



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: April 6, 2006
RE: ADM Grain Company / 045-21754-00016
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



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

MINOR SOURCE OPERATING PERMIT OFFICE OF AIR QUALITY

**ADM Grain Company
105 East Harrison
Attica, Indiana 47918**

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

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 045-21754-00016	
Issued by: Original Signed By: Nisha Sizemore, Branch Chief Office of Air Quality	Issuance Date: April 6, 2006 Expiration Date: April 6, 2011

TABLE OF CONTENTS

A	SOURCE SUMMARY	3
A.1	General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]	
A.2	Emission Units and Pollution Control Equipment Summary	
B	GENERAL CONDITIONS	5
B.1	Permit No Defense [IC 13]	
B.2	Definitions	
B.3	Effective Date of the Permit [IC 13-15-5-3]	
B.4	Permit Term and Renewal [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5]	
B.5	Modification to Permit [326 IAC 2]	
B.6	Annual Notification [326 IAC 2-6.1-5(a)(5)]	
B.7	Preventive Maintenance Plan [326 IAC 1-6-3]	
B.8	Permit Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]	
B.9	Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2] [IC 13-17-3-2][IC 13-30-3-1]	
B.10	Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]	
B.11	Annual Fee Payment [326 IAC 2-1.1-7]	
B.12	Credible Evidence [326 IAC 1-1-6]	
C	SOURCE OPERATION CONDITIONS	9
C.1	Particulate Emission Limitation For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2]	
C.2	Permit Revocation [326 IAC 2-1.1-9]	
C.3	Opacity [326 IAC 5-1]	
C.4	Fugitive Dust Emissions [326 IAC 6-4]	
C.5	Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]	
C.6	Asbestos Abatement Projects [326 IAC 14-10][326 IAC 18][40 CFR 61, Subpart M]	
C.7	Performance Testing [326 IAC 3-6]	
C.8	Compliance Requirements [326 IAC 2-1.1-11]	
C.9	Compliance Monitoring [326 IAC 2-1.1-11]	
C.10	Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]	
C.11	Response to Excursions and Exceedances [326 IAC 2-7-5][326 IAC 2-7-6]	
	Record Keeping and Reporting Requirements	
C.12	Malfunctions Report [326 IAC 1-6-2]	
C.13	General Record Keeping Requirements [326 IAC 2-6.1-2]	
C.14	General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]	
D.1	EMISSIONS UNIT OPERATION CONDITIONS – Grain Processing	14
	Emission Limitations and Standards	
D.1.1	Particulate [326 IAC 6-3-2]	
D.1.2	Preventive Maintenance Plan [326 IAC 1-6-3]	
	New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]	
D.1.3	General Provisions Relating to NSPS [326 IAC 12-1][40 CFR 60, Subpart A]	
D.1.4	New Source Performance Standards (NSPS) for Grain Elevators [40 CFR 60, Subpart DD]	
	Annual Notification	20
	Malfunction Report	21

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 and A.2 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 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary grain processing operation.

Authorized Individual: Vice President of US Grain Operations and Engineering
Source Address: 105 E. Harrison, Attica, Indiana 47918
Mailing Address: 105 E. Harrison, Attica, Indiana 47918
General Source Phone: (765) 762-6763
SIC Code: 5153
County Location: Fountain
Source Location Status: Attainment for all criteria pollutants
Source Status: Minor Source Operating Permit
Minor Source, under PSD
Minor Source, Section 112 of the Clean Air Act

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

One (1) grain elevator with a maximum capacity of 20,000,000 bushels per year or 600,000 tons per year, consisting of the following equipment:

- (a) One (1) truck receiving operation, identified as EP-01, consisting of the following equipment:
 - (1) One (1) truck receiving pit, identified as #1, with a maximum throughput of 20,000 bushels per hour.
 - (2) Two (2) truck receiving pits, identified as #2 and #3, with a maximum throughput of 13,000 bushels per hour each (only one conveyor for both pits).
 - (3) One (1) truck receiving pit, identified as ring, with a maximum throughput of 6,500 bushels per hour.
- (b) One (1) grain cleaner, identified as EP-02, with a maximum throughput of 30,000 bushels per hour, equipped with enclosures for particulate control.
- (c) One (1) column grain dryer, identified as EP-03, with a maximum heat input capacity of 26 MMBtu per hour, with a maximum throughput of 4,000 bushels per hour.
- (d) One (1) internal handling operation, identified as EP-04, with a maximum throughput of 30,000 bushels per hour, equipped with enclosures for particulate control. The internal handling operation consists of augers, belt conveyors, bucket elevator, and drag conveyors.
- (e) One (1) truck loadout operation, identified as EP-05, consisting of the following equipment:

- (1) One (1) truck loadout, with a maximum throughput of 25,000 bushels per hour, equipped with socks/sleeves for particulate control.
- (2) One (1) truck loadout, identified as side draw loadout, with a maximum throughput of 12,000 bushels per hour per each spout, equipped with socks/sleeves for particulate control.
- (f) One (1) rail loadout, identified as EP-06, with a maximum throughput of 40,000 bushels per hour, equipped with socks/sleeves for particulate control.
- (g) Two (2) storage bins, identified as bins 1 and 2, each with a maximum capacity of 67,294 bushels.
- (h) One (1) storage bin, identified as bin 3, with a maximum capacity of 9,564 bushels.
- (i) Two (2) storage bins, identified as bins 5 and 6, each with a maximum capacity of 25,135 bushels.
- (j) One (1) storage bin, identified as bin 7, with a maximum capacity of 26,007 bushels.
- (k) One (1) storage bin, identified as bin 8, with a maximum capacity of 19,916 bushels.
- (l) One (1) storage bin, identified as bin 9, with a maximum capacity of 9,779 bushels.
- (m) One (1) storage bin, identified as bin 10, with a maximum capacity of 36,243 bushels.
- (n) Three (3) storage bins, identified as bins 11, 12, and 13, each with a maximum capacity of 121,228 bushels.
- (o) One (1) storage bin, identified as bin 14, with a maximum capacity of 273,931 bushels.
- (p) One (1) storage bin, identified as bin 15, with a maximum capacity of 433,465 bushels.
- (q) One (1) storage bin, identified as bin 16, with a maximum capacity of 651,000 bushels.
- (r) One (1) storage bin, identified as bin 26 (overhead bin), with a maximum capacity of 3,329 bushels.
- (s) Haul Roads, identified as EP-07.

SECTION B GENERAL CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to operate 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 Definitions

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 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

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

B.4 Permit Term and Renewal [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5]

This permit 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 of this permit do not affect the expiration date.

The Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date. If a timely and sufficient permit application for a renewal has been made, this permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

B.5 Modification to Permit [326 IAC 2]

All requirements and conditions of this operating permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.6 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.
- (c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

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

- (d) The notification 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.

B.7 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days (this time frame is determined on a case by case basis but no more than ninety (90) days) after issuance of this permit, including the following information on each emissions unit:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A copy of the PMP's 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 PMP whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.8 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) Permit revisions are governed by the requirements of 326 IAC 2-6.1-6.
- (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

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]
- (d) No permit amendment or modification is required for the addition, operation or removal of a non-road engine, as defined in 40 CFR 89.2.

B.9 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)] [IC 13-14-2-2] [IC13-17-3-2][IC 13-30-3-1]

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

- (a) Enter upon the Permittee's premises where a permitted 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, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
- (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, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (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, at reasonable times, 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.10 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]
Pursuant to [326 IAC 2-6.1-6(d)(3)]:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

B.11 Annual Fee Payment [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.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-

4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.12 Credible Evidence [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 has been performed.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

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

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

C.2 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.3 Opacity [326 IAC 5-1]

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

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

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

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

C.5 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions from the unpaved roads shall be controlled according to the plan submitted on September 12, 2005. The plan consists of:

- (a) Treating the roads with Soapstock

C.6 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

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 an "authorized individual" as defined by 326 IAC 2-7-1(34).

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

- (g) Indiana 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

C.7 Performance Testing [326 IAC 3-6]

- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. 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

no later than thirty-five (35) days prior to the intended test date.

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual date.
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ (and local agency) not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, (and local agency), if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.8 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

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

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.10 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.11 Response to Excursions and Exceedances [326 IAC 2-7-5][326 IAC 2-7-6]

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

Record Keeping and Reporting Requirements

C.12 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report

Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.13 General Record Keeping Requirements [326 IAC 2-6.1-5]

- (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 when operation begins.

C.14 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) 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
- (b) 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.
- (c) Unless otherwise specified in this permit, any report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) 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.

SECTION D.1

EMISSIONS UNITS OPERATION CONDITIONS

Emissions Unit Description: Grain Processing

One (1) grain elevator with a maximum capacity of 20,000,000 bushels per year or 600,000 tons per year, consisting of the following equipment:

- (a) One (1) truck receiving operation, identified as EP-01, consisting of the following equipment:
 - (1) One (1) truck receiving pit, identified as #1, with a maximum throughput of 20,000 bushels per hour.
 - (2) Two (2) truck receiving pits, identified as #2 and #3, with a maximum throughput of 13,000 bushels per hour each (only one conveyor for both pits).
 - (3) One (1) truck receiving pit, identified as ring, with a maximum throughput of 6,500 bushels per hour.
- (b) One (1) grain cleaner, identified as EP-02, with a maximum throughput of 30,000 bushels per hour, equipped with enclosures for particulate control.
- (c) One (1) column grain dryer, identified as EP-03, rated at 26 MMBtu per hour, with a maximum throughput of 4,000 bushels per hour.
- (d) One (1) internal handling operation, identified as EP-04, with a maximum throughput of 30,000 bushels per hour, equipped with enclosures for particulate control. The internal handling operation consists of augers, belt conveyors, bucket elevator, and drag conveyors.
- (e) One (1) truck loadout operation, identified as EP-05, consisting of the following equipment:
 - (1) One (1) truck loadout, with a maximum throughput of 25,000 bushels per hour, equipped with socks/sleeves for particulate control.
 - (2) One (1) truck loadout, identified as side draw loadout, with a maximum throughput of 12,000 bushels per hour per each spout, equipped with socks/sleeves for particulate control.
- (f) One (1) rail loadout, identified as EP-06, with a maximum throughput of 40,000 bushels per hour, equipped with socks/sleeves for particulate control.
- (g) Two (2) storage bins, identified as bins 1 and 2, each with a maximum capacity of 67,294 bushels.
- (h) One (1) storage bin, identified as bin 3, with a maximum capacity of 9,564 bushels.
- (i) Two (2) storage bins, identified as bins 5 and 6, each with a maximum capacity of 25,135 bushels.
- (j) One (1) storage bin, identified as bin 7, with a maximum capacity of 26,007 bushels.
- (k) One (1) storage bin, identified as bin 8, with a maximum capacity of 19,916 bushels.

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

SECTION D.1

EMISSIONS UNITS OPERATION CONDITIONS

Continued

Emissions Unit Description: Grain Processing

- (l) One (1) storage bin, identified as bin 9, with a maximum capacity of 9,779 bushels.
- (m) One (1) storage bin, identified as bin 10, with a maximum capacity of 36,243 bushels.
- (n) Three (3) storage bins, identified as bins 11, 12, and 13, each with a maximum capacity of 121,228 bushels.
- (o) One (1) storage bin, identified as bin 14, with a maximum capacity of 273,931 bushels.
- (p) One (1) storage bin, identified as bin 15, with a maximum capacity of 433,465 bushels.
- (q) One (1) storage bin, identified as bin 16, with a maximum capacity of 651,000 bushels.
- (r) One (1) storage bin, identified as bin 26 (overhead bin), with a maximum capacity of 3,329 bushels.
- (s) Haul Roads, identified as EP-07.

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

Emission Limitations and Standards

D.1.1 Particulate [326 IAC 6-3-2]

- (a) The particulate (PM) emissions from the one (1) truck receiving pit, identified as #1, shall be limited to 71.2 pounds per hour when operating at a process weight rate of 1,200,000 pounds per hour (20,000 bushels).
- (b) The particulate (PM) emissions from the two (2) truck receiving pits, identified as #2 and #3 (only one conveyor for both pits), shall be limited to 66.0 pounds per hour each when operating at a process weight rate of 780,000 pounds per hour each (13,000 bushels).
- (c) The particulate (PM) emissions from the one (1) truck receiving pit, identified as ring, shall be limited to 58.2 pounds per hour when operating at a process weight rate of 390,000 pounds per hour (6,500 bushels).
- (d) The particulate (PM) emissions from the one (1) grain cleaner, identified as EP-02, shall be limited to 76.2 pounds per hour when operating at a process weight rate of 1,800,000 pounds per hour (30,000 bushels).
- (e) The particulate (PM) emissions from the one (1) grain dryer, identified as EP-03, shall be limited to 53.1 pounds per hour when operating at a process weight rate of 240,000 pounds per hour (4,000 bushels).
- (f) The particulate (PM) emissions from the one (1) internal handling operation, identified as EP-04, shall be limited to 76.2 pounds per hour when operating at a process weight rate of 1,800,000 pounds per hour (30,000 bushels).
- (g) The particulate (PM) emissions from the one (1) truck loadout, shall be limited to 73.9 pounds per hour when operating at a process weight rate of 1,500,000 pounds per hour (25,000 bushels).

- (h) The particulate (PM) emissions from the one (1) truck loadout, identified as side draw loadout, shall be limited to 65.1 pounds per hour each when operating at a process weight rate of 720,000 pounds per hour each (12,000 bushels each).
- (i) The particulate (PM) emissions from the one (1) rail loadout, identified as EP-06, shall be limited to 80.0 pounds per hour when operating at a process weight rate of 2,400,000 pounds per hour (40,000 bushels).
- (j) The particulate (PM) emissions from the sixteen (16) storage bins, identified as Bin # 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 and 26, shall be limited to 76.2 pounds per hour each when operating at a process weight rate of 1,800,000 pounds per hour each (30,000 bushels each).

The pounds per hour limitations above were calculated with the following equation:

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

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

D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

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

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

D.1.3 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR 60, Subpart A]

The provisions of 40 CFR 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the receiving, internal handling, grain cleaner, grain dryer, and loadout facilities except when otherwise specified in 40 CFR 60, Subpart DD.

D.1.4 New Source Performance Standards (NSPS) for Grain Elevators [40 CFR 60, Subpart DD]

Pursuant to 40 CFR 60, Subpart DD, the receiving, internal handling, grain cleaner, grain dryer, and loadout facilities are subject to this rule because they are located at a grain elevator and they commenced construction after August 3, 1978. Therefore, these facilities shall comply with the following provisions:

§ 60.300 Applicability and designation of affected facility

- (a) The provisions of this subpart apply to each affected facility at any grain terminal elevator or any grain storage elevator, except as provided under §60.304(b). The affected facilities are each truck unloading station, truck loading station, barge and ship unloading station, barge and ship loading station, railcar loading station, railcar unloading station, grain dryer, and all grain handling operations.
- (b) Any facility under paragraph (a) of this section which commences construction, modification, or reconstruction after August 3, 1978, is subject to the requirements of this part.

§ 60.301 Definitions

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

- (a) *Grain* means corn, wheat, sorghum, rice, rye, oats, barley, and soybeans.
- (b) *Grain elevator* means any plant or installation at which grain is unloaded, handled, cleaned, dried, stored, or loaded.
- (c) *Grain terminal elevator* means any grain elevator which has a permanent storage capacity of more than 88,100 m³ (ca. 2.5 million U.S. bushels), except those located at animal food manufacturers, pet food manufacturers, cereal manufacturers, breweries, and livestock feedlots.
- (d) *Permanent storage capacity* means grain storage capacity which is inside a building, bin, or silo.
- (e) *Railcar* means railroad hopper car or boxcar.
- (f) *Grain storage elevator* means any grain elevator located at any wheat flour mill, wet corn mill, dry corn mill (human consumption), rice mill, or soybean oil extraction plant which has a permanent grain storage capacity of 35,200 m³ (ca. 1 million bushels).
- (g) *Process emission* means the particulate matter which is collected by a capture system.
- (h) *Fugitive emission* means the particulate matter which is not collected by a capture system and is released directly into the atmosphere from an affected facility at a grain elevator.
- (i) *Capture system* means the equipment such as sheds, hoods, ducts, fans, dampers, etc. used to collect particulate matter generated by an affected facility at a grain elevator.
- (j) *Grain unloading station* means that portion of a grain elevator where the grain is transferred from a truck, railcar, barge, or ship to a receiving hopper.
- (k) *Grain loading station* means that portion of a grain elevator where the grain is transferred from the elevator to a truck, railcar, barge, or ship.
- (l) *Grain handling operations* include bucket elevators or legs (excluding legs used to unload barges or ships), scale hoppers and surge bins (garners), turn heads, scalpers, cleaners, trippers, and the headhouse and other such structures.
- (m) *Column dryer* means any equipment used to reduce the moisture content of grain in which the grain flows from the top to the bottom in one or more continuous packed columns between two perforated metal sheets.
- (n) *Rack dryer* means any equipment used to reduce the moisture content of grain in which the grain flows from the top to the bottom in a cascading flow around rows of baffles (racks).
- (o) *Unloading leg* means a device which includes a bucket-type elevator which is used to remove grain from a barge or ship.

§ 60.302 Standard for particulate matter

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

- (1) Column dryer with column plate perforation exceeding 2.4 mm diameter (ca. 0.094 inch).
- (b) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility except a grain dryer any process emission which:
 - (1) Contains particulate matter in excess of 0.023 g/dscm (ca. 0.01 gr/dscf).
 - (2) Exhibits greater than 0 percent opacity.
- (c) On and after the 60th day of achieving the maximum production rate at which the affected facility will be operated, but no later than 180 days after initial startup, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere any fugitive emission from:
 - (1) Any individual truck unloading station, railcar unloading station, or railcar loading station, which exhibits greater than 5 percent opacity.
 - (2) Any grain handling operation which exhibits greater than 0 percent opacity.
 - (3) Any truck loading station which exhibits greater than 10 percent opacity.

§ 60.303 Test methods and procedures

- (a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (c) of this section.
- (b) The owner or operator shall determine compliance with the particulate matter standards in §60.302 as follows:
 - (1) Method 5 shall be used to determine the particulate matter concentration and the volumetric flow rate of the effluent gas. The sampling time and sample volume for each run shall be at least 60 minutes and 1.70 dscm (60 dscf). The probe and filter holder shall be operated without heaters.
 - (2) Method 2 shall be used to determine the ventilation volumetric flow rate.
 - (3) Method 9 and the procedures in §60.11 shall be used to determine opacity.
- (c) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:
 - (1) For Method 5, Method 17 may be used.

§ 60.304 Modifications

- (a) The factor 6.5 shall be used in place of “annual asset guidelines repair allowance percentage,” to determine whether a capital expenditure as defined by §60.2 has been made to an existing facility.
- (b) The following physical changes or changes in the method of operation shall not by themselves be considered a modification of any existing facility:

- (1) The addition of gravity loadout spouts to existing grain storage or grain transfer bins.
- (2) The installation of automatic grain weighing scales.
- (3) Replacement of motor and drive units driving existing grain handling equipment.
- (4) The installation of permanent storage capacity with no increase in hourly grain handling capacity.

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

**MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name: ADM Grain Company
Address: 105 E. Harrison
City: Attica, Indiana 47918
Phone #: (765) 762-6763
MSOP #: M045-21754-00016

I hereby certify that ADM Grain Company is still in operation.
 no longer in operation.

I hereby certify that ADM Grain Company is in compliance with the requirements of MSOP **045-21754-00016**.
 not in compliance with the requirements of MSOP **045-21754-00016**.

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

MALFUNCTION REPORT

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317 233-5967**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6
and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERM LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: _____ PHONE NO. () _____
LOCATION: (CITY AND COUNTY) _____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: ____/____/19____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/19____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

MALFUNCTION REPORTED BY: _____ TITLE: _____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

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

Addendum to the
Technical Support Document for Minor Source Operating Permit (MSOP) Renewal

ADM Grain Company
105 East Harrison
Attica, Indiana 47918

M-045-21754-00016

On February 22, 2006, the Office of Air Quality (OAQ) had a notice published in the Fountain City Neighbor, Attica, Indiana, stating that ADM Grain Company had applied for a Minor Source Operating Permit (MSOP) Renewal for a grain processing operation. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On March 7, 2006, ADM Grain Company submitted comments on the proposed MSOP Renewal. The summary of the comments is as follows:

NOTE: The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes. IDEM, OAQ does not make any changes to the original TSD but the permit will have the updated changes. Bold language has been added, the language with a line through it has been deleted. The Table of Contents has been modified to reflect any changes.

Comment 1: ADM would like to add a 651,000 bushel storage bin with a 30,000 bushel per hour fill and a 30,000 bushel per hour reclaim conveyor. This change will not increase the total emissions from the facility since the throughput will not increase just the total storage capacity. Also the new storage capacity of this facility will remain below 2.5 million so this facility will not be subject to 40 CFR 60, Subpart DD.

Response to Comment 1: IDEM, OAQ agrees and the following changes have been made to Condition A.2, Section D.1 (Description) and Condition D.1.1(j):

Condition A.2:

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

One (1) grain elevator with a maximum capacity of 20,000,000 bushels per year or 600,000 tons per year, consisting of the following equipment:

...(p) One (1) storage bin, identified as bin 15, with a maximum capacity of 433,465 bushels.

(q) One (1) storage bin, identified as bin 16, with a maximum capacity of 651,000 bushels.

~~(r)~~ (r) One (1) storage bin, identified as bin 26 (overhead bin), with a maximum capacity of 3,329 bushels.

~~(s)~~ (s) Haul Roads, identified as EP-07....

Section D.1:

SECTION D.1

EMISSIONS UNITS OPERATION CONDITIONS

Emissions Unit Description: Grain Processing

One (1) grain elevator with a maximum capacity of 20,000,000 bushels per year or 600,000 tons per year, consisting of the following equipment:

- ...(p) One (1) storage bin, identified as bin 15, with a maximum capacity of 433,465 bushels.
- (q) One (1) storage bin, identified as bin 16, with a maximum capacity of 651,000 bushels.**
- ~~(r)~~ (r) One (1) storage bin, identified as bin 26 (overhead bin), with a maximum capacity of 3,329 bushels.
- ~~(s)~~ (s) Haul Roads, identified as EP-07....

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

Condition D.1.1(j):

D.1.1 Particulate [326 IAC 6-3-2]

- ...(j) The particulate (PM) emissions from the **Sixteen (16)** ~~fifteen (15)~~ storage bins, identified as Bin # 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, **16**, and 26, shall be limited to 76.2 pounds per hour each when operating at a process weight rate of 1,800,000 pounds per hour each (30,000 bushels each). ...

Upon further review, the IDEM, OAQ has decided to make the following revisions to the permit.

1. Cover Page – Signature Block, the branch chief title has been changed to reflect the current branch chief.

Operation Permit No.: MSOP 045-21754-00016	
Issued by: Paul Dubenetzky, Assistant Commissioner Nisha Sizemore, Branch Chief Office of Air Quality	Issuance Date: Expiration Date:

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

Technical Support Document (TSD) for a Minor Source Operating Permit (MSOP)

Source Background and Description

Source Name:	ADM Grain Company
Source Location:	105 East Harrison, Attica, Indiana 47918
County:	Fountain
SIC Code:	5153
Operation Permit No.:	M 045-21754-00016
Permit Reviewer:	Amy Cook

The Office of Air Quality (OAQ) has reviewed an application from ADM Grain Company relating to a grain processing operation.

Source History

This grain elevator has been operating under the provisions of Permit By Rule 045-16556-00016, issued on January 27, 2003. This source is receiving more grain and therefore has had an increase in their throughput of grain which puts them over the annual total throughput limit of 11.2 million bushels as permitted under PBR 045-16556-00016. Therefore, this source is now being permitted under the provisions of 326 IAC 2-6.1 (Minor Source Operating Permit).

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

One (1) grain elevator with a maximum capacity of 20,000,000 bushels per year or 600,000 tons per year, consisting of the following equipment:

- (a) One (1) truck receiving operation, identified as EP-01, consisting of the following equipment:
 - (1) One (1) truck receiving pit, identified as #1, with a maximum throughput of 20,000 bushels per hour.
 - (2) Two (2) truck receiving pits, identified as #2 and #3, with a maximum throughput of 13,000 bushels per hour each (only one conveyor for both pits).
 - (3) One (1) truck receiving pit, identified as ring, with a maximum throughput of 6,500 bushels per hour.
- (b) One (1) grain cleaner, identified as EP-02, with a maximum throughput of 30,000 bushels per hour, equipped with enclosures for particulate control.
- (c) One (1) column grain dryer, identified as EP-03, with a maximum heat input capacity of 26 MMBtu per hour, with a maximum throughput of 4,000 bushels per hour.

- (d) One (1) internal handling operation, identified as EP-04, with a maximum throughput of 30,000 bushels per hour, equipped with enclosures for particulate control. The internal handling operation consists of augers, belt conveyors, bucket elevator, and drag conveyors.
- (e) One (1) truck loadout operation, identified as EP-05, consisting of the following equipment:
 - (1) One (1) truck loadout, with a maximum throughput of 25,000 bushels per hour, equipped with socks/sleeves for particulate control.
 - (2) One (1) truck loadout, identified as side draw loadout, with a maximum throughput of 12,000 bushels per hour per each spout, equipped with socks/sleeves for particulate control.
- (f) One (1) rail loadout, identified as EP-06, with a maximum throughput of 40,000 bushels per hour, equipped with socks/sleeves for particulate control.
- (g) Two (2) storage bins, identified as bins 1 and 2, each with a maximum capacity of 67,294 bushels.
- (h) One (1) storage bin, identified as bin 3, with a maximum capacity of 9,564 bushels.
- (i) Two (2) storage bins, identified as bins 5 and 6, each with a maximum capacity of 25,135 bushels.
- (j) One (1) storage bin, identified as bin 7, with a maximum capacity of 26,007 bushels.
- (k) One (1) storage bin, identified as bin 8, with a maximum capacity of 19,916 bushels.
- (l) One (1) storage bin, identified as bin 9, with a maximum capacity of 9,779 bushels.
- (m) One (1) storage bin, identified as bin 10, with a maximum capacity of 36,243 bushels.
- (n) Three (3) storage bins, identified as bins 11, 12, and 13, each with a maximum capacity of 121,228 bushels.
- (o) One (1) storage bin, identified as bin 14, with a maximum capacity of 273,931 bushels.
- (p) One (1) storage bin, identified as bin 15, with a maximum capacity of 433,465 bushels.
- (q) One (1) storage bin, identified as bin 26 (overhead bin), with a maximum capacity of 3,329 bushels.
- (r) Haul Roads, identified as EP-07.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted emission units operating at this source during this review process.

Existing Approvals

The source has been operating under previous approvals including, but no limited to, the following:

- (a) CP 045-8630-00016, issued on August 21, 1997; and
- (b) PBR 045-16556-00016, issued on January 27, 2003.

All conditions from previous approvals were incorporated into this permit.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

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

A complete application for the purposes of this review was received on September 12, 2005.

Emission Calculations

The calculations submitted by the applicant have been verified and found to be accurate and correct. These calculations are provided in Appendix A of this document (Pages 1 through 4).

Potential to Emit of the Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions 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, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential to Emit (tons/yr)
PM	227.52
PM-10	64.97
SO ₂	0.04
VOC	0.18
CO	2.25
NO _x	8.98

HAPs	Potential to Emit (tons/yr)
Total	Negligible

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of regulated pollutants are less than one hundred (100) tons per year. The potential to emit of hazardous air pollutants (HAPs) is 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, the source is subject to the provisions of 326 IAC 2-6.1. An MSOP will be issued.
- (b) Fugitive Emissions
This type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980. The source is subject to 40 CFR 60, Subpart DD, Standards of Performance for Grain Elevators. Therefore, the fugitive particulate matter (PM) emissions are counted toward determination of PSD applicability.

County Attainment Status

The source is located in Fountain County.

Pollutant	Status
PM-2.5	Attainment
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
1-hour Ozone	Attainment
8-hour Ozone	Attainment
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 and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Fountain County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (b) Fountain County has been classified as unclassifiable or attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. See the State Rule Applicability for the source section.
- (c) Fountain County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these 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.

Source Status

Existing Source PSD, Part 70, or FESOP Definition (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	227.52
PM-10	64.97
SO ₂	0.04
VOC	0.18
CO	2.25
NO _x	8.98
Single HAP	Negligible
Combination HAPs	Negligible

- (a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories.

- (b) These emissions were based on the MSOP application submitted by the company.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit M045-21754-00016, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of: each criteria pollutant is less than 100 tons per year, a single hazardous air pollutant (HAP) is less than 10 tons per year, and any combination of HAPs is less than 25 tons per year.

This status is based on all the air approvals issued to the source. This status has been verified by the OAQ inspector assigned to the source.

Federal Rule Applicability

- (A) 40 CFR 60, Subpart DD – Standards of Performance for Grain Elevators
The receiving, internal handling, grain cleaner, grain dryer, and loadout facilities are subject to this rule because they are located at a grain elevator and they commenced construction after August 3, 1978. Nonapplicable portions of this NSPS will not be included in this permit. Therefore, the requirements of 40 CFR 60, Subpart DD are as follows:

40 CFR 60.300(a) and (b)
40 CFR 60.301(a) through (o)
40 CFR 60.302(a)(1), (b)(1) and (2), and (c)(1) through (3)
40 CFR 60.303(a), (b)(1) through (3), and (c)(1)
40 CFR 60.304(a), and (b)(1) through(4)

The provisions of 40 CFR 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the receiving, internal handling, grain cleaner, grain dryer, and loadout facilities except when otherwise specified in 40 CFR 60, Subpart DD.

- (B) There are no other New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this permit.
- (C) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) included in this permit.

State Rule Applicability – Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

This source is not one of the twenty-eight (28) listed source categories, and the potential to emit (PTE) of all criteria pollutants is less than two hundred fifty (250) tons per year. Therefore, this source is a minor source and 326 IAC 2-2 (PSD) does not apply.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of this grain elevator will emit less than ten (10) tons per year of a single HAP or twenty-five (25) tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting) because it is not required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, and it does not emit Lead in the ambient air at levels equal to or greater than five (5) tons per year, and it is not located in Lake or Porter County.

326 IAC 5-1 (Opacity Limitations)

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

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

326 IAC 6-4 (Fugitive Dust Emissions)

The 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 6-5-1(b) (Fugitive Particulate Matter Emission Limitations)

Access to the grain loading and unloading pits at the source is through unpaved roads. This source is subject to this rule because it is a new source of particulate matter (PM) which did not receive all necessary preconstruction approvals before December 13, 1985, it is located in Fountain county, and it requires a permit as set forth in 326 IAC 2. Therefore, pursuant to 326 IAC 6-5-1(b) (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions from the unpaved roads shall be controlled by treating the roads with Soapstock according to the plan submitted on September 12, 2005.

State Rule Applicability – Individual Facilities

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Each process at the grain elevator has a process weight rate in excess of sixty thousand (60,000) pounds per hour. All processing is assumed to be corn, which has a weight of 60 pounds per bushel. The maximum allowable particulate emission from each process shall be limited by the following:

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

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

- (a) The particulate (PM) emissions from the one (1) truck receiving pit, identified as #1, shall be limited to 71.2 pounds per hour when operating at a process weight rate of 1,200,000 pounds per hour (20,000 bushels). Emission calculations based on AP-42 indicate that the uncontrolled emissions from the one (1) truck receiving pit (#1) will be 6.16 pounds per hour. Therefore, this facility does not need a control in order to comply with this limit. This facility is in compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes).
- (b) The particulate (PM) emissions from the two (2) truck receiving pits, identified as #2 and #3 (only one conveyor for both pits), shall be limited to 66.0 pounds per hour each when operating at a process weight rate of 780,000 pounds per hour each (13,000 bushels each). Emission calculations based on AP-42 indicate that the uncontrolled emissions from the two (2) truck receiving pits (#2 and #3) will be 6.16 pounds per hour each. Therefore, this facility does not need a control in order to comply with this limit. This

facility is in compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes).

- (c) The particulate (PM) emissions from the one (1) truck receiving pit, identified as ring, shall be limited to 58.2 pounds per hour when operating at a process weight rate of 390,000 pounds per hour (6,500 bushels). Emission calculations based on AP-42 indicate that the uncontrolled emissions from the one (1) truck receiving ring will be 6.16 pounds per hour. Therefore, this facility does not need a control in order to comply with this limit. This facility is in compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes).
- (d) The particulate (PM) emissions from the one (1) grain cleaner, identified as EP-02, shall be limited to 76.2 pounds per hour when operating at a process weight rate of 1,800,000 pounds per hour (30,000 bushels). Emission calculations based on AP-42 indicate that the uncontrolled emissions from the one (1) grain cleaner (EP-02) will be 5.14 pounds per hour. Therefore, this facility does not need a control in order to comply with this limit. This facility is in compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes). However this facility is enclosed in order to control particulate during cleaning, with a control efficiency of 90%.
- (e) The particulate (PM) emissions from the one (1) grain dryer, identified as EP-03, shall be limited to 53.1 pounds per hour when operating at a process weight rate of 240,000 pounds per hour (4,000 bushels). Emission calculations based on AP-42 indicate that the uncontrolled emissions from the one (1) grain dryer (EP-03) will be 15.07 pounds per hour. Therefore, this facility does not need a control in order to comply with this limit. This facility is in compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes).
- (f) The particulate (PM) emissions from the one (1) internal handling operation, identified as EP-04, shall be limited to 76.2 pounds per hour when operating at a process weight rate of 1,800,000 pounds per hour (30,000 bushels). Emission calculations based on AP-42 indicate that the uncontrolled emissions from the one (1) internal handling operation (EP-04) will be 4.18 pounds per hour. Therefore, this facility does not need a control in order to comply with this limit. This facility is in compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes). However this facility is enclosed in order to control particulate during handling, with a control efficiency of 90%.
- (g) The particulate (PM) emissions from the one (1) truck loadout, shall be limited to 73.9 pounds per hour when operating at a process weight rate of 1,500,000 pounds per hour (25,000 bushels). Emission calculations based on AP-42 indicate that the uncontrolled emissions from the one (1) truck loadout will be 5.90 pounds per hour. Therefore, this facility does not need a control in order to comply with this limit. This facility is in compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes). However this facility is equipped with socks and sleeves in order to control particulate during loading, with a control efficiency of 90%.
- (h) The particulate (PM) emissions from the one (1) truck loadout, identified as side draw loadout, shall be limited to 65.1 pounds per hour each when operating at a process weight rate of 720,000 pounds per hour each (12,000 bushels each). Emission calculations based on AP-42 indicate that the uncontrolled emissions from the one (1) truck loadout (side draw loadout) will be 5.90 pounds per hour. Therefore, this facility does not need a control in order to comply with this limit. This facility is in compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes). However this facility is equipped with socks and sleeves in order to control particulate during loading, with a control efficiency of 90%.

- (i) The particulate (PM) emissions from the one (1) rail loadout, identified as EP-06, shall be limited to 80.0 pounds per hour when operating at a process weight rate of 2,400,000 pounds per hour (40,000 bushels). Emission calculations based on AP-42 indicate that the uncontrolled emissions from the one (1) rail loadout (EP-06) will be 5.90 pounds per hour. Therefore, this facility does not need a control in order to comply with this limit. This facility is in compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes). However this facility is equipped with socks and sleeves in order to control particulate during loading, with a control efficiency of 90%.
- (j) The particulate (PM) emissions from the fifteen (15) storage bins, identified as Bin # 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, and 26, shall be limited to 76.2 pounds per hour each when operating at a process weight rate of 1,800,000 pounds per hour each (30,000 bushels each). Emission calculations based on AP-42 indicate that the uncontrolled emissions from the fifteen (15) storage bins (#1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 and 26) will be 1.71 pounds per hour. Therefore, this facility does not need a control in order to comply with this limit. This facility is in compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes).

Compliance Requirements

Permits issued under 326 IAC 2-6.1 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-6.1-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

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

Conclusion

This grain processing operation shall be subject to the conditions of the Minor Source Operating Permit M045-21754-00016.

PTE - WITH CONTROLS

		Heat Input	
Bushels/year	Tons per year	Capacity (mmBtu)	Dryer Hours of Operation
20,000,000	600,000	25.653	5000
		MMCF*	128.265

	Tons of grain	AP-42 Factor		Controls	Control Efficiencies	Emissions					
		PM *	PM10 *			PM	PM10	NOx	SO2	CO	VOM
Receiving											
Straight Truck	300,000	0.180	0.059		0%	27.000	8.850				
Hopper Truck	300,000	0.035	0.008		0%	5.250	1.170				
Internal Handling	1,200,000	0.061	0.034	Enclosure	90%	3.660	2.040				
Cleaning	600,000	0.075	0.019	Enclosure	90%	2.250	0.563				
Drying	600,000	0.220	0.055			66.000	16.500				
Combustion		See Below				0.879	0.879	8.979	0.038	2.245	0.180
Shipping											
Straight Truck	600,000	0.086	0.029	Socks / Sleeves	90%	2.580	0.870				
Storage Bin Vents	600,000	0.025	0.006			7.500	1.890				
Haul Roads	600,000	Road Emissions Spreadsheet				54.291	11.159				
Totals						169.410	43.920	8.979	0.038	2.245	0.180

	PM	AP-42 Factors			NOx	SO2	VOM
		PM10	CO	NOx			
Grain Drying							
Combustion	13.7	13.7	35	140	0.6	2.8	

* AP-42 Factors are from Table 9.9.1-1. Particulate Emission Factors for Grain Elevators
MMCF* = Heat Input Capacity (MMBtu/hr) x hours of operation/year x 1 MMCF / 1000 MMBtu

Assumptions made when calculating PTE:
50% of all grain is received by Straight Truck.
All grain received was cleaned.
All grain received was dried.
All grain received was shipped out by truck.

PTE - WITHOUT CONTROLS

Bushels/year	Tons per year	Heat Input Capacity (mmBtu)	Dryer Hours of Operation	MMCF*
20,000,000	600,000	25.653	5000	128.265

	Tons of grain	Emissions								
		AP-42 Factor PM *	AP-42 Factor PM10 *	PM	PM10	NOx	SO2	CO	VOM	
Receiving										
Straight Truck	300,000	0.180	0.059	27.000	8.850					
Hopper Truck	300,000	0.035	0.008	5.250	1.170					
Internal Handling	600,000	0.061	0.034	18.300	10.200					
Cleaning	600,000	0.075	0.019	22.500	5.625					
Drying	600,000	0.220	0.055	66.000	16.500					
Combustion				0.879	0.879	8.979	0.038	2.245	0.180	
Shipping										
Truck	600,000	0.086	0.029	25.800	8.700					
Storage Bin Vents	600,000	0.025	0.006	7.500	1.890					
Haul Roads	600,000	Road Emissions Spreadsheet		54.29	11.16					
				Totals	227.520	64.972	8.979	0.038	2.245	0.180

	PM	AP-42 Factors		NOx	SO2	VOM
		PM10	CO			
Grain Drying						
Combustion	13.7	13.7	35	140	0.6	2.8

* AP-42 Factors are from Table 9.9.1-1. Particulate Emission Factors for Grain Elevators

Assumptions made when calculating PTE:

- 50% of all grain is received by straight truck.
- All grain received was cleaned.
- All grain received was dried.
- All grain received was shipped out by truck.
- There is no control equipment on any of these processes.

**Appendix A: Emissions Calculations
Grain Elevator
Country Elevator-Small**

Company Name: ADM Grain Company - Attica
Permit No: 045-21754-00016
Date: September 6, 2005

The following calculations determine the amount of emissions created by vehicle traffic on unpaved roads, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 13.2.2.2.

Road Calculation Assumptions

Throughput 600,000 tons per year
 68 tons per hour

Heavy Duty Diesel 25 tons per truck
 3 trucks per hour

Light Duty car/truck 1 yard truck
 1 trip per hour

All employees access parking lots via a public road and do not drive on the facility road.

Facility roads are treated with Soapstock therefore, 50% control efficiency is claimed.

I. Heavy Duty Diesel

3 trip/hr x
0.5 mile/trip x
2 (round trip) x
8,760 hr/yr = 26280 miles per year

$$E_f = k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] / [(M/0.2)^c] \cdot [(365-p)/365] \cdot (S/15)$$

$$= 1.54 \text{ lb PM-10/mile}$$

$$= 7.69 \text{ lb PM/mile}$$

where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)
s = 4.8 mean % silt content of unpaved roads
b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)
c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)
W = 40 tons average vehicle weight
M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)
S = 10.0 mph speed limit
p = 125.0 number of days with at least 0.01 in. of precipitation per year

PM-10:	1.54 lb/mi x	26280 mi/yr x	50%	10.14 tons/yr
	2000 lb/ton		Control	

PM:	7.69 lb/mi x	26280 mi/yr x	50%	50.53 tons/yr
	2000 lb/ton		Control	

II. Light Duty gas car/truck used by employees

1 trip/hr x
0.5 mile/trip x
2 (round trip) x
8,760 hr/yr = 8760 miles per year

$$E_f = k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] / [(M/0.2)^c] \cdot [(365-p)/365] \cdot (S/15)$$

$$= 0.47 \text{ lb PM-10/mile}$$

$$= 1.72 \text{ lb PM/mile}$$

where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)
s = 4.8 mean % silt content of unpaved roads
b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)
c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)
W = 2 tons average vehicle weight
M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)

cont. on page 4

S = 10.0 mph speed limit
p = 125.0 number of days with at least 0.01 in. of precipitation per year

PM-10: $\frac{0.47 \text{ lb/mi} \times 8760 \text{ mi/yr} \times 50\%}{2000 \text{ lb/ton} \text{ Control}}$ **1.02 tons/yr**

PM: $\frac{1.72 \text{ lb/mi} \times 8760 \text{ mi/yr} \times 50\%}{2000 \text{ lb/ton} \text{ Control}}$ **3.77 tons/yr**

Total PM Emissions From Unpaved Roads = 54.29 tons/yr

Total PM-10 Emissions From Unpaved Roads = 11.16 tons/yr



**ADM Grain Company
105 East Harrison Street
Attica, IN 47918**

Procedure for Dust Control on Unpaved Driveway

Purpose: Control fugitive emissions from the unpaved roadways

Soapstock or an equivalent material will be used to control dust from unpaved driveways. This will be done on as needed basis to control nuisance dust. Dust control is typically applied each summer.

1. Gravel driveway must be graded and worked to bring loose gravel to the top
2. Soapstock or equivalent material will then be applied to the driveway
3. Temperature must be above 70 degrees F to allow the material to be absorbed into the drive
4. Traffic must be restricted from the driveway for 3 days to allow the material to set-up
5. The driveway must be dry when applying the soapstock.