



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

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

TO: Interested Parties / Applicant

DATE: February 17, 2012

RE: Cargill, Inc. / 163-31047-00039

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

## Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted 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, Suite N 501E, 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.dot12/03/07



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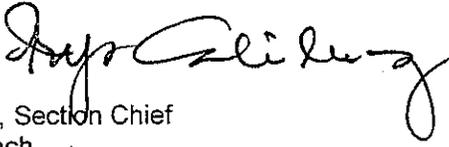
## New Source Review and Minor Source Operating Permit OFFICE OF AIR QUALITY

**Cargill, Inc.**  
**2000 W. Ohio Street**  
**Evansville, Indiana 47712**

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

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.

Indiana statutes from IC 13 and rules from 326 IAC, quoted 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 MSOP under 326 IAC 2-6.1.

|  |  |
|--|--|
| Operation Permit No.: M163-31047-00039   |  |
| Issued by:<br><br>Iryn Calilung, Section Chief<br>Permits Branch<br>Office of Air Quality | Issuance Date: February 17, 2012<br>Expiration Date: February 17, 2017 |

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## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 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 elevator, with permanent storage capacity of 1.8 million bushels.

|                              |   |
|------------------------------|---|
| Source Address:              | 2000 W. Ohio Street, Evansville, Indiana 47712  |
| General Source Phone Number: | (812) 424-2432  |
| SIC Code:                    | 5153 (Grain and Field Beans)  |
| County Location:             | Vanderburgh   |
| Source Location Status:      | Attainment for all criteria pollutants  |
| Source Status:               | Minor Source Operating Permit Program<br>Minor Source, under PSD and Emission Offset Rules<br>Minor Source, Section 112 of the Clean Air Act<br>Not 1 of 28 Source Categories |

### A.2 Emission Units and Pollution Control Equipment Summary

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

#### Grain Receiving and Handling

- (a) One (1) truck receiving dump pit, identified as Truck Pit, constructed in 1981, with a maximum receiving throughput of 900 tons per hour (30,000 bushels per hour at 60 pounds per bushel), with particulate emissions controlled by Baghouse #1.
- (b) One (1) enclosed internal grain handling operation, constructed in 1982, with a maximum throughput of 900 tons per hour (30,000 bushels per hour at 60 pounds per bushel), and a maximum annual throughput of 428,400 tons per year (14,280,000 bushels per year at 60 pounds per bushel), with particulate emissions controlled by Baghouse #1, consisting of the following equipment:
  - (1) One (1) enclosed truck dump receiving belt conveyor, identified as BC 201, constructed in 1982, with a maximum throughput of 30,000 bushels per hour.
  - (2) One (1) enclosed bucket conveyor, identified as Leg 31, constructed in 1982, with a maximum throughput of 30,000 bushels per hour.
  - (3) One (1) enclosed drag conveyor, identified as DC 202, constructed in 1982, with a maximum throughput of 30,000 bushels per hour.
  - (4) One (1) enclosed headhouse distributor, constructed in 1982, with a maximum throughput of 30,000 bushels per hour.
  - (5) One (1) enclosed belt conveyor for filling Bin 500, identified as BC 211, constructed in 1982, with a maximum throughput of 30,000 bushels per hour.

- (6) One (1) enclosed drag conveyor for filling Bin 400, identified as DC 203, constructed in 1982, with a maximum throughput of 30,000 bushels per hour.
- (7) One (1) enclosed reclaim conveyor for Bin 500, identified as BC 212, constructed in 1982, with a maximum throughput of 35,000 bushels per hour.
- (8) One (1) enclosed reclaim conveyor for Bin 400, identified as BC 205, constructed in 1982, with a maximum throughput of 35,000 bushels per hour.
- (9) One (1) enclosed belt conveyor, identified as BC 204, constructed in 1982, with a maximum throughput of 35,000 bushels per hour.
- (10) One (1) enclosed belt conveyor for barge loading, identified as BC 206, constructed in 1982, with a maximum throughput of 35,000 bushels per hour.
- (11) One (1) enclosed drag conveyor for truck loading, identified as DC 214, constructed in 1982, with a maximum throughput of 20,000 bushels per hour.
- (12) One (1) enclosed screw conveyor, identified as SC 207, constructed in 1982, with a maximum throughput of 3,000 bushels per hour.
- (13) One (1) enclosed screw conveyor, identified as SC 208, constructed in 1982, with a maximum throughput of 3,000 bushels per hour.
- (14) One (1) enclosed bucket conveyor, identified as Leg 32, constructed in 1982, with a maximum throughput of 6,000 bushels per hour.
- (15) One (1) enclosed screw conveyor, identified as SC 209, constructed in 1982, with a maximum throughput of 3,000 bushels per hour.
- (16) One (1) enclosed bucket conveyor, identified as Leg 33, constructed in 1982, with a maximum throughput of 6,000 bushels per hour.
- (17) One (1) enclosed drag conveyor, identified as DC 213, constructed in 1982, with a maximum throughput of 6,000 bushels per hour.
- (18) One (1) enclosed screw conveyor, identified as SC 210, constructed in 1982, with a maximum throughput of 3,000 bushels per hour.

#### Grain Drying

- (c) One (1) natural gas fired column grain dryer, identified as Dryer, constructed in 1981, with a maximum heat input capacity of 30 million (MM) British thermal units (Btu) per hour, processing grain at a maximum capacity of 50 tons per hour (1680 bushels per hour at 60 pounds per bushel), with particulate emissions controlled by an air recirculation system, exhausting through the column wall perforations;

#### Grain Storage

- (d) Nine (9) storage bins, each with a maximum throughput of 900 tons per hour (30,000 bushels per hour at 60 pounds per bushel), consisting of the following:

Note: Grain is treated with mineral oil or soybean oil as a dust suppressant prior to being transferred to the storage bins.

- (1) One (1) storage bin, identified as Tank 500, constructed in 1982, with a maximum capacity of 1,000,000 bushels, and with particulate emissions controlled by Baghouse #1.
- (2) One (1) storage bin, identified as Tank 400, constructed in 1981, with a maximum capacity of 500,000 bushels, and with particulate emissions controlled by Baghouse #1.
- (3) Four (4) storage bins, identified as Bins 602, 604, 605, and 606, each constructed in 1981, each with a maximum capacity of 50,000 bushels, and with particulate emissions controlled by Baghouse #1.
- (4) Two (2) storage bins, identified as Bins 601 and 603, each constructed in 1981, and each with a maximum capacity of 50,000 bushels.
- (5) One (1) surge tank, identified as Tank 700, constructed in 1982, with a maximum capacity of 3,500 bushels.

#### Grain Shipping

- (e) One (1) truck (or rail) loading spout, identified as DC 214, constructed in 1982, with a maximum throughput of 600 tons per hour (20,000 bushels per hour at 60 pounds per bushel), with particulate emissions controlled by Baghouse #1.
- (f) One (1) barge loading spout, identified as Barge Load-Out, constructed in 1981, with a maximum throughput of 1,050 tons per hour (35,000 bushels per hour at 60 pounds per bushel), and with particulate emissions controlled by Baghouse #2.
- (g) Receiving and shipping of grain by paved roads.

#### Storage Tanks

- (h) One (1) mineral oil or soybean oil storage tank, constructed in 2000, with a maximum storage capacity of 5000 gallons.
- (i) One (1) mineral oil or soybean oil storage tank, constructed in 1990, with a maximum storage capacity of 2000 gallons.

## SECTION B GENERAL CONDITIONS

### B.1 Definitions [326 IAC 2-1.1-1]

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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.2 Permit Term [326 IAC 2-6.1-7(a)] [326 IAC 2-1.1-9.5] [IC 13-15-3-6(a)]

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- (a) This permit, M163-31047-00039, 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, until the renewal permit has been issued or denied.

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

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

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

### B.4 Enforceability

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

### B.5 Severability

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

### B.6 Property Rights or Exclusive Privilege

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

### B.7 Duty to Provide Information

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- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

**B.8 Annual Notification [326 IAC 2-6.1-5(a)(5)]**

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- (a) An annual notification shall be submitted by an authorized individual 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) The annual notice shall be submitted in the format attached no later than March 1 of each year to:  
  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- (c) 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.9 Preventive Maintenance Plan [326 IAC 1-6-3]**

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

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

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

The Permittee shall implement the PMPs.

- (b) 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.
- (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.10 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

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- (a) All terms and conditions of permits established prior to M163-31047-00039 and issued pursuant to permitting programs approved into the state implementation plan have been either:
- (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

**B.11 Termination of Right to Operate [326 IAC 2-6.1-7(a)]**

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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 one hundred twenty (120) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

**B.12 Permit Renewal [326 IAC 2-6.1-7]**

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- (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 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
- (1) Submitted at least one hundred twenty (120) days 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 2-6.1 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-6.1-4(b), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

**B.13 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]**

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- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

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

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

- (c) The Permittee shall notify the OAQ no later than thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

**B.14 Source Modification Requirement**

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

**B.15 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]**

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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 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, at reasonable times, 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, 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.16 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]**

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- (a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

The application which shall be submitted by the Permittee does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

**B.17 Annual Fee Payment [326 IAC 2-1.1-7]**

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- (a) The Permittee shall pay annual fees due no later than thirty (30) calendar days of receipt of a bill from IDEM, OAQ.
- (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.18 Credible Evidence [326 IAC 1-1-6]**

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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 2-6.1-5(a)(1)]

#### C.1 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.2 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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

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

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

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

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

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

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

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Pursuant to 326 IAC 6 5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the attached plan as in Attachment A.

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

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- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project.

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

- (f) **Demolition and Renovation**  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

### **Testing Requirements [326 IAC 2-6.1-5(a)(2)]**

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

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- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
  
no later than thirty-five (35) days prior to the intended test date.
- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date.
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

### **Compliance Requirements [326 IAC 2-1.1-11]**

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

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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 2-6.1-5(a)(2)]**

#### **C.10 Compliance Monitoring [326 IAC 2-1.1-11]**

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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.11 Instrument Specifications [326 IAC 2-1.1-11]**

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

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

### **Corrective Actions and Response Steps**

#### **C.12 Response to Excursions or Exceedances**

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Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

- (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
  - (1) initial inspection and evaluation;
  - (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or
  - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
  - (1) monitoring results;
  - (2) review of operation and maintenance procedures and records; and/or
  - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall record the reasonable response steps taken.

#### **C.13 Actions Related to Noncompliance Demonstrated by a Stack Test**

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- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline

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

### **Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]**

#### **C.14 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.15 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, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

#### **C.16 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 and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

- (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) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, 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 UNIT OPERATION CONDITIONS

### Emissions Unit Description:

#### Grain Receiving and Handling

- (a) One (1) truck receiving dump pit, identified as Truck Pit, constructed in 1981, with a maximum receiving throughput of 900 tons per hour (30,000 bushels per hour at 60 pounds per bushel), with particulate emissions controlled by Baghouse #1.
- (b) One (1) enclosed internal grain handling operation, constructed in 1982, with a maximum throughput of 900 tons per hour (30,000 bushels per hour at 60 pounds per bushel), and a maximum annual throughput of 428,400 tons per year (14,280,000 bushels per year at 60 pounds per bushel), with particulate emissions controlled by Baghouse #1, consisting of the following equipment:
  - (1) One (1) enclosed truck dump receiving belt conveyor, identified as BC 201, constructed in 1982, with a maximum throughput of 30,000 bushels per hour.
  - (2) One (1) enclosed bucket conveyor, identified as Leg 31, constructed in 1982, with a maximum throughput of 30,000 bushels per hour.
  - (3) One (1) enclosed drag conveyor, identified as DC 202, constructed in 1982, with a maximum throughput of 30,000 bushels per hour.
  - (4) One (1) enclosed headhouse distributor, constructed in 1982, with a maximum throughput of 30,000 bushels per hour.
  - (5) One (1) enclosed belt conveyor for filling Bin 500, identified as BC 211, constructed in 1982, with a maximum throughput of 30,000 bushels per hour.
  - (6) One (1) enclosed drag conveyor for filling Bin 400, identified as DC 203, constructed in 1982, with a maximum throughput of 30,000 bushels per hour.
  - (7) One (1) enclosed reclaim conveyor for Bin 500, identified as BC 212, constructed in 1982, with a maximum throughput of 35,000 bushels per hour.
  - (8) One (1) enclosed reclaim conveyor for Bin 400, identified as BC 205, constructed in 1982, with a maximum throughput of 35,000 bushels per hour.
  - (9) One (1) enclosed belt conveyor, identified as BC 204, constructed in 1982, with a maximum throughput of 35,000 bushels per hour.
  - (10) One (1) enclosed belt conveyor for barge loading, identified as BC 206, constructed in 1982, with a maximum throughput of 35,000 bushels per hour.
  - (11) One (1) enclosed drag conveyor for truck loading, identified as DC 214, constructed in 1982, with a maximum throughput of 20,000 bushels per hour.
  - (12) One (1) enclosed screw conveyor, identified as SC 207, constructed in 1982, with a maximum throughput of 3,000 bushels per hour.

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

**Emissions Unit Description (continued):**

- (13) One (1) enclosed screw conveyor, identified as SC 208, constructed in 1982, with a maximum throughput of 3,000 bushels per hour.
- (14) One (1) enclosed bucket conveyor, identified as Leg 32, constructed in 1982, with a maximum throughput of 6,000 bushels per hour.
- (15) One (1) enclosed screw conveyor, identified as SC 209, constructed in 1982, with a maximum throughput of 3,000 bushels per hour.
- (16) One (1) enclosed bucket conveyor, identified as Leg 33, constructed in 1982, with a maximum throughput of 6,000 bushels per hour.
- (17) One (1) enclosed drag conveyor, identified as DC 213, constructed in 1982, with a maximum throughput of 6,000 bushels per hour.
- (18) One (1) enclosed screw conveyor, identified as SC 210, constructed in 1982, with a maximum throughput of 3,000 bushels per hour.

Grain Drying

- (c) One (1) natural gas fired column grain dryer, identified as Dryer, constructed in 1981, with a maximum heat input capacity of 30 million (MM) British thermal units (Btu) per hour, processing grain at a maximum capacity of 50 tons per hour (1680 bushels per hour at 60 pounds per bushel), with particulate emissions controlled by an air recirculation system, exhausting through the column wall perforations;

Grain Storage

- (d) Nine (9) storage bins, each with a maximum throughput of 900 tons per hour (30,000 bushels per hour at 60 pounds per bushel), consisting of the following:
  - Note: Grain is treated with mineral oil or soybean oil as a dust suppressant prior to being transferred to the storage bins.
  - (1) One (1) storage bin, identified as Tank 500, constructed in 1982, with a maximum capacity of 1,000,000 bushels, and with particulate emissions controlled by Baghouse #1.
  - (2) One (1) storage bin, identified as Tank 400, constructed in 1981, with a maximum capacity of 500,000 bushels, and with particulate emissions controlled by Baghouse #1.
  - (3) Four (4) storage bins, identified as Bins 602, 604, 605, and 606, each constructed in 1981, each with a maximum capacity of 50,000 bushels, and with particulate emissions controlled by Baghouse #1.
  - (4) Two (2) storage bins, identified as Bins 601 and 603, each constructed in 1981, and each with a maximum capacity of 50,000 bushels.
  - (5) One (1) surge tank, identified as Tank 700, constructed in 1982, with a maximum capacity of 3,500 bushels.

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

**Emissions Unit Description (continued):**

Grain Shipping

- (e) One (1) truck (or rail) loading spout, identified as DC 214, constructed in 1982, with a maximum throughput of 600 tons per hour (20,000 bushels per hour at 60 pounds per bushel), with particulate emissions controlled by Baghouse #1.
- (f) One (1) barge loading spout, identified as Barge Load-Out, constructed in 1981, with a maximum throughput of 1,050 tons per hour (35,000 bushels per hour at 60 pounds per bushel), and with particulate emissions controlled by Baghouse #2.

(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 2-6.1-5(a)(1)]**

D.1.1 Particulate Matter Limitations Except Lake County [326 IAC 6.5-1]

- (a) Pursuant to 326 IAC 6.5-1-2(a) (Particulate Matter Limitations Except Lake County), particulate matter (PM) emissions from each grain receiving, handling, drying, storage, and shipping facility shall not exceed 0.03 grain per dry standard cubic foot (grains/dscf).
- (b) Pursuant to 326 IAC 6.5-1-2(d)(2) (Particulate Matter Limitations Except Lake County), the Permittee shall comply with the following for operations associated with the grain elevator:

The Permittee shall provide for housekeeping and maintenance procedures that minimize the opportunity for particulate matter to become airborne and leave the property, such as the following:

- (1) Housekeeping practices shall be conducted as follows:
  - (A) Areas to be swept and maintained shall include, at a minimum, the following:
    - (i) General grounds, yard, and other open areas.
    - (ii) Floors, decks, hopper areas, loading areas, dust collectors, and all areas of dust or waste concentrations.
    - (iii) Grain driers with respect to accumulated particulate matter.
  - (B) Cleanings and other collected waste material shall be handled and disposed of so that the area does not generate fugitive dust.
  - (C) Dust from driveways, access roads, and other areas of travel shall be controlled.
  - (D) Accidental spills and other accumulations shall be cleaned up as soon as possible but no later than completion of the day's operation.
- (2) Equipment maintenance shall consist of procedures that eliminate or minimize emissions from equipment or a system caused by the following:

- (A) Malfunctions.
- (B) Breakdowns.
- (C) Improper adjustment.
- (D) Operating above the rated or designed capacity.
- (E) Not following designed operating specifications.
- (F) Lack of good preventive maintenance care.
- (G) Lack of critical and proper spare replacement parts on hand.
- (H) Lack of properly trained and experienced personnel.

- (3) Emissions from the affected areas, operations, equipment, and systems shall not exceed twenty percent (20%) opacity as determined under 326 IAC 5-1.

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

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

### Compliance Determination Requirements

#### D.1.3 Particulate Control

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- (a) In order to comply with Condition D.1.1, the enclosures, baghouses, and the air recirculation system associated with the emission units in Condition D.1.1 shall be in operation and control particulate emissions from the respective emission units at all times the emission units 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 2-6.1-5(a)(2)]

#### D.1.4 Visible Emissions Notations

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- (a) Daily visible emission notations of the stack exhausts from Baghouse #1, Baghouse #2, and the grain dryer column wall perforations shall be performed 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 a response step(s). Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take a response step(s) shall be considered a deviation from this permit.

## **Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]**

### **D.1.5 Record Keeping Requirements**

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- (a) To document the compliance status with Condition D.1.4, the Permittee shall maintain records of daily visible emission notations of the stack exhausts from Baghouse #1, Baghouse #2, and the grain dryer column wall perforations. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the process did not operate that day).
  
- (b) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT 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).

|                      |                           |
|----------------------|---------------------------|
| <b>Company Name:</b> | Cargill, Inc.             |
| <b>Address:</b>      | 2000 W. Ohio Street       |
| <b>City:</b>         | Evansville, Indiana 47712 |
| <b>Phone #:</b>      | (812) 424-2432            |
| <b>MSOP #:</b>       | M163-31047-00039          |

I hereby certify that Cargill, Inc. is:

still in operation.

I hereby certify that Cargill, Inc. is:

no longer in operation.

in compliance with the requirements of MSOP M163-31047-00039.

not in compliance with the requirements of MSOP M163-31047-00039.

|                                       |
|---------------------------------------|
| <b>Authorized Individual (typed):</b> |
| <b>Title:</b>                         |
| <b>Signature:</b>                     |
| <b>Date:</b>                          |

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.

|                       |
|-----------------------|
| <b>Noncompliance:</b> |
|                       |
|                       |
|                       |
|                       |

**MALFUNCTION REPORT**  
**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**  
**OFFICE OF AIR QUALITY**  
**COMPLIANCE AND ENFORCEMENT BRANCH**  
**FAX NUMBER: (317) 233-6865**

**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 ?\_\_\_\_\_, 100 TONS/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 PERMIT 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: \_\_\_\_/\_\_\_\_/20\_\_\_\_    \_\_\_\_\_ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: \_\_\_\_\_

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE \_\_\_\_/\_\_\_\_/20\_\_\_\_    \_\_\_\_\_ 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:

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**Attachment A**  
**to MSOP No. M163-31047-00039**

**FUGITIVE DUST CONTROL PLAN**

Cargill, Inc.  
Evansville, Indiana  
Fugitive Particulate Matter Emissions Control Plan  
35 IAC, Article 6, Rule 5

- I. Name and Address of Source:  
Cargill, Inc.  
2000 West Ohio Street  
Evansville, Indiana 47712
  
- II. Name and Address of Operator:  
Cargill, Inc.  
2000 West Ohio Street  
Evansville, Indiana 47712
  
- III. Processes, Operations and Areas that have the Potential for Fugitive Emissions:
  1. Paved Roads and Parking Lots
  2. Conveying of grain
  3. Transfer of grain
  4. Transportation of grain
  5. Loading and unloading of grain
  6. Solid Waste Handling
  
- IV. Facility Map:  
See attached facility layout

Cargill, Inc.  
Evansville, Indiana  
Fugitive Particulate Matter Emissions Control Plan

V. Quantity and types of vehicles on paved roads:

1. Maximum of 20,000 grain trucks/year on paved areas

VI. Type and quantity of material handled:

The maximum annual permitted quantity of grain received and unloaded at the facility is 15 million bushels/year.

VII. Measures implemented to control fugitive particulate matter emissions:

1. Paved roads and parking lots
  - a. When needed, use street sweeper
  - b. Once swept into piles, reclaimed into a dumpster
2. Conveying of grain:
  - a. Oil is added to all grain received at the facility
  - b. Conveyors are all enclosed
  - c. Cleaning proximity of conveying area on an as needed basis
  - d. Spilled grain is placed into a dumpster
3. Transferring of grain:
  - a. Oil is added to all grain received at the facility
  - b. Cleaning and collecting of grain is completed on an as needed basis
  - c. Spilled grain is placed into a dumpster
4. Transportation of grain:
  - a. Oil is added to all grain received at the facility
  - b. Truck and front end loaders are used to transport the grain
  - c. Spilled grain is collected and transferred to a dumpster

Cargill, Inc.  
Evansville, Indiana  
Fugitive Particulate Matter Emissions Control Plan

5. Loading and unloading operations:
  - a. Oil is added to all grain received at the facility
  - b. Dust collecting systems are used to collect emissions
  - c. Grain collected from the loading and unloading areas is collected and placed in either the dump pit or in a dumpster as needed

6. Solid waste handling:

The solid waste is placed into a dumpster

VIII. Specification of the dust suppressant material utilized:

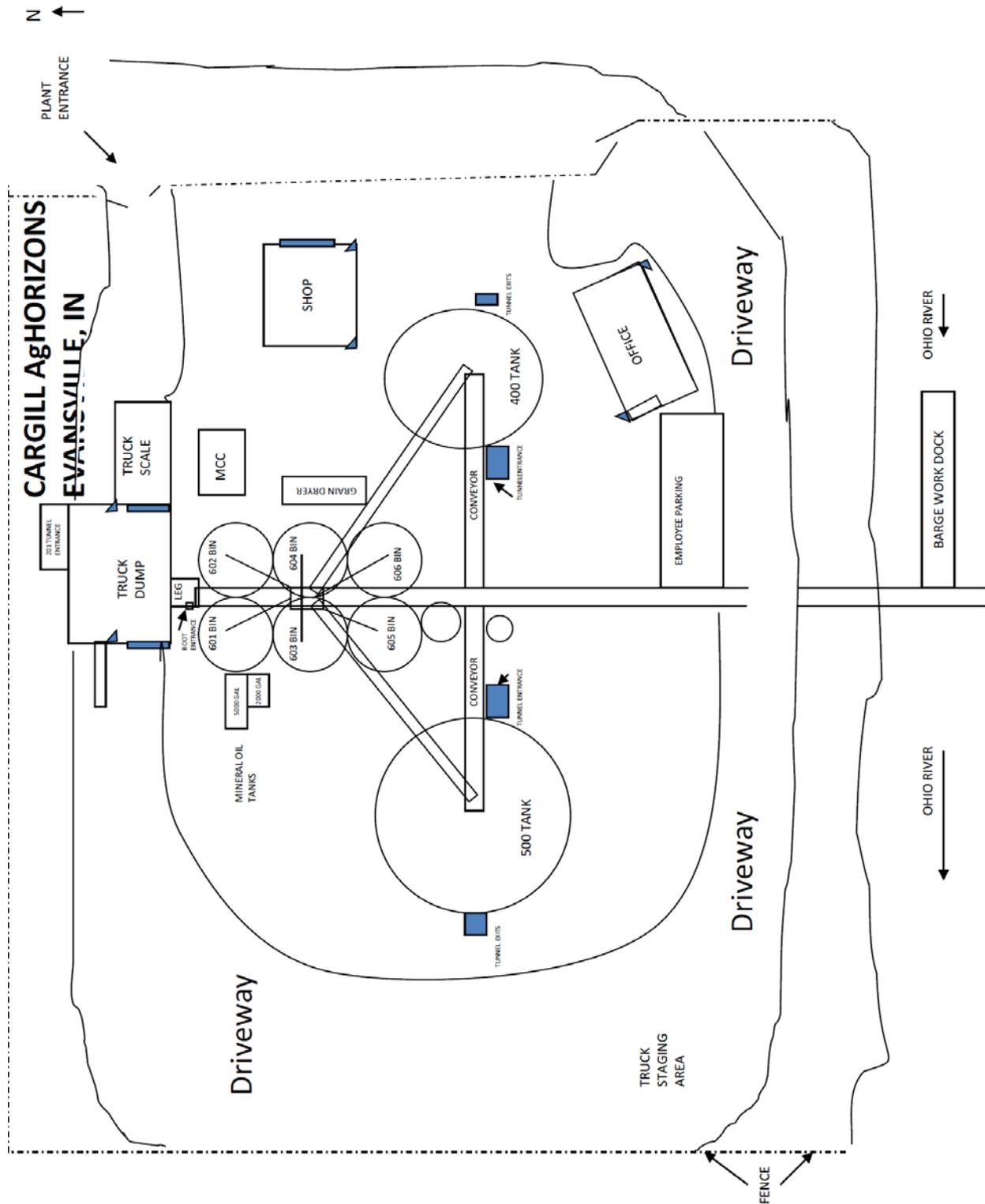
Food grade oil is added to the grain as it is received at the truck dump pits

IX. Specification of particulate matter collection equipment

1. Dust collecting equipment used at the facility has a control efficiency of at least 95% for particulate matter
2. Dust collecting equipment is operated pursuant to the manufacturer's recommendations
3. Records for maintenance related activities on the dust collecting systems are maintained at the facility

X. Schedule of compliance with the provisions of the fugitive particulate matter control plan

1. New emission units will not be installed at the facility without the appropriate permits
2. Any required monitoring and compliance testing of emission units at the facility will be completed in accordance with applicable state and federal regulations and the operating permit conditions



## Indiana Department of Environmental Management Office of Air Quality

### Technical Support Document (TSD) for a Permit by Rule Transitioning to a Minor Source Operating Permit (MSOP) with New Source Review (NSR)

| <b>Source Description and Location</b> |
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|--|

|                              |   |
|------------------------------|---|
| <b>Source Name:</b>          | <b>Cargill, Inc.</b>                                  |
| <b>Source Location:</b>      | <b>2000 W. Ohio Street, Evansville, Indiana 47712</b> |
| <b>County:</b>               | <b>Vanderburgh</b>                                    |
| <b>SIC Code:</b>             | <b>5153 (Grain and Field Beans)</b>                   |
| <b>Operation Permit No.:</b> | <b>M163-31047-00039</b>                               |
| <b>Permit Reviewer:</b>      | <b>Nathan C. Bell</b>                                 |

On October 19, 2011, the Office of Air Quality (OAQ) received an application from Cargill, Inc. related to increase the throughput of grain at their existing stationary grain elevator.

| <b>Permitting History</b> |
|---------------------------|
|---------------------------|

The source has constructed or has been operating under the following approvals:

- (a) City of Evansville Certificate of Operation Nos. 039-CAR-001, 039-CAR-002, 039-CAR-003, R-039-CAR-004, 039-CAR-005, 039-CAR-006, and 039-CAR-007, each issued on August 2, 1993, and each renewed on February 13, 1998;
- (b) Permit By Rule (PBR) Status No. 163-15483-00039, issued on March 4, 2002;
- (c) Source Specific Operating Agreement (SSOA) No. 163-19455-00039; issued on September 23, 2004. This SSOA superseded PBR No. 163-15483-00039.
- (d) On November 4, 2004, the City of Evansville received a letter from Cargill, Inc. requesting to revoke SSOA No. 163-19455-00039 and revert back to operating under Permit By Rule Status No. 163-15483-00039. In their letter, Cargill, Inc. indicated that it could not continue to operate under the SSOA because the SSOA required a mineral oil application rate that conflicted with United States FDA mineral oil application rate requirements. On December 28, 2004, the City of Evansville revoked SSOA No. 163-19455-00039, and reinstated Permit By Rule Status No. 163-15483-00039.

Due to this application, the source is transitioning from Permit By Rule Status to a MSOP.

**County Attainment Status**

The source is located in Vanderburgh County.

| Pollutant   | Designation   |
|---|---|
| SO <sub>2</sub>   | Better than national standards.   |
| CO  | Unclassifiable or attainment effective November 15, 1990.   |
| O <sub>3</sub>  | Attainment effective January 30, 2006, for the Evansville area, including Vanderburgh County, for the 8-hour ozone standard. <sup>1</sup> |
| PM <sub>10</sub>  | Unclassifiable effective November 15, 1990.   |
| NO <sub>2</sub>   | Cannot be classified or better than national standards.   |
| Pb  | Not designated.   |
| <sup>1</sup> Attainment effective October 18, 2000, for the 1-hour ozone standard for the Evansville area, including Vanderburgh County, and is a maintenance area for the 1-hour ozone National Ambient Air Quality Standards (NAAQS) for purposes of 40 CFR 51, Subpart X*. The 1-hour designation was revoked effective June 15, 2005.<br>Attainment designation effective federally November 2, 2011, for PM <sub>2.5</sub> . |   |

- (a) **Ozone Standards**  
 Volatile organic compounds (VOC) and Nitrogen Oxides (NO<sub>x</sub>) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to ozone. Vanderburgh County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) **PM<sub>2.5</sub>**  
 Vanderburgh County has been classified as attainment for PM<sub>2.5</sub>. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM<sub>2.5</sub> emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct PM<sub>2.5</sub> significant level at ten (10) tons per year. This rule became effective, June 28, 2011. On November 2, 2011, the air pollution control board passed the Southwest Indiana PM<sub>2.5</sub> Redesignation emergency rule to redesignate to attainment Dubois County, Montgomery Township in Gibson County, Washington Township in Pike County, Ohio Township in Spencer County, Vanderburgh County and Warrick County. Therefore, direct PM<sub>2.5</sub> and SO<sub>2</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.
- (c) **Other Criteria Pollutants**  
 Vanderburgh County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

**Fugitive Emissions**

- (a) The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-6.1 (Minor Source Operating Permits) applicability.
- (b) Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Note: Although the New Source Performance Standard (NSPS) for Grain Elevators (40 CFR 60, Subpart DD) was promulgated on or before August 7, 1980, this facility does not fall within the "listed source category" for Subpart DD, since this grain elevator does not have a permanent storage capacity of more than 2.5 million bushels.

### **Background and Description of New Source Review**

The Office of Air Quality (OAQ) has reviewed an application, submitted by Cargill, Inc. on September 27, 2011, for increasing the throughput of grain at the existing stationary grain elevator.

The source consists of the following permitted emission units:

#### Grain Receiving and Handling

- (a) One (1) truck receiving dump pit, identified as Truck Pit, constructed in 1981, with a maximum receiving throughput of 900 tons per hour (30,000 bushels per hour at 60 pounds per bushel), with particulate emissions controlled by Baghouse #1.
- (b) One (1) enclosed internal grain handling operation, constructed in 1982, with a maximum throughput of 900 tons per hour (30,000 bushels per hour at 60 pounds per bushel), and a maximum annual throughput of 428,400 tons per year (14,280,000 bushels per year at 60 pounds per bushel), with particulate emissions controlled by Baghouse #1, consisting of the following equipment:
  - (1) One (1) enclosed truck dump receiving belt conveyor, identified as BC 201, constructed in 1982, with a maximum throughput of 30,000 bushels per hour.
  - (2) One (1) enclosed bucket conveyor, identified as Leg 31, constructed in 1982, with a maximum throughput of 30,000 bushels per hour.
  - (3) One (1) enclosed drag conveyor, identified as DC 202, constructed in 1982, with a maximum throughput of 30,000 bushels per hour.
  - (4) One (1) enclosed headhouse distributor, constructed in 1982, with a maximum throughput of 30,000 bushels per hour.
  - (5) One (1) enclosed belt conveyor for filling Bin 500, identified as BC 211, constructed in 1982, with a maximum throughput of 30,000 bushels per hour.
  - (6) One (1) enclosed drag conveyor for filling Bin 400, identified as DC 203, constructed in 1982, with a maximum throughput of 30,000 bushels per hour.
  - (7) One (1) enclosed reclaim conveyor for Bin 500, identified as BC 212, constructed in 1982, with a maximum throughput of 35,000 bushels per hour.
  - (8) One (1) enclosed reclaim conveyor for Bin 400, identified as BC 205, constructed in 1982, with a maximum throughput of 35,000 bushels per hour.
  - (9) One (1) enclosed belt conveyor, identified as BC 204, constructed in 1982, with a maximum throughput of 35,000 bushels per hour.
  - (10) One (1) enclosed belt conveyor for barge loading, identified as BC 206, constructed in 1982, with a maximum throughput of 35,000 bushels per hour.
  - (11) One (1) enclosed drag conveyor for truck loading, identified as DC 214, constructed in 1982, with a maximum throughput of 20,000 bushels per hour.

- (12) One (1) enclosed screw conveyor, identified as SC 207, constructed in 1982, with a maximum throughput of 3,000 bushels per hour.
- (13) One (1) enclosed screw conveyor, identified as SC 208, constructed in 1982, with a maximum throughput of 3,000 bushels per hour.
- (14) One (1) enclosed bucket conveyor, identified as Leg 32, constructed in 1982, with a maximum throughput of 6,000 bushels per hour.
- (15) One (1) enclosed screw conveyor, identified as SC 209, constructed in 1982, with a maximum throughput of 3,000 bushels per hour.
- (16) One (1) enclosed bucket conveyor, identified as Leg 33, constructed in 1982, with a maximum throughput of 6,000 bushels per hour.
- (17) One (1) enclosed drag conveyor, identified as DC 213, constructed in 1982, with a maximum throughput of 6,000 bushels per hour.
- (18) One (1) enclosed screw conveyor, identified as SC 210, constructed in 1982, with a maximum throughput of 3,000 bushels per hour.

#### Grain Drying

- (c) One (1) natural gas fired column grain dryer, identified as Dryer, constructed in 1981, with a maximum heat input capacity of 30 million (MM) British thermal units (Btu) per hour, processing grain at a maximum capacity of 50 tons per hour (1680 bushels per hour at 60 pounds per bushel), with particulate emissions controlled by an air recirculation system, exhausting through the column wall perforations;

#### Grain Storage

- (d) Nine (9) storage bins, each with a maximum throughput of 900 tons per hour (30,000 bushels per hour at 60 pounds per bushel), consisting of the following:
  - Note: Grain is treated with mineral oil or soybean oil as a dust suppressant prior to being transferred to the storage bins.
  - (1) One (1) storage bin, identified as Tank 500, constructed in 1982, with a maximum capacity of 1,000,000 bushels, and with particulate emissions controlled by Baghouse #1.
  - (2) One (1) storage bin, identified as Tank 400, constructed in 1981, with a maximum capacity of 500,000 bushels, and with particulate emissions controlled by Baghouse #1.
  - (3) Four (4) storage bins, identified as Bins 602, 604, 605, and 606, each constructed in 1981, each with a maximum capacity of 50,000 bushels, and with particulate emissions controlled by Baghouse #1.
  - (4) Two (2) storage bins, identified as Bins 601 and 603, each constructed in 1981, and each with a maximum capacity of 50,000 bushels.
  - (5) One (1) surge tank, identified as Tank 700, constructed in 1982, with a maximum capacity of 3,500 bushels.

Grain Shipping

- (e) One (1) truck (or rail) loading spout, identified as DC 214, constructed in 1982, with a maximum throughput of 600 tons per hour (20,000 bushels per hour at 60 pounds per bushel), with particulate emissions controlled by Baghouse #1.
- (f) One (1) barge loading spout, identified as Barge Load-Out, constructed in 1981, with a maximum throughput of 1,050 tons per hour (35,000 bushels per hour at 60 pounds per bushel), and with particulate emissions controlled by Baghouse #2.
- (g) Receiving and shipping of grain by paved roads.

Storage Tanks

- (h) One (1) mineral oil or soybean oil storage tank, constructed in 2000, with a maximum storage capacity of 5000 gallons.
- (i) One (1) mineral oil or soybean oil storage tank, constructed in 1990, with a maximum storage capacity of 2000 gallons.

**Enforcement Issues**

There are no pending enforcement actions related to this source.

**Emission Calculations**

See Appendix A of this TSD for detailed emission calculations.

**Permit Level Determination – MSOP**

The following table reflects the unlimited potential to emit (PTE) of the entire source before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

| Pollutant                 | Potential To Emit (tons/year) |
|---------------------------|-------------------------------|
| PM                        | 171.6                         |
| PM10 <sup>(1)</sup>       | 59.3                          |
| PM2.5                     | 11.3                          |
| SO <sub>2</sub>           | 0.08                          |
| NO <sub>x</sub>           | 12.9                          |
| VOC                       | 0.71                          |
| CO                        | 10.8                          |
| GHGs as CO <sub>2</sub> e | 15,553                        |
| Total HAPs                | 0.24                          |
| Worst Single HAP          | 0.23 (hexane)                 |

(1) Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of PM10 is less than one hundred (100) tons per year, but greater than or equal to twenty-five (25) tons per year. The PTE of all other regulated criteria pollutants are less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. A Minor Source Operating Permit (MSOP)

will be issued.

- (b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.
- (c) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) greenhouse gases (GHGs) is less than the Title V subject to regulation threshold of one hundred thousand (100,000) tons of CO<sub>2</sub> equivalent emissions (CO<sub>2</sub>e) per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

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| <b>Federal Rule Applicability Determination</b> |
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New Source Performance Standards (NSPS)

- (a) The requirements of the New Source Performance Standard (NSPS) for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978, 40 CFR 60, Subpart Da (60.40Da through 60.49Da) (326 IAC 12), are not included in the permit, because the natural gas fired column grain dryer at this source has a heat input rate less than 250 million Btu per hour (MMBtu/hr) and this source does not produce steam for the purpose of generating and supplying electrical power to any utility power distribution system for sale.
- (b) The requirements of the New Source Performance Standard (NSPS) for Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Db (60.40b through 60.49b) (326 IAC 12), are not included in the permit, because the natural gas fired column grain dryer at this source is not considered a steam generating unit as defined by 40 CFR 60.41b, it did not commence construction, modification, or reconstruction after June 19, 1984, and it does not have a heat input capacity of greater than 100 million British thermal units per hour (MMBtu/hr).
- (c) The requirements of the New Source Performance Standard (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc (60.40c through 60.48c) (326 IAC 12), are not included in the permit, because the natural gas fired column grain dryer at this source is not considered a steam generating unit as defined by 40 CFR 60.41c, it did not commence construction, modification, or reconstruction after June 9, 1989.
- (d) The requirements of the New Source Performance Standards (NSPS) for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978, 40 CFR 60, Subpart K (60.110 through 60.113) (326 IAC 12), are not included in the permit, because each of the storage vessels at this source has a storage capacity less than 40,000 gallons and did not commence construction, modification, or reconstruction after June 11, 1973, and prior to May 19, 1978.
- (e) The requirements of the New Source Performance Standards (NSPS) for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984, 40 CFR 60, Subpart Ka (60.110a through 60.115a) (326 IAC 12), are not included in the permit, because each of the storage vessels at this source has a storage capacity less than 40,000 gallons and did not commence construction, modification, or reconstruction after May 18, 1978, and prior to July 23, 1984.
- (f) The requirements of the New Source Performance Standards (NSPS) for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, 40 CFR 60, Subpart Kb (60.110b through 60.117b) (326 IAC 12), are not included in the permit, because each of the storage vessels at this source has a capacity less than seventy-five (75) cubic meters (m<sup>3</sup>) (19,813 gallons).

- (g) The requirements of the New Source Performance Standard for Grain Elevators, 40 CFR 60, Subpart DD (60.300 through 60.304) (326 IAC 12), are not included in the permit for the emission units constructed after August 3, 1978, since this grain elevator does not have a permanent storage capacity of more than 2.5 million bushels [40 CFR 60.300(a) and 40 CFR 60.301(c)]. This grain elevator has a permanent storage capacity of 1.8 million bushels.
- (h) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit.

#### National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (i) The requirements of the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD (63.7480 through 63.7575) (326 IAC 20-95) are not included in the permit, because this source is not a major source of HAPs.
- (j) The requirements of the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63, Subpart JJJJJ (63.11193 through 63.11237), are not included in the permit, because the source does not contain boilers. This source only contains a natural gas fired column grain dryer.
- (k) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Area Sources: Prepared Feeds Manufacturing, 40 CFR 63, Subpart DDDDDDD are not included in the permit, since this source is not considered a prepared feeds manufacturing facility as defined by 40 CFR 63.11627. This source does not manufacture animal feed. This source only consists of a grain elevator.
- (l) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

#### Compliance Assurance Monitoring (CAM)

- (m) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

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| <b>State Rule Applicability Determination</b> |
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The following state rules are applicable to the source:

- (a) 326 IAC 2-6.1 (Minor Source Operating Permits (MSOP))  
MSOP applicability is discussed under the Permit Level Determination – MSOP section above.
- (b) 326 IAC 2-2 (Prevention of Significant Deterioration (PSD))  
This source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit of all attainment regulated criteria pollutants are less than 250 tons per year, the potential to emit greenhouse gases (GHGs) is less than 100,000 tons of CO<sub>2</sub>e per year, and this source is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1). Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.
- (c) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))  
The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.

- (d) 326 IAC 2-6 (Emission Reporting)  
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (e) 326 IAC 5-1 (Opacity Limitations)  
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
- (1) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (2) 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.
- (f) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)  
The source is subject to the requirements of 326 IAC 6-4, because this source has potential fugitive particulate emissions. Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source 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.
- (g) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)  
Pursuant to 326 IAC 6-5-1(a) and 326 IAC 6-5-1(a)(2)(E), this source is subject to the requirements of 326 IAC 6-5, it has potential fugitive particulate emissions greater than 25 tons per year and it is located in the City of Evansville (Vanderburgh County). Pursuant to 326 IAC 6-5, fugitive particulate matter emissions shall be controlled according to the Fugitive Dust Control Plan, submitted on January 4, 2012, which is included as Attachment A to the permit.
- (h) 326 IAC 6.8 (PM Limitations for Lake County)  
This source is not subject to 326 IAC 6.8 because it is not located in Lake County and it does not have the potential to emit particulate matter is equal to or greater than 10 tons per year.
- (i) 326 IAC 12 (New Source Performance Standards)  
See Federal Rule Applicability Section of this TSD.
- (j) 326 IAC 20 (Hazardous Air Pollutants)  
See Federal Rule Applicability Section of this TSD.

### **Grain Elevator**

- (k) 326 IAC 6.5 (Particulate Matter Limitations Except Lake County)  
Pursuant to 326 IAC 6.5-1-1(a) and 326 IAC 6.5-1-2(a), this source is subject to the requirements of 326 IAC 6.5-1-2 (Particulate Matter Limitations Except Lake County), because this source (initially constructed in 1981) is located in Vanderburgh County, is not specifically listed in 326 IAC 6.5-2 through 326 IAC 6.5-10, and has potential particulate matter emissions greater than 10 tons per year.

#### **326 IAC 6.5-1-2(a)**

Pursuant to 326 IAC 6.5-1-2(a) (Particulate Matter Limitations Except Lake County), particulate matter (PM) emissions from each grain receiving, handling, drying, storage, and

shipping facility shall not exceed 0.03 grain per dry standard cubic foot (grains/dscf).

In order to comply with this particulate emission limitation, the enclosures and baghouses associated with the grain receiving, handling, storage, and shipping facilities shall be in operation and control particulate emissions from each emission unit at all times that each emission unit is in operation.

326 IAC 6.5-1-2(b)

Pursuant to 326 IAC 6.5-1-2(d)(2) (Particulate Matter Limitations Except Lake County), the Permittee shall comply with the following for operations associated with the grain elevator:

The Permittee shall provide for housekeeping and maintenance procedures that minimize the opportunity for particulate matter to become airborne and leave the property, such as the following:

- (1) Housekeeping practices shall be conducted as follows:
  - (A) Areas to be swept and maintained shall include, at a minimum, the following:
    - (i) General grounds, yard, and other open areas.
    - (ii) Floors, decks, hopper areas, loading areas, dust collectors, and all areas of dust or waste concentrations.
    - (iii) Grain driers with respect to accumulated particulate matter.
  - (B) Cleanings and other collected waste material shall be handled and disposed of so that the area does not generate fugitive dust.
  - (C) Dust from driveways, access roads, and other areas of travel shall be controlled.
  - (D) Accidental spills and other accumulations shall be cleaned up as soon as possible but no later than completion of the day's operation.
- (2) Equipment maintenance shall consist of procedures that eliminate or minimize emissions from equipment or a system caused by the following:
  - (A) Malfunctions.
  - (B) Breakdowns.
  - (C) Improper adjustment.
  - (D) Operating above the rated or designed capacity.
  - (E) Not following designed operating specifications.
  - (F) Lack of good preventive maintenance care.
  - (G) Lack of critical and proper spare replacement parts on hand.
  - (H) Lack of properly trained and experienced personnel.
- (3) Emissions from the affected areas, operations, equipment, and systems shall not exceed twenty percent (20%) opacity as determined under 326 IAC 5-1.

- (I) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)  
Pursuant to 326 IAC 6-3-1(c)(3), this rule does not apply if a particulate limitation established in 326 IAC 6.5 is more stringent than the particulate limitation established in 326 IAC 6-3-2. Since the particulate limitations established by 326 IAC 6.5-1-2 for each facility are more stringent than the particulate limitations that would be established by 326 IAC 6-3-2, the source is not subject to the

requirements of 326 IAC 6-3-2.

### **Natural Gas-Fired Dryer**

- (m) 326 IAC 6-2 (Particulate Emissions Limitations for Sources of Indirect Heating)  
Each of the natural gas-fired dryer is not subject to the requirements of 326 IAC 6-2, because it is not an indirect heating unit.
- (n) 326 IAC 6.5 (Particulate Matter Limitations Except Lake County)  
Pursuant to 326 IAC 6.5-1-1(a) and 326 IAC 6.5-1-2(a), this source is subject to the requirements of 326 IAC 6.5-1-2 (Particulate Matter Limitations Except Lake County), because this source is located in Vanderburgh County, is not specifically listed in 326 IAC 6.5-2 through 326 IAC 6.5-10, and has potential particulate matter emissions greater than 10 tons per year.

Pursuant to 326 IAC 6.5-1-2(a) (Particulate Matter Limitations Except Lake County), particulate matter (PM) emissions from the natural gas-fired dryer shall not exceed 0.03 grain per dry standard cubic foot (grains/dscf).

In order to comply with this particulate emission limitation, the air recirculation system shall be in operation and control particulate emissions the grain dryer at all times that the grain dryer is in operation.

- (o) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)  
Pursuant to 326 IAC 6-3-1(c)(3), this rule does not apply if a particulate limitation established in 326 IAC 6.5 is more stringent than the particulate limitation established in 326 IAC 6-3-2. Since the particulate limitations established by 326 IAC 6.5-1-2 for the natural gas-fired dryer are more stringent than the particulate limitations that would be established by 326 IAC 6-3-2, the natural gas-fired dryer is not subject to the requirements of 326 IAC 6-3-2.
- (p) 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)  
Pursuant to 326 IAC 7-1.1-1, the natural gas-fired dryer is not subject to the requirements of 326 IAC 7-1.1, since it has unlimited sulfur dioxide (SO<sub>2</sub>) emissions less than twenty-five (25) tons per year and ten (10) pounds per hour respectively.
- (q) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)  
The natural gas-fired dryer is not subject to the requirements of 326 IAC 8-1-6, since it has unlimited VOC potential emissions of less than twenty-five (25) tons per year.
- (r) There are no other 326 IAC 8 Rules that are applicable to the natural gas-fired dryer.

### **Storage Tanks**

- (s) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)  
Each of the storage tanks is not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions from each unit is less than twenty-five (25) tons per year.
- (t) 326 IAC 8-4-3 (Petroleum Sources; Petroleum Liquid Storage Facilities)  
Pursuant to 326 IAC 8-4-1(c) and 326 IAC 8-4-3(a), each of the storage vessels at this source is not subject to the requirements of 326 IAC 8-4-3, since each of the mineral oil and soybean oil storage tanks, which were constructed after January 1, 1980, has a storage capacity less than thirty-nine thousand (39,000) gallons and stores mineral oil or soybean oil which has a true vapor pressure less than 1.52 psi at the storage temperature;
- (u) 326 IAC 8-6 (VOC Rules: Organic Solvent Emission Limitations)  
Pursuant to 326 IAC 8-6-1, this rule applies to sources commencing operation after October 7, 1974 and prior to January 1, 1980, located anywhere in the state, with potential VOC emissions of

100 tons per year or more, and not regulated by any other provision of Article 8. Pursuant to 326 IAC 8-6-1, this source is not subject to the requirements 326 IAC 8-6, because this source, which is located in Vanderburgh County, did not commence operation after October 7, 1974 and prior to January 1, 1980, and does not have potential VOC emissions of 100 tons per year or more.

- (v) 326 IAC 8-7 (VOC Rules; Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties)  
 Pursuant to 326 IAC 8-7-2(a), this source is not subject to the requirements of 326 IAC 8-7, since it is not located in Lake, Porter, Clark, or Floyd County.
- (w) 326 IAC 8-9 (VOC Rules; Volatile Organic Liquid Storage Vessels)  
 Pursuant to 326 IAC 8-9-1(a), this source is not subject to the requirements of 326 IAC 8-9, since it is not located in Lake, Porter, Clark, or Floyd County.
- (x) There are no other 326 IAC 8 Rules that are applicable to the storage tanks at this source.

|  |
|--|
| <b>Compliance Determination, Monitoring and Testing Requirements</b> |
|--|

- (a) The compliance determination and monitoring requirements applicable to this source are as follows:

| Emission Units   | Control                  | Parameter         | Frequency | Range           | Excursions and Exceedances |
|--|--------------------------|-------------------|-----------|-----------------|----------------------------|
| Truck Pit, Internal Grain Handling Operations, Tank 500 and 400, Bins 602, 604, 605, and 606, and Loading Spout DC 214 | Baghouse #1              | Visible Emissions | Daily     | Normal-Abnormal | Response Steps             |
| Barge Load-Out Spout   | Baghouse #2              | Visible Emissions | Daily     | Normal-Abnormal | Response Steps             |
| Grain Dryer (exhausting through Column Wall Perforations)  | Air Recirculation System | Visible Emissions | Daily     | Normal-Abnormal | Response Steps             |

These monitoring conditions are necessary because Baghouse #1, Baghouse #2, and the grain dryer air recirculation system must operate properly to ensure compliance with 326 IAC 6.5-1-2.

- (b) There are no testing requirements applicable to this source:

|                                      |
|--------------------------------------|
| <b>Conclusion and Recommendation</b> |
|--------------------------------------|

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on October 19, 2011. Additional Information was submitted on January 4, 2012.

The continued operation of this source shall be subject to the conditions of the attached proposed New Source Review and MSOP No. M163-31047-00039. The staff recommends to the Commissioner that this New Source Review and MSOP be approved.

|                     |
|---------------------|
| <b>IDEM Contact</b> |
|---------------------|

- (a) Questions regarding this proposed permit can be directed to Nathan Bell at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-5670 or toll free at 1-800-451-6027 extension 35670.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.idem.in.gov](http://www.idem.in.gov)

**TSD Appendix A: Emission Calculations  
Emission Summary**

**Company Name: Cargill, Inc.**  
**Source Address: 2000 W. Ohio Street, Evansville, IN 47712**  
**MSOP No.: M163-31047-00039**  
**Reviewer: Nathan C. Bell**

| Uncontrolled Potential to Emit (tons/year) |              |             |             |                 |             |             |             |                           |             |                  |                 |
|--|--------------|-------------|-------------|-----------------|-------------|-------------|-------------|---------------------------|-------------|------------------|-----------------|
| Process/emission unit                      | PM           | PM10        | PM2.5       | SO <sub>2</sub> | NOx         | VOC         | CO          | GHGs as CO <sub>2</sub> e | Total HAPs  | Worst Single HAP |                 |
| Receiving                                  | 38.6         | 12.6        | 2.14        | -               | -           | -           | -           | -                         | -           | -                | -               |
| Rail and Truck Shipping                    | 18.4         | 6.21        | 1.05        | -               | -           | -           | -           | -                         | -           | -                | -               |
| Internal Handling                          | 39.2         | 21.8        | 3.73        | -               | -           | -           | -           | -                         | -           | -                | -               |
| Storage Bins                               | 5.36         | 1.35        | 0.24        | -               | -           | -           | -           | -                         | -           | -                | -               |
| Column Dryer                               | 47.1         | 11.8        | 2.01        | -               | -           | -           | -           | -                         | -           | -                | -               |
| Column Dryer, combustion                   | 0.24         | 0.98        | 0.98        | 0.08            | 12.9        | 0.71        | 10.8        | 15,553                    | 0.24        | 0.23             | (hexane)        |
| Paved Roads                                | 22.7         | 4.54        | 1.11        | -               | -           | -           | -           | -                         | -           | -                | -               |
| <b>Totals</b>                              | <b>171.6</b> | <b>59.3</b> | <b>11.3</b> | <b>0.08</b>     | <b>12.9</b> | <b>0.71</b> | <b>10.8</b> | <b>15,553</b>             | <b>0.24</b> | <b>0.23</b>      | <b>(hexane)</b> |

| Controlled Potential to Emit (tons/year) |             |             |             |                 |             |             |             |                           |             |                  |                 |
|--|-------------|-------------|-------------|-----------------|-------------|-------------|-------------|---------------------------|-------------|------------------|-----------------|
| Process/emission unit                    | PM          | PM10        | PM2.5       | SO <sub>2</sub> | NOx         | VOC         | CO          | GHGs as CO <sub>2</sub> e | Total HAPs  | Worst Single HAP |                 |
| Receiving                                | 0.39        | 0.13        | 0.02        | -               | -           | -           | -           | -                         | -           | -                | -               |
| Rail and Truck Shipping                  | 0.18        | 0.06        | 0.01        | -               | -           | -           | -           | -                         | -           | -                | -               |
| Internal Handling                        | 3.92        | 2.18        | 0.37        | -               | -           | -           | -           | -                         | -           | -                | -               |
| Storage Bins                             | 1.61        | 0.40        | 0.07        | -               | -           | -           | -           | -                         | -           | -                | -               |
| Column Dryer                             | 9.42        | 2.36        | 0.40        | -               | -           | -           | -           | -                         | -           | -                | -               |
| Column Dryer, combustion                 | 0.24        | 0.98        | 0.98        | 0.08            | 12.9        | 0.71        | 10.8        | 15,553                    | 0.24        | 0.23             | (hexane)        |
| Paved Roads                              | 11.3        | 2.27        | 0.56        | -               | -           | -           | -           | -                         | -           | -                | -               |
| <b>Totals</b>                            | <b>27.1</b> | <b>8.38</b> | <b>2.41</b> | <b>0.08</b>     | <b>12.9</b> | <b>0.71</b> | <b>10.8</b> | <b>15,553</b>             | <b>0.24</b> | <b>0.23</b>      | <b>(hexane)</b> |

**TSD Appendix A: Emission Calculations  
PM and PM10 Emissions From the Grain Handling, Storage and Drying Processes**

Company Name: Cargill, Inc.  
Source Address: 2000 W. Ohio Street, Evansville, IN 47712  
MSOP No.: M163-31047-00039  
Reviewer: Nathan C. Bell

**1. Actual Grain Throughput**

| Year | Actual Grain Received |           |
|------|-----------------------|-----------|
|      | (bushels/yr)          | (tons/yr) |
| 2006 | 11,900,000            | 357,000   |
| 2007 | 11,900,000            | 357,000   |
| 2008 | 11,900,000            | 357,000   |
| 2009 | 11,900,000            | 357,000   |
| 2010 | 11,900,000            | 357,000   |

**2. Potential Grain Throughput Calculation**

This source has requested an increase in their throughput of grain and defined the annual maximum throughput as 11,900,000 bushels (357,000 tons) per year. IDEM multiplied the requested throughput by an adjustment factor 1.2 to constitute a realistic upper bound on the amount of grain this country elevator could receive (428,400 tons per year). This methodology is based on an EPA Memo (dated 11/4/1995) entitled "Calculating Potential to Emit (PTE) and Other Guidance for Grain Handling Facilities"

| Potential Grain Throughput |           |
|----------------------------|-----------|
| (bushels/yr)               | (tons/yr) |
| 14,280,000                 | 428,400   |

Total number of internal handling steps = 3  
Potential Internal Handling Throughput = 1,285,200 tons/year

**3. PTE Calculations**

| Emissions Unit Description                      | Maximum Grain Throughput (tons/yr) | PM Emission Factor (lbs/ton) | PM10 Emission Factor (lbs/ton) | PM2.5 Emission Factor (lbs/ton) | Control Device(s)    | Collection and Control Efficiency (%) | PTE of PM Before Control (tons/yr) | PTE of PM10 Before Control (tons/yr) | PTE of PM2.5 Before Control (tons/yr) | PTE of PM After Control (tons/yr) | PTE of PM10 After Control (tons/yr) | PTE of PM2.5 After Control (tons/yr) |
|---|------------------------------------|------------------------------|--------------------------------|---------------------------------|----------------------|---------------------------------------|------------------------------------|--------------------------------------|---------------------------------------|-----------------------------------|-------------------------------------|--------------------------------------|
| Receiving - Straight Truck *                    | 428,400                            | 0.18                         | 0.059                          | 0.010                           | Baghouse             | 99%                                   | 38.56                              | 12.64                                | 2.14                                  | 0.39                              | 0.13                                | 0.02                                 |
| Receiving - Hopper Truck                        | 428,400                            | 0.035                        | 0.0078                         | 0.0013                          | Baghouse             | 99%                                   | 7.50                               | 1.67                                 | 0.28                                  | 0.07                              | 0.02                                | 0.00                                 |
| Shipping - Truck *                              | 428,400                            | 0.086                        | 0.029                          | 0.0049                          | Baghouse             | 99%                                   | 18.42                              | 6.21                                 | 1.05                                  | 0.18                              | 0.06                                | 0.01                                 |
| Shipping - Railcar                              | 428,400                            | 0.027                        | 0.0022                         | 0.00037                         | Baghouse             | 99%                                   | 5.78                               | 0.47                                 | 0.08                                  | 0.06                              | 0.00                                | 0.00                                 |
| Shipping - Barge                                | 428,400                            | 0.016                        | 0.004                          | 0.00055                         | Baghouse             | 99%                                   | 3.43                               | 0.86                                 | 0.12                                  | 0.03                              | 0.01                                | 0.00                                 |
| Internal Handling                               | 1,285,200                          | 0.061                        | 0.034                          | 0.0058                          | Enclosed             | 90%                                   | 39.20                              | 21.85                                | 3.73                                  | 3.92                              | 2.18                                | 0.37                                 |
| Storage - Silos and Bins                        | 428,400                            | 0.025                        | 0.0063                         | 0.0011                          | Oil/dust suppressant | 70%                                   | 5.36                               | 1.35                                 | 0.24                                  | 1.61                              | 0.40                                | 0.07                                 |
| Drying - Column Dryer**                         | 428,400                            | 0.22                         | 0.055                          | 0.0094                          | Perforation Plate    | 80%                                   | 47.12                              | 11.78                                | 2.01                                  | 9.42                              | 2.36                                | 0.40                                 |
| <b>Total Worst Case Potential to Emit (PTE)</b> |                                    |                              |                                |                                 |                      |                                       | <b>148.65</b>                      | <b>53.83</b>                         | <b>9.17</b>                           | <b>15.52</b>                      | <b>5.13</b>                         | <b>0.88</b>                          |

Emission factors are from AP 42 Table 9.9.1-1 Particulate Emission Factors for Grain Elevators (4/03)

\*For the potential to emit, IDEM has assumed the worst case scenario, where all grain is received by straight truck and all grain is shipped by truck.

\*\*For the potential to emit, IDEM has assumed all received grain is dried.

**Methodology**

Maximum Grain Throughput (tons/yr) = Adjustment Factor (1.2) x Requested Throughput (450,000 tons/yr)

Maximum Receiving - Straight Truck (tons/yr) = Maximum Throughput Truck Receiving Pits (bushels/hr) x 60 (lbs/bushel) x 1 ton/2000 lbs x 8760 hrs/yr

PTE of PM/PM10 Before Control (tons/yr) = Maximum Throughput (tons/yr) x Emission factor (lb/ton) x 1 ton/2,000 lbs

PTE of PM/PM10 After Control (tons/yr) = Maximum Throughput (tons/yr) x Emission factor (lb/ton) x 1 ton/2,000 lbs x (1- Control Efficiency (%))

**TSD Appendix A: Emission Calculations  
Grain Drying - Natural Gas Combustion  
MM BTU/HR <100**

Company Name: Cargill, Inc.  
Source Address: 2000 W. Ohio Street, Evansville, IN 47712  
MSOP No.: M163-31047-00039  
Reviewer: Nathan C. Bell

| Unit          | Maximum Heat Input Capacity (MMBtu/hr) | High Heat Value (MMBtu/MMcf) | Potential Throughput (MMcf/yr) |
|---------------|--|------------------------------|--------------------------------|
| Grain Dryer   | 30.0                                   | 1020                         | 257.65                         |
| <b>Totals</b> | <b>30.0</b>                            |                              | <b>257.65</b>                  |

| Criteria Pollutants           | Pollutant |       |        |       |                    |      |       |
|-------------------------------|-----------|-------|--------|-------|--------------------|------|-------|
|                               | PM*       | PM10* | PM2.5* | SO2   | NOx                | VOC  | CO    |
| Emission Factor in lb/MMcf    | 1.9       | 7.6   | 7.6    | 0.6   | 100<br>**see below | 5.5  | 84    |
| Potential Emission in tons/yr | 0.24      | 0.98  | 0.98   | 0.077 | 12.88              | 0.71 | 10.82 |

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined. PM2.5 assumed equal to PM10  
\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

| Hazardous Air Pollutants      | HAPs - Organics* |           |              |         |           | HAPs - Metals* |           |           |           |           |
|-------------------------------|------------------|-----------|--------------|---------|-----------|----------------|-----------|-----------|-----------|-----------|
|                               | Benzene          | DCB       | Formaldehyde | Hexane  | Toluene   | Pb             | Cd        | Cr        | Mn        | Ni        |
| Emission Factor in lb/MMcf    | 2.1E-03          | 1.2E-03   | 7.5E-02      | 1.8E+00 | 3.4E-03   | 5.0E-04        | 1.1E-03   | 1.4E-03   | 3.8E-04   | 2.1E-03   |
| Potential Emission in tons/yr | 2.705E-04        | 1.546E-04 | 9.662E-03    | 0.23    | 4.380E-04 | 6.441E-05      | 1.417E-04 | 1.804E-04 | 4.895E-05 | 2.705E-04 |

\*The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Methodology**

All emission factors are based on normal firing.  
MMBtu = 1,000,000 Btu  
MMCF = 1,020,000 Cubic Feet of Gas  
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03  
Potential Throughput (MMcf/yr) = [Maximum Heat Input Capacity (MMBtu/hr)] \* [8,760 hours/year] \* [MMcf/1,020 MMBtu]  
Potential Emissions (tons/yr) = [Potential Throughput (MMcf/yr)] \* [Emission Factor (lb/MMcf)] \* [ton/2,000 lbs]

Potential to Emit Total HAPs (tons/yr) = **0.24**

**Greenhouse Gases (GHGs)**

|                                       | Greenhouse Gas (GHG) |      |      |
|---------------------------------------|----------------------|------|------|
|                                       | CO2                  | CH4  | N2O  |
| Emission Factor in lb/MMcf            | 120000               | 2.3  | 2.2  |
| Potential Emission in tons/yr         | 15458.82             | 0.30 | 0.28 |
| Summed Potential Emissions in tons/yr | 15459.40             |      |      |
| CO2e Total in tons/yr                 | 15552.90             |      |      |

**Methodology**

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.  
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.  
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.  
Potential Emissions (tons/yr) = [Potential Throughput (MMcf/yr)] \* [Emission Factor (lb/MMcf)] \* [ton/2,000 lbs]  
CO2e Total (tons/yr) = [CO2 Potential Emissions (ton/yr) \* CO2 GWP (1)] + [CH4 Potential Emissions (ton/yr) \* CH4 GWP (21)] + [N2O Potential Emissions (ton/yr) \* N2O GWP (310)]

**Abbreviations**

|                                    |                       |                                 |
|------------------------------------|-----------------------|---------------------------------|
| PM = Particulate Matter            | DCB = Dichlorobenzene | CO2 = Carbon Dioxide            |
| PM10 = Particulate Matter (<10 um) | Pb = Lead             | CH4 = Methane                   |
| SO2 = Sulfur Dioxide               | Cd = Cadmium          | N2O = Nitrous Oxide             |
| NOx = Nitrous Oxides               | Cr = Chromium         | CO2e = CO2 equivalent emissions |
| VOC = Volatile Organic Compounds   | Mn = Manganese        |                                 |
| CO = Carbon Monoxide               | Ni = Nickel           |                                 |

**TSD Appendix A: Emission Calculations**  
**Fugitive Dust Emissions - Paved Roads**

Company Name: **Cargill, Inc.**  
 Source Address: **2000 W. Ohio Street, Evansville, IN 47712**  
 MSOP No.: **M163-31047-00039**  
 Reviewer: **Nathan C. Bell**

Total Maximum Grain Annual Throughput = **428,400** tons/year

**Paved Roads at Industrial Site**

The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

| Process  | Vehicle Type                          | Maximum Weight of Vehicle (tons) | Maximum Weight of Load (tons) | Maximum Weight of Vehicle and Load (tons/trip) | Maximum trips per year (trip/yr) | Total Weight driven per year (ton/yr) | Maximum one-way distance (feet/trip)* | Maximum one-way distance (miles/trip) | Maximum one-way miles (miles/yr) |
|--|---------------------------------------|----------------------------------|-------------------------------|--|----------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|----------------------------------|
| Grain truck entering site full                                     | Grain Tanker (5 axle bulk dry tanker) | 19.0                             | 26.0                          | 45.0   | 1.6E+04                          | 7.4E+05                               | 2640                                  | 0.50                                  | 8238.5                           |
| Grain truck leaving site empty                                     | Grain Tanker (5 axle bulk dry tanker) | 19.0                             | 0.0                           | 19.0   | 1.6E+04                          | 3.1E+05                               | 2640                                  | 0.50                                  | 8238.5                           |
| Onsite utility/maintenance pickup truck (10 one-way trips per day) | Pickup Truck                          | 2.5                              | 0.7                           | 3.2  | 3.7E+03                          | 1.2E+04                               | 2640                                  | 0.50                                  | 1825.0                           |
| <b>Total</b>   |                                       |                                  |                               |  | <b>36,604</b>                    | <b>1,066,203</b>                      |                                       |                                       | <b>18,302</b>                    |

Average Vehicle Weight Per Trip =  $\frac{29.1}{0.500}$  tons/trip  
 Average Miles Per Trip =  $\frac{29.1}{0.500}$  miles/trip

Unmitigated Emission Factor,  $E_f = [k \cdot (sL)^{0.91} \cdot (W)^{1.02}]$  (Equation 1 from AP-42 13.2.1)

|           | PM    | PM10   | PM2.5   |   |
|-----------|-------|--------|---------|---|
| where k = | 0.011 | 0.0022 | 0.00054 | lb/MT = particle size multiplier (AP-42 Table 13.2.1-1)   |
| W =       | 29.1  | 29.1   | 29.1    | tons = average vehicle weight (provided by source)  |
| sL =      | 9.7   | 9.7    | 9.7     | g/m <sup>2</sup> = silt loading value for paved roads at iron and steel production facilities - Table 13.2.1-3) |

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor,  $E_{ext} = E \cdot [1 - (p/4N)]$

Mitigated Emission Factor,  $E_{ext} = E_f \cdot [1 - (p/4N)]$   
 where p =  $\frac{125}{365}$  days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)  
 N =  $\frac{125}{365}$  days per year

|  | PM   | PM10 | PM2.5 |   |
|--|------|------|-------|---|
| Unmitigated Emission Factor, $E_f$ =   | 2.71 | 0.54 | 0.13  | lb/mile   |
| Mitigated Emission Factor, $E_{ext}$ = | 2.48 | 0.50 | 0.12  | lb/mile   |
| Dust Control Efficiency =              | 50%  | 50%  | 50%   | (pursuant to control measures outlined in fugitive dust control plan) |

| Process  | Vehicle Type                          | Unmitigated PTE of PM (tons/yr) | Unmitigated PTE of PM10 (tons/yr) | Unmitigated PTE of PM2.5 (tons/yr) | Mitigated PTE of PM (tons/yr) | Mitigated PTE of PM10 (tons/yr) | Mitigated PTE of PM2.5 (tons/yr) | Controlled PTE of PM (tons/yr) | Controlled PTE of PM10 (tons/yr) | Controlled PTE of PM2.5 (tons/yr) |
|--|---------------------------------------|---------------------------------|-----------------------------------|------------------------------------|-------------------------------|---------------------------------|----------------------------------|--------------------------------|----------------------------------|-----------------------------------|
| Grain truck entering site full                                     | Grain Tanker (5 axle bulk dry tanker) | 11.16                           | 2.23                              | 0.55                               | 10.21                         | 2.04                            | 0.50                             | 5.10                           | 1.02                             | 0.25                              |
| Grain truck leaving site empty                                     | Grain Tanker (5 axle bulk dry tanker) | 11.16                           | 2.23                              | 0.55                               | 10.21                         | 2.04                            | 0.50                             | 5.10                           | 1.02                             | 0.25                              |
| Onsite utility/maintenance pickup truck (10 one-way trips per day) | Pickup Truck                          | 2.47                            | 0.49                              | 0.12                               | 2.26                          | 0.45                            | 0.11                             | 1.13                           | 0.23                             | 0.06                              |
| <b>Total</b>   |                                       | <b>24.80</b>                    | <b>4.96</b>                       | <b>1.22</b>                        | <b>22.68</b>                  | <b>4.54</b>                     | <b>1.11</b>                      | <b>11.34</b>                   | <b>2.27</b>                      | <b>0.56</b>                       |

**Methodology**

Maximum Weight of Vehicle and Load (tons/trip) = [Maximum Weight of Vehicle (tons/trip)] + [Maximum Weight of Load (tons/trip)]  
 Maximum trips per year (trip/yr) = [Throughput (tons/yr)] / [Maximum Weight of Load (tons/trip)]  
 Total Weight driven per year (ton/yr) = [Maximum Weight of Vehicle and Load (tons/trip)] \* [Maximum trips per year (trip/yr)]  
 Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]  
 Maximum one-way miles (miles/yr) = [Maximum trips per year (trip/yr)] \* [Maximum one-way distance (mi/trip)]  
 Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per year (ton/yr)] / SUM[Maximum trips per year (trip/yr)]  
 Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/yr)] / SUM[Maximum trips per year (trip/yr)]  
 Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) \* (Unmitigated Emission Factor (lb/mile)) \* (ton/2000 lbs)  
 Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) \* (Mitigated Emission Factor (lb/mile)) \* (ton/2000 lbs)  
 Controlled PTE (tons/yr) = [Mitigated PTE (tons/yr)] \* [1 - Dust Control Efficiency]

**Abbreviations**

PM = Particulate Matter  
 PM10 = Particulate Matter (<10 um)  
 PM2.5 = Particle Matter (<2.5 um)  
 PTE = Potential to Emit



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
**Governor**

*Thomas W. Easterly*  
**Commissioner**

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

## **SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED**

**TO:** Todd Garber  
Cargill, Inc.  
2000 W Ohio St  
Evansville, IN 47712

**DATE:** February 17, 2012

**FROM:** Matt Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

**SUBJECT:** Final Decision  
MSOP  
163-31047-00039

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:  
Ted Nehr Korn, Consultant  
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at [jbrush@idem.IN.gov](mailto:jbrush@idem.IN.gov).

Final Applicant Cover letter.dot 11/30/07



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Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

TO: Willard Library of Evansville

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

Subject: **Important Information for Display Regarding a Final Determination**

**Applicant Name: Cargill, Inc.**  
**Permit Number: 163-31047-00039**

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures  
Final Library.dot 11/30/07

# Mail Code 61-53

|                            |                                       |   |   |  |
|----------------------------|---------------------------------------|---|---|--|
| IDEM Staff                 | DPABST<br>Cargill, Inc. 31047 (final) |   |   | AFFIX STAMP<br>HERE IF<br>USED AS<br>CERTIFICATE<br>OF MAILING |
| Name and address of Sender | ▶                                     | Indiana Department of Environmental Management<br>Office of Air Quality – Permits Branch<br>100 N. Senate<br>Indianapolis, IN 46204 | Type of Mail:<br><br><b>CERTIFICATE OF MAILING ONLY</b> |  |

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| 1    |                | Todd Garber Cargill, Inc. 2000 W Ohio St Evansville IN 47712 (Source CAATS) CONFIRM DELIVERY                                      |         |                 |                            |               |                 |          |          |          |                |         |
| 2    |                | Evansville City Council and Mayors Office 1NW MLK Blvd, Rm 302 Evansville IN 47708 (Local Official)                               |         |                 |                            |               |                 |          |          |          |                |         |
| 3    |                | Vanderburgh County Commissioners 1 NW MLK Blvd, Rm 305 Evansville IN 47708 (Local Official)                                       |         |                 |                            |               |                 |          |          |          |                |         |
| 4    |                | Evansville Vanderburg Public Library 200 SE Martin Luther King Jr. Blvd Evansville IN 47708-1694 (Library)                        |         |                 |                            |               |                 |          |          |          |                |         |
| 5    |                | Mr. Wendell Hibdon Plumbers & Steam Fitters Union, Local 136 2300 St. Joe Industrial Park Dr Evansville IN 47720 (Affected Party) |         |                 |                            |               |                 |          |          |          |                |         |
| 6    |                | Mr. Don Mottley Save Our Rivers 6222 Yankeetown Hwy Boonville IN 47601 (Affected Party)   |         |                 |                            |               |                 |          |          |          |                |         |
| 7    |                | Vanderburgh County Health Dept. 420 Milberry Street Evansville IN 47713-1888 (Health Department)                                  |         |                 |                            |               |                 |          |          |          |                |         |
| 8    |                | Kim Sherman 3355 Woodview Drive Newburgh IN 47630 (Affected Party)  |         |                 |                            |               |                 |          |          |          |                |         |
| 9    |                | Mr. Ted Nehrkorn AMEC Environment & Infrastructure, Inc. 8901 North Industrial Road Peoria IL 61615 (Consultant)                  |         |                 |                            |               |                 |          |          |          |                |         |
| 10   |                | Mr. Mark Wilson Evansville Courier & Press P.O. Box 268 Evansville IN 47702-0268 (Affected Party)                                 |         |                 |                            |               |                 |          |          |          |                |         |
| 11   |                | Mr. John Blair 800 Adams Ave Evansville IN 47713 (Affected Party)   |         |                 |                            |               |                 |          |          |          |                |         |
| 12   |                | Evansville EPA 100 E. Walnut St. Suite 100, Newsome Center Evansville IN 47713 (Local Official)                                   |         |                 |                            |               |                 |          |          |          |                |         |
| 13   |                | David Boggs 216 Western Hills Dr Mt Vernon IN 47620 (Affected Party)  |         |                 |                            |               |                 |          |          |          |                |         |
| 14   |                |   |         |                 |                            |               |                 |          |          |          |                |         |
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