

**CONSTRUCTION PERMIT  
OFFICE OF AIR MANAGEMENT**

**Cargill Grain Division  
632 North Center Street  
Bremen, Indiana 46506**

This permit is issued to the above mentioned company (herein known as the Permittee) under the provisions of 326 IAC 2-1 and 40 CFR 52.780, with conditions listed on the attached pages.

Construction Permit No.: CP-099-9868-00087	
Issued by:  Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date

## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM), and presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

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The Permittee owns and operates a grain elevator.

Responsible Official: Mr. Bill Swan  
Source Address: 632 North Center Street, Bremen, Indiana 46506  
Mailing Address: Marshall  
County Status: Attainment for all criteria pollutants  
Source Status: Minor Source, under PSD Rules  
Major Source, under Title V Rules

### 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:

- (a) One (1) enclosed grain receiving operation identified as DP1 and DP2, with a maximum capacity of 30,000 bushels per hour;
- (b) One (1) enclosed grain shipping operation containing the following:
  - (1) truck load-out with maximum capacity of 30,000 bushels per hour, or
  - (2) rail load-outs, identified as RL, with maximum capacity of 30,000 bushels per hour.
- (c) One (1) enclosed bin loading operation into bins 5 through 10, with a maximum capacity of 30,000 bushels per hour;
- (d) One (1) enclosed internal handling operation containing the following:
  - (1) one (1) receiving leg identified as L1, with a maximum rate of 20,000 bushels per hour;
  - (2) one (1) wet leg identified as L3, with a maximum rate of 5,000 bushels per hour ;
  - (3) one (1) dry leg identified as L4, with a maximum rate of 6,000 bushels per hour; and
  - (4) one (1) back leg identified as DP2 receives from an enclosed area at maximum rate of 10,000 bushels per hour.
- (e) Six (6) bins are identified as B<sub>5</sub> to B<sub>10</sub> with a total storage capacity of 643,690 bushels.
- (f) One (1) grain dryer, with a maximum heat input capacity of 32 mmBtu/hr, with a maximum capacity of 3,000 bushels per hour.

### A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

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- (a) This new source is subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (1) at least one of the criteria pollutant is greater than or equal to 100 tons per year,
  - (2) a single hazardous air pollutant (HAP) is greater than or equal to 10 tons per year, or
  - (3) any combination of HAPs is greater than or equal to 25 tons/year.
- (b) The source shall comply with 326 IAC 2-7-2 (Part 70) by complying with the limitatons established under 326 IAC 2-10 and 326 IAC 2-11 (Permit By Rule).

## **SECTION B GENERAL CONSTRUCTION AND OPERATION CONDITIONS**

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

### **Construction Conditions [326 IAC 2-1-3.4]**

#### **B.1 General Construction Conditions**

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- (c) The data and information supplied with the application shall be considered part of this permit. Prior to any proposed change in construction which may affect allowable emissions, the change must be approved by the Office of Air Management (OAM).
- (d) This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

#### **B.2 Effective Date of the Permit [IC13-15-5-3]**

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

#### **B.3 Revocation of Permits [326 IAC 2-1-9(b)]**

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Pursuant to 326 IAC 2-1-9(b)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

#### **B.4 Permit Review Rules [326 IAC 2]**

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Notwithstanding Operation Condition B.11, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

#### **B.5 First Time Operation Permit [326 IAC 2-1-4]**

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This document shall also become a first-time operation permit pursuant to 326 IAC 2-1-4 (Operating Permits) when, prior to start of operation, the following requirements are met:

- (a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the facilities were constructed as proposed in the application. The facilities covered in the Construction Permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.

- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (c) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.
- (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1-7.1 (Fees).

## **Operation Conditions**

### **B.6 General Operation Conditions**

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- (a) The data and information supplied in the application shall be considered part of this permit. Prior to any change in the operation which may result in an increase in allowable emissions exceeding those specified in 326 IAC 2-1-1 (Construction and Operating Permit Requirements), the change must be approved by the Office of Air Management (OAM).
- (b) The Permittee shall comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC13-17) and the rules promulgated thereunder.

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

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Pursuant to 326 IAC 1-6-3 (Preventive Maintenance Plans), the Permittee shall prepare and maintain a preventive maintenance plan, including the following information:

- (a) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices.
- (b) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions.
- (c) Identification of the replacement parts which will be maintained in inventory for quick replacement.

The preventive maintenance plan shall be submitted to IDEM, OAM upon request and shall be subject to review and approval.

### **B.8 Malfunctions Report [326 IAC 1-6-2]**

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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 Management (OAM) 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 OAM, 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]

**B.9 Transfer of Permit [326 IAC 2-1-6]**

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Pursuant to 326 IAC 2-1-6 (Transfer of Permits):

- (a) In the event that ownership of this grain elevator is changed, the Permittee shall notify OAM, Permit Branch, within thirty (30) days of the change. Notification shall include the date or proposed date of said change.
- (b) The written notification shall be sufficient to transfer the permit from the current owner to the new owner.
- (c) The OAM shall reserve the right to issue a new permit.

**B.10 Permit Revocation [326 IAC 2-1-9]**

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Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and 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 326 IAC 2-1 (Permit Review Rules).

**B.11 Availability of Permit [326 IAC 2-1-3(I)]**

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Pursuant to 326 IAC 2-1-3(I), the Permittee shall maintain the applicable permit on the premises of the source and shall make this permit available for inspection by the IDEM, or other public official having jurisdiction.

## SECTION C

## SOURCE OPERATION CONDITIONS

Entire Source

### Emission Limitation and Standards

#### C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

- (a) The total source potential emissions of particulate matter (PM) are less than 250 tons per year. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.
- (b) Any change or modification which may increase the potential emissions to the following:
1. 25 tons per year or more (326 IAC 2-1),
  2. 100 tons per year or more, and are greater than 10 tons per year for a single HAP or combination HAPs greater than 25 tons per year (326 IAC 2-7),
  3. 250 tons per year or more (326 IAC 2-2),

from the equipment covered in this construction permit must be approved by the Office of Air Management (OAM) before such change may occur.

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

Pursuant to 326 IAC 5-1-2 (Visible Emission Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), the visible emissions shall meet the following:

- (a) visible emissions shall not exceed an average of 40% opacity in 24 consecutive readings.
- (b) visible emissions shall not exceed 60% opacity for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period.

#### C.3 Operation of Equipment [326 IAC 2-1-3]

All air pollution control equipment listed in this permit shall be in placed or operated at all times that the emission units vented to the control equipment are in operation, as described in Section D of this permit.

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

Prior to the commencement of any demolition or renovation activities, the Permittee shall use an Indiana accredited asbestos inspector to inspect thoroughly the affected facility or part of the facility where the demolition or renovation operation will occur for the presence of asbestos,

including Category I and Category II nonfriable asbestos containing material. The requirement that the inspector be accredited is federally enforceable.

## Compliance Monitoring Requirements

### C.5 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]

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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
  - (3) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).
- All required notifications shall be submitted to:
- Indiana Department of Environmental Management  
Asbestos Section, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015
- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are mandatory 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) Indiana Accredited Asbestos Inspector  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

### Testing Requirements [326 IAC 3-6]

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

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- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing methods approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

### Corrective Actions and Response Steps

#### C.7 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

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

within ninety (90) days after the date of issuance of this permit.

The ERP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) If the ERP is disapproved by IDEM, OAM, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAM, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

### **Record Keeping and Reporting Requirements [326 IAC 2-1-3]**

#### **C.8 Emission Statement [326 IAC 2-6]**

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- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:
  - (1) Indicate actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
  - (2) Indicate actual emissions of other regulated pollutants from the source, for purposes of Part 70 fee assessment.
- (b) The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31. The annual emission statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015
- (c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

**C.9 General Record Keeping Requirements [326 IAC 2-1-3]**

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- (a) Records of all required monitoring data and support information 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 kept at the source location and available within one (1) hour upon verbal request of an IDEM, OAM, representative, for a minimum of three (3) years. They may be stored elsewhere for the remaining two (2) years providing they are made available within thirty (30) days after written request.
- (b) Records of required monitoring information shall include, where applicable:
  - (1) The date, place, and time of sampling or measurements;
  - (2) The dates analyses were performed;
  - (3) The company or entity performing the analyses;
  - (4) The analytic techniques or methods used;
  - (5) The results of such analyses; and
  - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
  - (1) Copies of all reports required by this permit;
  - (2) All original strip chart recordings for continuous monitoring instrumentation;
  - (3) All calibration and maintenance records;
  - (4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

**C.10 General Reporting Requirements [326 IAC 2-1-3]**

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- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported.
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

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

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period.
- (e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports.
- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

### **Stratospheric Ozone Protection**

#### **C.11 Compliance with 40 CFR 82 and 326 IAC 22-1**

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Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

## SECTION D.1

## FACILITY CONDITIONS

- (a) One (1) enclosed grain receiving operation identified as DP1 and DP2, with a maximum capacity of 30, 000 bushels per hour;
- (b) One (1) enclosed grain shipping operation containing the following:
  - (1) truck load-out with maximum capacity of 30,000 bushels per hour, or
  - (2) rail load-outs, identified as RL, with maximum capacity of 30,000 bushels per hour.
- (c) One (1) enclosed bin loading operation into bins 5 through 10, with a maximum capacity of 30,000 bushels per hour;
- (d) One (1) enclosed internal handling operation containing the following:
  - (1) one (1) receiving leg identified as L1, with a maximum rate of 20,000 bushels per hour;
  - (2) one (1) wet leg identified as L3, with a maximum rate of 5,000 bushels per hour ;
  - (3) one (1) dry leg identified as L4, with a maximum rate of 6,000 bushels per hour; and
  - (4) one (1) back leg identified as DP2 receives from an enclosed area at maximum rate of 10,000 bushels per hour.
- (e) Six (6) bins are identified as B<sub>5</sub> to B<sub>10</sub>, with a total storage capacity of 643,690 bushels.
- (f) One (1) grain dryer, with a maximum heat input capacity of 32 mmBtu/hr, with a maximum capacity of 3,000 bushels per hour.

## Emission Limitation and Standards

### D.1.1 Particulate Matter (PM) [326 IAC 6-3]

- (a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the grain dryer shall not exceed 14.91 pounds per hour when operating at a process weight rate of 180,000 pounds per hour.
- (b) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the grain loadout/receiving process shall not exceed 19.95 pounds per hour when operating at a process weight rate of 1,800,000 pounds per hour.
- (c) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the bin loading process shall not exceed 5.42 pounds per hour when operating at a process weight rate of 1,800,000 pounds per hour.
- (d) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the internal handling process shall not exceed 16.54 pounds per hour when operating at a process weight rate of 1,800,000 pounds per hour.

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

$$E = 55.0 * P^{0.11} - 40$$

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

#### D.1.2 Visible Emissions Limitation [326 IAC 5-1-2]

Pursuant to 5-1-2 (Visible Emissions Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), the visible emissions from the Zimmerman column type dryer shall meet the following:

- (a) visible emissions shall not exceed an average of 40% opacity in 24 consecutive readings.
- (b) visible emissions shall not exceed 60% opacity for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period.

#### D.1.3 Particulate Matter Emission Limit [326 IAC 2-2]

That the input of grain of the grain elevator shall be limited to 58,600,000 bushels per year, rolled on a monthly basis. This production limitation is equivalent to PM emissions of 249 tons per year, rolled on a monthly basis. Therefore, the Prevention of Significant Deterioration (PSD) rules, 326 IAC 2-2 and 40 CFR 52.21, will not apply.

#### D.1.4 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, is required for this facility and its control device.

### **Compliance Determination Requirements**

#### D.1.5 Opacity Reading

The visible emissions limit in Operation Condition D.1.2 shall be determined using Method 9 and the procedure in 40 CFR § 60.11.

#### D.1.6 Testing Requirements

Testing of this facility is not required by this permit. However, if testing is required, compliance with the PM limit specified in Condition D.1.1 and D.1.3 shall be determined by a performance test conducted in accordance with Section C - Performance Testing. This does not preclude testing requirements on this facility.

### **Record Keeping and Reporting Requirements**

#### D.1.7 Record Keeping Requirements

- (a) To document compliance with Condition D.1.2, the Permittee shall maintain records of daily visible emission notations of the grain elevator exhaust.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.1.8 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.3 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.



**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. The requirements of this rule (326 IAC 1-6) shall apply to the owner or operator of any facility which has the potential to emit twenty-five (25) pounds per hour of particulates, one hundred (100) pounds per hour of volatile organic compounds or SO<sub>2</sub>, or two thousand (2,000) pounds per hour of any other pollutant; or to the owner or operator of any facility with emission control equipment which suffers a malfunction that causes emissions in excess of the applicable limitation.

**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. (Air Pollution Control Board; 326 IAC 1-2-39; filed Mar 10, 1988, 1:20 p.m. : 11 IR 2373)

\***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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**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
COMPLIANCE DATA SECTION**

**Quarterly Report**

Source Name: Cargill Grain Division  
Source Address: 632 North Center Street, Bremen, Indiana 46506  
Mailing Address: P.O. Box 39, Bremen, Indiana 46506  
Construction Permit No.: CP-099-9868-00087  
Facility: Grain Elevator  
Parameter: PM  
Limit: 58,600,000 bushels per year, rolled on a monthly basis

**Year:** \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + 2
	This Month	Previous 11 Months	12 Month Total

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

## Indiana Department of Environmental Management Office of Air Management

### Technical Support Document (TSD) for New Construction and Operation

**Source Background and Description**

Source Name: Cargill Grain Division  
 Source Location: 632 North Center Street, Bremen, Indiana 46506  
 County: Marshall  
 Construction Permit No.: CP-099-9868-00087  
 SIC Code: 5153  
 Permit Reviewer: Nysa L. James

The Office of Air Management (OAM) has reviewed an application from Cargill Grain Division relating to the construction and operation of a grain elevator, consisting of the following equipment:

- (a) One (1) enclosed grain receiving operation identified as DP1 and DP2, with a maximum capacity of 30,000 bushels per hour;
- (b) One (1) enclosed grain shipping operation containing the following:
  - (1) truck load-out with maximum capacity of 30,000 bushels per hour, or
  - (2) rail load-outs, identified as RL, with maximum capacity of 30,000 bushels per hour.
- (c) One (1) enclosed bin loading operation into bins 5 through 10, with a maximum capacity of 30,000 bushels per hour;
- (d) One (1) enclosed internal handling operation containing the following:
  - (1) one (1) receiving leg identified as L1, with a maximum rate of 20,000 bushels per hour;
  - (2) one (1) wet leg identified as L3, with a maximum rate of 5,000 bushels per hour ;
  - (3) one (1) dry leg identified as L4, with a maximum rate of 6,000 bushels per hour; and
  - (4) one (1) back leg identified as DP2 receives from an enclosed area at maximum rate of 10,000 bushels per hour.
- (e) Six (6) bins are identified as B<sub>5</sub> to B<sub>10</sub> with a total storage capacity of 643,690 bushels.
- (f) One (1) grain dryer, with a maximum heat input capacity of 32 mmBtu/hr, with a maximum capacity of 3,000 bushels per hour.

**Stack Summary**

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
N/A					

## Enforcement Issue

IDEM is aware that Bins 5-10, the Rail Load-out Scale, the Roof Conveyor, the Outside receiving Pit and Leg, the Transfer Conveyor to Main Leg, the Wet Leg, Dryer D1, the Main Receiving/Load-out Leg, the Main Dump Pit and the Rail Load-out has been constructed and operated prior to receipt of the proper permit. IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

## Recommendation

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

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

A complete application for the purposes of this review was received on June 19, 1998.

## Emissions Calculations

See Appendix A (Emissions Calculation Spreadsheets) for detailed calculations (one(1) page). Using the Interim AP-42 Emission Factor dated May, 1998, Section 9.9.1, Table 4.5, the emissions are as follows:

(1) Unloading/Receiving Emissions:

Uncontrolled Unloading/Receiving PM Emissions = 30,000 bushels/hr \* 60 lb/bushels \* ton/2000 lb \* 8760 hr/yr = 7,884,000 ton/yr;  
7,884,000 ton/yr \* 0.18 lb/ton \* ton/2000 lb = 709.56 ton/yr.

Controlled Unloading/Receiving PM Emissions, since dump pits are enclosed = 709.56 ton/yr \* (1-0.50) = 354.78 ton/yr.

Uncontrolled Unloading/Receiving PM10 Emissions = 30,000 bushels/hr \* 60 lb/bushels \* ton/2000 lb \* 8760 hr/yr = 7,884,000 ton/yr;  
7,884,000 ton/yr \* 0.059 lb/ton \* ton/2000 lb = 232.58 ton/yr.

Controlled Unloading/Receiving PM10 Emissions, since dump pits are enclosed = 232.58 ton/yr \* (1-0.50) = 116.29 ton/yr.

(2) Internal Handling Emissions:

Uncontrolled Total Internal Handling PM Emissions = 30,000 bushels/hr \* 60 lb/bushels \* ton/2000 lb \* 8760 hr/yr = 7,884,000 ton/yr;  
7,884,000 ton/yr \* 0.061 lb/ton \* ton/2000 lb = 240.46 ton/yr.

Controlled Total Internal Handling PM Emissions (Enclosed Conveyor) = 240.46 ton/yr \* (1-0.60) = 96.18 ton/yr.

Uncontrolled Total Internal Handling PM10 Emissions = 30,000 bushels/hr \* 60 lb/bushels \* ton/2000 lb \* 8760 hr/yr = 7,884,000 ton/yr;  
7,884,000 ton/yr \* 0.034 lb/ton \* ton/2000 lb = 134.03 ton/yr.

Controlled Total Internal Handling PM10 Emissions (Enclosed Conveyor) = 134.03 ton/yr \* (1-0.60) = 53.61 ton/yr.

(3) Loading to Bins Emissions:

Uncontrolled Loading to Bins PM Emissions = 30,000 bushels/hr \* 60 lb/bushels \* ton/2000 lb \* 8760 hr/yr = 7,884,000 ton/yr;  
7,884,000 ton/yr \* 0.02 lb/ton \* ton/2000 lb = 78.84 ton/yr.

Controlled Bin Loading PM Emissions (Enclosed Conveyor) = 78.84 ton/yr \* (1-0.60) = 31.54 ton/yr.

Uncontrolled Loading to Bins PM10 Emissions = 30,000 bushels/hr \* 60 lb/bushels \* ton/2000 lb \* 8760 hr/yr = 7,884,000 ton/yr;  
7,884,000 ton/yr \* 2.5 (DR) \* 0.003 lb/ton \* ton/2000 lb = 29.56 ton/yr.

Controlled Bin Loading PM10 Emissions (Enclosed Conveyor) = 29.56 ton/yr \* (1-0.60) = 11.82 ton/yr.

(4) Grain Loadout (Truck) Emissions:

Uncontrolled Grain Loadout (Truck) PM Emissions = 30,000 bushels/hr \* 60 lb/bushels \* ton/2000 lb \* 8760 hr/yr = 7,884,000 ton/yr;  
7,884,000 ton/yr \* 0.086 lb/ton \* ton/2000 lb = 339.01 ton/yr.

Controlled Grain Loadout (Truck) PM Emissions, since covered truck = 339.01 ton/yr \* (1-0.50) = 169.51 ton/yr.

Uncontrolled Grain Loadout (Truck) PM10 Emissions = 30,000 bushels/hr \* 60 lb/bushels \* ton/2000 lb \* 8760 hr/yr = 7,884,000 ton/yr;  
7,884,000 ton/yr \* 0.029 lb/ton \* ton/2000 lb = 114.32 ton/yr.

Controlled Grain Loadout (Truck) PM10 Emissions, since covered truck = 114.32 ton/yr \* (1-0.50) = 57.16 ton/yr.

(5) Grain Loadout (Rail) Emissions:

Uncontrolled Grain Loadout (Rail) PM Emissions = 30,000 bushels/hr \* 60 lb/bushels \* ton/2000 lb \* 8760 hr/yr = 7,884,000 ton/yr;  
7,884,000 ton/yr \* 0.027 lb/ton \* ton/2000 lb = 106.43 ton/yr.

Controlled Grain Loadout (Rail) PM Emissions, adjust sleeve to control emissions = 106.43 ton/yr \* (1-0.50) = 53.22 ton/yr.

Uncontrolled Grain Loadout (Rail) PM10 Emissions = 30,000 bushels/hr \* 60 lb/bushels \* ton/2000 lb \* 8760 hr/yr = 7,884,000 ton/yr;  
7,884,000 ton/yr \* 0.0022 lb/ton \* ton/2000 lb = 8.67 ton/yr.

Controlled Grain Loadout (Rail) PM10 Emissions, adjust sleeve to control emissions =  
 $8.67 \text{ ton/yr} * (1-0.50) = 4.34 \text{ ton/yr}$ .

(6) Grain Dryer Emissions:

Uncontrolled/Controlled Grain Dryer PM Emissions =  $3,000 \text{ bushels/hr} * 60 \text{ lb/bushels} * \text{ton}/2000 \text{ lb} * 8760 \text{ hr/yr} = 788,400 \text{ ton/yr}$ ;  
 $788,400 \text{ ton/yr} * 0.22 \text{ lb/ton} * \text{ton}/2000 \text{ lb} = 86.72 \text{ ton/yr}$ .

Uncontrolled/Controlled Grain Dryer PM10 Emissions =  $3,000 \text{ bushels/hr} * 60 \text{ lb/bushels} * \text{ton}/2000 \text{ lb} * 8760 \text{ hr/yr} = 788,400 \text{ ton/yr}$ ;  
 $788,400 \text{ ton/yr} * 0.022 \text{ lb/ton} * 2.5 \text{ (DR)} * \text{ton}/2000 \text{ lb} = 21.68 \text{ ton/yr}$ .

(7) Uncontrolled PM/PM10 fugitive emissions from vehicular traffic:

$15 \text{ trips/hr} * 1 \text{ mile/trip} * 2 * 8760 \text{ hr/yr} = 262,800 \text{ miles/yr}$ ;

$262,800 \text{ miles/yr} * 1.10 \text{ (Emission Factor from AP-42 Chapter 11.2.1)} * \text{ton}/2000 \text{ lb} = 145.13 \text{ ton/yr}$ .

The receiving/unloading area is the same physical site as the shipping area, therefore worst case potential emissions of the receiving/unloading area shall be considered in determining potential PM/PM10 emissions. The following total emissions includes the vehicular traffic fugitive emissions:

The total potential PM emissions = 1260.71 ton/yr;  
 The total controlled PM emissions = 714.35 ton/yr;  
 The total potential PM10 emissions = 562.97 ton/yr; and  
 The total controlled PM10 emissions = 348.53 ton/yr.

**Total Potential and Allowable Emissions**

Indiana Permit Allowable Emissions Definition (after compliance with applicable rules, based on 8,760 hours of operation per year at rated capacity):

Pollutant	Allowable Emissions (tons/year)	Potential Emissions (tons/year)
Particulate Matter (PM)	249	1260.71
Particulate Matter (PM10)	--	562.97
Sulfur Dioxide (SO <sub>2</sub> )	--	0.10
Volatile Organic Compounds (VOC)	--	0.40
Carbon Monoxide (CO)	--	4.90
Nitrogen Oxides (NO <sub>x</sub> )	--	19.6
Single Hazardous Air Pollutant (HAP)	--	--
Combination of HAPs	--	--

(a) Allowable emissions are determined from the applicability of rule 326 IAC 6-3.

(i) The grain dryer shall comply with 326 IAC 6-3-2(c) using the following equation:  
 $E = 55.0 * P^{0.11 - 40}$ ; where P = process weight in tons per hour  
 E = rate of emission in pounds per hour.

$$E = 55.0 * (3,000 \text{ bushels/hr} * 60 \text{ lb/bushels} * \text{ton}/2000 \text{ lb})^{0.11} - 40 = 42.02 \text{ lb/hr};$$
$$= 42.02 \text{ lb/hr} * 8760 \text{ hr/yr} * \text{ton}/2000 \text{ lb} = 184.06 \text{ ton/yr}.$$

The grain dryer is in compliance with 326 IAC 6-3 because the potential PM emissions of 86.72 ton/yr is less than the allowable emissions of 184.06 ton/yr.

- (ii) The grain loadout or receiving process shall comply with 326 IAC 6-3-2(c) using the following equation:

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

$$E = 55.0 * (30,000 \text{ bushels/hr} * 60 \text{ lb/bushels} * \text{ton}/2000 \text{ lb})^{0.11} - 40 = 76.23 \text{ lb/hr};$$
$$= 76.23 \text{ lb/hr} * 8760 \text{ hr/yr} * \text{ton}/2000 \text{ lb} = 333.9 \text{ ton/yr}.$$

The grain loadout process is in compliance with 326 IAC 6-3 because the after control PM emissions of 169.5 ton/yr is less than the allowable PM emissions of 333.9 ton/yr.

- (iii) The bin loading process shall comply with 326 IAC 6-3-2(c) using the following equation:

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

$$E = 55.0 * (30,000 \text{ bushels/hr} * 60 \text{ lb/bushels} * \text{ton}/2000 \text{ lb})^{0.11} - 40 = 76.23 \text{ lb/hr};$$
$$= 76.23 \text{ lb/hr} * 8760 \text{ hr/yr} * \text{ton}/2000 \text{ lb} = 333.9 \text{ ton/yr}.$$

The bin loading process is in compliance with 326 IAC 6-3 because the potential PM emissions of 78.84 ton/yr is less than the allowable PM emissions of 333.9 ton/yr.

- (iv) The internal handling process shall comply with 326 IAC 6-3-2(c) using the following equation:

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

$$E = 55.0 * (56,000 \text{ bushels/hr} * 60 \text{ lb/bushels} * \text{ton}/2000 \text{ lb})^{0.11} - 40 = 84.49 \text{ lb/hr};$$
$$= 84.49 \text{ lb/hr} * 8760 \text{ hr/yr} * \text{ton}/2000 \text{ lb} = 370.08 \text{ ton/yr}.$$

The internal handling process is in compliance with 326 IAC 6-3 because the after control PM emissions of 179.54 ton/yr is less than the allowable PM emissions of 370.08 ton/yr.

Since the total allowable emissions exceed the PSD threshold of 250 tons per year, the facilities subject to 326 IAC 6-3 shall be truncated to the following:

1. The grain dryer shall be limited to 14.91 pounds of PM per hour;
2. The grain loadout or receiving process shall be limited to 19.95 pounds of PM per hour;
3. The bin loading process shall be limited to 5.42 pounds of PM per hour;

- and
4. The internal handling process shall be limited to 16.54 pounds of PM per hour.

These truncated limits total 56.82 pounds per hour which is equivalent to 248.87 tons per year. This is less than the PSD threshold of 250 tons per year.

- (b) The allowable emissions based on the rules cited are less than the potential emissions, therefore, the allowable emissions are used for the permitting determination.
- (c) Allowable emissions (as defined in the Indiana Rule) of PM and PM10 are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, Sections 1 and 3, a construction permit is required.

### County Attainment Status

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Marshall County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Marshall County has been classified as attainment or unclassifiable for PM10, CO, SO<sub>2</sub>, and NO<sub>x</sub>. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions  
 Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

### Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	249.0
PM10	93.17
SO <sub>2</sub>	0.10
VOC	0.40
CO	4.90
NO <sub>x</sub>	19.6
Single HAP	0.00
Combination HAPs	0.00

- (a) This new source is **not** a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

## Part 70 Permit Determination

### 326 IAC 2-7 (Part 70 Permit Program)

This new source is subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) at least one of the criteria pollutant is greater than or equal to 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is greater than or equal to 10 tons per year, or
- (c) any combination of HAPs is greater than or equal to 25 tons/year.

This new source shall apply for a Part 70 (Title V) operating permit within twelve (12) months after this source becomes subject to Title V.

## Federal Rule Applicability

- (a) 40 CFR Part 60, Subpart DD, Standards of Performance for Grain Elevators:  
This grain elevator is not subject to the New Source Performance standard 326 IAC 12 and 40 CFR Part 60.300 through 60.304, Subpart DD because the grain elevator has the storage capacity of 643,690 bushels, which is less than 1 million bushels for grain storage elevator.
- (b) There are no other New Source Performance Standards 40 CFR Part 60 applicable to this facility.
- (c) There are no NESHAP 40 CFR Part 63 applicable to this facility.

## State Rule Applicability

### 326 IAC 2-2 (Prevention of Significant Deterioration):

The input of grain shall be limited as follows to avoid the requirements of 40 CFR 52.21, PSD:

$$\frac{\text{Maximum potential input of grain in bushels/hr, 30,000 bushels/hr} * X, \text{ bushels limit per hr}}{\text{Potential PM emissions, 1115.58 ton/yr}} = \frac{\text{PM limit, 249 tons/yr}}{\text{PM limit, 249 tons/yr}}$$

$$\begin{aligned} X, \text{ Limit} &= 6696.06 \text{ bushels per hour} * 8760 \text{ hr/yr} \\ &= 58,657,485.6 \text{ bushels/year.} \end{aligned}$$

This value shall be carried to only three significant figures. Therefore, the limit shall be 58,600,000 bushels per year.

The PM10 emissions shall be truncated to reflect the PM emission limit of 249 tons per year.

$$\text{Limited PM10 emissions} = 417.84 \text{ ton/yr} * 0.223 \text{ (reduction factor)} = 93.17 \text{ ton/yr.}$$

### 326 IAC 2-6 (Emission Reporting)

This facility is subject to 326 IAC 2-6 (Emission Reporting), because the source emits more than 100 tons/yr of PM10. Pursuant to this rule, the owner/operator of this facility must annually submit an emission statement of the facility. The annual statement must be received by July 1 of each year and must contain the minimum requirements as specified in 326 IAC 2-6-4.

### 326 IAC 5-1-2 (Visible Emission Limitations)

Pursuant to 326 IAC 5-1-2 (Visible Emission Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), the visible emissions shall meet the following:

- (a) visible emissions shall not exceed an average of 40% opacity in 24 consecutive readings.
- (b) visible emissions shall not exceed 60% opacity for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period.

326 IAC 6-3-2(c) (Process Operations):

Pursuant to 326 IAC 6-3 (Process Operations):

- (a) The perforated plates for particulate matter control shall be in operation at all times when the grain dryer is in operation.

- (b) The grain dryer shall comply with 326 IAC 6-3-2(c) using the following equation:

$$E = 55.0 * P^{0.11} - 40; \quad \text{where } P = \text{process weight in tons per hour}$$

E = rate of emission in pounds per hour.

$$E = 55.0 * (3,000 \text{ bushels/hr} * 60 \text{ lb/bushels} * \text{ton}/2000 \text{ lb})^{0.11} - 40 = 42.02 \text{ lb/hr};$$
$$= 42.02 \text{ lb/hr} * 8760 \text{ hr/yr} * \text{ton}/2000 \text{ lb} = 184.06 \text{ ton/yr.}$$

The grain dryer is in compliance with 326 IAC 6-3 because the potential PM emissions of 86.72 ton/yr is less than the allowable emissions of 184.06 ton/yr.

- (c) The grain loadout or receiving process shall comply with 326 IAC 6-3-2(c) using the following equation:

$$E = 55.0 * P^{0.11} - 40; \quad \text{where } P = \text{process weight in tons per hour}$$

E = rate of emission in pounds per hour.

$$E = 55.0 * (30,000 \text{ bushels/hr} * 60 \text{ lb/bushels} * \text{ton}/2000 \text{ lb})^{0.11} - 40 = 76.23 \text{ lb/hr};$$
$$= 76.23 \text{ lb/hr} * 8760 \text{ hr/yr} * \text{ton}/2000 \text{ lb} = 333.9 \text{ ton/yr.}$$

The grain loadout process is in compliance with 326 IAC 6-3 because the after control PM emissions of 169.5 ton/yr is less than the allowable PM emissions of 333.9 ton/yr.

- (d) The bin loading process shall comply with 326 IAC 6-3-2(c) using the following equation:

$$E = 55.0 * P^{0.11} - 40; \quad \text{where } P = \text{process weight in tons per hour}$$

E = rate of emission in pounds per hour.

$$E = 55.0 * (30,000 \text{ bushels/hr} * 60 \text{ lb/bushels} * \text{ton}/2000 \text{ lb})^{0.11} - 40 = 76.23 \text{ lb/hr};$$
$$= 76.23 \text{ lb/hr} * 8760 \text{ hr/yr} * \text{ton}/2000 \text{ lb} = 333.9 \text{ ton/yr.}$$

The bin loading process is in compliance with 326 IAC 6-3 because the potential PM emissions of 78.84 ton/yr is less than the allowable PM emissions of 333.9 ton/yr.

- (e) The internal handling process shall comply with 326 IAC 6-3-2(c) using the following equation:

$$E = 55.0 * P^{0.11} - 40; \quad \text{where } P = \text{process weight in tons per hour}$$

E = rate of emission in pounds per hour.

$$E = 55.0 * (56,000 \text{ bushels/hr} * 60 \text{ lb/bushels} * \text{ton}/2000 \text{ lb})^{0.11} - 40 = 84.49 \text{ lb/hr}; = 84.49 \text{ lb/hr} * 8760 \text{ hr/yr} * \text{ton}/2000 \text{ lb} = 370.08 \text{ ton/yr.}$$

The internal handling process is in compliance with 326 IAC 6-3 because the after control PM emissions of 179.54 ton/yr is less than the allowable PM emissions of 370.08 ton/yr.

- (f) Since the total allowable emissions exceed the PSD threshold of 250 tons per year, the facilities subject to 326 IAC 6-3 shall be truncated to the following:
- (a) The grain dryer shall be limited to 14.91 pounds of PM per hour;
  - (b) The grain loadout or receiving process shall be limited to 19.95 pounds of PM per hour;
  - (c) The bin loading process shall be limited to 5.42 pounds of PM per hour; and
  - (d) The internal handling process shall be limited to 16.54 pounds of PM per hour.

These truncated limits total 56.82 pounds per hour which is equivalent to 248.87 tons per year. This is less than the PSD threshold of 250 tons per year.

- (g) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

326 IAC 1-6-3 (Preventive Maintenance):

- (a) The Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this permit, including the following information on each:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission units;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM and OAM upon request and shall be subject to review and approval by IDEM and OAM.

326 IAC 8-1-6 does not apply to the facilities because the potential VOC emissions from each are less than 25 tons/yr.

No other 326 IAC 8 rules apply.

### **Air Toxic Emissions**

Indiana presently requests applicants to provide information on emissions of the 187 hazardous air pollutants set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

- (a) None of these listed air toxics will be emitted from this proposed construction.
- (b) 326 IAC 2-1-2.4 does not apply to the source because there no HAPs emitted.

**Conclusion**

The construction of this grain elevator will be subject to the conditions of the attached proposed **Construction Permit No. CP-099-9868-00087.**

Mail to: Permit Administration & Development Section  
Office Of Air Management  
100 North Senate Avenue  
P. O. Box 6015  
Indianapolis, Indiana 46206-6015

Cargill Grain Division  
P.O. Box 39  
Bremen, Indiana 46506

**Affidavit of Construction**

I, \_\_\_\_\_, being duly sworn upon my oath, depose and say:  
(Name of the Authorized Representative)

1. I live in \_\_\_\_\_ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of \_\_\_\_\_ for \_\_\_\_\_.  
(Title) (Company Name)
3. By virtue of my position with \_\_\_\_\_, I have personal  
(Company Name)  
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of \_\_\_\_\_.  
(Company Name)
4. I hereby certify that Cargill Grain Division, 632 North Center Street, Indiana, 46506, has constructed the grain elevator in conformity with the requirements and intent of the construction permit application received by the Office of Air Management on June 19, 1998 and as permitted pursuant to **Construction Permit No. CP-099-9868, Plant ID No. 099-00087** issued on \_\_\_\_\_
5. I hereby certify that Cargill Grain Division is now subject to the Title V program and will submit a Title V operating permit application within twelve (12) months from the postmarked submission date of this Affidavit of Construction.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

STATE OF INDIANA)  
)SS

COUNTY OF \_\_\_\_\_ )

Subscribed and sworn to me, a notary public in and for \_\_\_\_\_ County and State of  
Indiana on this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_\_.

My Commission expires: \_\_\_\_\_

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name (typed or printed)

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

**Grain Dryer**

**Company Name:** Cargill Grain Division  
**Address City IN Zip:** 632 North Center Street  
**CP:** 099-9868  
**Plt ID:** 099-00087  
**Reviewer:** NLJ  
**Date:** 7/7/98

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

32.0

280.3

Emission Factor in lb/MMCF	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
	13.7	13.7	0.6	140.0	2.8	35.0
Potential Emission in tons/yr	1.9	1.9	0.1	19.6	0.4	4.9

**Methodology**

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: Uncontrolled = 140, Low NOx Burner = 81, Flue gas recirculation = 30

Emission Factors for CO: Uncontrolled = 35, Low NOx Burner = 61, Flue gas recirculation = 37

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

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02

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