fiber flash dryers combustion emissions, germ drying, and from wet milling operation, where sulfur dioxide is added as part of the corn steeping process.

The following new emission units will be installed at the existing wet milling aspiration system:

(1) Germ Cooler Rotary Airlock Valves (21D3) (formerly Germ Dryer 21D3)

(2) Gluten Vacuum Filter (21F5)

(3) Gluten Vacuum Filter Pump (21C105)

The new emissions units will be required to achieve grind rates established in the September 2005 PSD permit (100,000 average/110,000 peak bushels per day corn). The new emission units will be installed in the existing wet mill aspiration system, however, they will not affect the current design or emission limits for the wet mill aspiration scrubber because the gas flow rate will not change.

Step 1: Identify Potential Control Technologies

Sulfur dioxide is formed from the oxidation of sulfur compounds in waste streams. In the case of corn wet milling, sulfur dioxide is added as part of the corn steeping process. Control measures are the use of add-on controls.

Add-on control measures are generally based upon exposure of sulfur dioxide molecules to reagents that react with sulfur dioxide to form a sulfate molecule that can then be captured as a particulate. Sulfur dioxide control systems vary in reagent utilized to react with sulfur dioxide, the manner in which the reagent is exposed to sulfur dioxide, and the manner in which sulfate molecules are captured.

(1) Flue Gas Desulfurization System (Wet or Dry Scrubber) – A flue gas desulfurization system (FGD) is comprised of a spray dryer that uses lime as a reagent followed by particulate control or wet scrubber that uses limestone as a reagent. FGD is an established technology. FGD typically operates at an inlet temperature of approximately 400^0F to 500^0F. The concentration of SO_2 in the exhaust gas is the driving force for the reaction between SO_2 and the reagent. Therefore, removal efficiencies are significantly reduced with lower inlet concentrations of SO_2. FGD systems are listed in the RBLC as BACT for sources high in SO_2 emissions. Tate & Lyle SO_2 concentrations in the exhaust gases are very low, which makes it not technically feasible to use.

(2) Caustic Wet Scrubber - The caustic scrubbing system that controls emissions by 90% at a higher concentration is a proven system and operates at or below 250^0F. This control option is technically feasible for Tate's & Lyle operation and will be further evaluated for control of SO_2.

Step 2: Eliminate Technically Infeasible Options

The FGD system is not technically feasible as Tate & Lyle's temperatures of operations are from ambient to 150°F.

Step 3: Rank The Remaining Control Technologies By Control Effectiveness

(a) Wet Mill Aspiration System: Germ Cooler Rotary Airlock Valves (21D3) formerly Germ Dryer (21D3), Gluten Vacuum Pump (21C105), and Gluten Vacuum Filter (21F5):

Operation	Control Technology/Limit	Permit Issuance Date	Company Name	Basis – BACT/LAER
Proposed: Wet Mill Aspiration System: Germ Cooler Rotary Airlock Valves (21D3) formerly Germ Dryer (21D3), Gluten Vacuum Pump (21C105), and Gluten Vacuum Filter (21F5)	Caustic scrubber system –At >150 ppmvw inlet SO2 concentration to the scrubber, the scrubber shall have a control efficiency of 90%, and outlet limit of 8.17 lb/hr (based on 15 ppmvw and 57,932 acfm at 100^0F) At ≤ 150 ppmvw, the scrubber shall have an outlet concentration of < 15ppmvw, and an emission rate limit of 8.17 lb/hr	Proposed	Tate & Lyle Sagamore – Lafayette, Indiana	BACT
Existing BACT - Aspiration System	Caustic scrubber system- (1) When the inlet SO_2 concentration to the scrubber is greater than 150 ppmvw, the scrubber shall have a minimum SO_2 control efficiency of 90%, and the scrubber outlet SO_2 emission rate shall not exceed 8.17 lbs/hr (based on 15 ppmvw and 57,932 acfm at 100°F) $SO_{2;}$ and (2) When the inlet SO_2 concentration to the scrubber is 150 ppmvw or less, the scrubber shall have an outlet SO_2 concentration of less than 15 ppmvw, and the scrubber outlet SO_2 emission rate shall not exceed 8.17 lbs/hr.	PSD 157-18832		
Wet Milling & Aspiration	Packed Tower Scrubber – 70% efficiency for SO_2,14.96 lbs/hr SO_2	-	Minnesota Corn Processors (MN-0026)	-
Steephouse aspiration II Mill aspiration II	Packed Tower Scrubber - 0.41 lbs SO_2/hr Packed Tower Scrubber - 1.41 lbs SO_2/hr	8/27/98	Cargill, Eddyville, Iowa	BACT

Operation	Control Technology/Limit	Permit Issuance Date	Company Name	Basis – BACT/LAER
Steephouse aspiration	Scrubber SO_2 limit – 0.83 lb/hr	6/22/04	Cargill, Inc. Washington, Nebraska	BACT

Tate & Lyle's proposed BACT, which is a caustic scrubber with 90% control efficiency, and an outlet SO_2 limit of 8.17 lbs/hr (based on concentration of 15 ppmvw when the inlet concentration is ≤ 150 ppmvw) is for the entire source's process operations emitting SO_2, which includes the steephouse, wet mill process, and the feed house. The scrubber for the Cargill, Eddyville, and the scrubber for the Cargill, Washington only control one process operation. Therefore, Tate & Lyle proposed BACT is more stringent than all the entries in the RACT/BACT/LAER Clearinghouse. Therefore, no additional evaluation is required for this operation under the EPA's top-down BACT approach, and an economic, energy, or environmental impact analysis is not required as part of the BACT evaluation for this operation.

(b) New Feed, Meal, Germ Production Dryers – Fiber Flash Dryer (21D501), RST Germ Dryer (21D401) (Permitted by PSD permit 157-18832-00003, but not constructed), Gluten Flash Dryer (48D101) (Permitted by PSD permit 157-18832-00003, but not constructed), RST Feed Dryer (21D301) (Permitted by PSD permit 157-18832-00003, but not constructed):

Operation	Control Technology	Permit Issuance Date	Company Name	Basis – BACT/ LAER
<u>Proposed:</u> New Feed, Meal, Germ Production Dryers	Caustic scrubber – 90% control efficiency At >100 ppmvw inlet SO2 concentration, the scrubber shall have a 90% control efficiency, and 4.4 lb/hr SO2 emission rate. At ≤ 100 ppmvw inlet SO2 concentration, the scrubber shall have an outlet SO2 concentration of 10 ppmvw or less, and 4.4 lb/hr SO2 emission rate.	Proposed	Tate & Lyle Sagamore – Lafayette, Indiana	BACT
Existing BACT for the feed, meal fiber, and gluten dryers	Scrubber - At >100 ppmvw inlet SO2 concentration, the scrubber shall have a 90% control efficiency, and 5.97 lb/hr SO2 emission rate. At ≤ 100 ppmvw inlet SO2 concentration, the scrubber shall have an outlet SO2 concentration of 10 ppmvw or less, and 5.97 lb/hr SO2 emission rate.	PSD 157-18832		

Operation	Control Technology	Permit Issuance Date	Company Name	Basis – BACT/ LAER
Germ Dryer	No Control Limit -0.03 lbs/hr, 0.0006 lb SO_2/MMBtu (combustion emission limit)	8/27/98	Cargill, Inc. - Nebraska	BACT
Gluten Flash Dryer (45 MMBtu/hr) Germ Dryer (50 MMBtu/hr)	No Control on all units SO_2 limit – 7 lb/hr SO_2 limit – 2.1 lb/hr	6/22/04	Cargill, Inc. Washington, Nebraska	BACT

For feed, meal, and germ drying operations, the RACT/BACT/LAER Clearinghouse listed the BACT as no control for the drying operation and SO_2 limits for the dryers' combustion emissions in pound per hour (lb/hr). Tate & Lyle's proposed BACT, which is a caustic scrubber with 90% control efficiency, and an outlet SO2 concentration of 10 ppmvw when the inlet concentration is ≤ 100 ppmvw, is more stringent than the BACT established from sources identified. Therefore, no additional evaluation is required for this operation under the EPA's top-down BACT approach, and an economic, energy, or environmental impact analysis is not required as part of the BACT evaluation for this operation.

BACT Conclusion for SO_2

The BACT for SO_2 from the following operations has been determined to be as follows:

Operation	BACT for SO_2
Wet Mill Aspiration System: Germ Cooler Rotary Airlock Valves (21D3) formerly Germ Dryer (21D3), Gluten Vacuum Pump (21C105), and Gluten Vacuum Filter (21F5)	Caustic scrubber system –At >150 ppmvw inlet SO2 concentration to the scrubber, the scrubber shall have a control efficiency of 90%, and outlet limit of 8.17 lb/hr (based on 15 ppmvw and 57,932 acfm at 100^{0}F) At ≤ 150 ppmvw, the scrubber shall have an outlet concentration of < 15ppmvw, and an emission rate limit of 8.17 lb/hr
New Feed, Meal, Germ Production Dryers - Fiber Flash Dryer (21D501), RST Germ Dryer (21D401), Gluten Flash Dryer (48D101), and RST Feed Dryer (21D301)	Caustic scrubber – 90% control efficiency. At >100 ppmvw inlet SO2 concentration, the scrubber shall have a 90% control efficiency, and 4.4 lb/hr SO2 emission rate. At ≤ 100 ppmvw inlet SO2 concentration, the scrubber shall have an outlet SO2 concentration of 10 ppmvw or less, and 4.4 lb/hr SO2 emission rate.

Volatile Organic Compounds (VOC) BACT:

The primary VOC emission sources are from the feed, meal, fiber, and gluten flash drying operation and the wet milling aspiration operation, which is affected by the installation of new germ cooler rotary airlock valves, gluten vacuum filter, and gluten vacuum filter pump.

(a) Wet Mill Aspiration System

Tate & Lyle has determined that the following new emission units will be required to achieve grind rates established in the original PSD permit application (100,000 average/110,000 peak bushels per day corn). These additional emission sources will not affect the current design or emission limits for the wet mill aspiration scrubber discussed below.

(1) Germ Cooler Rotary Airlock Valves (21D3) (formerly Germ Dryer 21D3)

(2) Gluten Vacuum Filter (21F5)

(3) Gluten Vacuum Filter Pump (21C105)

Step 1: Identify Potential Control Technologies

There are two categories of controls for volatile organic compounds (VOCs); destruction processes and reclamation processes. Destruction technologies reduce the VOC concentration by high temperature oxidation into carbon dioxide and water vapor. Reclamation is the capture of VOCs for reuse or disposal. There are also commercially available combinations of reclamation and destruction technologies.

Destruction Control Methods

The destruction of organic compounds usually requires temperatures ranging from 1200°F to 2200°F for direct thermal oxidizers or 600°F to 1200°F for catalytic systems. Combustion temperature depends on the chemical composition and the desired destruction efficiency. Carbon dioxide and water vapor are the typical products of complete combustion. Turbulent mixing and combustion chamber retention times of 0.5 to 1.0 seconds are needed to obtain high destruction efficiencies.

Fume oxidizers typically need supplemental fuel. Concentrated VOC streams with high heat contents obviously require less supplementary fuel than more dilute streams. VOC streams sometimes have a heat content high enough to be self-sustaining, but a supplemental fuel-firing rate equal to about 5% of the total oxidizer heat input is usually needed to stabilize the burner flame. Natural gas is the most common fuel for VOC oxidizers, but fuel oil is an option in some circumstances.

Combustion control technologies include recuperative thermal oxidation, regenerative thermal oxidation, recuperative catalytic oxidation, regenerative catalytic oxidation, and flares.

Reclamation Control Methods

Organic compounds may be reclaimed by one of three possible methods; adsorption, absorption (scrubbing) or condensation. In general, the organic compounds are separated from the emission stream and reclaimed for reuse or disposal. Depending on the nature of the contaminant and the inlet concentration of the emission stream, recovery technologies can reach efficiencies of 98%.

Adsorption is a surface phenomenon where attraction between the carbon and the VOC molecules binds the pollutants to the carbon surface. Both carbon and VOC are chemically intact after adsorption. The VOCs may be removed, or desorbed, from the carbon and reclaimed or destroyed.

Absorption is a unit operation where components of a gas phase mixture (pollutants) are selectively transferred to a relatively nonvolatile liquid, usually water. Sometimes, organic liquids, such as mineral oil or non volatile hydrocarbons, are suitable absorption solvents. The choice of solvent depends on cost and the solubility of the pollutant in the solvent.

Condensation is the separation of VOCs from an emission stream through a phase change, by either increasing the system pressure or, more commonly, lowering the system temperature below the dew point of the VOC vapor. When condensers are used for air pollution control, they usually operate at the pressure of the emission stream, and typically require a refrigeration unit to obtain the temperature necessary to condense the VOCs from the emission stream.

<u>Combination Control Methods</u>

In some cases, a combination of control technologies offers the most efficient and cost effective VOC control.

The combination of carbon adsorption with recuperative thermal incineration is available from several vendors. This system concentrates the VOC stream by using carbon adsorption to remove low concentration VOCs in an emission stream and then uses a lower volume of hot air, commonly one-tenth the original flow, to desorb the pollutants. A recuperative incinerator for destroying pollutants in the concentrated stream is much smaller and has lower supplemental fuel requirements than an incinerator sized for the full emission stream volume.

Absorption systems can also be used to concentrate emission streams to reduce the size of destruction equipment. The concentration effect is not as extreme as with carbon adsorption, a concentrated exhaust stream one quarter the volume of the inlet stream seems to be the practical limit. Absorption concentrators are typically suited for batch processes or to equalize pollutant concentrations in a variable stream. The physical characteristics that drive the absorption of pollutants into a liquid also limit the opportunity to remove those pollutants from the liquid stream.

<u>Innovative Technologies</u>

Review of the literature indicates that other technologies may destroy VOC pollutants.

Biofilters, either outdoor piles similar to compost piles or sophisticated installations involving fixed film on granular activated carbon substrates, appear to work, although such systems are large and require considerable space. Systems applying ultraviolet radiation, either with a titanium dioxide catalyst or in combination with hydrogen peroxide, also show promise.

Step 2: Eliminate Technically Infeasible Options

None of the innovative applications are well documented, with little information on process costs. Thus, none of the novel technologies can be considered commercially available.

Adsorption is not used in this industry as the sieves are likely to be plugged up. Condensation is also not used for the aspiration system in this industry.

Thermal oxidation and absorption control technologies may be used in this industry.

Step 3: Rank The Remaining Control Technologies By Control Effectiveness

(1) Thermal oxidation

(2) Absorption

Step 4: Evaluate The Most Effective Controls And Document The Results

Tate & Lyle evaluated thermal oxidation to control VOC emissions from aspiration. This control option would be capable of achieving a minimum of 95% overall control efficiency. IDEM concluded that the estimated cost of $10,546 per ton of VOC to control VOC emissions using thermal oxidation was economically infeasible. Tate & Lyle proposed absorption using a wet scrubber to control VOC emissions from the wet milling aspiration system. The VOC control efficiency of this scrubber is 25%. The same scrubber also controls SO_2 emissions from the wet milling system. There are no entries from the RBLC or from other sources permitted by other states that where BACT requires the source to control VOC from this operation.

(a) Wet Mill Aspiration System: Germ Cooler Rotary Airlock Valves (21D3) formerly Germ Dryer (21D3), Gluten Vacuum Pump (21C105), and Gluten Vacuum Filter (21F5).

Operation	Control Technology	Permit Issuance Date	Company Name	Basis – BACT/LAER
<u>Proposed:</u> Germ Cooler Rotary Airlock Valves (21D3) formerly Germ Dryer (21D3), Gluten Vacuum Pump (21C105), and Gluten Vacuum Filter (21F5)	Wet scrubber – 25% control efficiency, 27 lb VOC/hr	Proposed	Tate & Lyle Sagamore – Lafayette, Indiana	BACT
Existing BACT for Gluten vacuum pump	Alkaline scrubber- 25% control efficiency, 27 lb/hr limit			
Wet Milling & Aspiration	None	-	Minnesota Corn Processors (MN-0026)	-
Steephouse aspiration III Mill aspiration II	No control and no VOC limits on both aspiration units	8/27/98	Cargill, Inc. - Eddyville, Iowa	BACT
Steephouse aspiration	No control and no VOC limit	6/22/04	Cargill, Inc. Washington, Nebraska	BACT

For the wet milling aspiration system, there were no BACT control and limits determined from sources identified from the RACT/BACT/LAER Clearinghouse and from sources permitted by other state agencies. Tate & Lyle's proposed BACT is the most stringent BACT for wet milling operation. Therefore, no additional evaluation is required for this operation under the EPA's top-down BACT approach for this operation.

(b) New Feed, Meal, Germ Dryers

(1) Fiber Flash Dryer (21D501)

(2) Fiber Flash Dryer Furnace (21B501)

(3) RST Germ Dryer (21D401) (Permitted by PSD permit 157-18832-00003, but not constructed)

(4) Gluten Flash Dryer (48D101) (Permitted by PSD permit 157-18832-00003, but not constructed)

(5) RST Feed Dryer (21D301) (Permitted by PSD permit 157-18832-00003, but not constructed)

Step 1: Identify Potential Control Technologies

There are two categories of controls for volatile organic compounds (VOCs); destruction processes and reclamation processes. Destruction technologies reduce the VOC concentration by high temperature oxidation into carbon dioxide and water vapor. Reclamation is the capture of VOCs for reuse or disposal. There are also commercially available combinations of reclamation and destruction technologies.

<u>Destruction Control Methods</u>

The destruction of organic compounds usually requires temperatures ranging from 1200°F to 2200°F for direct thermal oxidizers or 600°F to 1200°F for catalytic systems. Combustion temperature depends on the chemical composition and the desired destruction efficiency. Carbon dioxide and water vapor are the typical products of complete combustion. Turbulent mixing and combustion chamber retention times of 0.5 to 1.0 seconds are needed to obtain high destruction efficiencies.

Fume oxidizers typically need supplemental fuel. Concentrated VOC streams with high heat contents obviously require less supplementary fuel than more dilute streams. VOC streams sometimes have a heat content high enough to be self-sustaining, but a supplemental fuel-firing rate equal to about 5% of the total oxidizer heat input is usually needed to stabilize the burner flame. Natural gas is the most common fuel for VOC oxidizers, but fuel oil is an option in some circumstances.

Combustion control technologies include recuperative thermal oxidation, regenerative thermal oxidation, recuperative catalytic oxidation, regenerative catalytic oxidation, and flares.

<u>Reclamation Control Methods</u>

Organic compounds may be reclaimed by one of three possible methods; adsorption, absorption (scrubbing) or condensation. In general, the organic compounds are separated from the emission stream and reclaimed for reuse or disposal. Depending on the nature of the contaminant and the inlet concentration of the emission stream, recovery technologies can reach efficiencies of 98%.

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Absorption is a unit operation where components of a gas phase mixture (pollutants) are selectively transferred to a relatively nonvolatile liquid, usually water. Sometimes, organic liquids, such as mineral oil or non volatile hydrocarbons, are suitable absorption solvents. The choice of solvent depends on cost and the solubility of the pollutant in the solvent.

Condensation is the separation of VOCs from an emission stream through a phase change, by either increasing the system pressure or, more commonly, lowering the system temperature below the dew point of the VOC vapor. When condensers are used for air pollution control, they usually operate at the pressure of the emission stream, and typically require a refrigeration unit to obtain the temperature necessary to condense the VOCs from the emission stream.

<u>Combination Control Methods</u>

In some cases, a combination of control technologies offers the most efficient and cost effective VOC control.

The combination of carbon adsorption with recuperative thermal incineration is available from several vendors. This system concentrates the VOC stream by using carbon adsorption to remove low concentration VOCs in an emission stream and then uses a lower volume of hot air, commonly one-tenth the original flow, to desorb the pollutants. A recuperative incinerator for destroying pollutants in the concentrated stream is much smaller and has lower supplemental fuel requirements than an incinerator sized for the full emission stream volume.

Absorption systems can also be used to concentrate emission streams to reduce the size of destruction equipment. The concentration effect is not as extreme as with carbon adsorption, a concentrated exhaust stream one quarter the volume of the inlet stream seems to be the practical limit. Absorption concentrators are typically suited for batch processes or to equalize pollutant concentrations in a variable stream. The physical characteristics that drive the absorption of pollutants into a liquid also limit the opportunity to remove those pollutants from the liquid stream.

<u>Innovative Technologies</u>

Review of the literature indicates that other technologies may destroy VOC pollutants. Biofilters, either outdoor piles similar to compost piles or sophisticated installations involving fixed film on granular activated carbon substrates, appear to work, although such systems are large and require considerable space. Systems applying ultraviolet radiation, either with a titanium dioxide catalyst or in combination with hydrogen peroxide, also show promise.

Step 2: Eliminate Technically Infeasible Options

None of the innovative applications are well documented, with little information on process costs. Thus, none of the novel technologies can be considered commercially available.

Adsorption is not used in this industry as the sieves are likely to be plugged up. Condensation is also not used for the aspiration system in this industry.

Thermal oxidation and absorption control technologies may be used in this industry.

Step 3: Rank The Remaining Control Technologies By Control Effectiveness

(1) Thermal oxidation

(2) Absorption

Step 4: Evaluate The Most Effective Controls And Document The Results

Thermal oxidation has been proposed to control VOC emissions from feed, meal, and germ dryers. This control option is believed to have a minimum 95% overall control efficiency for dryers.

An inlet concentration limit was not recommended due to numerous compounds in the scrubber inlet comprising total VOC. To achieve more than 95% removal of VOC, the mass emission rate to the inlet of the scrubber must be greater than 100 lbs/hr based on the outlet emission limit of 3.16 lbs/hr. Tate & Lyle is not convinced that the RTO system will continue to achieve a demonstrable 95% removal rate when inlet emissions rates are below 100 lbs/hr. For instance, if the inlet rate is only 30 lbs/hr VOC, the outlet rate would only be 1.5 lbs/hr VOC or 4.75 ppmv VOC. Current test methods have limitations accurately measuring VOC's at very low concentrations making it difficult to demonstrate a 95% removal efficiency under all circumstances.

A higher control efficiency of the thermal oxidizer was investigated during the PSD permit 157-18832-00003, issued in September 2005, but the cost effectiveness to control VOC at 98% was determined to be more than $16,000 per ton.

(a) New Feed Meal, Germ Production Dryers – Fiber Flash Dryer (21D501), RST Germ Dryer (21D401) (Permitted by PSD permit 157-18832-00003, but not constructed), Gluten Flash Dryer (48D101) (Permitted by PSD permit 157-18832-00003, but not constructed), RST Feed Dryer (21D301) (Permitted by PSD permit 157-18832-00003, but not constructed):

Operation	Control Technology	Permit Issuance Date	Company Name	Basis – BACT/ LAER
<u>Proposed:</u> New Feed, Meal, Germ production Dryers	Scrubber followed by thermal oxidizers –combined overall control efficiency of 95% if the inlet VOC to the scrubber is more than 100 lb/hr, & the outlet VOC emission rate is limited to 3.16 lb/hr. When inlet VOC rate to the scrubber is 100 lb/hr or less, the thermal oxidizer shall have an outlet concentration of less than 10 ppmvw & the outlet VOC emission rate is limited to 3.16 lb/hr.	Proposed	Tate & Lyle Sagamore Plant, Lafayette, Indiana	BACT

Operation	Control Technology	Permit Issuance Date	Company Name	Basis – BACT/ LAER
Existing BACT	Scrubber followed by thermal oxidizers- combined overall control efficiency of 95% if the inlet VOC to the scrubber is more than 100 lb/hr, & the outlet VOC emission rate is limited to 4.29 lb/hr. When inlet VOC rate to the scrubber is 100 lb/hr or less, the thermal oxidizer shall have an outlet concentration of less than 10 ppmvw & the outlet VOC emission rate is limited to 4.29 lb/hr.			
Gluten Flash Dryer (45 MMBtu/hr) Germ Dryer (50 MMBtu/hr)	VOC limit – 0.12 lb/hr (natural gas combustion emissions only) VOC limit – 0.14 lb/hr (natural gas combustion emissions only)	6/22/04	Cargill, Inc., Blair Plant -Washington, Nebraska	BACT
Starch dryer (30 MMBtu/hr) Germ dryer & CGF dryer Maltodextrin dryer	Good combustion practices, VOC limit -1 lb/hr Thermal Oxidizer –5.35 lb VOC/hr Good Combustion Practices, VOC Limit - 1 lb/hr	Proposed T027-14200-00046	Grain Processing Corporation, Indiana	BACT

For the fiber, feed, meal, and germ dryers, the RACT/BACT/LAER Clearinghouse, and from sources permitted by other state agencies, listed Grain Processing Corporation, Indiana with the most stringent BACT on the germ drying operation. Tate & Lyle's proposed BACT is the most stringent BACT for all the different types of drying operations (feed, meal, and germ drying). Therefore, no additional evaluation is required for this operation under the EPA's top-down BACT approach, and an economic, energy, or environmental impact analysis is not required as part of the BACT evaluation for this operation.

BACT Conclusion for VOC

The BACT for VOC from the following operations has been determined to be as follows:

Operation	BACT for VOC
Germ Cooler Rotary Airlock Valves (21D3) formerly Germ Dryer (21D3), Gluten Vacuum Pump (21C105), and Gluten Vacuum Filter (21F5)	Wet scrubber – 25% control efficiency, 27 lb VOC/hr
New Feed, Meal, Germ production Dryers	Scrubber followed by thermal oxidizers – combined overall control efficiency of 95% if the

Operation	BACT for VOC
	inlet VOC to the scrubber is more than 100 lb/hr, & the outlet VOC emission rate is limited to 3.16 lb/hr. When inlet VOC rate to the scrubber is 100 lb/hr or less, the thermal oxidizer shall have an outlet concentration of less than 10 ppmvw & the outlet VOC emission rate is limited to 3.16 lb/hr.

Nitrogen Oxide (NOx) BACT:

The primary NOx emission sources from this modification are from fiber and meal flash dryer combustion emissions, and from the RTOs. The germ and feed dryers are steam tube dryers and are not sources of NOx.

The following emission units are subject to BACT for NOx:

Fiber, Feed, Meal, Germ Production Operations:

(1) Fiber Flash Dryer Furnace (21B501)

(2) Gluten Flash Dryer (48D101) (Permitted by PSD permit 157-18832-00003, but not constructed)

(3) Regenerative Thermal Oxidizer (48F201) (Permitted by PSD permit 157-18832-00003, but not constructed)

(4) Regenerative Thermal Oxidizer (48F202) (Permitted by PSD permit 157-18832-00003, but not constructed)

Nitrogen oxide (NO_X) emissions include nitric oxide (NO) and nitrogen dioxide (NO_2). Approximately 95 percent of the NO_X formed during combustion processes is NO, with most of the remaining emitted as NO_2. Because NO_X emissions tend to oxidize as NO_2 in the atmosphere, NO_X emissions are generally expressed in units of NO_2 equivalent emissions. NO_X is formed from the chemical reaction between nitrogen and oxygen at high temperatures. NO_X formation during combustion occurs in three ways:

(1) Oxidation of nitrogen in the combustion air which occurs at elevated temperatures (thermal NO_X);

(2) A reaction of hydrocarbons and nitrogen followed by oxidation (prompt NO_X); and

(3) Oxidation of nitrogen chemically bound in the fuel (fuel NO_X).

Step 1: Identify Potential Control Technologies

The general approaches to control NO_X emissions from stationary sources include:

(1) Limiting the nitrogen content of fuels combusted;

(2) Add-on controls; or

(3) Combustion controls

Combustion Controls

NO_X emissions can be reduced significantly by minimizing the rate at which NO_X is formed in the combustion process. This can be accomplished by manipulating the combustion process to occur under fuel rich conditions or by reducing the peak flame temperature.

NO_X reduction technologies using combustion controls include the following approaches:

(1) Low Excess Air (LEA)

(2) Off-Stoichiometric (OS) Firing

(3) Low NO_X Burners (LNB)

(4) Flue Gas Recirculation (FGR)

Potential control options for achieving fuel rich combustion include Low Excess Air (LEA) operation, Off-Stoichiometric (OS) Firing, [which here refers to Burners Out Of Service (BOOS) or Overfire Air (OFA)], and Low NO_X Burners (LNBs). Reducing the flame temperature inhibits thermal NO_X production and can be implemented by Flue Gas Recirculation (FGR).

Add-on control technologies and combustion control approaches are discussed below:

Step 2: Eliminate Technically Infeasible Options

Selective Catalytic Reduction

Selective Catalytic Reduction (SCR) process involves the mixing of anhydrous or aqueous ammonia vapor with flue gas and passing the mixture through a catalytic reactor to reduce NO_X to N_2. Under optimal conditions, SCR can have removal efficiency up to 90% when used on steady state processes. The efficiency of removal will be reduced for processes that are not stable or require frequent changes in the mode of operation.

The most important factor affecting SCR efficiency is temperature. SCR can operate in a flue gas window ranging from 500°F to 1100°F, although the optimum range for SCR to be effective is 625°F to 700°F.

SCR was determined to be technologically infeasible for the fiber flash dryer furnace (21B501) because it operates with an exhaust at much lower temperature than 500°F.

Selective Non-Catalytic Reduction

With selective non-catalytic reduction (SNCR), NO_X is selectively removed by the injection of ammonia or urea into the flue gas at an appropriate temperature window of 1600°F to 2000°F and without employing a catalyst. Similar to SCR without a catalyst bed, the injected chemicals selectively reduce the NO_X to molecular nitrogen and water. This approach avoids the problem related to catalyst fouling but the temperature window and reagent mixing residence time is critical for conducting the necessary chemical reaction. At the proper temperature, urea decomposes to produce ammonia which is responsible for NO_X reduction. At a lower temperature, the rates of NO_X reduction reactions become too slow resulting in urea slip (i.e., emissions of unreacted urea).

SNCR was determined to be technologically infeasible for the fiber flash dryer furnace (21B501) because it operates with an exhaust at much lower temperature than 1600°F.

Step 3: Rank The Remaining Control Technologies By Control Effectiveness

The only remaining control technology that is technologically feasible is combustion controls. Thus, it is the highest ranked option.

(a) New Feed Meal, Germ Production Dryers –Fiber Flash Dryer Furnace (21B501), Gluten Flash Dryer (48D101) (Permitted by PSD permit 157-18832-00003, but not constructed), Regenerative Thermal Oxidizer (48F201) (Permitted by PSD permit 157-18832-00003, but not constructed), and Regenerative Thermal Oxidizer (48F202) (Permitted by PSD permit 157-18832-00003, but not constructed):

Operation	Control Technology/Limit	Permit Issuance Date	Company Name	Basis – BACT/ LAER
Proposed: Fiber Flash Dryer Furnace (21B501) (60 MMBtu/hr)	NOx Limit – 0.06 lb/MMBtu			
Gluten Flash Dryer (48D101)	NOx Limit – 0.06 lb/MMBtu			
Regenerative Thermal Oxidizer (48F201) (5 MMBtu/hr)	NOx Limit – 0.06 lb/MMBtu			
Regenerative Thermal Oxidizer (48F202) (5 MMBtu/hr)	NOx Limit – 0.06 lb/MMBtu			
Existing BACT for the fiber flash, gluten flash and regenerative thermal oxidizers	Low NOx burners – NOx limit of 0.06 lb/MMBtu			
Germ Dryer & Gluten Dryer	Each dryer - Water Quench & Low NOx Burner NOx Limit – 0.06 lb/MMBtu	proposed	Grain Processing Corporation	BACT
Maltodextrin Dryer	Low NOx Burner NOx Limit – 0.075 lb/MMBtu			
Gluten Flash Dryer (45 MMBtu/hr)	NOx limit – 0.2 lb/MMBtu, 9 lb/hr	6/22/04	Cargill, Inc. Washington, Nebraska	BACT
Germ Dryer (50 MMBtu/hr)	NOx limit – 0.2 lb/MMBtu, 10 lb/hr			

For the germ, gluten dryers, and RTOs, the RACT/BACT/LAER Clearinghouse, and from sources permitted by other state agencies, listed Grain Processing Corporation, Indiana, with the most stringent BACT on the germ and gluten dryers at 0.06 pound of NOx per million Btu heat input (lb/MMBtu). Tate & Lyle is proposing to meet this most stringent BACT for the fiber, gluten and 2 RTOs. Therefore, no additional evaluation is required for this operation under the EPA's top-down BACT approach, and an economic, energy, or environmental impact analysis is not required as part of the BACT evaluation for this operation.

BACT Conclusion for NOx

The BACT for NOx from the following operations has been determined to be as follows:

	Dryer Furnace Heat Input (MMBtu/hr)	Proposed BACT Limit (lbs/MMBtu)	Proposed BACT Limit (lbs/hr)
Fiber Flash Dryer Furnace (21B501)	60	0.06	3.6
Gluten Meal Flash Dryer (48D101)	30	0.06	1.8
Regenerative Thermal Oxidizer (48F201)	5	0.06	0.3
Regenerative Thermal Oxidizer (48F202)	5	0.06	0.3
Total (Dryer Furnaces)	100		6

There is only a single hourly NOx emission rate of 6.0 lbs/hr (26.3 tpy) from the fiber, feed, meal, and germ drying system to Stack 17. All of the dryers share the same emission control system (scrubber followed by RTO's) and each of the combustion burners are subject to the same BACT limit on a lb/MMBtu basis. Since combustion exhaust gases from the fiber flash dryer furnace are not in direct contact with fiber in the closed circuit flash dryer, emissions from the furnace exhaust directly to Stack 17.

Measurement of natural gas usage at each combustion unit (dryer furnace or RTO) is not necessary. Similarly, measurement of biogas is not necessary for the fiber flash dryer furnace (21B501) or gluten meal flash dryer (48D101). Therefore, compliance during an emission test should be determined at the combined exhaust of the RTO's and fiber dryer furnace to Stack 17 by determining the mass emission rate and by measurement of total natural gas and biogas usage in the fiber, feed, meal, and germ drying system.

Appendix D

<table>
<tr><th colspan="4">Current Stack ID and Equipment Tag Numbers</th><th colspan="3">Revised Stack ID and Euipment Tag Numbers</th></tr>
<tr><th>Source Description</th><th>Permit
S/V ID</th><th>Equip. ID
Tag #</th><th>Control ID
Tag #</th><th>New
S/V ID</th><th>Equip. ID
Tag #</th><th>Control ID
Tag #</th></tr>
<tr><td>Railcar Corn Dump Hopper</td><td rowspan="8">136</td><td>12V101</td><td rowspan="6">21F1</td><td rowspan="15">433</td><td>12V101</td><td rowspan="15">08F300</td></tr>
<tr><td>Truck Corn Dump Hopper</td><td>12V102</td><td>12V102</td></tr>
<tr><td>Bucket Corn Elevator</td><td>12U2</td><td>12U2</td></tr>
<tr><td>Two Corn Transfer Conveyors</td><td>12U4, 12U5</td><td>12U4, 12U5</td></tr>
<tr><td>Five Corn Storage Silos</td><td>13V1, 13V2, 13V3, 13V4, 13V5</td><td>13V1, 13V2, 13V3, 13V4, 13V5</td></tr>
<tr><td>Two Corn Storage Silos</td><td>13VAA, 13VBB</td><td>13VAA, 13VBB</td></tr>
<tr><td>Three Corn Transfer Conveyors</td><td>13U6, 13U7, 13U8</td><td rowspan="2">21F17</td><td>13U6, 13U7, 13U8</td></tr>
<tr><td>Two Co-Product Loadout Conveyors</td><td>8U39, 8U41</td><td>Delete Equipment</td></tr>
<tr><td>Bucket Elevator from Silos to Steeps</td><td rowspan="5">126</td><td>14U9</td><td rowspan="5">14F2</td><td>14U9</td></tr>
<tr><td>Corn Weigher</td><td>14V1</td><td>14V1</td></tr>
<tr><td>Two Corn Cleaners</td><td>14J4, 14J5</td><td>14J4, 14J5</td></tr>
<tr><td>Vibrating Corn Cleaning System</td><td>14JAA</td><td>14JAA</td></tr>
<tr><td>Bucket Elevator from Silos to Steeps</td><td>14UBB</td><td>14UBB</td></tr>
<tr><td>Corn Cleanings Pneumatic Transfer</td><td>137</td><td>21F2</td><td>21F2</td><td>Delete Equipment</td></tr>
<tr><td>Vibrating Corn Cleaning Pneu. Transfer</td><td>394</td><td>21FMM</td><td>21FMM</td><td>21FMM</td></tr>
<tr><td colspan="7">The co-product loadout conveyors (8U39 & 8U41) will be shutdown upon startup of the new germ and meal storage loadout systems</td></tr>
<tr><td>Eight Steep Tanks</td><td rowspan="5">17</td><td>14VAA, 14VBB, 14VCC, 14VDD, 14VEE, 14VFF, 14VGG, 14VHH</td><td rowspan="5">15FAA</td><td rowspan="6">17</td><td>14V400, 14V401, 14V402, 14VDD, 14VEE, 14VFF, 14VGG, 14VHH</td><td rowspan="6">15F401</td></tr>
<tr><td>Gluten Vacuum Filter</td><td>21FAA</td><td>21F6</td></tr>
<tr><td>Gluten Vacuum Filter Pump</td><td>21CBB</td><td>21C6</td></tr>
<tr><td>Gluten Vacuum Filter</td><td>None</td><td>21F5</td></tr>
<tr><td>Gluten Vacuum Filter Pump</td><td>None</td><td>21C105</td></tr>
<tr><td>Germ Cooler Rotary Airlock Valves</td><td>N/A</td><td>21D3</td><td>21F13</td><td>21D3</td></tr>
<tr><td colspan="7">All other emission units in D.2(b) not listed above will vent to the wet mill aspiration scrubber 15F401. A second new gluten vacuum filter (21F5) is needed to achieve 100,000 bushels/day grind rate. A small</td></tr>
<tr><td>Feed Hopper</td><td>1</td><td>21V60</td><td>21F14</td><td>None</td><td>Delete Equipment</td><td>Delete Equipment</td></tr>
<tr><td>Meal Hopper</td><td>2</td><td>21V61</td><td>21F15</td><td>None</td><td>Delete Equipment</td><td>Delete Equipment</td></tr>
<tr><td>Rail Loadout Conveyor</td><td>3</td><td>12U11</td><td>12F40</td><td>None</td><td>Delete Equipment</td><td>Delete Equipment</td></tr>
</table>

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<tr><td>~~RST Fiber Pre-dryer~~ RST Feed Dryer</td><td rowspan="8">17</td><td>21DAA to Cyclone 21FCC</td><td rowspan="6">Scrubber 21F13 to Thermal Oxidizers 48FGG & 48FHH</td><td rowspan="8">17</td><td>21D301 to Cyclone 21F301</td><td rowspan="3">Scrubber 21F13 to Thermal Oxidizers 48F201, 48F202</td></tr>
<tr><td>RST Germ Dryer</td><td>21DBB to Cyclone 21FEE</td><td>21D401 to Cyclone 21F401</td></tr>
<tr><td>Gluten Flash Dryer</td><td>48DAA to Cyclones 48FAA-48FFF</td><td>48D101 to Cyclones 48F101 & 48F102</td></tr>
<tr><td>D6 Feed Dryer</td><td>21D6 to Cyclone 21F26</td><td>Delete Equipment</td><td>Delete Equipment</td></tr>
<tr><td>D7 Feed or Meal Dryer</td><td>21D7 to Cyclone 21F27</td><td>Delete Equipment</td><td>Delete Equipment</td></tr>
<tr><td>D8 Meal Dryer or Backup Feed Dryer</td><td>21D8 to Cyclone 21F28</td><td>Delete Equipment</td><td>Delete Equipment</td></tr>
<tr><td>Fiber Flash Dryer</td><td>None</td><td>None</td><td>21D501 to Cyclones 21F501 & 21F502</td><td>Scrubber 21F13 to Thermal Oxidizers 48F201, 48F202</td></tr>
<tr><td>Fiber Flash Dryer Furnace (30 mmbtu/hr)</td><td>None</td><td>None</td><td>21B501</td><td>None</td></tr>
<tr><td>Feed Cooler (Meal Dryer 21D8 will be reconditioned to become a feed cooler)</td><td>N/A</td><td>None</td><td>None</td><td>No Exhaust See Notes</td><td>21D8</td><td>Cyclone 21F310 to Scrubber 21F311</td></tr>
<tr><td>Corn Cleanings Receiver</td><td>N/A</td><td>None</td><td>None</td><td>No Exhaust</td><td>21F304</td><td>Cyclone Exh. to Feed Cooler Inlet</td></tr>
<tr><td>Feed Loadout Hopper</td><td>N/A</td><td>21VAA</td><td>Aspirated to Intake of Feed Mill 21G52</td><td>No Exhaust</td><td>21V125</td><td>Hopper and Hood Aspirated to Inlet of Feed Cooler</td></tr>
<tr><td>Feed Storage Bin</td><td>110</td><td>8V121</td><td>8F1</td><td>None</td><td>Delete Equipment</td><td>Delete Equipment</td></tr>
<tr><td>Feed Storage Bin</td><td>111</td><td>8V122</td><td>8F2</td><td>None</td><td>Delete Equipment</td><td>Delete Equipment</td></tr>
<tr><td>Feed Storage Bin</td><td>112</td><td>8V123</td><td>8F3</td><td>None</td><td>Delete Equipment</td><td>Delete Equipment</td></tr>
<tr><td>Feed Storage Bin</td><td>113</td><td>8V124</td><td>8F4</td><td>None</td><td>Delete Equipment</td><td>Delete Equipment</td></tr>
<tr><td>Feed/Meal Storage Bin</td><td>114</td><td>8V62</td><td>8F62</td><td>None</td><td>Delete Equipment</td><td>Delete Equipment</td></tr>
<tr><td>Meal Storage Bin</td><td>115</td><td>8V63</td><td>8F63</td><td>None</td><td>Delete Equipment</td><td>Delete Equipment</td></tr>
<tr><td>Meal/Germ Storage Bin</td><td>116</td><td>8V53</td><td>8F53</td><td>None</td><td>Delete Equipment</td><td>Delete Equipment</td></tr>
<tr><td>Germ Storage Bin</td><td>117</td><td>8V54</td><td>8F54</td><td>None</td><td>Delete Equipment</td><td>Delete Equipment</td></tr>
<tr><td>Two Air Conveying Lines to Loadout</td><td>125</td><td>AC23 & AC 24</td><td>12F39</td><td>None</td><td>Delete Equipment</td><td>Delete Equipment</td></tr>
<tr><td>Feed Mill</td><td>141</td><td>21G51</td><td>21F37</td><td>444</td><td>21G351</td><td>21F312</td></tr>
<tr><td>Feed Mill</td><td>142</td><td>21G52</td><td>21F38</td><td>444</td><td>21G352</td><td>21F312</td></tr>
</table>

Current Stack ID and Equipment Tag Numbers				Revised Stack ID and Euipment Tag Numbers		
Source Description	**Permit S/V ID**	**Equip. ID Tag #**	**Control ID Tag #**	**New S/V ID**	**Equip. ID Tag #**	**Control ID Tag #**
D6 Dryer Air Conv. Line to Feed Mill	143	AC6	21F32	None	Delete Equipment	Delete Equipment
D7 Dryer Air Conv. Line to Feed Mill	144	AC7	21F35	None	Delete Equipment	Delete Equipment
D8 Dryer Air Conv. Line to Feed Mill	145	AC8	21F36	None	Delete Equipment	Delete Equipment
Bag Dump Station	285	8V99	8F99	None	Delete Equipment	Delete Equipment
Feed Milling Loadout Conveyor	None	None	None	444	21U314	21F312 (Wet Scrubber)
Gluten Meal Transfer to Storage Bin	None	None	None	445	12FAA	12FAA
Gluten Meal Storage Bin	None	None	None	447	12VAA	12FBB
Gluten Truck & Rail Loadout	None	None	None		12UAA & 12UBB	
Germ Storage Bin	None	None	None	446	12VCC	12FCC
Germ Rail Loadout	None	None	None		12UCC	
The feed hopper (21V60), meal hopper (21V61), rail loadout conveyor (12U11), eight feed, meal, and germ storage bins (8V121, 8V122, 8V123, 8V124, 8V62, 8V63, 8V53, and 8V54), Air Conveying Lines						
Six Propylated Starch Reactors	399 or 50	45VAA, 45VBB, 45VCC, 45VDD, 45VEE, 45VFF	45FAA or 45F212	399 or 50	45V292, 45V293, 45V294, 45V295, 45V296, 45VFF	45FAA or 45F212
Two Spray Dryer 2 Feed Tanks	423	46V1	None	434	46V297	None
	423	46V2	None	423	46V200	None
~~Spray Dryer 2 Overflow Tank~~ Spray Dryer 2 Waste Surge Tank	424	V6V3	None	424	46V213	None
~~Spray Dryer 2 Bowl Drain Tank~~ Spray Dryer 2 Sweco Tank	424	46V4	None	436	46V201	None
Spray Dryer 2 Under Flow Tank	424	46V5	None	435	46V204	None
Insignificant or Trivial Activities - Starch Modification and Dryer Process Equipment with Propylene Oxide Emissions less than HAP Thresholds						
Propylated Starch Reactor (Vent Fan)	412	45CAA	None	412	45C292	None
Propylated Starch Reactor (Vent Fan)	413	45CBB	None	413	45C293	None
Propylated Starch Reactor (Vent Fan)	414	45CCC	None	414	45C294	None
Propylated Starch Reactor (Vent Fan)	415	45CDD	None	415	45C295	None
Propylated Starch Reactor (Vent Fan)	416	45CEE	None	416	45C296	None
Propylated Starch Reactor (Vent Fan)	417	45CFF	None	417	45CFF	None
Spray Dryer 2 Cooker Product Tank*	None	None	None	437	46V294	None
Spray Dryer 2 Product Tank*	None	None	None	438	46V296	None

Current Stack ID and Equipment Tag Numbers				**Revised Stack ID and Euipment Tag Numbers**		
Source Description	**Permit S/V ID**	**Equip. ID Tag #**	**Control ID Tag #**	**New S/V ID**	**Equip. ID Tag #**	**Control ID Tag #**
Roll Dryer Supply Tank	None	None	None	439	18V166	None
Roll Dryer Vacuum Filter	367	41YAA	None	440	19F201	None
Roll Dryer Vacuum Filter	368	41YBB	None	None	Delete Equipment	None
Roll Dryer Vacuum Filter Vacuum Pump	None	None	None	441	19C241	None
Roll Dryer Feed Tank	None	None	None	442	19V205	None
*No propylated starch products will be processed through the Spray Dryer 2 Cooker Product Tanks (46V294) or Product Tank (46V296).						
Pneumatic Product Transfer Roll Dryer	No Vent	41F210	41F210	No Vent	41F200	41F200
Roll Dryer Mill (Existing Source)	96	41G200	41F200	96 to 355	41G200	41F210
Roll Dryer Mill (Existing Source)	100	41G201	41F211	100 to 355	41G201	41F211
Product Transfer to Milling	83 to 360	30F13	30F13	No Vent	30F13	30F13
Product Transfer to Bins #14 & #15 & #KK	85 to 355	41C30	41F14	85 to 355	41C30	41F14
			41F15			41F15
			None			41FMM
Product Transfer to Bins #17, #18, ~~#44 and EE~~	86 to 355	41C35	41F20	86 to 355	41C35	41F20
			41F21			41F21
			41F54			Delete Equipment
			41FEE			Delete Equipment
Starch Roll Dryer ~~#9~~ #301	405	41D9	None	405	19D301	None
Starch Roll Dryer ~~#10~~ #302	406	41D10	None	406	19C302	None
Starch Roll Dryer ~~#11~~ #303	407	41D11	None	407	19D303	None
Roll Dryer Mill Feed Collector	365 to 355	41FAA	41FAA	No Vent	19F400	19F400
Roll Dyer System Mill	366 to 355	41G202	41F202	366 to 404	19G401	19F402
Product Bin ~~#EE~~ #45	226	41VEE	41FEB	226	41V45	41F45
Product Bin ~~#HH~~ #46	255	41VHH	41FHH	255	41V46	41F46
Natural Gas Fired Spray Dryer #2	360	46DAA	Cyclones 46FAA to 46FFF Bagfilters 46FGG to 46FLL	360	46D200	Cyclones 46F221 to 46F224 Bagfilters 46F231 to 46F232
Spray Dryer #2 Mill (New Source)	N/A	N/A	N/A	431 to 360	30GAA	30FAA
Product Bin #47 (New Source)	N/A	N/A	N/A	432	41V47	41F47
Product Bin #KK (New Source)	N/A	N/A	N/A	443	41VKK	41FPP
It was recently discovered that the tag numbers for the baghouses controlling the pneumatic product transfer from the roll dryers to mill 41G200 and the baghouse collecting product from mill 41G200 were						

Current Stack ID and Equipment Tag Numbers				Revised Stack ID and Euipment Tag Numbers		
Source Description	**Permit S/V ID**	**Equip. ID Tag #**	**Control ID Tag #**	**New S/V ID**	**Equip. ID Tag #**	**Control ID Tag #**
~~Spray Dryer Product Transfer to Bag Packer #3 (North Spouts)~~ Spray Cook Starch Product Transfer to Bag Packer #3 (41Z3)	184 to 355	41F7	41F7	184 to 355	41F7	41F7
~~Spray Dryer Products Bag Packer #3 (North Spouts)~~ Spray Cook/O.S. Starch Products Bag Packer #3 (41Z3)	184 to 355	41Z3	41F7	184 to 355	41Z3	41F7 or 41F181
~~Roll Dried, Dry Starch Reaction System, & Malto Products transfer to Bag Packer #3 (South Spouts)~~ Roll Dried Starch Product Transfer to Bag Packer #3 (41Z5)	186 to 355	41F18	41F18	186 to 355	41F18	41F18
~~Roll Dried, Dry Starch Reaction System, & Malto Bag Packer #3 (South Spouts)~~ Roll Dried Starch Products Bag Packer #3 (41Z5)	186 to 355	41Z5	41F18	186 to 355	41Z5	41F18
O.S. Starch Product Transfer to Bag Packer #3 ~~(South Spouts)~~ (41Z3)	223 to 355	41FCC	41FCC	184 to 355	41F181	41F181
Malto Product Transfer to Bag Packer #3 (41Z1) (New Source)	N/A	N/A	N/A	428 to 355	41F182	41F182
Malto Products Bag Packer #3 (41Z1) (New Source)	N/A	N/A	N/A	428 to 355	41Z1	41F182
Dry Starch Reacted Product Transfer to Bag Packer #3 (41Z2) (New Source)	N/A	N/A	N/A	429 to 355	41F183	41F183
Dry Starch Reacted Products Bag Packer #3 (41Z2) (New Source)	N/A	N/A	N/A	429 to 355	41Z2	41F183
Bag Packer #3 House Dust Collector (New Source)	N/A	N/A	N/A	430 to 355	41F186	41F186
The existing Packer #3 system is being modified to allow four different products to be packaged simultaneously (41Z1, 41Z2, 41Z3, and 41Z5). An additional house dust collector (41F186) is included as part of						