



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: April 12, 2012

RE: The Andersons, Inc., Delphi Cob Operations / 015-31226-00035

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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Minor Source Operating Permit Renewal OFFICE OF AIR QUALITY

**The Andersons Inc., Delphi Cob Operations
3902 North Anderson Drive
Delphi, Indiana 46923**

(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.: M015-31226-00035	
Issued by:  Nathan Bell, Section Chief Permits Branch Office of Air Quality	Issuance Date: April 12, 2012 Expiration Date: April 12, 2022

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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 corn cob processing operation.

Source Address:	3902 North Anderson Drive, Delphi, Indiana 46923
General Source Phone Number:	(765) 564-6133
SIC Code:	2041 (Flour and Other Grain Mill Products)
County Location:	Carroll
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary

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

- (a) One (1) cob receiving station (truck), identified as CR1, constructed prior to 1987, with a maximum throughput capacity of 15 tons of cobs per hour, with uncontrolled emissions exhausting to the atmosphere.
- (b) One (1) temporary outdoor cob storage pile, SP1, with a maximum throughput capacity of 15 tons of cobs per hour, using no control.
- (c) One (1) cob handling system, consisting of totally enclosed legs, conveyors and cleaners, identified as CH1, constructed prior to 1987, with a maximum throughput capacity of 6 tons of cobs per hour, with emissions controlled by a baghouse (BH1), and exhausting to stack S1.
- (d) One (1) cob milling system, consisting of a fully enclosed cob mill, identified as CM1, constructed prior to 1987, with the ground corn cobs pneumatically conveyed to a storage silo (Silo1), with a maximum throughput capacity of 6 tons of cobs per hour, with emissions controlled by a baghouse (BH2), and exhausting to stack S2.
- (e) Twenty-six (26) storage bins for storing ground corn cobs, identified as Storage 1, constructed prior to 1987, with a maximum throughput capacity of 15 tons of cobs per hour, with emissions controlled by bin vent filters.
- (f) One (1) natural gas-fired cob dryer, identified as CD1, constructed prior to 1987, with a maximum throughput of 12 tons of cobs per hour, with dryer burners having a maximum capacity of 10.0 MMBtu/hour of natural gas, using a cyclone for particulate control, and exhausting to stack S3.
- (g) One (1) cob packaging and shipping station (truck and rail), identified as CS1, constructed prior to 1987, with a maximum throughput capacity of 30 tons of cobs per hour, with uncontrolled emissions exhausting to the atmosphere.

- (h) Paved and unpaved roads and parking lots with public access.

SECTION B GENERAL CONDITIONS

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

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-1.1-1) 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)]

- (a) This permit, M015-31226-00035, is issued for a fixed term of ten (10) 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]

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

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

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

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

B.7 Duty to Provide Information

- (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)]

- (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]

- (a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:
 - (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.

The Permittee shall implement the PMPs.
- (b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, 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.

- (c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions.
- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.10 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to M015-31226-00035 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)]

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]

- (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]

- (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

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]**

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]

- (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]

- (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]

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

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

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

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

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

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (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 forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 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.5 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.6 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.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

All required notifications shall be submitted to:

Indiana Department of Environmental Management
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]

- (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]

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]

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]

- (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

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

- (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) 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 [326 IAC 2-6.1-5(a)(1)]:

- (a) One (1) cob receiving station (truck), identified as CR1, constructed prior to 1987, with a maximum throughput capacity of 15 tons of cobs per hour, with uncontrolled emissions exhausting to the atmosphere.
- (b) One (1) temporary outdoor cob storage pile, SP1, with a maximum throughput capacity of 15 tons of cobs per hour, using no control.
- (c) One (1) cob handling system, consisting of totally enclosed legs, conveyors and cleaners, identified as CH1, constructed prior to 1987, with a maximum throughput capacity of 6 tons of cobs per hour, with emissions controlled by a baghouse (BH1), and exhausting to stack S1.
- (d) One (1) cob milling system, consisting of a fully enclosed cob mill, identified as CM1, constructed prior to 1987, with the ground corn cobs pneumatically conveyed to a storage silo (Silo1), with a maximum throughput capacity of 6 tons of cobs per hour, with emissions controlled by a baghouse (BH2), and exhausting to stack S2.
- (e) Twenty-six (26) storage bins for storing ground corn cobs, identified as Storage 1, constructed prior to 1987, with a maximum throughput capacity of 15 tons of cobs per hour, with emissions controlled by bin vent filters.
- (f) One (1) natural gas-fired cob dryer, identified as CD1, constructed prior to 1987, with a maximum throughput of 12 tons of cobs per hour, with dryer burners having a maximum capacity of 10.0 MMBtu/hour of natural gas, using a cyclone for particulate control, and exhausting to stack S3.
- (g) One (1) cob packaging and shipping station (truck and rail), identified as CS1, constructed prior to 1987, with a maximum throughput capacity of 30 tons of cobs per hour, with uncontrolled emissions exhausting to the atmosphere.

(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 [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the cob receiving, handling, cob milling, cob drying, cob storage and cob shipping facilities shall be limited as shown in the following table:

Emissions Unit Description	Process Weight Rate (tons/hr)	326 IAC 6-3-2 Allowable Particulate Emission Rate (lbs/hour)
Cob Receiving (CR1)	15	25.2
Storage Pile (SP1)	15	25.2
Cob Handling (CH1)	6	13.6
Cob Milling (CM1)	6	13.6
Cob Drying (CD1)	12	21.7
Cob Storage (Storage 1)	15	25.2
Cob Packaging and Shipping (CS1)	30	40.0

The pounds per hour limitations were calculated using the following equation:

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

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour;
and P = process weight rate in tons per hour

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

A Preventive Maintenance Plan is required for the cob handling system (CH1), cob milling system (CM1), cob dryer (CD1), and the pneumatic conveyance for Storage1 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

- (a) In order to comply with condition D.1.1, the baghouses, filters, and cyclone for particulate control shall be in operation and control emissions from the cob handling system (CH1), cob milling system (CM1), dryer (CD1) and storage bins (Storage1) at all times that these facilities are in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

D.1.4 Visible Emissions Notations

- (a) Daily visible emission notations of the cob handling system, cob milling system, and dryer stack exhausts (S1, S2, and S3) and the storage bin's vents 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 response steps. 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 response steps shall be considered a deviation from this permit.

D.1.5 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses (BH1 and BH2) used in conjunction with the cob handling system and cob milling system, at least once per day when the process is in operation. When for any one reading, the pressure drop across the baghouse is

outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

D.1.6 Broken or Failed Bag Detection

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

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

D.1.7 Cyclone Failure Detection

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section C - Response to Excursion or Exceedances).

Record Keeping and Reporting Requirement [326 IAC 2-6.1-5(a)(2)]

D.1.8 Record Keeping Requirements

- (a) To document the compliance status with Condition D.1.4, the Permittee shall maintain a daily record of visible emission notations of the cob handling system, cob milling system, and dryer stack exhausts (S1, S2, and S3) and the storage bin's vents. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g., the process did not operate that day).
- (b) To document compliance with Condition D.1.5, the Permittee shall maintain a daily record of the pressure drop across the baghouses (BH1 and BH2) used in conjunction with the cob handling system and cob milling system. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g., the process did not operate that day).

- (c) Section C - General Record Keeping Requirements 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).

Company Name:	The Andersons Inc., Delphi Cob Operations
Address:	3902 North Anderson Drive
City:	Delphi, Indiana 46923
Phone #:	419-891-2915
MSOP #:	015-31226-00035

I hereby certify that The Andersons Inc., Delphi Cob Operations is:

still in operation.

I hereby certify that The Andersons Inc., Delphi Cob Operations is:

no longer in operation.

in compliance with the requirements of MSOP M015-31226-00035.

not in compliance with the requirements of MSOP M015-31226-00035.

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

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

Noncompliance:

MALFUNCTION REPORT
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
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:

Indiana Department of Environmental Management
Office of Air Quality

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

Source Background and Description
--

Source Name:	The Andersons, Inc. Delphi Cob Operations
Source Location:	3902 North Anderson Drive, Delphi, IN 46923
County:	Carroll
SIC Code:	2041 (Flour and Other Grain Mill Products)
Permit Renewal No.:	M015-31226-00035
Permit Reviewer:	Deena Patton

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from The Andersons, Inc. Delphi Cob Operations relating to the operation of a stationary corn cob processing facility. On December 7, 2011, The Andersons Inc. Delphi Cob Operations submitted an application to the OAQ requesting to renew its operating permit. The Andersons, Inc. Delphi Cob Operations was issued its first MSOP (M015-23110-00035) on April 18, 2007.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

- (a) One (1) cob receiving station (truck), identified as CR1, constructed prior to 1987, with a maximum throughput capacity of 15 tons of cobs per hour, with uncontrolled emissions exhausting to the atmosphere.
- (b) One (1) temporary outdoor cob storage pile, SP1, with a maximum throughput capacity of 15 tons of cobs per hour, using no control.
- (c) One (1) cob handling system, consisting of totally enclosed legs, conveyors and cleaners, identified as CH1, constructed prior to 1987, with a maximum throughput capacity of 6 tons of cobs per hour, with emissions controlled by a baghouse (BH1), and exhausting to stack S1.
- (d) One (1) cob milling system, consisting of a fully enclosed cob mill, identified as CM1, constructed prior to 1987, with the ground corn cobs pneumatically conveyed to a storage silo (Silo1), with a maximum throughput capacity of 6 tons of cobs per hour, with emissions controlled by a baghouse (BH2), and exhausting to stack S2.
- (e) Twenty-six (26) storage bins for storing ground corn cobs, identified as Storage 1, constructed prior to 1987, with a maximum throughput capacity of 15 tons of cobs per hour, with emissions controlled by bin vent filters.
- (f) One (1) natural gas-fired cob dryer, identified as CD1, constructed prior to 1987, with a maximum throughput of 12 tons of cobs per hour, with dryer burners having a maximum capacity of 10.0 MMBtu/hour of natural gas, using a cyclone for particulate control, and exhausting to stack S3.
- (g) One (1) cob packaging and shipping station (truck and rail), identified as CS1, constructed prior to 1987, with a maximum throughput capacity of 30 tons of cobs per hour, with uncontrolled emissions exhausting to the atmosphere.

- (h) Paved and unpaved roads and parking lots with public access.

Existing Approvals

There have been no additional approvals since the issuance of the MSOP (015-23110-00035) on April 18, 2007.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the State Implementation Plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

Air Pollution Control Justification as an Integral Part of the Process

The Permittee submitted information requesting that the bin vent filters on the storage silo (Silo1), be considered integral to the process for the cob milling operation. IDEM, OAQ evaluated the justifications and agreed that the bin vent filters on the silo will be considered integral to the process. This evaluation and approval was discussed in MSOP, 015-23110-00035, issued on April 18, 2007.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Carroll County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.

¹Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.
Unclassifiable or attainment effective April 5, 2005, for PM2.5.

- (a) Ozone Standards

Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Carroll County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (b) Carroll County has been classified as attainment for PM_{2.5}. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM_{2.5} 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_{2.5} significant level at ten (10) tons per year. This rule became effective, June 28, 2011.. Therefore, direct PM_{2.5} and SO₂ 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
 Carroll County has been classified as attainment or unclassifiable in Indiana for SO₂, CO, PM₁₀, and NO₂. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

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.

Unrestricted Potential Emissions

Appendix A of this TSD reflects the unrestricted potential emissions of the source.

Potential to Emit After Issuance

The table below summarizes the potential to emit after integral controls, reflecting all limits of the emission units. Any control equipment is considered enforceable only after issuance of this MSOP and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/ Emission Unit	Uncontrolled Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)									
	PM	PM ₁₀ *	PM _{2.5} * *	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e	Total HAPs	Worst Single HAP
Receiving-Straight Truck	11.8	3.88	0.66	0	0	0	0	0	0	0
Internal Handling	1.60	0.89	0.15	0	0	0	0	0	0	0
Milling	31.5	31.5	31.5	0	0	0	0	0	0	0
Storage Bins	1.64	0.41	0.07	0	0	0	0	0	0	0
Drying	11.6	2.89	0.49	0	0	0	0	0	0	0
Shipping- Truck	11.3	3.81	0.64	0	0	0	0	0	0	0
Cob Drying	0.08	0.33	0.49	0.03	4.29	0.24	3.61	5184	0.08	0.08 (Hexane)
Storage Pile	0.094	0.033	0.033	0	0	0	0	0	0	0
Paved Roads	2.61	0.52	0.13	0	0	0	0	0	0	0
Unpaved Roads	7.26	1.85	0.19	0	0	0	0	0	0	0
Total PTE of Entire Source	79.5	46.2	34.4	0.03	4.29	0.24	3.61	5184	0.08	0.08 (Hexane)
Title V Major Source Thresholds	NA	100	100	100	100	100	100	100,000 CO ₂ e	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	250	100,000 CO ₂ e	NA	NA

*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".

**PM_{2.5} listed is direct PM_{2.5}.

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of particulate matter (PM) continue to be 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) renewal will be issued.
- (b) This existing stationary source is not major for PSD because the emissions of each regulated pollutant, excluding GHGs, are less than two hundred fifty (<250) tons per year, emissions of GHGs are less than one hundred thousand (<100,000) tons of CO₂ equivalent emissions (CO₂e) per year, and it is not in one of the twenty-eight (28) listed source categories.

Federal Rule Applicability

- (a) 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.
- (b) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this permit.
- (c) The requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.300, Subpart DD) are not included in this permit for the cob dryer because this source is not a grain terminal elevator or grain storage elevator.
- (d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 326 IAC 20, 40 CFR Part 61 and 40 CFR Part 63) included in this permit.
- (e) 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.
- (f) The requirements of the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63, Subpart JJJJJJ (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 cob dryer.
- (g) 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.

State Rule Applicability - Entire Source

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

This cob processing plant is not in 1 of the 28 source categories. There are no applicable New Source Performance Standards that were in effect on August 7, 1980. Therefore, fugitive emissions are not counted towards applicability of PSD.

This source was constructed prior to 1987. Although the exact construction date for this source is not known, the potential uncontrolled emissions of PM, PM₁₀, NO_x, SO₂, CO and VOC are less than 250 tons per year.

Therefore, this source is an existing minor source under PSD and the construction of this source did not trigger PSD review. There have been no modifications to this source since 1987.

326 IAC 2-4.1-1 (New Source Toxics Control)

This source is a minor source under Section 112 of the Clean Air Act and this source has not installed any new major sources of HAPs after July 27, 1997. Therefore the requirements of 326 IAC 2-4.1 do not apply.

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting) because it is not required to have an operating permit pursuant to 326 IAC 2-7 (Part 70); it is not located in Lake, Porter, or LaPorte County, and its potential to emit lead is less than 5 tons per year. Therefore, this rule does not apply.

326 IAC 5-1 (Opacity Limitations)

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

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

326 IAC 6-4 (Fugitive Dust Emissions)

The source is subject to 326 IAC 6-4 (Fugitive Dust Emissions) because the source maintains paved and unpaved roads and parking lots with public access and temporary storage piles. Pursuant to 326 IAC 6-4, the source shall not generate fugitive dust to the extent that some portion of the material escapes beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

The source is located in Carroll County.

- (a) This source is not located in any of the areas listed in 326 IAC 6-5-1(a). Therefore, this source is not subject to the requirements of 326 IAC 6-5.
- (b) This source did not receive all of the necessary preconstruction approvals prior to December 13, 1985. However, the fugitive particulate emissions from the paved and unpaved roads and parking lots are negligible. Pursuant to 326 IAC 6-5-7(d), this source is not subject to the requirements of 326 IAC 6-5.

State Rule Applicability – Individual Facilities

Cob Handling Operation

326 IAC 6-2 (Particulate Limitations for Sources of Indirect Heating)

The natural gas-fired cob dryer is not subject to the provisions of 326 IAC 6-2, because this facility is not a source of indirect heating.

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

Since alternative emission factors were used to estimate emissions from cob receiving, handling, cob milling, cob drying, cob storage and cob shipping facilities, the requirements of 326 IAC 6-3-2 will be included in the permit.

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the cob receiving, handling, cob milling, cob drying, cob storage and cob shipping facilities shall be limited as shown in the following table:

Emissions Unit Description	Process Weight Rate (tons/hr)	326 IAC 6-3-2 Allowable Particulate Emission Rate (lbs/hour)
Cob Receiving (CR1)	15	25.2
Storage Pile (SP1)	15	25.2
Cob Handling (CH1)	6	13.6
Cob Milling (CM1)	6	13.6
Cob Drying (CD1)	12	21.7
Cob Storage (Storage 1)	15	25.2
Cob Packaging and Shipping (CS1)	30	40.0

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

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

Note: These are existing limits and are not changed in this renewal.

Particulate emissions from handling and milling are controlled by baghouses. Particulate emissions from the dryer are controlled by a cyclone. Particulate from the ground corn cob storage bins are controlled by integral bin vent filters. Calculations indicate that the source is able to comply with the particulate emission limits prior to the effect of any controls (see Appendix A). However, these controls will be required to be operated since the potential to emit was determined using alternative emission factors.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

Pursuant to 326 IAC 7-1.1-1, the natural gas-fired cob dryer is not subject to the requirements of 326 IAC 7-1.1, since it has unlimited sulfur dioxide (SO₂) emissions less than twenty-five (25) tons per year and ten (10) pounds per hour respectively.

326 IAC 8-1-6 (General Reduction Requirements for VOC Emissions)

The potential VOC emissions from each of the facilities at this source are less than 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

Compliance Determination and Monitoring Requirements

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

Control	Parameter	Frequency	Range	Excursions and Exceedances
Baghouses (BH1 and BH2)	Visible Emissions	Daily	Normal-Abnormal	Response Steps
Baghouses (BH1 and BH2)	Water Pressure Drop	Daily	3.0 to 6.0 inches	Response Steps

These monitoring conditions are necessary because the control devices for the cob handling system, cob milling system, dryer, and silos must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-6.1 (MSOP).

There are no testing requirements included in the permit for this source.

Recommendation

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

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

An application for the purposes of this review was received on December 7, 2011. Additional information was received on January 19, 2012.

Conclusion

The operation of this stationary corn cob processing facility shall be subject to the conditions of the attached MSOP Renewal No. 015-31226-00035

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Deena Patton 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) 234-5400 or toll free at 1-800-451-6027 extension 45400.
- (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

**Appendix A: Emission Calculations
Summary**

Company Name: The Andersons, Inc. - Delphi Cob Operations
 Address: 3902 North Anderson Drive, Delphi, Indiana 46923
 MSOP: M015-31226-00035
 Reviewer: Deena Patton
 Date: January 2012

Emission Unit	Potential to Emit (tons/year)											
	Before Control			After Control			SO ₂	NO _x	VOC	CO	GHGs CO ₂ e	HAPs
	PM	PM10	PM2.5	PM	PM10	PM2.5						
Receiving - Straight Truck (CR1)	11.8	3.88	0.66	11.8	3.88	0.66	0	0	0	0	0	0
Internal Handling (CH 1)	1.60	0.89	0.15	0.016	0.009	0.002	0	0	0	0	0	0
Milling (CM 1)	31.5	31.5	31.5	0.32	0.32	0.32	0	0	0	0	0	0
Storage Bins (Storage 1)	1.64	0.41	0.07	0.016	0.004	0.001	0	0	0	0	0	0
Drying	11.6	2.89	0.49	1.16	0.29	0.05	0	0	0	0	0	0
Shipping - Truck (CS 1)	11.3	3.81	0.64	11.3	3.81	0.64	0	0	0	0	0	0
Cob Drying (CD 1)	0.08	0.33	0.49	0.08	0.33	0.33	0.03	4.29	0.24	3.61	5184	0.08
Storage Pile (SP1)	0.094	0.033	0.033	0.094	0.033	0.033	0	0	0	0	0	0
Paved Roads	2.61	0.52	0.13	2.61	0.52	0.13	0	0	0	0	0	0
Unpaved Roads	7.26	1.85	0.19	7.26	1.85	0.19	0	0	0	0	0	0
Totals	79.5	46.2	34.4	34.7	11.04	2.34	0.03	4.29	0.24	3.61	5184	0.08

Appendix A: Emission Calculations
PM/PM10/PM2.5 Emissions From the Cob Handling, and Drying Processes

Company Name: The Andersons, Inc. - Delphi Cob Operations
 Address: 3902 North Anderson Drive, Delphi, Indiana 46923
 MSOP: M015-31226-00035
 Reviewer: Deena Patton
 Date: January 2012

Emissions Unit Description	Maximum Throughput (tons/hour)	PM Emission Factor (lbs/ton)	PM10 Emission Factor (lbs/ton)	PM 2.5 Emission Factor (lbs/ton)	Control Device(s)	Collection and Control Efficiency (%)	PTE of PM Before Control (tons/year)	PTE of PM10 Before Control (tons/year)	PTE of PM2.5 Before Control (tons/year)	PTE of PM After Control (tons/year)	PTE of PM10 After Control (tons/year)	PTE of PM 2.5 After Control (tons/year)
Receiving - Straight Truck (CR 1)	15	0.18	0.059	0.010	none	NA	11.8	3.88	0.66	11.8	3.88	0.66
Storage Pile (SP 1)*	15	0.0014	0.0005	0.00008	none	NA	0.09	0.03	0.005	0.09	0.03	0.005
Internal Handling (CH 1)	6	0.061	0.034	0.0058	Baghouse	99%	1.60	0.89	0.15	0.016	0.009	0.002
Milling (SCC 3-02-008-17) (CM 1)	6	1.20	1.20	1.20	Baghouse	99%	31.5	31.5	31.5	0.32	0.32	0.32
Storage Bins	15	0.025	0.0063	0.0011	Bin Filter	99%	1.64	0.41	0.07	0.016	0.004	0.001
Drying (CD 1)	12	0.22	0.055	0.0094	Cyclone	90%	11.6	2.89	0.49	1.16	0.29	0.049
Shipping - Truck (CS 1)	30	0.086	0.029	0.0049	none	NA	11.3	3.81	0.64	11.3	3.81	0.64
Totals							69.6	43.5	33.6	24.7	8.34	1.67

There are no AP 42 emission factors for corn cob receiving, storage, handling, drying, milling, or ground corn cob storage and shipping.

Therefore, emission factors are from AP 42 Tables 9.9.1-1 and 9.9.1-2 Particulate Emission Factors for Grain Elevators (4/03) are used as alternative emission factors.

*Storage pile emission factors are calculated according to AP-42, Chapter 13.2.4 - Aggregate Handling and Storage Piles, the PM/PM10/PM2.5 (see calculations on page 7)

Methodology

PTE of PM/PM10 Before Control (tons/year) = Maximum Throughput (tons/hour) x Emission factor (lbs/ton) x 8760 hours/year x 1 ton/2,000 lbs

PTE of PM/PM10 After Control (tons/year) = PTE of PM/PM10 Before Control (tons/year) x (1- Control Efficiency (%))

**Appendix A: Emission Calculations
Grain Handling, Storage and Drying Processes
Compliance with 326 IAC 6-3-2**

Company Name: The Andersons, Inc. - Delphi Cob Operations
 Address: 3902 North Anderson Drive, Delphi, Indiana 46923
 MSOP: M015-31226-00035
 Reviewer: Deena Patton
 Date: January 2012

Allowable Emissions Under 326 IAC 6-3-2

Emissions Unit Description	Maximum Throughput (tons/hour)	PTE of PM Before Control (lbs/hour)	326 IAC 6-3-2 Allowable PM Emissions (lbs/hour)	PTE of PM After Control (lbs/hour)
Receiving - Straight Truck (CR 1)	15	2.70	25.2	2.70
Storage Pile (SP 1)	15	0.02	25.2	0.02
Internal Handling (CH 1)	6	0.37	13.6	0.004
Milling (SCC 3-02-008-17) (CM 1)	6	7.20	13.6	0.072
Storage Bins	15	0.38	25.2	0.004
Drying (CD 1)	12	2.64	21.7	0.264
Shipping - Truck (CS 1)	30	2.58	40.0	2.58

Allowable emissions under 326 IAC 6-3-2 are calculated using the equation

$$E = 4.10 P^{0.67}$$

where

E = rate of emission in pounds per hour and

P = process weight rate in tons per hour

Calculations show that the emission units are in compliance with the requirements of 326 IAC 6-3-2 before the use of control devices.

*Since the ground corn cobs

Methodology

Figures for Maximum Throughput, PTE of PM/PM10 Before Control, and PTE of PM/PM10 After Control are from page 1.

PTE of PM/PM10 Before Control (lbs/hour) = PTE of PM/PM10 Before Control (tons/year) x 1 ton/2,000 lbs / 8760 hours/year

PTE of PM/PM10 After Control (lbs/hour) = PTE of PM/PM10 After Control (tons/year) x 1 ton/2,000 lbs / 8760 hours/year

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100**

Company Name: The Andersons, Inc. - Delphi Cob Operations
 Address: 3902 North Anderson Drive, Delphi, Indiana 46923
 MSOP: M015-31226-00035
 Reviewer: Deena Patton
 Date: January 2012

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
10.0	1020	85.9

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx 100 **see below	VOC	CO
Potential Emission in tons/yr	0.08	0.33	0.33	0.026	4.29	0.24	3.61

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

PM2.5 emission factor is filterable and condensable PM2.5 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 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) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

updated 7/11

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions

Company Name: The Andersons, Inc. - Delphi Cob Operations
 Address: 3902 North Anderson Drive, Delphi, Indiana 46923
 MSOP: M015-31226-00035
 Reviewer: Deena Patton
 Date: January 2012

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	9.0E-05	5.2E-05	3.2E-03	0.077	1.5E-04

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	2.1E-05	4.7E-05	6.0E-05	1.6E-05	9.0E-05
			Total HAPs		0.081

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.
 See Page 3 for Greenhouse Gas calculations.

**Appendix A: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 Greenhouse Gas Emissions**

Company Name: The Andersons, Inc. - Delphi Cob Operations
 Address: 3902 North Anderson Drive, Delphi, Indiana 46923
 MSOP: M015-31226-00035
 Reviewer: Deena Patton
 Date: January 2012

Emission Factor in lb/MMcf	Greenhouse Gas		
	CO2	CH4	N2O
120,000	2.3	2.2	
Potential Emission in tons/yr	5,153	0.10	0.09
Summed Potential Emissions in tons/yr	5,153		
CO2e Total in tons/yr	5,184		

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.

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

updated 7/11

Appendix A: Emission Calculations
PM/PM10/PM2.5 Emissions From Cob Storage Pile (Fugitive)

Company Name: The Andersons, Inc. - Delphi Cob Operations
 Address: 3902 North Anderson Drive, Delphi, Indiana 46923
 MSOP: M015-31226-00035
 Reviewer: Deena Patton
 Date: January 2012

1. Emission Factors:

According to AP-42, Chapter 13.2.4 - Aggregate Handling and Storage Piles, the PM/PM10/PM2.5 emission factors for storage piles can be estimated from the following equation:

$$E_f = \frac{.0032 \times (U/5)^{1.3} \times k}{(M/2)^{1.4}}$$

where:

E_f = Emission Factor (lbs/ton)
 k = Particle size multiplier = 1 for PM, 0.35 for PM10, and 0.053 for PM2.5
 U = Mean wind speed (mph) = 12 mph
 M = Moisture content (%) = 8.0 %

Therefore,

PM Emission Factor = 0.0014 lbs/ton process
 PM10 Emission Factor = 0.0005 lbs/ton process
 PM2.5 Emission Factor = 0.00008 lbs/ton process

2. Uncontrolled PM/PM10 emissions from storage piles:

Max. Throughput Rate:	15.00	tons/hr		
Uncontrolled PM = [Maximum Throughput Rate (ton/hr)] * [PM Emission Factor (lbs/ton)] * [8760 hrs/yr] * [ton/2000 lbs] =			0.094	tons/yr
Uncontrolled PM10 = [Maximum Throughput Rate (ton/hr)] * [PM10 Emission Factor (lbs/ton)] * [8760 hrs/yr] * [ton/2000 lbs] =			0.033	tons/yr
Uncontrolled PM2.5 = [Maximum Throughput Rate (ton/hr)] * [PM2.5 Emission Factor (lbs/ton)] * [8760 hrs/yr] * [ton/2000 lbs] =			0.005	tons/yr

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

Company Name: The Andersons, Inc. - Delphi Cob Operations
Address: 3902 North Anderson Drive, Delphi, Indiana 46923
MSOP: M015-31226-00035
Reviewer: Deena Patton
Date: January 2012

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).

Vehicle Information (provided by source)

Type	Maximum number of vehicles per day	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Vehicle (entering plant) (one-way trip)	50.0	1.0	50.0	25.0	1250.0	600	0.114	5.7	2073.9
Vehicle (leaving plant) (one-way trip)	50.0	1.0	50.0	5.0	250.0	600	0.114	5.7	2073.9
Totals			100.0		1500.0			11.4	4147.7

Average Vehicle Weight Per Trip = $\frac{15.0}{1.0}$ tons/trip
Average Miles Per Trip = $\frac{0.114}{1.0}$ miles/trip

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

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	15.0	15.0	15.0	tons = average vehicle weight (provided by source)
sL =	9.7	9.7	9.7	

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, $E_{ext} = E_f * [1 - (p/4N)]$ (Equation 2 from AP-42 13.2.1)

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

	PM	PM10	PM2.5	
Unmitigated Emission Factor, $E_f =$	1.377	0.275	0.0676	lb/mile
Mitigated Emission Factor, $E_{ext} =$	1.259	0.252	0.0618	lb/mile

Process	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)
Vehicle (entering plant) (one-way trip)	1.43	0.29	0.07	1.31	0.26	0.06
Vehicle (leaving plant) (one-way trip)	1.43	0.29	0.07	1.31	0.26	0.06
Totals	2.86	0.57	0.14	2.61	0.52	0.13

Methodology

Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
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

**Appendix A: Emission Calculations
Fugitive Dust Emissions - Unpaved Roads**

Company Name: The Andersons, Inc. - Delphi Cob Operations
 Address: 3902 North Anderson Drive, Delphi, Indiana 46923
 MSOP: M015-31226-00035
 Reviewer: Deena Patton
 Date: January 2012

Unpaved Roads at Industrial Site

The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (11/2006).

Vehicle Information (provided by source)

Type	Maximum number of vehicles	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Vehicle (entering plant) (one-way trip)	50.0	1.0	50.0	25.0	1250.0	600	0.114	5.7	2073.9
Vehicle (leaving plant) (one-way trip)	50.0	1.0	50.0	5.0	250.0	600	0.114	5.7	2073.9
Totals			100.0		1500.0			11.4	4147.7

Average Vehicle Weight Per Trip = 15.0 tons/trip
 Average Miles Per Trip = 0.11 miles/trip

Unmitigated Emission Factor, $E_f = k \cdot [(s/12)^a] \cdot [(W/3)^b]$ (Equation 1a from AP-42 13.2.2)

	PM	PM10	PM2.5	
where k =	4.9	1.5	0.15	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.8	4.8	4.8	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-1 Sand/Gravel Processing Plant)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)
W =	15.0	15.0	15.0	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, $E_{ext} = E \cdot [(365 - P)/365]$ (Equation 2 from AP-42 13.2.2)

Mitigated Emission Factor, $E_{ext} = E \cdot [(365 - P)/365]$
 where P = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, $E_f =$	5.32	1.36	0.14	lb/mile
Mitigated Emission Factor, $E_{ext} =$	3.50	0.89	0.09	lb/mile

Process	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)
Vehicle (entering plant) (one-way trip)	5.52	1.41	0.14	3.63	0.93	0.09
Vehicle (leaving plant) (one-way trip)	5.52	1.41	0.14	3.63	0.93	0.09
Totals	11.04	2.81	0.28	7.26	1.85	0.19

Methodology

Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
 Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]
 Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
 Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
 Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
 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 = Particulate 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

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

TO: Melissa Farrington
The Andersons, Inc. Delphi Cob Operations
PO Box 119
Maumee, OH 43537

DATE: April 12, 2012

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

SUBJECT: Final Decision
MSOP Renewal
015-31226-00035

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:
Stacy Schmidt – Director of Hazard Management
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.

Final Applicant Cover letter.dot 11/30/07



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April 12, 2012

TO: Delphi Public Library

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

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

Applicant Name: The Andersons, Inc. Delphi Cob Operations
Permit Number: 015-31226-00035

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	GHOTOPP 4/12/2012 The Anderson, Inc. - Delphi Cob Operations 015-31226-00035 Final		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	 Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: CERTIFICATE OF MAILING ONLY	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Melissa Farrington The Anderson, Inc. - Delphi Cob Operations PO Box 119 Maumee OH 43537 (Source CAATS) via confirmed delivery										
2		Stacy Schmidt Dir of Hazard Mgmt The Anderson, Inc. - Delphi Cob Operations PO Box 119 Maumee OH 43537 (RO CAATS)										
3		Delphi City Council and Mayors Office 201 S. Union St Delphi IN 46923 (Local Official)										
4		Carroll County Commissioners 101 West Main Street Delphi IN 46923 (Local Official)										
5		Carroll County Health Department 101 W. Main, Courthouse Delphi IN 46923-1566 (Health Department)										
6		Delphi Public Library 222 E Main St Delphi IN 46923-1593 (Library)										
7		Mr. Steve Offitt 6304 West 175 South Kewanna IN 46939 (Affected Party)										
8		Mr. Robert Kelley 2555 S 30th Street Lafayette IN 44909 (Affected Party)										
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