



*Mitchell E. Daniels, Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

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

TO: Interested Parties / Applicant  
DATE: September 20, 2007  
RE: Consolidated Grain & Barge / 129-24928-00014  
FROM: Nisha Sizemore  
Chief, Permits Branch  
Office of Air Quality

### **Notice of Decision: Approval – Effective Immediately**

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted, 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 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).

For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

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.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of an initial Title V operating permit, permit renewal, or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impracticable to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency  
401 M Street  
Washington, D.C. 20406

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.



Mitchell E. Daniels, Jr.  
Governor

Thomas W. Easterly  
Commissioner

100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
(317) 232-8603  
(800) 451-6027  
www.IN.gov/idem

## Part 70 Operating Permit OFFICE OF AIR QUALITY

**Consolidated Grain & Barge  
2801 Bluff Road  
Mt. Vernon, Indiana 47620**

(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.

**The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.**

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: TV 129-24928-00014	
Original signed by:	Issuance Date: September 20, 2007
Nisha Sizemore, Chief Permits Branch Office of Air Quality	Expiration Date: September 20, 2012

## TABLE OF CONTENTS

### SECTION A. SOURCE SUMMARY ..... 5

- A.1 General Information [326 IAC 2-7-4(c)][326 IAC-7-5(15)][326 IAC 2-7-1(22)]
- A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]  
[326 IAC 2-7-5(15)]
- A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)]  
[326 IAC 2-7-5(15)]
- A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

### SECTION B. GENERAL CONDITIONS ..... 7

- B.1 Definitions [326 IAC 2-7-1]
- B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)]  
[IC 13-15-3-6(a)]
- B.3 Term of Conditions [326 IAC 2-1.1-9.5]
- B.4 Enforceability [326 IAC 2-7-7]
- B.5 Severability [326 IAC 2-7-5(5)]
- B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]
- B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]
- B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]
- B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]
- B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)]  
[326 IAC 1-6-3]
- B.11 Emergency Provisions [326 IAC 2-7-16]
- B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]
- B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]
- B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]
- B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]
- B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination  
[326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]
- B.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]
- B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12][40 CFR 72]
- B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)]  
[326 IAC 2-7-12(b)(2)]
- B.20 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]
- B.21 Source Modification Requirement [326 IAC 2-7-10.5]
- B.22 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]
- B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]
- B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]
- B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

### SECTION C. SOURCE OPERATION CONDITIONS ..... 18

#### Emission Limitations and Standards [326 IAC 2-7-5(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]
- C.2 Opacity [326 IAC 5-1]
- C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]
- C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]
- C.5 Fugitive Dust Emissions [326 IAC 6-4]
- C.6 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]
- C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

**Testing Requirements [326 IAC 2-7-6(1)]**  
C.8 Performance Testing [326 IAC 3-6]

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

**Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]**  
C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]  
C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]  
C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)]  
[326 IAC 2-7-6(1)]

**Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]**  
C.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]  
C.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]  
C.15 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]  
C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]  
[326 IAC 2-7-6]

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**  
C.17 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]  
C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]  
C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

**Stratospheric Ozone Protection**  
C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

**SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS.....26**

**Operation Conditions**

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

- D.1.1 Prevention of Significant Deterioration (PSD) Minor PM and PM10 Emission Limits [326 IAC 2-2]
- D.1.2 Prevention of Significant Deterioration (PSD) Minor NO<sub>x</sub>, CO and SO<sub>2</sub> Emission Limits [326 IAC 2-2]
- D.1.3 Particulate Emission Limitations [326 IAC 6-3-2]
- D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**

- D.1.5 Particulate Control
- D.1.6 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

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

- D.1.7 Visible Emissions Notations
- D.1.8 Baghouses Parametric Monitoring
- D.1.9 Broken or Failed Bag Detection

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

- D.1.10 Record Keeping Requirements
- D.1.11 Reporting Requirements

**Certification .....32**  
**Emergency Occurrence Report .....33-34**  
**Quarterly Reports .....35-36**  
**Quarterly Deviation and Compliance Monitoring Report .....37-38**

## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]

The Permittee owns and operates a grain merchandising plant.

Source Address:	2801 Bluff Road, Mt. Vernon, Indiana 47620
Mailing Address:	P.O. Box 547, Mt. Vernon, IN 47620
General Source Phone Number:	(812) 218-5240
SIC Code:	5153
County Location:	Posey
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Minor Source, under PSD Rules Major Source, Section 112 of the Clean Air Act

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(15)]

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

- (a) One (1) North Merchandising House -
  - (1) One (1) Grain Storage Ring/Pad, known as P9B, with a capacity of 1 million bushel pile. This storage ring/pad will enable the source to better handle the large amount of grain that is received during fall harvest, which is a twice per year fill.
  - (2) One (1) Overhead Totally Enclosed Conveyor, known as P8B, with a maximum rate of 500 tons per hour.
  - (3) Receiving, known as P7, capacity: 336 tons of grain per hour.
  - (4) Conveying, known as P8, capacity: 336 tons of grain per hour.
  - (5) Loadout, known as P9, capacity: 375 tons of grain per hour.
- (b) One (1) Truck Only Receiving Area, known as P1, installed in the first quarter of 1978, with a maximum design throughput of 1,050 tons of grain per hour and 784,000 tons of grain per year, including receiving pits P1A, P1B, with emissions controlled by baghouse C-1 and exhausted to Stack S1, and receiving pit P1C, with emissions controlled by baghouse C-3 and exhausted to Stack S3. This operation (P1) is permitted in 2007 to increase yearly throughput rate to 2,000,000 tons.
- (c) One (1) Truck & Rail Receiving Area, known as P2, installed in the first quarter of 1978, with a maximum capacity: 420 tons of grain per hour.
- (d) One (1) Grain Storage/Handling Area, known as P3, exhausted to stack S-2, installed in 1979, controlled by baghouse C-2, capacity: 1,260 tons of grain per hour and 784,000 tons of grain per year. This operation (P3) is permitted in 2007 to increase yearly

throughput rate to 3,000,000 tons.

- (e) One (1) natural gas-fired grain dryer, known as P4, exhausted to S-4, installed in 1994, rated at 36.0 million British thermal units per hour (mmBtu/hr), capacity: 84.0 tons of grain per hour.
- (f) One (1) natural gas-fired column grain dryer, identified as P4A, rated at 21.6 million British thermal units per hour, exhausting to Stack S-5, capacity: 105 tons of grain per hour.
- (g) One (1) Barge Loadout Area, known as P5, installed in the first quarter of 1978, controlled by a telescoping spout, capacity: 500 tons of grain per hour.
- (h) One (1), Truck Loadout Area, known as P6A, installed in the first quarter of 1978, controlled by a spout extension, capacity: 336 tons of grain per hour.
- (i) One (1) enclosed reclaim conveyor leg, for rail or truck loadout identified as P6B equipped with a bulk weigh station at its discharge, capacity: 850 tons of grain per hour.
- (j) One (1) enclosed conveyor leg, identified as P1D, capacity: 450 tons of grain per hour and 784,000 tons of grain per year, controlled by baghouse C-1. This operation (P1D) is permitted in 2007 to increase throughput to 700 tons of grain per hour and 2,000,000 tons of grain per year.

A.3 Specifically Regulated Insignificant Activities 326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(15)]

This source does not currently have any insignificant activities, as defined in 326 IAC 2-7-1(21).

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

## SECTION B GENERAL CONDITIONS

### B.1 Definitions [326 IAC 2-7-1]

---

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

### B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]

---

- (a) This permit, TV 129-24928-00014, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

### B.3 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 [326 IAC 2-7-7]

---

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

### B.5 Severability [326 IAC 2-7-5(5)]

---

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

### B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

---

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

### B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

---

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

**B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]**

---

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by the "responsible official" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A "responsible official" is defined at 326 IAC 2-7-1(34).

**B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]**

---

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

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

and

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
  - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

**B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)][326 IAC 1-6-3**

---

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

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

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

**B.11 Emergency Provisions [326 IAC 2-7-16]**

---

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a **technology**-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and Southwest Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or  
Telephone Number: 317-233-0178 (ask for Compliance Section)  
Facsimile Number: 317-233-6865  
Southwest Regional Office phone: (812) 380-2305; fax: (812) 380-2304.

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

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

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

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

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
  - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
  - (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.

- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

**B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]**

---

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
  - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
  - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
  - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

- (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

**B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]**

---

- (a) All terms and conditions of permits established prior to TV 129-24928-00014 and issued pursuant to permitting programs approved into the state implementation plan have been either:
  - (1) incorporated as originally stated,
  - (2) revised under 326 IAC 2-7-10.5, or
  - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

**B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]**

---

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

**B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]**

---

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

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

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination  
[326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

---

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
- (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

---

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
  - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the

document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

**B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12] [40 CFR 72]**

---

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

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

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

**B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12(b)(2)]**

---

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

**B.20 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]**

---

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b),(c), or (e) without a prior permit revision, if each of the following conditions is met:
  - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
  - (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

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

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b),(c), or (e). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Emission Trades [326 IAC 2-7-20(c)]  
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

**B.21 Source Modification Requirement [326 IAC 2-7-10.5]**

---

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

**B.22 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]**

---

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

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

**B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]**

---

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 Particulate 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 Opacity [326 IAC 5-1]

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

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

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

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

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

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

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

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

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

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on. The plan is included as Attachment A.

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  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-52 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. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Accredited Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

## Testing Requirements [326 IAC 2-7-6(1)]

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

---

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

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

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the 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 2-7-5(1)][326 IAC 2-7-6(1)]

### C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

---

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

**C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

---

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

**C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

---

- (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 [326 IAC 2-7-5][326 IAC 2-7-6]**

**C.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]**

---

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

- (a) The Permittee 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 Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

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

The ERP does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) If the ERP is disapproved by IDEM, OAQ, 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, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.15 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

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

**C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]**

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

**C.17 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]**

- (a) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
  - (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
  - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1 (32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-50 IGCN 1003  
Indianapolis, Indiana 46204-2251

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

**C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]**

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present

or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

## **Stratospheric Ozone Protection**

### **C.20 Compliance with 40 CFR 82 and 326 IAC 22-1**

---

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

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (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 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (a) One (1) North Merchandising House -
- (1) One (1) Grain Storage Ring/Pad, known as P9B, with a capacity of 1 million bushel pile. This storage ring/pad will enable the source to better handle the large amount of grain that is received during fall harvest, which is a twice per year fill.
  - (2) One (1) Overhead Totally Enclosed Conveyor, known as P8B, with a maximum rate of 500 tons per hour.
  - (3) Receiving, known as P7, capacity: 336 tons of grain per hour.
  - (4) Conveying, known as P8, capacity: 336 tons of grain per hour.
  - (5) Loadout, known as P9, capacity: 375 tons of grain per hour.
- (b) One (1) Truck Only Receiving Area, known as P1, installed in the first quarter of 1978, with a maximum design throughput of 1,050 tons of grain per hour and 784,000 tons of grain per year, including receiving pits P1A, P1B, with emissions controlled by baghouse C-1 and exhausted to Stack S1, and receiving pit P1C, with emissions controlled by baghouse C-3 and exhausted to Stack S3. This operation (P1) is permitted in 2007 to increase yearly throughput rate to 2,000,000 tons.
- (c) One (1) Truck & Rail Receiving Area, known as P2, installed in the first quarter of 1978, with a maximum capacity: 420 tons of grain per hour.
- (d) One (1) Grain Handling Area, known as P3, exhausted to stack S-2, installed in 1979, controlled by baghouse C-2, capacity: 1,260 tons of grain per hour and 784,000 tons of grain per year. This operation (P3) is permitted in 2007 to increase yearly throughput rate to 3,000,000 tons.
- (e) One (1) natural gas-fired grain dryer, known as P4, exhausted to S-4, installed in 1994, rated at 36.0 million British thermal units per hour (mmBtu/hr), capacity: 84.0 tons of grain per hour.
- (f) One (1) natural gas-fired column grain dryer, identified as P4A, rated at 21.6 million British thermal units per hour, exhausting to Stack S-5, capacity: 105 tons of grain per hour.
- (g) One (1) Barge Loadout Area, known as P5, installed in the first quarter of 1978, controlled by a telescoping spout, capacity: 500 tons of grain per hour.
- (h) One (1), Truck Loadout Area, known as P6A, installed in the first quarter of 1978, controlled by a spout extension, capacity: 336 tons of grain per hour.
- (i) One (1) enclosed reclaim conveyor leg, for rail or truck loadout identified as P6B equipped with a bulk weigh station at its discharge, capacity: 850 tons of grain per hour.
- (j) One (1) enclosed conveyor leg, identified as P1D, capacity: 450 tons of grain per hour and 784,000 tons of grain per year, controlled by baghouse C-1. This operation (P1D) is permitted in 2007 to increase throughput to 700 tons of grain per hour and 2,000,000 tons of grain per year.

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

### Operation Conditions

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

##### D.1.1 Prevention of Significant Deterioration (PSD) Minor PM and PM10 Emission Limits [326 IAC 2-2]

(a) The annual grain throughput to the grain merchandising emission units, including the particulate emissions shall not exceed the limits in the table below:

Process/Emission Units	Throughput Limits (tons/year)	PM Emissions Limit (pound/ton)	PM10 Emissions Limit (pound/ton)	Control ID
Truck Receiving and Receiving Pit (P1A & P1B)	2,000,000	0.18	0.059	Baghouse C-1
Truck Receiving and Receiving Pit (P1C)	2,000,000	0.18	0.059	Baghouse C-3
Conveyor Leg (P1D)	2,000,000	0.061	0.034	Baghouse C-1
Rail/HB and Hopper Truck Receiving (P2)	784,000	0.035	0.0078	
Grain Handling (P3)	3,000,000	0.061	0.034	Baghouse C-2
Grain Drying process (Dryer P4)	160,000	0.22	0.055	
Grain Drying process (Dryer P4A)	200,000	0.22	0.055	
Grain Barge Loadout (P5)	800,000	0.016	0.0040	Telescoping Spout
Grain Truck Loadout (P6A)	56,000	0.086	0.029	Spout Extension
Enclosed Reclaim Conveyor Leg (P6B)	300,000	0.061	0.034	
North Merchandising House Receiving (P7)	56,000	0.035	0.0078	
North Merchandising House Conveying (P8)	56,000	0.061	0.034	
North Merchandising House Enclosed Conveying (P8B)	56,000	0.061	0.034	
North Merchandising House Loadout (P9)	56,000	0.086	0.029	
North Merchandising House Loadout (Hopper Truck - P9B)	56,000	0.086	0.029	

Each throughput limit shall be based on a twelve (12) month period, with compliance determined at the end of each month. Compliance with these particulate emission limits in conjunction with Aventine's particulate emissions limits in NSR/Part 70 Permit No. 129-24836-00051, shall limit the particulate emissions from the entire source (Aventine's ethanol production plant and Consolidated Grain & Barge grain merchandising plant) to less than 250 tons per year, which renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) not applicable.

##### D.1.2 Prevention of Significant Deterioration (PSD) Minor NOx, CO and SO<sub>2</sub> Emission Limits [326 IAC 2-2]

- (a) The NOx emissions from the two (2) grain dryers (P4 and P4A) shall not exceed 100 pounds per million cubic feet of natural gas.
- (b) The CO emissions from the two (2) grain dryers (P4 and P4A) shall not exceed 84 pounds per million cubic feet of natural gas.

- (c) The total input of natural gas fuel to the two (2) grain dryers (P4 and P4A) shall not exceed 504 million cubic feet per twelve (12) consecutive month period, with compliance at the end of each month.

Compliance with these limits in conjunction with the NO<sub>x</sub>, CO and SO<sub>2</sub> emission limits in the Aventine's NSR/Part 70 129-24836-00051, shall limit the NO<sub>x</sub>, CO and SO<sub>2</sub> emissions from the entire source (Aventine's ethanol production plant, including the nested package boilers and Consolidated Grain & Barge Co. grain merchandising plant) to less than 250 tons per year. Compliance with this condition shall render the requirements of 326 IAC 2-2, PSD not applicable.

**D.1.3 Particulate Emission Limitations [326 IAC 6-3-2]**

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from each of the following processes shall not exceed the pound per hour limits as follows:

Process/Emission Units	Process Weight Rate (tons/hour)	PM Emissions Limit (pounds/hour)
Truck Receiving and Receiving Pit (P1A & P1B)	1,050	78.2
Truck Receiving and Receiving Pit (P1C)	1,050	78.2
Conveyor Leg (P1D)	700	73.0
Rail/HB and Hopper Truck Receiving (P2)	420	67.0
Grain Storage/ Handling (P3)	1,260	80.6
Grain Drying process (Dryer P4)	84	49.5
Grain Drying process (Dryer P4A)	105	58.1
Grain Barge Loadout (P5)	500	69.0
Grain Truck Loadout (P6A)	336	64.3
Enclosed Reclaim Conveyor Leg (P6B)	850	75.5
North Merchandising House Receiving (P7)	336	64.3
North Merchandising House Conveying (P8)	336	64.3
North Merchandising House Enclosed Conveying (P8B)	500	69.0
North Merchandising House Loadout (P9)	375	65.6
North Merchandising House Loadout (Hopper Truck - P9B)	336	64.3

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

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

- (b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), when the process weight rate exceeds two hundred (200) tons per hour, the allowable emissions may exceed that shown in the table in 326 IAC 6-3-2(e) provided the

concentration of particulate in the discharge gases to the atmosphere is less than one tenth (0.10) pound per one thousand (1,000) pounds of gases.

**D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

---

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

**Compliance Determination Requirements**

**D.1.5 Particulate Control**

---

The baghouses, telescoping spouts and spout extensions for particulate control shall be in operation or in place at all times when P1A, P1B, P1C, P3, P5 and P6A, are in operation.

**D.1.6 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]**

---

In order to demonstrate compliance with Conditions D.1.1 and D.1.3, the Permittee shall perform PM/PM10 testing for baghouse C-1 used in conjunction with the Truck Only Receiving Area (P-1), including Receiving Pits (P1A & P1B) and Conveyor Leg (P1D), baghouse C-3 used in conjunction with the Receiving Pit (P1C), and baghouse C-2 used in conjunction with the the Grain Storage/Handling Areas (P3), within 60 days after achieving maximum production capacity, but no later than 180 days after initial startup, utilizing methods as approved by the Commissioner.

These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C – Performance Testing. PM10 includes filterable and condensable PM10.

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

**D.1.7 Visible Emissions Notations**

---

- (a) Visible emission notations of the stacks exhausts from baghouse C-1 controlling Truck Only Receiving, identified as P-1 (P1A & P1B) and Conveyor Leg (P1D), baghouse C-2 controlling Grain Storage/Handling Areas, identified as P3 and baghouse C-3 controlling Receiving Pit, identified as P1C, shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

**D.1.8 Baghouses Parametric Monitoring**

---

- (a) The Permittee shall record the pressure drop across baghouse C-1 controlling the Truck Only Receiving Area, identified as P-1 (P1A & P1B) and Conveyor Leg (P1D); baghouse C-2, controlling Grain Storage/Handling Areas, identified as P3, and baghouse C-3

controlling Receiving Pit, identified as P1C, at least once per day when the respective emission unit is in operation.

- (b) When, for any one reading, the pressure drop across each baghouse is outside of the normal range of 1.0 and 6.0 inches of water or a range established during the last stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (c) The instruments used for determining the pressure shall comply with Section C - Instrument Specifications of this permit, and shall be calibrated at least once every six (6) months.

#### D.1.9 Broken or Failed Bag Detection

---

In the event that bag failure has been observed:

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

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

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

#### D.1.10 Record Keeping Requirements

---

- (a) To document compliance with Condition D.1.7, the Permittee shall maintain a daily record of visible emission notations of the stacks exhausts from baghouse C-1 controlling Truck Only Receiving, identified as P-1 (P1A & P1B) and Conveyor Leg (P1D), baghouse C-2 controlling Grain Storage/Handling Areas, identified as P3 and baghouse C-3 controlling Receiving Pit, identified as P1C. 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.1.8, the Permittee shall maintain a daily record of the pressure drop across each of the baghouses controlling the Truck Only Receiving, identified as P-1 (P1A & P1B) and Conveyor Leg (P1D), Receiving Pit, identified as P1C, and the Grain Storage/Handling Areas, identified as P3.
- (c) To document compliance with Condition D.1.1, the Permittee shall maintain monthly records of the grain throughput to the merchandising emission units.

- (d) To document compliance with Condition D.1.2, the Permittee shall maintain monthly records of the natural gas fired to the two grain dryers, identified as P4 and P4A.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.1.11 Reporting Requirements

---

- (a) A monthly summary of the information to document compliance with Condition D.1.1, shall be submitted quarterly to the addresses 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.
- (b) A monthly summary of the information to document compliance with Condition D.1.2, shall be submitted quarterly to the addresses 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.

The reports submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
PART 70 OPERATING PERMIT**

Source Name: Consolidated Grain & Barge  
Source Address: 2801 Bluff Road, Mt. Vernon, Indiana 47620  
Mailing Address: P.O. Box 547, Mt. Vernon, IN 47620  
Part 70 Permit No.: TV 129-24928-00014

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.**

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify)
- Report (specify)
- Notification (specify)
- Affidavit (specify)
- Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
Phone: 317-233-0178  
Fax: 317-233-6865**

**PART 70 OPERATING PERMIT  
EMERGENCY OCCURRENCE REPORT**

Source Name: Consolidated Grain & Barge  
Source Address: 2801 Bluff Road, Mt. Vernon, Indiana 47620  
Mailing Address: P.O. Box 547, Mt. Vernon, IN 47620  
Part 70 Permit No.: TV 129-24928-00014

**This form consists of 2 pages**

**Page 1 of 2**

- This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
  - The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

**Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_

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

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

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

A certification is not required for this report.

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

**Part 70 Quarterly Submittal Report**

Source Name: Consolidated Grain and Barge, Co.  
 Source Address: 2801 Bluff Road, Mt. Vernon, Indiana 47620  
 Mailing Address: P. O. Box 548, Mt. Vernon, Indiana 47620  
 Part 70 Permit No.: 129-24928-00014  
 Facilities: As listed in below table  
 Parameter: PM and PM<sub>10</sub>  
 Limits: Condition D.1.1 - Shall not exceed the grain throughput limits as listed in below table in tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

MONTH: \_\_\_\_\_ YEAR: \_\_\_\_\_

Emission Unit	Grain Throughput Limits (tons/year)	Grain Throughput Tons This Month	Grain Throughput Tons Previous 11 Months	Grain Throughput Tons 12 Month Total
Truck Receiving and Receiving Pit (P1A & P1B)	2,000,000			
Truck Receiving and Receiving Pit (P1C)	2,000,000			
Conveyor Leg (P1D)	2,000,000			
Rail/HB and Hopper Truck Receiving (P2)	784,000			
Grain Storage/ Handling (P3)	3,000,000			
Grain Drying process (Dryer P4)	160,000			
Grain Drying process (Dryer P4A)	200,000			
Grain Barge Loadout (P5)	800,000			
Grain Truck Loadout (P6A)	56,000			
Enclosed Reclaim Conveyor Leg (P6B)	300,000			
North Merchandising House Receiving (P7)	56,000			
North Merchandising House Conveying (P8)	56,000			
North Merchandising House Enclosed Conveying (P8B)	56,000			
North Merchandising House Loadout (P9)	56,000			
North Merchandising House Loadout (Hopper Truck - P9B)	56,000			

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.  
 Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
 Title / Position: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

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

**Part 70 Usage Quarterly Submittal Report**

Source Name: Consolidated Grain & Barge  
Source Address: 2801 Bluff Road, Mt. Vernon, Indiana 47620  
Mailing Address: P.O. Box 547, Mt. Vernon, IN 47620  
Part 70 Permit No.: TV 129-24928-00014  
Facility: Grain Dryers (P4 & P4A)  
Parameter: Natural Gas Fuel Usage for NOx limit  
Limit: Condition D.1.2(c) - Shall not exceed 504 million cubic feet per twelve (12) consecutive month period, with compliance at the end of each month.

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

Month	Column 1	Column 2	Column 1 + 2
	Natural Gas Usage This Month (cubic feet)	Natural Gas Usage Previous 11 Months (cubic feet)	Natural Gas Usage Total 12 Months (cubic feet)
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.  
Deviation has been reported on.

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

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

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

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

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

Attach a signed certification to complete this report

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION  
PART 70 OPERATING PERMIT  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Consolidated Grain & Barge  
Source Address: 2801 Bluff Road, Mt. Vernon, Indiana 47620  
Mailing Address: P.O. Box 547, Mt. Vernon, IN 47620  
Part 70 Permit No.: TV 129-24928-00014

**Months:** \_\_\_\_\_ **to** \_\_\_\_\_ **Year:** \_\_\_\_\_

Page 1 of 2

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<p><input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.</p>	
<p><input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD</p>	
<p><b>Permit Requirement</b> (specify permit condition #)</p>	
<p><b>Date of Deviation:</b></p>	<p><b>Duration of Deviation:</b></p>
<p><b>Number of Deviations:</b></p>	
<p><b>Probable Cause of Deviation:</b></p>	
<p><b>Response Steps Taken:</b></p>	
<p><b>Permit Requirement</b> (specify permit condition #)</p>	
<p><b>Date of Deviation:</b></p>	<p><b>Duration of Deviation:</b></p>
<p><b>Number of Deviations:</b></p>	
<p><b>Probable Cause of Deviation:</b></p>	
<p><b>Response Steps Taken:</b></p>	

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

Form Completed by: \_\_\_\_\_

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

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

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

Attach a signed certification to complete this report.

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

Addendum to the  
Technical Support Document for a New Source Construction  
and Part 70 Operating Permits

<b>Source Name:</b>	<b>Aventine Renewable Energy - Mt. Vernon LLC</b>
<b>Source Location:</b>	<b>2751 Bluff Road, Mt. Vernon, Indiana 47620</b>
<b>Supporting Source:</b>	<b>Consolidated Grain &amp; Barge Co.</b>
<b>Supporting Source Location:</b>	<b>2801 Bluff Road, Mt. Vernon, Indiana 47620</b>
<b>SIC Code:</b>	<b>2869, 5153</b>
<b>NSR/Part 70 Operating Permit No.:</b>	<b>129-24836-00051 (Aventine)</b>
<b>Part 70 Operating Permit No.:</b>	<b>129-24928-00014 (Consolidated Grain &amp; Barge Co.)</b>
<b>County:</b>	<b>Posey</b>
<b>Permit Reviewer:</b>	<b>Aida De Guzman</b>

On August 2, 2007, the Office of Air Quality (OAQ) had a notice published in the Mount Vernon Democrat, Mt. Vernon, Indiana, stating that Aventine Renewable Energy - Mt. Vernon LLC and Consolidated Grain & Barge applied for applications regarding New Source Construction and Part 70 Operating Permits for an ethanol manufacturing plant and a grain merchandising plant. The notice also stated that OAQ proposed to issue permits for these operations and provided information on how the public could review the proposed permits and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not these permits should be issued as proposed.

On September 4, 2007, Mr. Dave Boggs submitted the following comments to the proposed New Source Construction and Part 70 operating Permits:

**Comment 1:**

The Permits and Technical Support Document (TSD) are silent regarding applicability of 40 CFR 63 Subpart Y. Available information indicates the operation of the Project will include loading of denatured ethanol into barges. Information also indicates gasoline will be used to denature the ethanol. Since gasoline contains some HAP, the barge loading operation may be subject to requirements pursuant to 40 CFR 63 Subpart Y, National Emission Standards for Hazardous Air Pollutants for Marine Tank Vessel Loading Operations. The applicability of Subpart Y requirements depends upon fact-specific determinations pertaining to activities at "marine tank vessel loading operations", a term which is defined at 40 CFR 63.561. The draft permit and the TSD do not address the actual or potential applicability of Subpart Y. Prior to issuance of the permit, IDEM must determine whether any Subpart Y requirements apply (including the requirement in §63.567(j)(4) to maintain records of all measurements, calculations, and other documentation used to identify commodities exempted under §63.560(d)). If the Project has applicable requirements under Subpart Y, such requirements must be appropriately included in the Part 70 Permit. If the Project barge loading activities have no requirements under Subpart Y, the Commenter believes the basis for such determination should be addressed in a supplement to the TSD and the response to comments.

**Response 1:**

40 CFR Part 63, Subpart Y - National Emission Standards for Marine Tank Vessel Loading Operations. This rule is **not** applicable to Aventine because the denatured ethanol loaded out into barges has a vapor pressure of 0.90 pounds per square inch,

absolute (psia), which is below this rule applicability threshold of 1.5 psia at standard conditions, 20 °C and 760 millimeters Hg (mm Hg).

**Comment 2:**

Please correct erroneous cross-references in conditions D.2.10, D.3.5 and D.5.2 of Aventine's Part 70 permit.

**Response 2:**

The following conditions in Aventine's Part 70 permit have been corrected due to typographical errors:

D.2.10 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11] [326 IAC 8-5-6]

Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup of the milled grain cooking operation, identified as process P-4; distillation and dehydration operations, identified as process P-6; DDGS dryers and DDGS coolers, the Permittee shall perform VOC, and CO, including capture and destruction efficiency testing for both pollutants on the four (4) Thermal Oxidizers (C-6A and C-6B or C-6C and C-6D) in order to verify compliance with ~~D.2.5, D.2.7 and D.2.11~~. **D.2.1, D.2.3 and D.2.7**. PM/PM10, NOx, CO and SO2 testing shall also be performed for the DDGS Dryers and the Thermal Oxidizers to determine compliance with Conditions ~~D.2.8, D.2.9 and D.2.10~~ **D.2.2, D.2.3, D.2.4 and D.2.5**, utilizing methods as approved by the Commissioner.

D.3.5 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11] [326 IAC 8-5-6]

Within 60 days after achieving the maximum production rate for the Fermentation process, but no later than 180 days after startup, the Permittee shall perform VOC and PM/PM10 testing (including the capture and absorption efficiency) on Scrubbers C-5A and C-5B for controlling the fermentation process in order to determine compliance with Conditions ~~D.3.5 and D.3.6~~ **D.3.1 and D.3.2**, utilizing methods as approved by the Commissioner.

D.5.2 Storage Tanks [326 IAC 12][40 CFR 60, Subpart Kb]

Pursuant to 40 CFR 60, Subpart Kb, the Permittee shall comply with the requirement of - Section ~~E.3~~ **E.2** for Tanks Tk001 through Tk010.

**Comment 3:**

The Aventine's Part 70 permit is inconsistent with respect to flare requirements for loading operations. Condition D.4.6 requires "The flare must be operated with a flame present at all times the ethanol loading racks are in operation and are loading ethanol to trucks, railcars and barges." This condition should be changed to "trucks, railcars or barges" to clarify that the flare is required for control whenever any of the three loading activities are conducted, not just when all three are being conducted.

Condition D.4.7(a) requires flare parametric monitoring "when the ethanol loading rack is in operation or are loading denatured ethanol to trucks or railcars". Based upon the requirements in Conditions D.4.1 and D.4.2, which include barge loading, it seems appropriate that flare monitoring should also be conducted when loading barges with denatured ethanol. It is unclear whether Condition D.4.7 requires monitoring when barges are loaded with denatured ethanol; IDEM should change the condition so that it clearly applies to barge loading (i.e., the condition should require monitoring "when the ethanol

loading racks are in operation or are loading denatured ethanol to trucks, railcars or barges”).

**Response 3:**

It was intended that Conditions D.4.6 and D.4.7 of Aventine's Part 70 permit require the operation of the flare at all times when ethanol is loaded either by trucks, railcars or barges. Conditions D.4.6 and D.4.7 have been clarified as follows:

**D.4.6 Flare Pilot Flame**

---

The flare must be operated with a flame present at all times the ethanol loading racks are in operation and are loading ethanol to trucks, railcars ~~and~~ **or** barge.

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

**D.4.7 Flare Parametric Monitoring [326 IAC 8-5-6]**

---

To demonstrate compliance with the PSD minor limits in Condition D.4.1(a) and the requirements of 326 IAC 8-5-6 in Condition D.4.2:

- (a) The Permittee shall continuously monitor the presence of the Flare pilot flame and the combustion chamber temperature using a thermocouple or any other equivalent device when the ethanol loading rack is in operation or are loading denatured ethanol to trucks, ~~and~~ railcars **or barges**. For the purpose of this condition, continuous means no less than once per minute. The temperature of this system shall be recorded as a 3-hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall operate the flare at or above the 3-hour average combustion chamber temperature of 1,600<sup>0</sup>F.
- (b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with the limit in Condition D.4.1 as approved by IDEM.
- (c) On and after the date the approved stack test results are available, the Permittee shall operate the flare at or above the 3-hour average temperature as observed during the compliant stack test.

**Comment 4:**

Incorporation of Federal applicable requirements (e.g., 40 CFR Part 60 and 63 requirements) into the permit resulted in changes to the relevant applicable requirements. Incorporation of edited portions of NSPS and NESHAP standards into the permit are bulky, cumbersome, and add unnecessary complexity to the enforceable sections of the permit. Incorporation of Federal applicable requirements into the permit (i.e., through reference to, and use of, enforceable “E” text sections which set forth selected portions of the rules which IDEM believes to be applicable requirements) makes it difficult for a commenter to determine whether all the applicable requirements have been included in accordance with the Part 70 regulations, and whether the Permittee has been unnecessarily restricted in its ability to use optional compliance approaches pursuant to the Federal applicable requirement. The permit should have simplified, clear, and accurate permit requirements when incorporating complex applicable requirements. IDEM should continue their effort to achieve this goal in future permits. The Commenter believes the best way to accomplish this is by incorporating the federal requirements by reference (or by reference to the State rule that incorporates the federal requirements). To check whether all the applicable requirements have been correctly and appropriately

included in the subject permits would be a tedious and time-consuming exercise. In making a quick review of the permit and TSD, the Commenter noted the following instances where applicable requirements or clarifications need to be included in the permit. If the identified requirements are not applicable, IDEM should explain why they are not applicable.

- (A) Section E.4, cited in Condition D.8.3, does not include 40 CFR 60.48c(g), which is an applicable Subpart Dc fuel usage recordkeeping requirement. The TSD similarly does not include §60.48c(g) in the discussion of Subpart Dc applicable sections (TSD page 13). IDEM should include the requirement pursuant to §60.48c(g) in the Part 70 permit. In the interest of simplifying the permit, IDEM could alternatively streamline the §60.48c(g) requirement with the fuel usage recordkeeping requirement in Condition D.8.6.
- (B) Section E.6 does not include the heat exchange system requirements pursuant to 40 CFR 63.2490. While the permit references condensers and cooling towers, it does not include the provisions of §63.2490. IDEM should include these provisions in the permit or explain why they are not applicable (perhaps there is no equipment meeting the definition of heat exchange system, which is defined in 40 CFR 63.101, or all the systems qualify for an exemption pursuant to 40 CFR 63.104).
- (C) Condition E.5.2 requires the Permittee to comply with specified requirements of 40 CFR 60 Subpart VV. The requirements of 40 CFR 63.4535(k), included under Condition E.6.2, provide for compliance with Subpart VV via regulatory overlap provisions. Accordingly, Condition E.5.2 should be revised by adding the following provision (shown in italics) prior to the listing of requirements “as specified as follows, *unless the Permittee elects to comply with the requirements of 40 CFR Part 60, Subpart VV, pursuant to 40 CFR 63.2535(k):*” Including this provision would avoid unnecessary deviation reporting for Condition E.5.2 if the Permittee elects to comply via 63.2535(k).

#### Response 4:

IDEM has determined that verbatim incorporation of the applicable portions of the NSPS and NESHAPs into the permit ensures that these requirements are clear and accurate.

This TSD Addendum is part of the TSD. It serves to address the changes made in the permit as a result of the submitted comments. IDEM, OAQ prefers not to change the TSD in order to preserve the original information from the issued permit.

This addendum to the original TSD acknowledges that §60.48c(g) is applicable to the natural gas fired boilers. Condition D.8.6 which already required the recordkeeping of the natural gas usage for these boilers will be changed to incorporate the recordkeeping requirement of the NSPS, Subpart Dc. Condition D.8.6 of Aventine's Part 70 permit has been changed as follows:

#### D.8.6 Record Keeping Requirements

---

- (a) To document compliance with Conditions D.8.5 and **§60.48c(g)(2)**, the Permittee shall maintain monthly records of the amount of natural gas combusted in the boilers.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit and **§60.48c(i)(2)**.

The proposed cooling tower will use non-contact water to cool several areas of the process. Thus, the water will not be exposed to any HAPs that may be generated through the ethanol production process. Therefore, it does not meet the definition of a heat exchange unit and §63.2490 of Subpart FFFF does not apply to the proposed cooling tower.

The proposed proof condensers will be used to cool the ethanol as it exits the molecular sieves. The condensers do not meet the definition of a cooling tower in §63.101. The condensers are considered a once-through cooling system as defined in this section. Pursuant to §63.104(a) of Subpart F, the condensers do not meet the conditions in paragraph (a)(1) through (a)(6) of this section, and do not meet the definition of a heat exchange unit system that is used to cool process equipment in a chemical manufacturing process listed in §63.100(b)(1) through (b)(3) of this Subpart F. Therefore, §63.2490 of Subpart FFFF does not apply to the proposed condensers.

IDEM agrees that NESHAP, Subpart FFFF includes a provision in 63.4535(k) which allows for compliance with this subpart by complying with NSPS, Subpart VV, and compliance with NSPS, Subpart VV if the source elects to comply with NESHAP, Subpart FFFF. However, there is no provision in NSPS, Subpart VV that provides for this compliance option. Therefore, it is necessary to include a statement as reflected in the following condition to avoid deviation of Subpart VV if the source elects to comply with NESHAP, Subpart FFFF.

E.5.2 Standard of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry [40 CFR Part 60, Subpart VV] [326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart VV, the Permittee shall comply with the provisions of Standard of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, which are incorporated by reference as 326 IAC 12, as specified as follows **unless the Permittee elects to comply with the requirements of 40 CFR Part 60, Subpart FFFF, pursuant to 40 CFR 63.2535(k):**

**Comment 5:**

Requirements arising from 40 CFR 63, Subpart DDDDD, need to be removed from the permit. The federal court issued its mandate vacating 40 CFR 63, Subpart DDDDD (the Boiler MACT) on July 30, 2007. Accordingly, all references to the Boiler MACT, including those under 326 IAC 20-95, are invalid and should be removed from the permit.

**Response 5:**

Aventine's boilers would have been subject to the requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. However, on June 8, 2007, the United States Court of Appeals for the District of Columbia Circuit (in NRDC v. EPA, no. 04-1386) vacated in its entirety the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. Additionally, since the state rule at 326 IAC 20-95 incorporated the requirements of the NESHAP 40 CFR 63, Subpart DDDDD by reference, the requirements of 326 IAC 20-95 are no longer effective. Therefore, the requirements of 40 CFR 63, Subpart DDDDD and 326 IAC 20-95 have been deleted in the permit as follows.

### **National Emissions Standards for Hazardous Air Pollutants (NESHAP)**

#### **E.4.3 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]**

~~(a) Pursuant to 40 CFR 63.3901, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A General Provisions, which are incorporated by reference as 326 IAC 20-1-1, except as otherwise specified in 40 CFR Part 63, Subpart DDDDD.~~

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

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

~~and~~

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

#### **E.4.4 Boilers and Process Heaters NESHAP [40 CFR Part 63, Subpart DDDDD] [326 IAC 20-95]**

~~Pursuant 326 IAC 20-95-1 and 40 CFR Part 63, Subpart DDDDD, the Permittee shall comply with the provisions of Standards of Performance for Industrial, Commercial and Institutional Boilers and Process Heaters, which are incorporated by reference as 326 IAC 20-95, as specified as follows:~~

### **Subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters**

#### **What This Subpart Covers**

##### **§ 63.7480 What is the purpose of this subpart?**

~~This subpart establishes national emission limits and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limits and work practice standards.~~

##### **§ 63.7485 Am I subject to this subpart?**

~~You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler or process heater as defined in §63.7575 that is located at, or is part of, a major source of HAP as defined in §63.2 or §63.761 (40 CFR part 63, subpart HH, National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities), except as specified in §63.7491.~~

##### **§ 63.7490 What is the affected source of this subpart?**

~~(a) This subpart applies to new, reconstructed, or existing affected sources as described in paragraphs (a)(1) and (2) of this section.~~

~~(2) The affected source of this subpart is each new or reconstructed industrial, commercial, or institutional boiler or process heater located at a major source as defined in §63.7575.~~

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

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

~~(a) If you have a new or reconstructed boiler or process heater, you must comply with this subpart by November 12, 2004 or upon startup of your boiler or process heater, whichever is later.~~

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

***Emission Limits and Work Practice Standards***

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

~~The subcategories of boilers and process heaters are large solid fuel, limited use solid fuel, small solid fuel, large liquid fuel, limited use liquid fuel, small liquid fuel, large gaseous fuel, limited use gaseous fuel, and small gaseous fuel. Each subcategory is defined in §63.7575.~~

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

~~(a) You must meet the requirements in paragraphs (a)(1) and (2) of this section.~~

~~(1) You must meet each emission limit and work practice standard in Table 1 to this subpart that applies to your boiler or process heater, except as provided under §63.7507.~~

~~(b) As provided in §63.6(g), EPA may approve use of an alternative to the work practice standards in this section.~~

***General Compliance Requirements***

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

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

~~(d) If you demonstrate compliance with any applicable emission limit through performance testing, you must develop a site-specific monitoring plan according to the requirements in paragraphs (d)(1) through (4) of this section. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under §63.8(f).~~

~~(1) For each continuous monitoring system (CMS) required in this section, you must develop and submit to the EPA Administrator for approval a site-specific monitoring plan that addresses paragraphs (d)(1)(i) through (iii) of this section. You must submit this site-specific monitoring plan at least 60 days before your initial performance evaluation of your CMS.~~

~~(i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions~~

~~(e.g., on or downstream of the last control device);~~

~~(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and~~

~~(iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations).~~

~~(2) In your site-specific monitoring plan, you must also address paragraphs (d)(2)(i) through (iii) of this section.~~

~~(i) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1), (c)(3), and (c)(4)(ii);~~

~~(ii) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and~~

~~(iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c), (e)(1), and (e)(2)(i).~~

~~(3) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.~~

~~(4) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.~~

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

### **Testing, Fuel Analyses, and Initial Compliance Requirements**

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

~~(a) For affected sources that elect to demonstrate compliance with any of the emission limits of this subpart through performance testing, your initial compliance requirements include conducting performance tests according to §63.7520 and Table 5 to this subpart, conducting a fuel analysis for each type of fuel burned in your boiler or process heater according to §63.7521 and Table 6 to this subpart, establishing operating limits according to §63.7530 and Table 7 to this subpart, and conducting CMS performance evaluations according to §63.7525. For affected sources that burn a single type of fuel, you are exempted from the initial compliance requirements of conducting a fuel analysis for each type of fuel burned in your boiler or process heater according to §63.7521 and Table 6 to this subpart.~~

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

~~process heater is in any of the large subcategories and has a heat input capacity of 100 MMBtu per hour or greater, your initial compliance demonstration is conducting a performance evaluation of your continuous emission monitoring system for carbon monoxide according to §63.7525(a).~~

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

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

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

**~~§ 63.7520—What performance tests and procedures must I use?~~**

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

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

~~(d) You must conduct each performance test under the specific conditions listed in Tables 5 and 7 to this subpart. You must conduct performance tests at the maximum normal operating load while burning the type of fuel or mixture of fuels that have the highest content of chlorine, mercury, and total selected metals, and you must demonstrate initial compliance and establish your operating limits based on these tests. These requirements could result in the need to conduct more than one performance test.~~

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

**~~§ 63.7525—What are my monitoring, installation, operation, and maintenance requirements?~~**

~~(e) If you have an operating limit that requires the use of a CMS, you must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the procedures in paragraphs (c)(1) through (5) of this section by the compliance date specified in §63.7495.~~

~~(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation to have a valid hour of data.~~

~~(2) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation at all times that the unit is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.~~

~~(3) For purposes of calculating data averages, you must not use data recorded during monitoring malfunctions, associated repairs, out of control periods, or required quality assurance or control activities. You must use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out of control and data are not available for required calculations constitutes a deviation from the monitoring requirements.~~

~~(4) Determine the 3-hour block average of all recorded readings, except as provided in paragraph (c)(3) of this section.~~

~~(5) Record the results of each inspection, calibration, and validation check.~~

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

~~(a) You must demonstrate initial compliance with each emission limit and work practice standard that applies to you by either conducting initial performance tests and establishing operating limits, as applicable, according to §63.7520, paragraph (c) of this section, and Tables 5 and 7 to this subpart OR conducting initial fuel analyses to determine emission rates and establishing operating limits, as applicable, according to §63.7521, paragraph (d) of this section, and Tables 6 and 8 to this subpart.~~

**~~Continuous Compliance Requirements~~**

**~~§ 63.7535 – How do I monitor and collect data to demonstrate continuous compliance?~~**

~~(a) You must monitor and collect data according to this section and the site-specific monitoring plan required by §63.7505(d).~~

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

~~(a) You must demonstrate continuous compliance with each emission limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that applies to you according to the methods specified in Table 8 to this subpart and paragraphs (a)(1) through (10) of this section.~~

~~(10) If you have an applicable work practice standard for carbon monoxide, and you are required to install a CEMS according to §63.7525(a), then you must meet the requirements in paragraphs (a)(10)(i) through (iii) of this section.~~

~~(i) You must continuously monitor carbon monoxide according to §§63.7525(a) and 63.7535.~~

~~(ii) Maintain a carbon monoxide emission level below your applicable carbon monoxide work practice standard in Table 1 to this subpart at all times except during periods of startup, shutdown, malfunction, and when your boiler or process heater is operating at less than 50 percent of rated capacity.~~

~~(iii) Keep records of carbon monoxide levels according to §63.7555(b).~~

~~(b) You must report each instance in which you did not meet each emission limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that apply to you. You must also report each instance during a startup, shutdown, or malfunction when you did not meet each applicable emission limit, operating limit, and work practice standard. These instances are~~

~~deviations from the emission limits and work practice standards in this subpart. These deviations must be reported according to the requirements in §63.7550.~~

~~(c) [Reserved]~~

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

### **Notification, Reports, and Records**

#### **§ 63.7545—What notifications must I submit and when?**

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

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

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

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

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

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

~~(3) Identification of whether you are complying with the particulate matter emission limit or the alternative total selected metals emission limit.~~

~~(4) Identification of whether you plan to demonstrate compliance with each applicable emission limit through performance testing or fuel analysis.~~

~~(5) Identification of whether you plan to demonstrate compliance by emissions averaging.~~

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

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

~~(8) If your new or reconstructed boiler or process heater is in one of the liquid fuel subcategories and burns only liquid fossil fuels other than residual oil either alone or in combination with gaseous fuels, you must submit a signed statement certifying this in your Notification of Compliance Status report.~~

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

**§ 63.7550—What reports must I submit and when?**

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

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

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

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

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

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

~~(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.~~

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

~~(1) Company name and address.~~

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

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

~~(4) The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel and the total fuel usage amount with units of measure.~~

~~(5) A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during this test, if applicable.~~

~~(8) The hours of operation for each boiler and process heater that is subject to an emission limit for each calendar month within the semiannual reporting period. This requirement applies only to limited use boilers and process heaters.~~

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

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

~~(11) If there were no periods during which the CMSs, including CEMS, COMS, and CPMS, were out of control as specified in §63.8(c)(7), a statement that there were no periods during which the CMSs were out of control during the reporting period.~~

~~(d) For each deviation from an emission limit or operating limit in this subpart and for each deviation from the requirements for work practice standards in this subpart that occurs at an affected source where you are not using a CMSs to comply with that emission limit, operating limit, or work practice standard, the compliance report must contain the information in paragraphs (c)(1) through (10) of this section and the information required in paragraphs (d)(1) through (4) of this section. This includes periods of startup, shutdown, and malfunction.~~

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

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

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

~~(4) A copy of the test report if the annual performance test showed a deviation from the emission limit for particulate matter or the alternative TSM limit, a deviation from the HCl emission limit, or a deviation from the mercury emission limit.~~

~~(e) For each deviation from an emission limitation and operating limit or work practice standard in this subpart occurring at an affected source where you are using a CMS to comply with that emission limit, operating limit, or work practice standard, you must include the information in paragraphs (c) (1) through (10) of this section and the information required in paragraphs (c) (1) through (12) of this section. This includes periods of startup, shutdown, and malfunction and any deviations from your site-specific monitoring plan as required in §63.7505(d).~~

~~(1) The date and time that each malfunction started and stopped and description of the nature of the deviation ( i.e., what you deviated from).~~

~~(2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.~~

~~(3) The date, time, and duration that each CMS was out of control, including the information in §63.8(c)(8).~~

~~(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.~~

~~(5) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.~~

~~(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.~~

~~(7) A summary of the total duration of CMSs downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.~~

~~(8) An identification of each parameter that was monitored at the affected source for which there was a deviation, including opacity, carbon monoxide, and operating parameters for wet scrubbers and other control devices.~~

~~(9) A brief description of the source for which there was a deviation.~~

~~(10) A brief description of each CMS for which there was a deviation.~~

~~(11) The date of the latest CMS certification or audit for the system for which there was a deviation.~~

~~(12) A description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation.~~

~~(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 9 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.~~

~~(g) If you operate a new gaseous fuel unit that is subject to the work practice standard specified in Table 1 to this subpart, and you intend to use a fuel other than natural gas or equivalent to fire the affected unit, you must submit a notification of alternative fuel use within 48 hours of the declaration of a period of natural gas curtailment or supply interruption, as defined in §63.7575. The notification must include the information specified in paragraphs (g)(1) through (5) of this section.~~

~~(1) Company name and address.~~

~~(2) Identification of the affected unit.~~

~~(3) Reason you are unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began.~~

~~(4) Type of alternative fuel that you intend to use.~~

~~(5) Dates when the alternative fuel use is expected to begin and end.~~

**§ 63.7555—What records must I keep?**

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

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

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

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

~~(b) For each CEMS, CPMS, and COMS, you must keep records according to paragraphs (b)(1) through (5) of this section.~~

~~(1) Records described in §63.10(b)(2) (vi) through (xi).~~

~~(2) Monitoring data for continuous opacity monitoring system during a performance evaluation as required in §63.6(h)(7)(i) and (ii).~~

~~(3) Previous ( i.e., superseded) versions of the performance evaluation plan as required in §63.8(d)(3).~~

~~(4) Request for alternatives to relative accuracy test for CEMS as required in §63.8(f)(6)(i).~~

~~(5) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.~~

~~(d) For each boiler or process heater subject to an emission limit, you must also keep the records in paragraphs (d)(1) through (5) of this section.~~

~~(1) You must keep records of monthly fuel use by each boiler or process heater, including the type(s) of fuel and amount(s) used.~~

**§ 63.7560—In what form and how long must I keep my records?**

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

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

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

### **Other Requirements and Information**

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

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

#### **§ 63.7570 – Who implements and enforces this subpart?**

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

~~(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities listed in paragraphs (b)(1) through (5) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency, however, the U.S. EPA retains oversight of this subpart and can take enforcement actions, as appropriate.~~

~~(1) Approval of alternatives to the non-opacity emission limits and work practice standards in §63.7500(a) and (b) under §63.6(g).~~

~~(2) Approval of alternative opacity emission limits in §63.7500(a) under §63.6(h)(9).~~

~~(3) Approval of major change to test methods in Table 5 to this subpart under §63.7(e)(2)(ii) and (f) and as defined in §63.90.~~

~~(4) Approval of major change to monitoring under §63.8(f) and as defined in §63.90.~~

~~(5) Approval of major change to recordkeeping and reporting under §63.10(f) and as defined in §63.90.~~

#### **§ 63.7575 – What definitions apply to this subpart?**

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

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

~~*Bag leak detection system* means an instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter ( *i.e.*, baghouse) in order to detect bag failures. A bag~~

~~leak detection system includes, but is not limited to, an instrument that operates on electrodynamic, triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.~~

~~*Biomass fuel* means unadulterated wood as defined in this subpart, wood residue, and wood products ( e.g., trees, tree stumps, tree limbs, bark, lumber, sawdust, sanderdust, chips, scraps, slabs, millings, and shavings); animal litter; vegetative agricultural and silvicultural materials, such as logging residues (slash), nut and grain hulls and chaff ( e.g., almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds.~~

~~*Blast furnace gas fuel-fired boiler or process heater* means an industrial/commercial/institutional boiler or process heater that receives 90 percent or more of its total heat input (based on an annual average) from blast furnace gas.~~

~~*Boiler* means an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water. Waste heat boilers are excluded from this definition.~~

~~*Coal* means all solid fuels classifiable as anthracite, bituminous, sub-bituminous, or lignite by the American Society for Testing and Materials in ASTM D388-99<sup>1</sup>, “Standard Specification for Classification of Coals by Rank<sup>1</sup>” (incorporated by reference, see §63.14(b)), coal refuse, and petroleum coke. Synthetic fuels derived from coal for the purpose of creating useful heat including but not limited to, solvent refined coal, coal-oil mixtures, and coal-water mixtures, for the purposes of this subpart. Coal-derived gases are excluded from this definition.~~

~~*Coal refuse* means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (6,000 Btu per pound) on a dry basis.~~

~~*Commercial/institutional boiler* means a boiler used in commercial establishments or institutional establishments such as medical centers, research centers, institutions of higher education, hotels, and laundries to provide electricity, steam, and/or hot water.~~

~~*Common Stack* means the exhaust of emissions from two or more affected units through a single flue.~~

~~*Construction/demolition material* means waste building material that result from the construction or demolition operations on houses and commercial and industrial buildings.~~

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

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

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

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

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

~~*Distillate oil* means fuel oils, including recycled oils, that comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society for Testing and Materials in ASTM D396-02a, "Standard Specifications for Fuel Oils"<sup>4</sup> (incorporated by reference, see §63.14(b)).~~

~~*Dry scrubber* means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gas in the exhaust stream forming a dry powder material. Sorbent injection systems in fluidized bed boilers and process heaters are included in this definition.~~

~~*Electric utility steam generating unit* means a fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 megawatts electrical output to any utility power distribution system for sale is considered an electric utility steam generating unit.~~

~~*Electrostatic precipitator* means an add-on air pollution control device used to capture particulate matter by charging the particles using an electrostatic field, collecting the particles using a grounded collecting surface, and transporting the particles into a hopper.~~

~~*Equivalent* means the following only as this term is used in Table 6 to subpart DDDDD:~~

~~(1) An equivalent sample collection procedure means a published voluntary consensus standard or practice (VCS) or EPA method that includes collection of a minimum of three composite fuel samples, with each composite consisting of a minimum of three increments collected at approximately equal intervals over the test period.~~

~~(2) An equivalent sample compositing procedure means a published VCS or EPA method to systematically mix and obtain a representative subsample (part) of the composite sample.~~

~~(3) An equivalent sample preparation procedure means a published VCS or EPA method that: Clearly states that the standard, practice or method is appropriate for the pollutant and the fuel matrix; or is cited as an appropriate sample preparation standard, practice or method for the pollutant in the chosen VCS or EPA determinative or analytical method.~~

~~(4) An equivalent procedure for determining heat content means a published VCS or EPA method to obtain gross calorific (or higher heating) value.~~

~~(5) An equivalent procedure for determining fuel moisture content means a published VCS or EPA method to obtain moisture content. If the sample analysis plan calls for determining metals (especially the mercury, selenium, or arsenic) using an aliquot of the dried sample, then the drying temperature must be modified to prevent vaporizing these metals. On the other hand, if metals analysis is done on an "as received" basis, a separate aliquot can be dried to determine moisture content and the metals concentration mathematically adjusted to a dry basis.~~

~~(6) An equivalent pollutant (mercury, TSM, or total chlorine) determinative or analytical procedure means a published VCS or EPA method that clearly states that the standard, practice, or method is appropriate for the pollutant and the fuel matrix and has a published detection limit equal or lower than the methods listed in Table 6 to subpart DDDDD for the same purpose.~~

~~*Fabric filter* means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse.~~

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

~~*Firetube boiler* means a boiler that utilizes a containment shell that encloses firetubes (tubes in a boiler having water on the outside and carrying the hot gases of combustion inside), and allows the water to vaporize and steam to separate. Hybrid boilers that have been registered/certified by the National Board of Boiler and Pressure Vessel Inspectors and/or the State as firetube boilers as indicated by "Form P-2" (Manufacturers' Data Report for All Types of Boilers Except Watertube and Electric, As Required by the Provisions of the ASME Code Rules, Section I), are considered to be firetube boilers for the purpose of this subpart.~~

~~*Fuel type* means each category of fuels that share a common name or classification. Examples include, but are not limited to, bituminous coal, subbituminous coal, lignite, anthracite, biomass, construction/demolition material, salt water laden wood, creosote treated wood, tires, residual oil. Individual fuel types received from different suppliers are not considered new fuel types except for construction/demolition material. Contraband, prohibited goods, or retired U.S. flags, burned at the request of a government agency, are not considered a fuel type for the purpose of this subpart.~~

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

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

~~*Hot water heater* means a closed vessel with a capacity of no more than 120 U.S. gallons in which water is heated by combustion of gaseous or liquid fuel and is withdrawn for use external to the vessel at pressures not exceeding 160 psig, including the apparatus by which the heat is generated and all controls and devices necessary to prevent water temperatures from exceeding 210 °F (99 °C).~~

~~*Industrial boiler* means a boiler used in manufacturing, processing, mining, and refining or any other industry to provide steam, hot water, and/or electricity.~~

~~*Large gaseous fuel subcategory* includes any watertube boiler or process heater that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment, gas supply emergencies, or for periodic testing of liquid fuel, has a rated capacity of greater than 10 MMBtu per hour heat input, and does not have a federally enforceable annual average capacity factor of equal to or less than 10 percent. Periodic testing of liquid fuel is not to exceed a combined total of 48 hours during any calendar year.~~

~~*Large liquid fuel subcategory* includes any watertube boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and does not have a federally enforceable annual average capacity factor of equal to or less than 10 percent. Large gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment, gas supply~~

~~emergencies or for periodic testing of liquid fuel not to exceed a combined total of 48 hours during any calendar year are not included in this definition.~~

~~*Large solid fuel subcategory* includes any watertube boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and does not have a federally enforceable annual average capacity factor of equal to or less than 10 percent.~~

~~*Limited use gaseous fuel subcategory* includes any watertube boiler or process heater that burns gaseous fuels not combined with any liquid or solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply emergencies, has a rated capacity of greater than 10 MMBtu per hour heat input, and has a federally enforceable annual average capacity factor of equal to or less than 10 percent.~~

~~*Limited use liquid fuel subcategory* includes any watertube boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has a federally enforceable annual average capacity factor of equal to or less than 10 percent. Limited use gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies are not included in this definition.~~

~~*Limited use solid fuel subcategory* includes any watertube boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has a federally enforceable annual average capacity factor of equal to or less than 10 percent.~~

~~*Liquid fossil fuel* means petroleum, distillate oil, residual oil and any form of liquid fuel derived from such material.~~

~~*Liquid fuel* includes, but is not limited to, distillate oil, residual oil, waste oil, and process liquids.~~

~~*Minimum pressure drop* means 90 percent of the lowest test run average pressure drop measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.~~

~~*Minimum scrubber effluent pH* means 90 percent of the lowest test run average effluent pH measured at the outlet of the wet scrubber according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable hydrogen chloride emission limit.~~

~~*Minimum scrubber flow rate* means 90 percent of the lowest test run average flow rate measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.~~

~~*Minimum sorbent flow rate* means 90 percent of the lowest test run average sorbent (or activated carbon) flow rate measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits.~~

~~*Minimum voltage or amperage* means 90 percent of the lowest test run average voltage or amperage to the electrostatic precipitator measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits.~~

*Natural gas means:*

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

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

~~Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.~~

~~Particulate matter means any finely divided solid or liquid material, other than uncombined water, as measured by the test methods specified under this subpart, or an alternative method.~~

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

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

~~Residual oil means crude oil, and all fuel oil numbers 4, 5 and 6, as defined by the American Society for Testing and Materials in ASTM D396-02a, "Standard Specifications for Fuel Oils<sup>1</sup>" (incorporated by reference, see §63.14(b)).~~

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

~~Small gaseous fuel subcategory includes any size of firetube boiler and any other boiler or process heater with a rated capacity of less than or equal to 10 MMBtu per hour heat input that burn gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply emergencies, or for periodic testing of liquid fuel. Periodic testing is not to exceed a combined total of 48 hours during any calendar year.~~

~~Small liquid fuel subcategory includes any size of firetube boiler and any other boiler or process heater with a rated capacity of less than or equal to 10 MMBtu per hour heat input that do not burn any solid fuel and burn any liquid fuel either alone or in combination with gaseous fuels. Small gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment, gas supply emergencies or for periodic testing of liquid fuel not to exceed a combined total of 48 hours during any calendar year are not included in this definition.~~

~~Small solid fuel subcategory includes any firetube boiler that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, and any other boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels and has a rated capacity of less than or equal to 10 MMBtu per hour heat input.~~

~~*Solid fuel* includes, but is not limited to, coal, wood, biomass, tires, plastics, and other nonfossil solid materials.~~

~~*Temporary boiler* means any gaseous or liquid fuel boiler that is designed to, and is capable of, being carried or moved from one location to another. A temporary boiler that remains at a location for more than 180 consecutive days is no longer considered to be a temporary boiler. Any temporary boiler that replaces a temporary boiler at a location and is intended to perform the same or similar function will be included in calculating the consecutive time period.~~

~~*Total selected metals* means the combination of the following metallic HAP: arsenic, beryllium, cadmium, chromium, lead, manganese, nickel and selenium.~~

~~*Unadulterated wood* means wood or wood products that have not been painted, pigment-stained, or pressure treated with compounds such as chromate copper arsenate, pentachlorophenol, and creosote. Plywood, particle board, oriented strand board, and other types of wood products bound by glues and resins are included in this definition.~~

~~*Voluntary Consensus Standards or VCS* mean technical standards ( e.g. , materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. EPA/OAQPS has by precedent only used VCS that are written in English. Examples of VCS bodies are: American Society of Testing and Materials (ASTM), American Society of Mechanical Engineers (ASME), International Standards Organization (ISO), Standards Australia (AS), British Standards (BS), Canadian Standards (CSA), European Standard (EN or CEN) and German Engineering Standards~~

~~(VDI). The types of standards that are not considered VCS are standards developed by: the U.S. states, e.g. , California (CARB) and Texas (TCEQ); industry groups, such as American Petroleum Institute (API), Gas Processors Association (GPA), and Gas Research Institute (GRI); and other branches of the U.S. government, e.g. Department of Defense (DOD) and Department of Transportation (DOT). This does not preclude EPA from using standards developed by groups that are not VCS bodies within their rule. When this occurs, EPA has done searches and reviews for VCS equivalent to these non-EPA methods.~~

~~*Waste heat boiler* means a device that recovers normally unused energy and converts it to usable heat. Waste heat boilers incorporating duct or supplemental burners that are designed to supply 50 percent or more of the total rated heat input capacity of the waste heat boiler are not considered waste heat boilers, but are considered boilers. Waste heat boilers are also referred to as heat recovery steam generators.~~

~~*Watertube boiler* means a boiler that incorporates a steam drum with tubes connected to the drum to separate steam from water.~~

~~*Wet scrubber* means any add-on air pollution control device that mixes an aqueous stream or slurry with the exhaust gases from a boiler or process heater to control emissions of particulate matter and/or to absorb and neutralize acid gases, such as hydrogen chloride.~~

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

**Tables to Subpart DDDDD of Part 63**

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

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

<b>If your boiler or process heater is in this subcategory . . .</b>	<b>For the following pollutants . . .</b>	<b>You must meet the following emission limits and work practice standards . . .</b>
7. New reconstructed large gaseous fuel	Carbon Monoxide	400 ppm by volume on a dry basis corrected to 3 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr).

**As Table 8 to Subpart DDDDD of Part 63—Demonstrating Continuous Compliance**

As stated in §63.7540, you must show continuous compliance with the emission limitations for affected sources according to the following:

<b>If you must meet the following operating limits or work practice standards . . .</b>	<b>You must demonstrate continuous compliance by . . .</b>
7. Fuel Pollutant Content	a. Only burning the fuel types and fuel mixtures used to demonstrate compliance with the applicable emission limit according to §63.7530(c) or (d) as applicable; and
—	b. Keeping monthly records of fuel use according to §63.7540(a).

**Table 9 to Subpart DDDDD of Part 63—Reporting Requirements**

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

<b>You must submit a(n)</b>	<b>The report must contain . . .</b>	<b>You must submit the report . . .</b>
1. Compliance report	a. Information required in §63.7550(e)(1) through (11); and	Semiannually according to the requirements in §63.7550(b).
—	b. If there are no deviations from any emission limitation (emission limit and operating limit) that applies to you and there are no deviations from the requirements for work practice standards in Table 8 to this subpart that apply to you, a statement that there	

<b>You must submit a(n)</b>	<b>The report must contain . . .</b>	<b>You must submit the report . . .</b>
	<p>were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CMSs were out-of-control during the reporting period; and</p>	
-	<p>e. If you have a deviation from any emission limitation (emission limit and operating limit) or work practice standard during the reporting period, the report must contain the information in §63.7550(d). If there were periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control, as specified in §63.8(c)(7), the report must contain the information in §63.7550(e); and</p>	
-	<p>d. If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in §63.10(d)(5)(i)</p>	
<p>2. An immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard</p>	<p>a. Actions taken for the event; and</p>	<p>i. By fax or telephone within 2 working days after starting actions inconsistent with the plan; and</p>
-	<p>b. The information in §63.10(d)(5)(ii)</p>	<p>ii. By letter within 7 working days after the end of the event unless you have made alternative arrangements with the</p>

<b>You must submit a(n)</b>	<b>The report must contain . . .</b>	<b>You must submit the report . . .</b>
		permitting authority.

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

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

<b>Citation</b>	<b>Subject</b>	<b>Brief description</b>	<b>Applicable</b>
§63.1	Applicability	Initial Applicability Determination; Applicability After Standard Established; Permit Requirements; Extensions, Notifications	Yes.
§63.2	Definitions	Definitions for part 63 standards	Yes.
§63.3	Units and Abbreviations	Units and abbreviations for part 63 standards	Yes.
§63.4	Prohibited Activities	Prohibited Activities; Compliance date; Circumvention, Severability	Yes.
§63.5	Construction/Reconstruction	Applicability; applications; approvals	Yes.
§63.6(a)	Applicability	GP apply unless compliance extension; and GP apply to area sources that become major	Yes.
§63.6(b)(1)–(4)	Compliance Dates for New and Reconstructed sources	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for 412(f)	Yes.
§63.6(b)(5)	Notification	Must notify if commenced construction or reconstruction after proposal	Yes.
§63.6(e)(1)–(2)	Operation & Maintenance	Operate to minimize emissions at all times; and Correct malfunctions as soon as practicable; and Operation and maintenance requirements independently enforceable; information Administrator will use to determine if operation and maintenance requirements were met	Yes.
§63.6(e)(3)	Startup, Shutdown, and Malfunction Plan (SSMP)	Requirement for SSM and startup, shutdown, malfunction plan; and content of SSMP	Yes.

<b>Citation</b>	<b>Subject</b>	<b>Brief description</b>	<b>Applicable</b>
§63.6(f)(1)	Compliance Except During SSM	Comply with emission standards at all times except during SSM	Yes.
§63.6(f)(2)–(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection	Yes.
§63.6(g)(1)–(3)	Alternative Standard	Procedures for getting an alternative standard	Yes.
§63.6(i)(1)–(14)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension	Yes.
§63.6(j)	Presidential Compliance Exemption	President may exempt source category from requirement to comply with rule	Yes.
§63.7(a)(3)	Section 114 Authority	Administrator may require a performance test under CAA Section 114 at any time	Yes.
§63.7(e)(4)	Interaction with other sections of the Act	Nothing in §63.7(e)(1) through (4) can abrogate the Administrator's authority to require testing under Section 114 of the Act	Yes.
§63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test	Yes.
§63.8(a)(1)	Applicability of Monitoring Requirements	Subject to all monitoring requirements in standard	Yes.
§63.8(c)(1)(iii)	Compliance with Operation and Maintenance	Must develop an SSMP for CMS	Yes.
§63.8(f)(1)–(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring	Yes.
§63.8(f)(6)	Alternative to Relative Accuracy Test	Procedures for Administrator to approve alternative relative accuracy tests for continuous emissions monitoring system	No.
§63.8(g)(5)	Data Reduction	Data that cannot be used in computing averages for continuous emissions monitoring system and continuous opacity monitoring system	No.
§63.9(a)	Notification Requirements	Applicability and State Delegation	Yes.
§63.9(b)(1)–(5)	Initial Notifications	Submit notification 120 days after effective date; and Notification of intent to construct/reconstruct; and	Yes.

Citation	Subject	Brief description	Applicable
		Notification of commencement of construct/reconstruct; Notification of startup; and Contents of each	
§63.9(e)	Request for Compliance Extension	Can request if cannot comply by date or if installed BACT/LAER	Yes.
§63.9(d)	Notification of Special Compliance Requirements for New Source	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date	Yes.
§63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change in when notifications must be submitted	Yes.
§63.9(j)	Change in Previous Information	Must submit within 15 days after the change	Yes.
§63.10(a)	Recordkeeping/Reporting	Applies to all, unless compliance extension; and when to submit to Federal vs. State authority; and procedures for owners of more than 1 source	Yes.
§63.10(b)(1)	Recordkeeping/Reporting	General Requirements; and keep all records readily available and keep for 5 years	Yes.
§63.10(b)(2)(i)-(v)	Records related to Startup, Shutdown, and Malfunction	Occurrence of each of operation (process, equipment); and occurrence of each malfunction of air pollution equipment; and maintenance of air pollution control equipment; and actions during startup, shutdown, and malfunction	Yes.
§63.10(b)(2)(xii)	Records	Records when under waiver	Yes.
§63.10(b)(2)(xiii)	Records	Records when using alternative to relative accuracy test	No.
§63.10(b)(2)(xiv)	Records	All documentation supporting Initial Notification and Notification of Compliance Status	Yes.
§63.10(b)(3)	Records	Applicability Determinations	Yes.
§63.10(d)(1)	General Reporting Requirements	Requirement to report	Yes.
§63.10(d)(2)	Report of Performance Test Results	When to submit to Federal or State authority	Yes.
§63.10(d)(3)	Reporting Opacity or VE	What to report and when	Yes.

<b>Citation</b>	<b>Subject</b>	<b>Brief description</b>	<b>Applicable</b>
	Observations		
§63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension	Yes.
§63.10(d)(5)	Startup, Shutdown, and Malfunction Reports	Contents and submission	Yes.
§63.10(e)(3)	Reports	Excess Emission Reports	No.
§63.10(e)(3)(i-iii)	Reports	Schedule for reporting excess emissions and parameter monitor exceedance (now defined as deviations)	No.
§63.10(e)(3)(iv-v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedance (now defined as deviations); and provision to request semiannual reporting after compliance for one year; and submit report by 30th day following end of quarter or calendar half; and if there has not been an exceedance or excess emission (now defined as deviations), report contents is a statement that there have been no deviations	No.
§63.10(e)(3)(iv-v)	Excess Emissions Reports	Must submit report containing all of the information in §63.10(c)(5-13), §63.8(c)(7-8)	No.
§63.10(e)(3)(vi-viii)	Excess Emissions Report and Summary Report	Requirements for reporting excess emissions for continuous monitoring systems (now called deviations); Requires all of the information in §63.10(c)(5-13), §63.8(c)(7-8)	No.
§63.10(f)	Waiver for Recordkeeping/Reporting	Procedures for Administrator to waive	Yes.
§63.12	Delegation	State authority to enforce standards	Yes.
§63.13	Addresses	Addresses where reports, notifications, and requests are sent	Yes.
§63.14	Incorporation by Reference	Test methods incorporated by reference	Yes.
§63.15	Availability of Information	Public and confidential Information	Yes.

**Comment 6:**

Errors in reporting forms should be corrected. Forms included on pages 157 and 162 (permit 129-24836-00051) specify natural gas usage in gallons. Since the permit limit is based upon cubic feet of natural gas, the report forms should specify cubic feet.

The form on page 158 (permit 129-24836-00051) specifies DDGS throughput in gallons. Since the permit limit is based upon tons throughput, the report form should specify tons.

The form included on page 36 (permit 129-24928-00014) specifies natural gas usage in gallons. Since the permit limit is based upon cubic feet of natural gas, the report form should specify cubic feet.

**Comment 7:**

Reporting forms should have the permit condition included in their description. Including the relevant permit condition(s) in the information section of the forms on pages 157 through 162 (permit 129-24836-00051) and pages 35 and 36 (permit 129-24928-00014) would facilitate review of reported data in the context of the permit requirement(s).

**Response 6 & 7:**

The following reporting forms have been corrected and the conditions relevant to each form have been added:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR QUALITY  
 Compliance Data Section**

**Part 70 Quarterly Report**

Source Name: Aventine Renewable Energy - Mt. Vernon LLC  
 Source Location: 2751 Bluff Road, Mt. Vernon, Indiana 47620  
 Mailing Address: 1300 South Second Street, Pekin, Illinois 61554  
 County: Posey  
 NSR/ Part 70 Operating Permit No.: 129-24836-00051  
 Facility: Four Dryers and Four Thermal Oxidizers  
 Parameter: Natural Gas Usage  
 Total Limit: **Condition D.2.2(b)-** 3,784 million cubic feet of natural gas usage per twelve month period, with compliance determined at the end of each month.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + 2
	Natural Gas Usage This Month (gallons-cubic feet)	Natural Gas Usage Previous 11 Months (gallons-cubic feet)	Natural Gas Usage Total 12 Months (gallons-cubic feet)
Month 1			
Month 2			
Month 3			

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR QUALITY  
 Compliance Data Section**

**Part 70 Quarterly Report**

Source Name: Aventine Renewable Energy - Mt. Vernon LLC  
 Source Location: 2751 Bluff Road, Mt. Vernon, Indiana 47620  
 Mailing Address: 1300 South Second Street, Pekin, Illinois 61554  
 County: Posey  
 NSR/ Part 70 Operating Permit No.: 129-24836-00051  
 Facility: Four DDGS Dryers  
 Parameter: SO<sub>2</sub> - DDGS Throughput  
 Limit: **Condition D.2.5** - Shall not exceed 726,930 tons of DDGS throughput to the four dryers per twelve month period, with compliance determined at the end of each month.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + 2
	DDGS Throughput This Month (gallons tons)	DDGS Throughput Previous 11 Months (gallons tons)	DDGS Throughput Total 12 Months (gallons tons)
Month 1			
Month 2			
Month 3			

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR QUALITY  
 Compliance Data Section**

**Part 70 Quarterly Report**

Source Name: Aventine Renewable Energy - Mt. Vernon LLC  
 Source Location: 2751 Bluff Road, Mt. Vernon, Indiana 47620  
 Mailing Address: 1300 South Second Street, Pekin, Illinois 61554  
 County: Posey  
 NSR/ Part 70 Operating Permit No.: 129-24836-00051  
 Facility: Eight Package Boilers  
 Parameter: Natural gas usage to limit NOx and CO  
 Limit: **Condition D.8.1** - 6,475 million cubic feet of natural gas usage per twelve month period, with compliance determined at the end of each month.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + 2
	Natural Gas Usage This Month (gallons-cubic feet)	Natural Gas Usage Previous 11 Months (gallons-cubic feet)	Natural Gas Usage Total 12 Months (gallons-cubic feet)
Month 1			
Month 2			
Month 3			

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR QUALITY  
 Compliance Data Section**

**Part 70 Quarterly Report**

Source Name: Aventine Renewable Energy - Mt. Vernon LLC  
 Source Location: 2751 Bluff Road, Mt. Vernon, Indiana 47620  
 Mailing Address: 1300 South Second Street, Pekin, Illinois 61554  
 County: Posey  
 NSR/ Part 70 Operating Permit No.: 129-24836-00051  
 Facility: Trucks, rail and barge loading racks  
 Parameter: Denatured ethanol loaded out  
 Limit: **Condition D.4.1(b)** - Combined limit of 227,368,000 gallons of denatured ethanol per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + 2
	Denatured Ethanol Loaded Out This Month (gallons)	Denatured Ethanol Loaded Out Previous 11 Months (gallons)	Denatured Ethanol Loaded Out Total 12 Months (gallons)
Month 1			
Month 2			
Month 3			

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR QUALITY  
 Compliance Data Section**

**Part 70 Quarterly Report**

Source Name: Aventine Renewable Energy - Mt. Vernon LLC  
 Source Location: 2751 Bluff Road, Mt. Vernon, Indiana 47620  
 Mailing Address: 1300 South Second Street, Pekin, Illinois 61554  
 County: Posey  
 NSR/ Part 70 Operating Permit No.: 129-24836-00051  
 Facility: Two Emergency Generators  
 Parameter: Hours of Operation and diesel fuel usage  
 Limit: **Condition D.6.1(a)** - Each generator shall be limited to 99 operating hours per twelve consecutive twelve month period with compliance at the end of each month.

Diesel fuel usage shall not exceed 38,469 gallons per twelve consecutive twelve month period with compliance at the end of each month.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1		Column 2		Column 1 + 2	
	Hours Operated This Month	Diesel Fuel Usage This Month	Hours Operated Previous 11 Months	Diesel Fuel Usage Previous 11 Months	Hours Operated Total 12 Months	Diesel Fuel Usage Previous 11 Months
Month 1						
Month 2						
Month 3						

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR QUALITY  
 Compliance Data Section**

**Part 70 Quarterly Report**

Source Name: Aventine Renewable Energy - Mt. Vernon LLC  
 Source Location: 2751 Bluff Road, Mt. Vernon, Indiana 47620  
 Mailing Address: 1300 South Second Street, Pekin, Illinois 61554  
 County: Posey  
 NSR/ Part 70 Operating Permit No.: 129-24836-00051  
 Facility: Two Emergency Fire Pumps  
 Parameter: Hours of Operation  
 Limit: **Condition D.6.1(b)** - Each fire pump shall be limited to 99 operating hours per twelve consecutive twelve month period with compliance at the end of each month.

Diesel fuel usage shall not exceed 2,984 gallons per twelve consecutive twelve month period with compliance at the end of each month.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1		Column 2		Column 1 + 2	
	Hours Operated This Month	Diesel Fuel Usage This Month	Hours Operated Previous 11 Months	Diesel Fuel Usage Previous 11 Months	Hours Operated Total 12 Months	Diesel Fuel Usage Previous 11 Months
Month 1						
Month 2						
Month 3						

### **Ambient Air Quality Comments**

Larry L. Strait, Juanita Burton, Arlene R. Campbell and the Evansville Environmental Protection Agency submitted comments concerning air quality. The summary of their comments is as follows:

#### **Comment 1:**

Mr. Strait is concerned that the air quality in Posey County is already poor and that the Port of Indiana, where the Aventine ethanol plant will be constructed, already has three high polluting industries. Ms. Campbell notes that Posey County is in attainment for all air quality standards now, but that IDEM has not stated how close it is to becoming a nonattainment area. Ms. Campbell feels that two ethanol plants in the same county should be of great concern. Ms. Campbell states that IDEM, OAQ should not issue a permit that is detrimental to health. Ms. Burton states that the area has been under ozone alerts for much of the summer. Ms. Burton states that her buildings and rainwater she collects are contaminated by air pollution. The comment from Dona J. Bergman, Director of the Evansville Environmental Protection Agency, included copies of letters sent by Evansville Mayor Jonathan Weinzapfel to the Kentucky Department of Environmental Quality in June 2007 and IDEM Commissioner Thomas Easterly in December 2006 regarding concerns over the number of major projects announced for Kentucky and southwest Indiana and the potential impact on air. Ms. Bergman requested that IDEM consider doing computer modeling of air pollution concentrations would include emissions from proposed but unpermitted sources. Mayor Weinzapfel also requested that IDEM perform air quality impact analyses for Dubois, Gibson, Pike, Spencer, Warrick and Vanderburgh counties and that IDEM request that the U.S. EPA conduct similar modeling for the adjacent areas in Illinois and Kentucky.

#### **Response 1:**

The federal Clean Air Act requires the United States Environmental Protection Agency (U.S. EPA) to set National Ambient Air Quality Standards (NAAQS) for six criteria pollutants. These criteria pollutants are carbon monoxide (CO), lead, sulfur dioxide (SO<sub>2</sub>), particulate matter to a diameter of 2.5 microns (PM<sub>2.5</sub>), nitrogen oxides (NO<sub>x</sub>) and ground level ozone. More information about each of these pollutants is available at <http://www.epa.gov/air/airpollutants.html> on U.S. EPA's website. The U.S. EPA sets these standards at levels that protect human health, which is why the NAAQS are often referred to as the federal health standards for outdoor air. The NAAQS limit for all criteria pollutants is set low enough to protect the health of even the most sensitive persons, such as asthmatics, children, and the elderly. Each NAAQS also has a secondary standard set to protect crops, livestock and buildings. The complete table of the NAAQS for all six criteria pollutants can be found at the <http://www.epa.gov/air/criteria.html> website. EPA's website <http://www.epa.gov/air/urbanair/6poll.html> provides more detailed information about the health effects of these six common air pollutants and why they are regulated.

The federal Clean Air Act requires the United States Environmental Protection Agency (U.S. EPA) to determine whether the ambient air in any area of the United States fails to meet any of the National Ambient Air Quality Standards (NAAQS). Any area that fails to meet one or more of the NAAQS will be designated as in "nonattainment" for that pollutant. Large air pollution sources in a nonattainment area are subject to additional regulations and U.S. EPA may require that additional steps be taken that will result in the area meeting the NAAQS. The U.S. EPA works with Indiana, Illinois and Kentucky in monitoring air pollution levels and in determining when air pollution modeling is needed.

Posey County is in attainment for each NAAQS. Southwestern Indiana has had several ozone action days over the past few months when sunny, hot weather with little wind allows ozone levels to build up during the course of the day. Relatively simple actions, such as carpooling, and postponing other activities, such as lawn mowing and vehicle refueling, to after 6:00 p.m. can significantly reduce the concentration of ozone. Even with these several ozone action days, the air in Posey and Vanderburgh Counties remains in attainment for the ozone National Ambient Air Quality Standards.

IDEM, OAQ has performed extensive computer modeling of how the emissions from the Aventine Renewable Energy and Consolidated Grain & Barge (Aventine/CGB) source will affect the concentration of pollutants in the ambient air. The modeling includes the air pollution emissions from all emission reporting sources within 50 kilometers of the source. Emissions from sources that do not report emissions and from vehicle engine emissions are represented by a background pollution concentration used in the modeling. The emissions from announced but unpermitted sources are not included. IDEM, OAQ's Air Quality Analysis - Appendix B is attached to this Addendum. The modeling shows that the air pollution emissions from the Aventine/CGB source will not cause or contribute to a violation of the National Ambient Air Quality Standards (NAAQS). The modeled results show that the air pollution concentrations will be significantly lower than the NAAQS concentrations, even for those living closest to the Aventine/CGB source.

### **Cancer Risk Comments**

Larry L. Strait and Arlene R. Campbell submitted comments concerning the cancer in Posey County. The summary of their comments is as follows:

#### **Comment 2:**

Mr. Strait states that Posey County has one of the highest cancer rates in Indiana. Ms. Campbell states that southwestern Indiana has a high rate of cancer incidence. Ms. Campbell states that good air quality means freedom from industrial emissions and that the county's economic development is not more important than the health of its citizens.

#### **Response 2:**

Many Hazardous Air Pollutants (HAPs) are probable or known carcinogens. Information on the health effects of hazardous air pollutants can be found at <http://yosemite.epa.gov/oswer/ceppoweb.nsf/content/ChemicalsInYourCommunity.htm> . Information pertaining to emissions of hazardous air pollutants in the Posey County area can be found at <http://www.epa.gov/tri> or <http://www.in.gov/idem/prevention/tri/index.html> on the internet.

IDEM, OAQ conducts ambient monitoring of hazardous air pollutants (HAPs) as part of the toxics monitoring program. IDEM, OAQ conducted toxic monitoring at the Mt. Vernon Middle School from January 1, 2000 to June 1, 2000. The data collected did not indicate any threat or danger to the community. The data showed concentrations that were at low levels compared to other IDEM, OAQ monitoring locations. IDEM, OAQ currently monitors for air toxics at 10 locations across the state. The closest air toxics monitor to Posey County is at the University of Evansville site in Vanderburgh County. The monitoring data from the Mt. Vernon Middle School study in 2000, and the current site data, are available at <http://www.in.gov/idem/programs/air/smog/toxicmonitors.html> on IDEM's website.

IDEM, OAQ's extensive computer modeling of the HAP emissions from the Aventine Renewable Energy and Consolidated Grain & Barge source shows that the additive cancer risk estimate from all HAPs is 1.27 additional cancer cases in one hundred thousand people. This means if an individual was exposed to these HAPs continuously for 70 years, the risk of getting cancer from this exposure would be 1.27 in one hundred thousand. The U.S. Environmental Protection Agency considers a one in ten thousand excess cancer risk to be the upper range of acceptability with an ample margin of safety. The complete HAPs analysis is included in the Air Quality Analysis - Appendix B that is attached to this Addendum.

### **Ambient Air Monitoring and Regional Modeling Comments**

Jesse Montgomery and Dona J. Bergman, Director of the Evansville Environmental Protection Agency, requested additional ambient monitoring. The summary of their comments is as follows:

#### **Comment 3:**

Mr. Montgomery asked that air pollution monitors be placed in Mt. Vernon to determine the current air quality. Ms. Bergman's comment attached letters that Evansville Mayor Jonathan Weinzapfel sent to the Kentucky Department of Environmental Quality in June 2007 and IDEM Commissioner Thomas Easterly in December 2006 regarding concerns over the number of major projects announced for Kentucky and southwest Indiana and the potential impact on air quality. Mayor Weinzapfel requested that IDEM undertake preconstruction and post construction ambient monitoring for ozone and very fine particulate matter throughout Dubois, Gibson, Pike, Posey, Spencer, Warrick and Vanderburgh Counties and request that the U.S. EPA conduct similar monitoring for the adjacent areas in Illinois and Kentucky.

#### **Response 3:**

IDEM, OAQ conducts ambient air monitoring for ozone, coarse particulate matter (PM10), fine particulate matter (PM2.5), sulfur dioxide, nitrogen oxides, carbon monoxide, lead and air toxics at locations around Indiana. Information and maps of these monitoring sites is located at <http://www.in.gov/idem/programs/air/amb/index.html> on the internet. The data collected from the monitors is available at <http://www.in.gov/idem/programs/air/amb/data/ozone/datasite/albany.html> on the internet. IDEM, OAQ operates an ozone monitor in Posey County at St. Philips, as well as two monitors in Vanderburgh County and three in Warrick County. A complete map of all Indiana ozone monitors and current ozone readings is available at <http://www.in.gov/idem/programs/air/smog/o3monitors.html> on the internet. IDEM operates one PM2.5 monitor and two PM10 monitors in Evansville and one PM10 monitor in Dubois County. More information on all of IDEM's air monitors is available at <http://www.in.gov/idem/programs/air/> on the internet.

Information about current and expected air pollution levels is available on IDEM's SmogWatch site at <http://www.in.gov/apps/idem/smog/> on the internet. The site is designed to provide Hoosiers with an easy-to-read forecast of air quality in their communities. The site provides information about ground-level ozone and particulate matter forecasts.

IDEM, OAQ is revising the Indiana air monitoring network in 2008. The draft revised monitoring plan will be available for public review and comment by late September 2007. The draft plan will be posted on at <http://www.in.gov/idem/programs/air/> on the internet,

under the main heading of “What’s New”. Once posted, the public will have 30 days to submit comments. Inquiries regarding the draft revised monitoring plan can be directed to Steve Lengerich at [slengeri@idem.in.gov](mailto:slengeri@idem.in.gov) or (317) 308-3264.

Upon further review, IDEM has made the following changes to the proposed permits:

- (a) The following reporting form on Page 36 of the Consolidated Grain & Barge Co. proposed Part 70 Permit has been revised to correct typographical errors:

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

**Part 70 Usage Quarterly Submittal Report**

Source Name: Consolidated Grain & Barge  
 Source Address: 2801 Bluff Road, Mt. Vernon, Indiana 47620  
 Mailing Address: P.O. Box 547, Mt. Vernon, IN 47620  
 Part 70 Permit No.: TV 129-24928-00014  
 Facility: Grain Dryers (P4 & P4A)  
 Parameter: Natural Gas Fuel Usage for NOx limit  
 Limit: **Condition D.1.2(c)** - Shall not exceed 504 million cubic feet per twelve (12) consecutive month period, with compliance at the end of each month.

Month: \_\_\_\_\_ Year: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + 2
	Natural Gas Usage This Month ( <del>gallon</del> cubic feet)	Natural Gas Usage Previous 11 Months ( <del>gallon</del> cubic feet)	Natural Gas Usage Total 12 Months ( <del>gallon</del> cubic feet)
Month 1			
Month 2			
Month 3			

This TSD Addendum is part of the TSD. It serves to document the changes being made to the permit and the TSD. IDEM, OAQ prefers not to change the TSD in order to preserve the original information from the issued permit. The changes to the TSD, which are documented here, are as follows:

- (b) The Summary of the Limited Potential to Emit for the boilers, which is found on page 12 of the original TSD has been revised by adding the HAPs emissions (6.11 tons/year) from the boilers.

- (c) The Summary of the Total Controlled/Limited Potential to Emit Table found on Page 12 of 45 of the TSD has been revised for typographical errors. HAPs emissions should be 21.27 tons/year for single and 27.23 tons/year for combined HAPs to reflect the PTE in table found on Page 40 of this TSD Addendum and the Emissions Calculations Summary on Page 1 of TSD Appendix A.

The Sourcewide Potential to Emit Table on Page 12 of 45 of the TSD has been revised due to a typographical error on the HAPs emission level of 117.30. It should be 27.23 tons/year to reflect the PTE in tables found on Pages 40 and 41 of this TSD Addendum and the Emissions Calculations Summary on Page 1 of TSD Appendix A.

The HAPs emissions (6.11 tons/year) from the boilers have been added in the Sourcewide Potential to Emit Table on Page 12 of 45 of the TSD:

These changes will not affect the federal and state rule determinations made to the source.

Proposed Aventine Ethanol Plant Controlled/Limited Potential To Emit (tons/year)							
Process/Emission Unit	PM	PM10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Grain Receiving, Handling and Storage, including fugitives	5.74	4.15	-	-	-	-	-
Hammermilling	1.8	1.8	-	-	-	-	-
Fermentation	0.59	0.59	-	72.09	-	-	Acetaldehyde = 16.90 Combined HAPs = 17.42
4 thermal oxidizers Stacks (DDGS Dryers, DDGS Coolers, Distillation and Evaporation)	69.8	69.8	77.1	112.2	156.3	81.7	Acetaldehyde = 4.36 Combined = 9.45
Cooling Tower	1.65	1.65	-	-	-	-	-
DDGS Handling/Storage and Loadout	0.53	0.53	-	-	-	-	-
Ethanol Loading Racks, Flare and Pilot Combustion	0.04	0.04	0.00024	16.52	9.52	3.80	Acetaldehyde = 0.21 Combined HAPs = 0.35
Storage Tanks	-	-	-	3.33	-	-	-
2 Diesel Fired Emergency Fire Pumps	0.06	0.06	0.06	0.07	0.19	0.89	-
2 Diesel Fired Emergency Generators	0.26	0.16	0.12	0.26	2.06	5.68	-
<b>Aventine's Limited Emissions</b>	<b>80.43</b>	<b>78.74</b>	<b>77.28</b>	<b>204.47</b>	<b>168.07</b>	<b>92.07</b>	



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

**Technical Support Document (TSD) for a New Source Construction and  
Part 70 Operating Permits**

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

<b>Source Name:</b>	<b>Aventine Renewable Energy – Mt. Vernon LLC</b>
<b>Source Location:</b>	<b>2751 Bluff Road, Mt. Vernon, Indiana 47620</b>
<b>Supporting Source:</b>	<b>Consolidated Grain &amp; Barge Co.</b>
<b>Supporting Source Location:</b>	<b>2801 Bluff Road, Mt. Vernon, Indiana 47620</b>
<b>SIC Code:</b>	<b>2869, 5153</b>
<b>NSR/Part 70 Operating Permit No.:</b>	<b>129-24836-00051 (Aventine)</b>
<b>Part 70 Operating Permit No.:</b>	<b>129-24928-00014 (Consolidated Grain &amp; Barge Co.)</b>
<b>County:</b>	<b>Posey</b>
<b>Permit Reviewer:</b>	<b>Aida De Guzman</b>

<b>Source Definition</b>
--------------------------

This grain elevator and ethanol production company consists of two (2) plants:

- (a) Plant 1 - Aventine Renewable Energy – Mt. Vernon LLC is located at 2751 Bluff Road, Mt. Vernon, Indiana 47620; and
- (b) Plant 2 (Supporting Source) - Consolidated Grain & Barge Co. is located at 2801 Bluff Road, Mt. Vernon, Indiana 47620.

The proposed Aventine ethanol plant will be located adjacent to Consolidated Grain & Barge's existing grain elevator at the Port of Indiana Maritime Center (the Port). IDEM, OAQ examined whether these two plants should be considered one "major source" as defined at 326 IAC 2-7-1(22). In order for these two plants to be considered one major source, they must meet all three of the following criteria:

- (a) the plants must be under common ownership or common control;
- (b) the plants must have the same two-digit Standard Industrial Classification (SIC) Code or one must serve as a support facility for the other; and,
- (c) the plants must be located on contiguous or adjacent properties.

The owner of the proposed Aventine ethanol plant (129-00051) has entered into an agreement with Consolidated Grain & Barge Co. Under the agreement, Consolidated Grain & Barge Co. will send corn to the Aventine plant, mainly from Consolidated Grain & Barge plant number 129-00014 (Plant 14) located at the Port adjacent to the proposed Aventine site. Plant 14's current output includes milo, wheat, soybeans and corn, but at least 90% of its current total output is corn. Consolidated Grain & Barge estimates that 99% of the corn output from Plant 14 will go directly to Aventine. Consolidated Grain & Barge Co. may also provide corn to Aventine directly from other Consolidated Grain & Barge Co. plants or even purchase it from other companies and ship it directly to Aventine.

The Aventine plant will produce ethanol and, as a by-product, Dry Distillers Grain with Solubles (DDGS). Aventine will ship out some ethanol and DDGS by rail and truck. However, Consolidated Grain & Barge Co. will be responsible for loading all the ethanol and DDGS that is shipped by barge using facilities at Plant 14.

Under the agreement between Aventine and Consolidated Grain & Barge, Consolidated Grain & Barge will be the exclusive grain originator and DDGS export marketer for the Aventine plant, as well as the sole provider of ethanol and DDGS loading at the site.

IDEM's Nonrule Policy Document Air-005-NPD, discusses how the relationship between sources that are not commonly owned can show that the sources are under common control. The first test looks at whether one source is an auxiliary activity which directly serves the purpose of a second source, where the second source has a major role in the day-to-day operation of the auxiliary source. The United States Environmental Protection Agency (U.S. EPA) has made a similar recognition of the creation of common control, including where contracts create support/dependency relationships between two sources. Long standing and often cited guidance in this area comes from a U.S. EPA Region VII letter, dated September 18, 1995, to Peter R. Hamlin of the Iowa Department of Natural Resources. This letter is found at <http://www.epa.gov/region07/programs/artd/air/nsr/nsrmemos/control.pdf> on the internet. The Hamlin letter sets out a "not exhaustive" list of questions to explore when determining whether two sources are under common control. Two of those questions are pertinent here:

- (a) Do the facilities share intermediates, products, byproducts or other manufacturing equipment?
- (b) Can the new source purchase raw material from and sell products or byproducts to other customers?

Aventine and Consolidated Grain & Barge Plant 14 will share products, corn and ethanol, as well as a byproduct, DDGS. Aventine must purchase all of its corn from Consolidated Grain & Barge and must allow Consolidated Grain & Barge to market all of its DDGS that is exported. In addition, Aventine relies on Plant 14 to provide all ethanol and DDGS barge loading using Plant 14's equipment. The dependency of the Aventine plant on Plant 14's grain output and loading facilities, as well as the other contractual obligations, supports a finding that the two plants are under common control.

The plants have different two-digit SIC codes. The Aventine plant belongs to the two digit Major Group 28, for Chemicals and Allied Products. Consolidated Grain & Barge Plant 14 belongs to the two digit Major Group 51, for Wholesale Trade-Nondurable Goods. However, Plant 14 will be sending more than 50% of its total output to the Aventine plant. Pursuant to 326 IAC 2-7-1(22), Plant 14 is a support facility to the Aventine plant.

The two plants will be located on adjacent properties, so the third and final part of the major source definition is met. IDEM, OAQ finds that the proposed Aventine ethanol plant and Consolidated Grain & Barge Plant 14 are one major source.

<b>County Attainment Status</b>
---------------------------------

The source is located in Posey County.

<b>Pollutant</b>	<b>Status</b>
PM10	attainment
PM2.5	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
8-hour Ozone	attainment
CO	attainment
Lead	Not determined

- (a) Volatile organic compounds (VOC) and nitrogen oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Posey County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) Posey County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions.
- (c) Posey County has been classified as attainment or unclassifiable for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) Fugitive Emissions  
 The proposed source includes a grain elevator, an ethanol production operations, and package boilers which support the ethanol plant with a total heat input rating of greater than 250 million British thermal units per hour (MMBtu/hr).
  - (1) EPA published a final rule in the Federal Register on May 1, 2007, that excluded ethanol production facilities, that produce ethanol through natural fermentation, from the major source category "Chemical Process Plants". Therefore, their fugitive emissions, are no longer counted toward determination of PSD applicability.
  - (2) The fugitive emissions from equipment leaks are not counted toward PSD applicability, because the applicable NSPS, VV was in effect after August 7, 1980.
  - (3) The grain elevator has an applicable New Source Performance Standard that was in effect on August 7, 1980, therefore its fugitive emissions are counted toward the determination of PSD applicability.
  - (4) The package boilers with a total heat input rating of greater than 250 MMBtu/hr are considered one of the 28 listed source categories, based on the EPA guidance for "nesting activities". Therefore, any fugitive emissions from these boilers are counted toward PSD applicability.

### Description of the New Source Construction

The Office of Air Quality (OAQ) has reviewed a new source construction and Part 70 application, submitted by Aventine Renewable Energy- Mt. Vernon LLC on May 29, 2007 relating to the construction and operation of an ethanol plant, with a maximum undenatured ethanol production rate of 216 million gallons per year. An application was also received from Consolidated Grain & Barge Co. on June 15, 2007 to transition from a FESOP source into a Part 70 source due to the fact that Aventine and Consolidated Grain & Barge Co. were determined to be one major source. The source consists of the following emission units and pollution control devices:

#### Grain elevator and ethanol plant permitted for construction in 2007:

- (a) Grain receiving and handling operations, identified as process P-1, with a maximum capacity of 2,330,160 tons of grains per year (83,077,000 bushels of grain per year). The grain when received from various sources is already dried and cleaned. These operations include the following:
  - (1) Three (3) grain truck dump pit, EP-01, EP-02 and EP-03, with three (3) conveyors and three (3) elevator systems. The particulate emissions from the three dump pits are controlled by three (3) baghouses, C-1A, C-1B, and C-1C.
  - (2) One (1) rail dump pit, which will share the conveyor system and elevator system with third grain truck dump pit, EP-03. The particulate emissions from the dump pit are controlled by baghouse, C-1C.
  - (3) Seven (7) corn storage silos, EP-04 through EP-10, with a total storage capacity of 3,150,000 bushel, with seven (7) conveyor systems. PM emissions from each storage silo are controlled by bin vent filters, C-1D through C-1J.
  - (4) Four (4) surge bins, EP-11 through EP-14, each is controlled by bin vent filters, C-1K through C-1N.
- (b) Grain milling operation, identified as process P-2, which include the following:
  - (1) One (1) hammermill feed system.
  - (2) Eight (8) hammermills, identified as EP-15 through EP-22, each has a capacity of 1500 bushels per hour (12,000 bushels per hour total). The particulate emissions from these hammermills are controlled by eight (8) baghouses, C-2A through C-2D and C-3A through C-3D.
- (c) Milled grain cooking operation, identified as process P-4, which includes the following:
  - (1) Milled grain cooking operation consisting of the following major components; Two (2) process condensate tanks, two (2) slurry mix tanks, four (4) liquification tanks, and two (2) yeast tanks. The emissions from these tanks will be controlled by four (4) Thermal Oxidizers, C-6A through C-6D. Each thermal oxidizer has a heat input capacity of 18 million British thermal units per hour (MMBtu/hr).
  - (2) Two (2) ammonia tanks.
- (d) Fermentation operation, identified as process P-5, with a maximum throughput of 24,700 gallons per hour, controlled by two (2) CO<sub>2</sub> scrubbers, C-5A and C-5B. The exhaust gas stream from the scrubbers may be sent to an offsite company for further processing of the CO<sub>2</sub> gas stream or vented directly to the atmosphere. The source has the option to use urea as well as sodium bisulfite in either of the CO<sub>2</sub> scrubbers. This operation includes the

following:

- (1) Fourteen (14) fermenters, with a combined processing rate of 24,700 gallon per hour.
  - (2) Two (2) beer wells, #1 and #2, with a combined processing rate of 24,700 gallons per hour, controlled by the two (2) CO<sub>2</sub> scrubbers, C-5A and C-5B.
  - (3) Two (2) Slurry Tanks, #1 and #2.
  - (4) Four (4) Liquefaction Tanks, #1 through #4.
  - (5) Two (2) Yeast Tanks, #1 and #2.
- (e) Distillation and dehydration operations, identified as process P-6, with a throughput of 24,700 gallons per hour consisting of the following emission units:
- (1) Two (2) beer columns, #1 and #2, controlled by either of the four (4) Thermal Oxidizers, C-6A through C-6D. Each Thermal Oxidizer has a heat input capacity of 18 million British thermal units per hour (MMBtu/hr).
  - (2) Two (2) side strippers, #1 and #2, controlled by either of the four (4) Thermal Oxidizers, C-6A through C-6D.
  - (3) Two (2) rectifier columns, #1 and #2, controlled by either of the four (4) Thermal Oxidizers, C-6A through C-6D.
  - (4) Four (4) molecular sieves.
  - (5) Two (2) 200 proof condensers.
  - (6) Two (2) whole stillage tanks.
- (f) Non fermentable, Dry Distillers Grain Solubles (DDGS) operation, identified as process P-7, consisting of the following emission units:
- (1) Eight (8) centrifuges.
  - (2) Two (2) thin stillage tanks.
  - (3) Two (2) evaporator systems.
  - (4) Two (2) syrup tanks
  - (5) One (1) wet cake pad.
  - (6) DDGS drying, with a total drying rate of 726,930 tons (dry basis) of DDGS per year, with four (4) DDGS dryers, each with a heat input capacity of 90 MMBtu/hr. Dryer #1 is controlled by Thermal Oxidizer #1, C-6A , Dryer #2 is controlled by Thermal Oxidizer #2, C-6B, Dryer #3 is controlled by Thermal Oxidizer #3, C-6C, and Dryer #4 is controlled by Thermal Oxidizer #4, C-6D.
  - (7) Four (4) DDGS coolers, with a maximum throughput of 726,930 tons (dry basis) of DDGS per year. Cooler #1 is controlled by Thermal Oxidizer #1, C-6A, Cooler #2 is controlled by Thermal Oxidizer #2, C-6B, Cooler #3 is controlled by Thermal Oxidizer #3, C-6C, and Cooler #4 is controlled by Thermal Oxidizer #4, C-6D.

- (g) DDGS handling, storage and loadout operations, identified as process P-8, with a rate of 726,930 tons (dry basis) of DDGS per year consisting of the following emission units:
  - (1) One (1) DDGS storage building, which includes supporting equipment; two (2) enclosed DDGS conveyors, EP-23 and EP-24, controlled by two (2) DDGS receiving filters, C-8A and C-8B.
  - (2) Three (3) truck loadouts, EP-25 through EP-27, with a total maximum rate of 165 tons (dry basis) per hour, controlled by three (3) baghouses (C-8C, C-8D and C-8E).
  - (3) One (1) rail loadout, EP-28, with a maximum rate of 400 tons (dry basis) per hour, controlled by one (1) baghouse (C-8F).
- (h) Denatured ethanol loadout, identified as process P-9, consisting of one (1) truck loadout, one (1) rail loadout and one (1) barge loadout, with a total maximum throughput of 227.4 million gallons per year. These three (3) loading racks are controlled by enclosed Flare system C-9. The flare is fueled by natural gas and has a pilot gas flare heat input capacity of 0.092 MMBtu/hr.
- (i) Product Storage, identified as process P-10, consisting of the following emission units:
  - (1) Five (5) 200 proof above ground storage tanks, identified as Tk001 through Tk005, each has a capacity of 172,000 gallons.
  - (2) One (1) denaturant storage tank, identified as Tk006, with a capacity of 105,000 gallons.
  - (3) Four (4) denatured ethanol storage tanks, identified as Tk007 through Tk010, each has a capacity of 1,406,000 gallons.
  - (4) One (1) corrosion inhibitor storage tank, identified as Tk011, with a capacity of 6,392 gallons.
- (j) Eight (8) natural gas-fired package boilers, each has a heat input capacity of 92.4 MMBtu/hr. These boilers are identified as process P-11.
- (k) Two (2) diesel-fired emergency generators, each has a capacity of 3,740 HP. These generators are identified as process P-13.
- (l) Vehicular traffic on paved roads.

**Insignificant Activities:**

- (a) Two (2) diesel-fired emergency fire pumps, each has a capacity of 290 horsepower (HP). These pumps are identified as process P-12.
- (b) One (1) cooling tower with two (2) banks, each bank has 15 cells, identified as F-1, with a total circulation rate of 4,512,000 gallons of water per hour.

**Existing Permitted Grain Merchandising Plant:**

Consolidated Grain & Barge will provide corn to Aventine needed to produce the 216 million undenatured ethanol. Currently, Consolidated Grain & Barge has a grain receiving throughput rate of 784,000 tons per year. In order to supply Aventine, Consolidated Grain & Barge Co. is proposing to increase its capacity to 2,000,000 tons per year. This increase will not require any

physical modification to the existing emission units. The Consolidated Grain & Barge emission units are as follows:

- (a) One (1) North Merchandising House -
  - (1) One (1) Grain Storage Ring/Pad, known as P9B, with a capacity of 1 million bushel pile. This storage ring/pad will enable the source to better handle the large amount of grain that is received during fall harvest, which is a twice per year fill.
  - (2) One (1) Overhead Totally Enclosed Conveyor, known as P8B, with a maximum rate of 500 tons per hour.
  - (3) Receiving, known as P7, capacity: 336 tons of grain per hour.
  - (4) Conveying, known as P8, capacity: 336 tons of grain per hour.
  - (5) Loadout, known as P9, capacity: 375 tons of grain per hour.
- (b) One (1) Truck Only Receiving Area, known as P1, installed in the first quarter of 1978, with a maximum design throughput of 1,050 tons of grain per hour and 784,000 tons of grain per year, including receiving pits P1A, P1B, with emissions controlled by baghouse C-1 and exhausted to Stack S1, and receiving pit P1C, with emissions controlled by baghouse C-3 and exhausted to Stack S3. This operation (P1) is permitted in 2007 to increase yearly throughput rate to 2,000,000 tons.
- (c) One (1) Truck & Rail Receiving Area, known as P2, installed in the first quarter of 1978, with a maximum capacity: 420 tons of grain per hour.
- (d) One (1) Grain Handling Area, known as P3, exhausted to stack S-2, installed in 1979, controlled by baghouse C-2, capacity: 1,260 tons of grain per hour and 784,000 tons of grain per year. This operation (P3) is permitted in 2007 to increase yearly throughput rate to 3,000,000 tons.
- (e) One (1) natural gas-fired grain dryer, known as P4, exhausted to S-4, installed in 1994, rated at 36.0 million British thermal units per hour (MMBtu/hr), capacity: 84.0 tons of grain per hour.
- (f) One (1) natural gas-fired column grain dryer, identified as P4A, rated at 21.6 million British thermal units per hour, exhausting to Stack S-5, capacity: 105 tons of grain per hour.
- (g) One (1) Barge Loadout Area, known as P5, installed in the first quarter of 1978, controlled by a telescoping spout, capacity: 500 tons of grain per hour.
- (h) One (1), Truck Loadout Area, known as P6A, installed in the first quarter of 1978, controlled by a spout extension, capacity: 336 tons of grain per hour.
- (i) One (1) enclosed reclaim conveyor leg, for rail or truck loadout identified as P6B equipped with a bulk weigh station at its discharge, capacity: 850 tons of grain per hour.
- (j) One (1) enclosed conveyor leg, identified as P1D, capacity: 450 tons of grain per hour and 784,000 tons of grain per year, controlled by baghouse C-1. This operation (P1D) is permitted in 2007 to increase throughput to 700 tons of grain per hour and 2,000,000 tons of grain per year.

#### Insignificant Activities

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu/hr.

Three (3) natural gas-fired combustion sources, installed in the first quarter of 1978, rated at 1.0 MMBtu/hr, each.

- (b) Volatile organic liquid storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.

**Proposed Aventine Ethanol Plant Stack Summary**

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
EP31	Thermal Oxidizer #1	89.97	6.49	65,062	300
EP32	Thermal Oxidizer #2	89.97	6.49	65,062	300
EP33	Thermal Oxidizer #3	89.97	6.49	65,062	300
EP34	Thermal Oxidizer #4	89.97	6.49	65,062	300
EP35	Boiler #1	45.0	2.98	29,714	300
EP36	Boiler #2	45.0	2.98	29,714	300
EP37	Boiler #3	45.0	2.98	29,714	300
EP38	Boiler #4	45.0	2.98	29,714	300
EP39	Boiler #5	45.0	2.98	29,714	300
EP40	Boiler #6	45.0	2.98	29,714	300
EP41	Boiler #7	45.0	2.98	29,714	300
EP42	Boiler #8	45.0	2.98	29,714	300
EP43	Emergency Generator #1	14.98	1.7	40,883	871
EP44	Emergency Generator #2	14.98	1.7	40,883	871
EP45	Emergency Fire Pump #1	14.98	0.70	6,970	200
EP46	Emergency Fire Pump #2	14.98	0.70	6,970	200
EP47	Denatured Ethanol Loadout Flare	30.0	4.98	563	800

The above table only reflects emission stacks from new emission units. It does not include emission stacks from Consolidated Grain & Barge Co, since its modification does not include new emission units.

**Emission Calculations**

See Appendix A of this document for detailed emission calculations.

**Permit Level Determination – Part 70**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency.”

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

<b>Proposed Aventine Ethanol Plant</b>	
<b>Pollutant</b>	<b>Potential To Emit (tons/year)</b>
PM	760.68
PM2.5/PM10	724.87
SO <sub>2</sub>	79.95
VOC	10,103.35
CO	1,595.45
NO <sub>x</sub>	216.77

<b>HAPs</b>	<b>Potential To Emit (tons/year)</b>
Worst Single HAP (Acetaldehyde)	1,063.19
Combined HAPs	1,346.19

<b>Existing Consolidated Grain &amp; Barge Co.</b>	
<b>Pollutant</b>	<b>Potential To Emit (tons/year)</b>
PM	593.95
PM10	229.14
PM2.5	40.48
SO <sub>2</sub>	0.15
VOC	1.39
CO	21.19
NO <sub>x</sub>	25.23

<b>Combined PTE from Aventine and Consolidated Grain &amp; Barge</b>	<b>Potential To Emit (tons/year)</b>
PM	1,354.63
PM10	954.01
PM2.5	765.35
SO <sub>2</sub>	80.1
VOC	10,104.74
CO	1,616.64
NO <sub>x</sub>	242.00

**Permit Level Determination**

- (a) The combined proposed Aventine plant and the Consolidated Grain & Barge Co. have the potential to emit one-hundred (100) tons per year or more of PM10, VOC, CO, or NOx. Therefore, the source (Aventine and Consolidated Grain & Barge Co.) is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

**PSD Determination**

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

Proposed Aventine Ethanol Plant Controlled/Limited Potential To Emit (tons/year)							
Process/Emission Unit	PM	PM10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Grain Receiving, Handling and Storage, including fugitives	5.74	4.15	-	-	-	-	-
Hammermilling	1.8	1.8	-	-	-	-	-
Fermentation	0.59	0.59	-	72.09	-	-	Acetaldehyde = 16.90 Combined HAPs = 17.42
4 thermal oxidizers Stacks (DDGS Dryers, DDGS Coolers, Distillation and Evaporation)	69.8	69.8	77.1	112.2	156.3	81.7	Acetaldehyde = 4.36 Combined = 9.45
Cooling Tower	1.65	1.65	-	-	-	-	-
DDGS Handling/Storage and Loadout	0.53	0.53	-	-	-	-	-
Ethanol Loading Racks, Flare and Pilot Combustion	0.04	0.04	0.00024	16.52	9.52	3.80	Acetaldehyde = 0.21 Combined HAPs = 0.35
Storage Tanks	-	-	-	3.33	-	-	-
2 Diesel Fired Emergency Fire Pumps	0.06	0.06	0.06	0.07	0.19	0.89	-
2 Diesel Fired Emergency Generators	0.26	0.16	0.12	0.26	2.06	5.68	-
<b>Aventine's Limited Emissions</b>	<b>80.43</b>	<b>78.74</b>	<b>77.28</b>	<b>204.47</b>	<b>168.07</b>	<b>92.07</b>	

<b>Consolidated Grain &amp; Barge Plant Controlled/Limited Potential To Emit (tons/year)</b>								
Process/Emission Units	PM	PM10	PM2.5	SO <sub>2</sub>	VOC	CO	NOx	HAPs
Truck Receiving and Receiving Pit (P1A & P1B)	9.0	2.95	0.50	-	-	-	-	-
Truck Receiving and Receiving Pit (P1C)	9.0	2.95	0.50	-	-	-	-	-
Conveyor Leg (P1D)	3.05	1.7	0.29	-	-	-	-	-
Rail/HB and Hopper Truck Receiving (P2)	13.72	3.06	0.51	-	-	-	-	-
Grain Handling (P3)	4.58	2.55	0.44	-	-	-	-	-
Grain Dryer (P4)	17.90	5.6	1.95	0.09	0.9	13.2	15.8	-
Grain Dryer (P4A)	22.18	6.22	1.66	0.06	0.52	7.95	9.5	-
Grain Barge Loadout (P5)	6.4	1.6	0.22	-	-	-	-	-
Grain Truck Loadout (P6A)	1.44	0.49	0.08	-	-	-	-	-
Enclosed Reclaim Conveyor Leg (P6B)	5.49	3.06	0.52	-	-	-	-	-
North Merchandising House Receiving (P7)	0.98	0.22	0.04	-	-	-	-	-
North Merchandising House Conveying (P8)	1.71	0.95	0.16	-	-	-	-	-
North Merchandising House Enclosed Conveying (P8B)	1.71	0.95	0.16	-	-	-	-	-
North Merchandising House Loadout (P9)	2.41	0.81	0.14	-	-	-	-	-
North Merchandising House Loadout (Hopper Truck - P9B)	2.41	0.81	0.14	-	-	-	-	-
<b>Consolidated Grain &amp; Barge Total Limited Emissions</b>	<b>101.98</b>	<b>33.92</b>	<b>7.31</b>	<b>0.15</b>	<b>1.39</b>	<b>21.19</b>	<b>25.23</b>	<b>-</b>

Total Controlled/Limited Potential To Emit from Aventine's Proposed Ethanol Plant and Consolidated Grain & Barge Merchandising Plant (tons/year)								
Process/Emission Units	PM	PM10	PM2.5	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Aventine's Total Limited Emissions	80.47	78.78	78.78	77.28	204.47	168.07	92.07	Acetaldehyde = 21.82 Combined HAPs = 27.67
Consolidated Grain & Barge Total Limited Emissions	101.98	33.92	7.31	0.15	1.42	21.15	25.3	-
<b>TOTAL LIMITED EMISSIONS</b>	<b>182.45</b>	<b>112.70</b>	<b>86.09</b>	<b>77.43</b>	<b>205.89</b>	<b>189.22</b>	<b>117.37</b>	<b>Acetaldehyde = 21.82 Combined HAPs = 27.67</b>
PSD Threshold Levels	250	250	250	250	250	250	250	-

Aventine's Proposed Boilers							
Limited Potential To Emit (tons/year)							
Process/Emission Unit	PM	PM10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
8 Package Boilers	16.19	16.19	1.91	6.48	58.28	97.13	-
<b>Total Limited Emissions</b>	<b>16.19</b>	<b>16.19</b>	<b>1.91</b>	<b>6.48</b>	<b>58.28</b>	<b>97.13</b>	-
PSD Threshold Levels	100	100	100	100	100	100	-

Sourcewide Limited Potential To Emit (tons/year)							
Process/Emission Unit	PM	PM10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Aventine's Ethanol Plant and Consolidated Grain & Barge Total Limited Emissions	<b>182.45</b>	<b>112.70</b>	<b>77.43</b>	<b>205.89</b>	<b>189.22</b>	<b>117.37</b>	<b>117.30</b>
Aventine's 8 Package Boilers	16.19	16.19	1.91	6.48	58.28	97.13	-
<b>Total Sourcewide Limited Emissions</b>	<b>198.64</b>	<b>128.89</b>	<b>79.34</b>	<b>212.37</b>	<b>247.50</b>	<b>214.50</b>	-
PSD Threshold Levels	250	250	250	250	250	250	-

EPA published a final rule in the Federal Register on May 1, 2007, that excluded ethanol production facilities, that produce ethanol through natural fermentation, from the major source category "Chemical Process Plants".

- (a) The proposed source consists of an ethanol production plant, and boilers with a total heat input rating of greater than 250 MMBtu/hr. Based on the PSD guidance for "nesting activities", these facilities will be nested for PSD applicability determination.
  - (1) The ethanol plant, which is not one of the 28 listed source categories has uncontrolled PTE of each regulated pollutant greater than 250 tons per year. Emissions from this ethanol plant will be combined with the Consolidated Grain & Barge emissions, since they are determined to be one source. Aventine will control emissions through the use of the baghouses, wet scrubber, Thermal Oxidizers, and enclosed flare and Consolidated Grain & Barge Co. will control emissions through grain throughput limitations and the use of baghouses to limit each pollutant to less than 250 tons per year, in order to avoid the applicability of 326 IAC 2-2, PSD.

- (2) The proposed package boilers with a total heat input rating of greater than 250 MMBtu/hr, are considered one of the 28 listed source categories. The PTE from these boilers for NO<sub>x</sub> is 100 tons per year or greater, and for CO is 100 tons per year or greater. Therefore, the boilers would be subject to 326 IAC 2-2, PSD, however, the Permittee requested enforceable limits for these boilers to avoid the applicability of this rule.
- (3) The source (Aventine's ethanol production plant, including the nested package boilers and Consolidated Grain & Barge Co. grain merchandising plant) is not subject to 326 IAC 2-2, since no criteria pollutant is emitted at a rate of 250 tons per year or greater.

### Federal Rule Applicability Determination

The following federal rules are applicable to the source:

- (a) New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60):

- (1) 40 CFR 60.40c, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million Btu per hour (Btu/hr)) or less, but greater than or equal to 2.9 MW (10 million Btu/hr).

326 IAC 12, 40 CFR 60.40c, Subpart Dc, is applicable to the proposed eight (8) natural gas-fired package boilers, each with a heat input capacity of 92.4 million British thermal units per hour.

Nonapplicable portions of the NSPS will not be included in the permit. The following requirements shall apply to the following emission units:

40 CFR 60.40c  
40 CFR 60.41c  
40 CFR 60.43c(e)(1), (2)(i), (ii)  
40 CFR 60.48c(a)(1),

- (2) 40 CFR 60.300, Subpart DD – Standards of Performance for Grain Elevators

- (a) 326 IAC 12, 40 CFR 60.300, Subpart DD, is applicable to the proposed Aventine ethanol plant's grain elevator because it has a storage capacity of 1,000,000 bushels of grain.

Nonapplicable portions of the NSPS will not be included in the permit. The following sections of Subpart DD apply to the grain receiving and handling operations which includes; grain truck dump pit, auger areas, grain conveyors, grain elevators, transfer conveyors, corn storage silos, surge bins and ground conveyors, which has a compliance date on and after the 60<sup>th</sup> day of achieving the maximum production rate at which the affected facility will be operated, but no later than 180 days after initial startup:

40 CFR 60.300  
40 CFR 60.301  
40 CFR 60.302(b), (c)  
40 CFR 60.303

- (b) 326 IAC 12, 40 CFR 60.300, Subpart DD-  
This rule has been determined to be not applicable to Consolidated Grain & Barge grain elevator because it has a storage capacity of less than 2.5 million bushels/yr. This determination does not change in this Part 70 permit, since the source is not being physically modified to increase its permanent storage capacity.

- (3) 40 CFR Part 60.480, Subpart VV – Standards of Performance for equipment leaks of VOC in Synthetic Organic Chemicals Manufacturing Industry.

Aventine Renewable Energy –Mt. Vernon LLC is subject to this NSPS, Subpart 60.480 as it produces Ethanol, which is one of the chemicals listed in 40 CFR 60.489. Pursuant to 40 CFR 60.480(a)(2), the affected facilities are the process units, which are defined as components assembled to produce ethanol (as intermediate or final products). Pumps, compressors, pressure relief devices, sampling connection systems, and valves at all process units. This determination is not changed although ethanol plants have been excluded from the category of a "Chemical Process Plants" in the PSD rules, because EPA did not address 40 CFR Part 60 in the exclusion.

Nonapplicable portions of the NSPS will not be included in the permit. The following requirements shall apply to the following emission units:

- (d) Fermentation operation, identified as process P-5, with a maximum throughput of 24,700 gallons per hour, controlled by two (2) CO<sub>2</sub> scrubbers, C-5A and C-5B. The exhaust gas stream from the scrubbers may be sent to an offsite company for further processing of the CO<sub>2</sub> gas stream or vented directly to the atmosphere. The source has the option to use urea as well as sodium bisulfite in either of the CO<sub>2</sub> scrubbers. This operation includes the following:
- (1) Fourteen (14) fermenters, with a combined processing rate of 24,700 gallon per hour.
  - (2) Two (2) beer well, #1 and #2, with a combined processing rate of 24,700 gallons per hour, controlled by the two (2) CO<sub>2</sub> scrubbers, C-5A and C-5B.
  - (3) Slurry Tanks #1 and #2.
  - (4) Liquefaction Tanks #1 through #4.
  - (5) Yeast Tanks #1 and #2.
  - (6) Two (2) whole stillage tanks
- (e) Distillation and dehydration operations, identified as process P-6, with a throughput of 24,700 gallons per hour consisting of the following emission units:
- (1) Two (2) beer column, #1 and #2, controlled by either of the four (4) RTOs, C-6A through C-6D.
  - (2) Two (2) side stripper, #1 and #2, controlled by either of the four (4) RTOs, C-6A through C-6D.
  - (3) Two (2) rectifier column, #1 and #2, controlled by either of the four (4) of RTOs,

C-6A through C-6D.

- (4) Four (4) molecular sieves.
- (5) Two (2) 200 proof condensers.
- (6) Two (2) whole stillage tanks.
- (f) Non fermentable, Dry Distillers Grain Solubles (DDGS) operation, identified as process P-7, consisting of the following emission units:
  - (1) Eight (8) centrifuges.
  - (2) Two (2) thin stillage tanks.
  - (3) Two (2) evaporator systems.
  - (4) Two (2) syrup tanks
- (h) Denatured ethanol loadout, identified as process P-9, consisting of one (1) truck loadout, one (1) rail loadout and one (1) barge loadout, with a total maximum throughput of 227.4 million gallons per year. These three (3) loading racks are controlled by enclosed Flare system C-9. The flare is fueled by natural gas and has a pilot gas flare heat input capacity of 0.092 MMBtu/hr.

40 CFR § 60.480  
40 CFR § 60.481  
40 CFR§ 60.482-1 through 40 CFR § 60.482-10  
40 CFR § 60.483-1  
40 CFR § 60.483-2  
40 CFR § 60.485  
40 CFR § 60.486  
40 CFR § 60.487

Pursuant to 40 CFR 60.482-1, the Permittee shall comply with this NSPS within 180 days of initial startup.

- (4) 40 CFR Part 60.110b, Subpart Kb – Standards of Petroleum for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984.

This rule applies to storage vessels with a capacity greater than or equal to 40 cubic meters (10,567 gallons).

- (A) One (1) corrosion inhibitor storage tank, identified as Tk011 is not subject to this NSPS, Subpart Kb, because it has a capacity of 6,392 gallons, which is less than 40 cubic meters (10,567 gallons).
- (B) The following proposed storage tanks are subject to this NSPS, Subpart Kb, since each tank has a capacity greater than 151 m<sup>3</sup> (39,890 gallons) and each will store VOL with vapor pressure greater than 5.2 kPa (0.75 psi) but less than 76.6 kPa (11.3 psi).
  - (j) Product Storage, P-10, consisting of the following emission units:
    - (1) Five (5) 200 proof above ground storage tanks, identified

as Tk001 through Tk005, each has a capacity of 172,000 gallons.

- (2) One (1) denaturant storage tank, identified as Tk006, with a capacity of 105,000 gallons.
- (3) Four (4) denatured ethanol storage tanks, identified as Tk007 through Tk010, each has a capacity of 1,406,000 gallons.

Nonapplicable portions of the NSPS will not be included in the permit. The following requirements shall apply to storage tanks Tk001 through Tk005, Tk006, and Tk007 through Tk010:

- 40 CFR § 60.110b
- 40 CFR § 60.111b
- 40 CFR § 60.112b(a)(1), (2)
- 40 CFR § 60.113b
- 40 CFR § 60.114b
- 40 CFR § 60.115b
- 40 CFR § 60.116b

- (5) 40 CFR Part 60.4200, Subpart IIII – New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines

- (A) The two (2) diesel fired emergency generators, each with a capacity of 3,740 HP, identified as process P-13, which will commence construction after July 11, 2005 and will be manufactured after April 1, 2006. Therefore, these emergency generators, are subject to the New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines (326 IAC 12, 40 CFR 60.4200 - 4209, Subpart IIII).

Nonapplicable portions of the NSPS will not be included in the permit. The proposed emergency generators are subject to the following portions of 40 CFR 60, Subpart IIII:

- 40 CFR 60.4200(a)(2)(i)
- 40 CFR 60.4200(a)(3)
- 40 CFR 60.4205(b)
- 40 CFR 60.4206
- 40 CFR 60.4207(a), (b), (c)
- 40 CFR 60.4208
- 40 CFR 60.4209(a)
- 40 CFR 60.4211(a), (e)
- 40 CFR 60.4212
- 40 CFR 60.4214(b)
- 40 CFR 60.4218
- 40 CFR 60.4219

- (B) The two (2) diesel fired emergency fire pumps, each with a capacity of 290 horsepower (HP), identified as process P-12, which will commence construction after July 11, 2005 and will be manufactured after April 1, 2006, where the stationary CI ICE are manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

Nonapplicable portions of the NSPS will not be included in the permit. The proposed emergency fire pumps are subject to the following portions

of 40 CFR 60, Subpart IIII:

40 CFR 60.4200(a)(2)(ii)  
40 CFR 60.4205(c)  
40 CFR 60.4206  
40 CFR 60.4207(a), (b), (c)  
40 CFR 60.4209(a)  
40 CFR 60.4211(c)  
40 CFR 60.4212  
40 CFR 60.4214(b)  
40 CFR 60.4218  
40 CFR 60.4219

The provisions of 40 CFR 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to this source, except when otherwise specified in 40 CFR 60, Subpart IIII.

- (6) 40 CFR Part 60.660-667, Subpart NNN - New Source Performance Standards for Volatile Organic Liquid Storage Vessels VOC Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations.

Ethanol is one of the chemicals listed in 40 CFR 60.667. However, according to the EPA memorandum from Mr. George T. Czerniak dated, December 6, 2002, the manufacture of ethanol using a fermentation process (biological synthesis) was excluded from the scope of NSPS, Subpart NNN. Therefore, the distillation unit at this new ethanol production plant is not subject to the requirements of New Source Performance Standards for Volatile Organic Liquid Storage Vessels VOC Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations (326 IAC 12, 40 CFR 60.660 - 667, Subpart NNN).

- (7) 40 CFR Part 60.700, Subpart RRR - New Source Performance Standards for Volatile Organic Compounds Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes.

EPA memorandum from Reggie Cheatham, Chief of Chemical Industry Branch, EPAs Office of Enforcement and Compliance Assistance to George Czerniak, Air Enforcement and Compliance Assurance Branch dated, October 7, 1996, asserted that Subpart RRR does not apply to processes which produce ethanol through biological processes. Subpart RRR was developed for specific processes involving synthesis of organic chemicals using petroleum-based feedstocks and not biological fermentation processes. Since Aventine's ethanol production involves biological fermentation, it is not therefore, subject to NSPS, Subpart RRR.

- (b) National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63):

- (1) 326 IAC 20-95 and 40 CFR Part 63, Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for existing, new or reconstructed Industrial, Commercial, and Institutional Boilers and Process Heaters located at a major source.

The proposed eight (8) natural gas-fired package boilers, each has a heat input capacity of 92.4 MMBtu/hr are subject to the NESHAP, Subpart DDDDD.

Nonapplicable portions of the NESHAP will not be included in the permit. The following requirements shall apply to these boilers:

40 CFR§ 63.7480  
40 CFR§ 63.7485  
40 CFR§ 63.7490(a)(2), (b)  
40 CFR§ 63.7495(a), (d)  
40 CFR§ 63.7499  
40 CFR§ 63.7500(a)(1), (b)  
40 CFR§ 63.7505(a), (d), (e)  
40 CFR§ 63.7510(a), (c), (g)  
40 CFR§ 63.7515(e)  
40 CFR§ 63.7520(a), (b), (d), (e)  
40 CFR§ 63.7525(c)  
40 CFR§ 63.7530(a)  
40 CFR§ 63.7535(a)  
40 CFR§ 63.7540(a)(10), (b), (c), (d)  
40 CFR§ 63.7545(a), (c), (d), (e)(1), (2), (4), (6), (7), (9)  
40 CFR§ 63.7550(a), (b), (c)(1) through (5), (8), (9), (10), (11), (d), (e),  
(f), (g)  
40 CFR§ 63.7555(a), (d)(1)  
40 CFR§ 63.7560  
40 CFR§ 63.7565  
40 CFR§ 63.7570(a), (b)(1), (2), (3), (4), (5)  
40 CFR§ 63.7575

(2) 326 IAC 20-82 and 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. This subpart applies to an existing, new, or reconstructed stationary RICE with a site-rating of more than 500 brake horsepower located at a major source of HAP emissions.

(A) The proposed two emergency fire pumps (290 BHp each) are not subject to this NESHAP, Subpart ZZZZ, because each fire pump has a site rating of less than 500 brake horsepower.

(B) The proposed two emergency generators (3,740 BHp each) are subject to this NESHAP, because each generator has a site-rating of more than 500 brake horsepower. These generators will be "limited use stationary RICE", since they will be operated at less than 100 hours per year. Limited use stationary RICE does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(d).

§63.6645(d) Initial Notification:

(d) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with §63.6590(b), your notification should include the information in §63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE).

(3) 326 IAC 20-84 and 40 CFR 63, Subpart FFFF - National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing.

The requirements of this NESHAP are applicable to miscellaneous organic chemical manufacturing process units (MCPUs) located at, or are part of, a major

source of hazardous air pollutants (HAP) emissions. An MCEU includes any assigned storage tanks, product transfer racks, equipment in open systems that is used to convey or store water having the same concentration and flow characteristics as wastewater; and components such as pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, and instrumentation systems that are used to manufacture any material or family of materials described in Part 63.2435 (b)(1)(i) through (v); and are not subject to another subpart in Part 63.

Nonapplicable portions of the NESHAP will not be included in the permit. The following requirements shall apply to the following emissions units of the ethanol production process – continuous vents:

- (c) Milled grain cooking operation, identified as process P-4, which includes the following:
  - (1) Milled grain cooking operation consisting of the following major components; Two (2) process condensate tanks, two (2) slurry mix tanks, four (4) liquification tanks, and two (2) yeast tanks. The emissions from these tanks will be controlled by four (4) Thermal Oxidizers, C-6A through C-6D. Each thermal oxidizer has a heat input capacity of 18 million British thermal units per hour (MMBtu/hr).
  - (2) Two (2) ammonia tanks.
- (d) Fermentation operation, identified as process P-5, with a maximum throughput of 24,700 gallons per hour, controlled by two (2) CO<sub>2</sub> scrubbers, C-5A and C-5B. The exhaust gas stream from the scrubbers may be sent to an offsite company for further processing of the CO<sub>2</sub> gas stream or vented directly to the atmosphere. The source has the option to use urea as well as sodium bisulfite in either of the CO<sub>2</sub> scrubbers. This operation includes the following:
  - (1) Fourteen (14) fermenters, with a combined processing rate of 24,700 gallon per hour.
  - (2) Two (2) beer wells, #1 and #2, with a combined processing rate of 24,700 gallons per hour, controlled by the two (2) CO<sub>2</sub> scrubbers, C-5A and C-5B.
- (e) Distillation and dehydration operations, identified as process P-6, with a throughput of 24,700 gallons per hour consisting of the following emission units:
  - (1) Two (2) beer columns, #1 and #2, controlled by either of the four (4) Thermal Oxidizers, C-6A through C-6D. Each Thermal Oxidizer has a heat input capacity of 18 million British thermal units per hour (MMBtu/hr).
  - (2) Two (2) side strippers, #1 and #2, controlled by either of the four (4) Thermal Oxidizers, C-6A through C-6D.
  - (3) Two (2) rectifier columns, #1 and #2, controlled by either of the four (4) Thermal Oxidizers, C-6A through C-6D.
  - (4) Four (4) molecular sieves.

- (5) Two (2) 200 proof condensers.
- (6) Two (2) whole stillage tanks.
- (f) Non fermentable, Dry Distillers Grain Solubles (DDGS) operation, identified as process P-7, consisting of the following emission units:
  - (1) Eight (8) centrifuges.
  - (2) Two (2) Thin Stillage tanks.
  - (3) Two (2) evaporator systems.
  - (4) Two (2) syrup tanks
- (g) DDGS handling, storage and loadout operations, identified as process P-8, with a rate of 726,930 tons (dry basis) of DDGS per year consisting of the following emission units:
  - (1) One (1) DDGS storage building, which includes supporting equipment; two (2) enclosed DDGS conveyors, EP-23 and EP-24, controlled by two (2) DDGS receiving filters, C-8A and C-8B.
  - (2) Three (3) truck loadouts, EP-25 through EP-27, with a total maximum rate of 165 tons (dry basis) per hour, controlled by three (3) baghouses (C-8C, C-8D and C-8E).
  - (3) One (1) rail loadout, EP-28, with a maximum rate of 400 tons (dry basis) per hour, controlled by one (1) baghouse (C-8F).
- (h) Denatured ethanol loadout, identified as process P-9, consisting of one (1) truck loadout, one (1) rail loadout and one (1) barge loadout, with a total maximum throughput of 227.4 million gallons per year. These three (3) loading racks are controlled by enclosed Flare system C-9. The flare is fueled by natural gas and has a pilot gas flare heat input capacity of 0.092 MMBtu/hr.
- (i) Product Storage, identified as process P-10, consisting of the following emission units:
  - (1) Five (5) 200 proof above ground storage tanks, identified as Tk001 through Tk005, each has a capacity of 172,000 gallons.
  - (2) One (1) denaturant storage tank, identified as Tk006, with a capacity of 105,000 gallons.
  - (3) Four (4) denatured ethanol storage tanks, identified as Tk007 through Tk010, each has a capacity of 1,406,000 gallons.

40 CFR Part 63.2430

40 CFR Part 63.2435(a), (b)(i), (d)

40 CFR Part 63.2440(a), (b), (c)(1)

40 CFR Part 63.2445(a)(2), (c), (f)

40 CFR Part 63.2450(a), (b), (c)(1), (2), (e)(2), (f)(1), (2)(i), (ii), (g), (h), (i), (k)(1 through 3), (l), (m), (n), (p), (r), (s)

40 CFR Part 63.2455(a), (b)

40 CFR Part 63.2460(a), (b)  
40 CFR Part 63.2470(a)(1) through (4)  
40 CFR Part 63.2475(a), (b)  
40 CFR Part 63.2480(a)  
40 CFR Part 63.2500(b), (c), (d), (e)  
40 CFR Part 63.2505(a)(i)-  
40 CFR Part 63.2515(a)(2)  
40 CFR Part 63.2520(a), (b), (d)(1), (2)(i) through (v)  
40 CFR Part 63.2525(b)(1) through (8), (f), (g), (h), (k)  
40 CFR Part 63.2540  
40 CFR Part 63.2545  
40 CFR Part 63.2550

- (4) The requirements of 40 CFR Part 63, Subpart F (National Emission Standards for Organic Hazardous Air Pollutants From Synthetic Organic Chemical Manufacturing Industry), 40 CFR Part 63, Subpart G (National Emission Standards for Organic Hazardous Air Pollutants from Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater), and 40 CFR Part 63, Subpart H (National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks), are not included in this permit because (1) the source does not manufacture as a primary product any of the chemicals listed in Table 1 of 40 CFR 63, Subpart F, Tetrahydrobenzaldehyde, or Crotonaldehyde; and (2) the source does not use as a reactant, manufacture as a product or co-product any of the chemicals listed in Table 2 of 40 CFR 63, Subpart F.
- (5) 326 IAC 20-12 and 40 CFR 63, Subpart I – National Emission Standards for Organic Hazardous Air Pollutants for Certain Processes Subject to the Negotiated Regulation for Equipment Leaks.  
  
The requirements of 326 IAC 20-12 and 40 CFR 63, Subpart I – National Emission Standards for Organic Hazardous Air Pollutants for Certain Processes Subject to the Negotiated Regulation for Equipment Leaks are not included in this permit. The source does not operate any of the processes specified in 40 CFR 63.190(b).
- (6) 326 IAC 20-83 and 40 CFR 63, Subpart EEEE - National Emission Standards for Organic Hazardous Air Pollutants for Organic Liquids Distribution (non-gasoline). The requirements of this NESHAP are not included in this permit, because the emission units subject to Subpart EEEE are part of the ethanol production emission units subject to Subpart FFFF.
- (7) 326 IAC 20-4 and 40 CFR 63, Subpart Q - National Emission Standards for Cooling Towers.  
  
The requirements of this NESHAP are not included in this permit, because the proposed cooling tower, F-1 will not be operated with chromium-based water treatment chemicals.
- (c) 40 CFR Part 64 – Compliance Assurance Monitoring (CAM) Requirements:  
Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:
- (1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;
- (2) is subject to an emission limitation or standard for that pollutant; and

- (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each new or modified emission unit involved:

Emission Unit	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Aventine Operations							
Each Truck/Rail Dump Pit	Baghouse	Y	112.63 PM10	1.13 PM10	100	Y	N
Fermentation	Scrubber	Y	3,603.5 VOC	72.09 VOC	100	Y	N
		N	845.1 single HAP (Acetaldehyde)	16.9 single HAP (Acetaldehyde)	10 single (Acetaldehyde)	N	N
		N	871 combined HAPs	17.42 combined HAPs	25 combined HAPs	N	-
8 Hammermills	Baghouse	Y	22.53 each PM10	0.23 each PM10	100	N	-
Loading Rack	Flare	Y	825.84 VOC	16.52 VOC	100	Y	N
4 DDGS Dryers & Distillation and Evaporation	Thermal Oxidizers	Y	1403.7 VOC **	28.1 VOC**	100	Y	N
		N	54.5** single HAP (Acetaldehyde)	1.09** single HAP (Acetaldehyde)	10 single	N	-
		N	118.13** Combined HAPs	2.36** Combined HAPs	25 combined HAPs	N	-
		Y	325.7 CO***	39.1 CO***	100	Y	N
4 DDGS Coolers	Thermal Oxidizers	N	26.90 VOC	0.538 VOC	100	N	-

\*\* - Combination of 1 DDGS Dryer, DDGS Cooler, Distillation and Evaporation and RTO combustion air stream.

\*\*\* - Combination of 1 DDGS Dryer and RTO combustion air stream.

Note: There are no separate Emission Factors available for the DDGS Drying and Distillation and Evaporation. A combined Emission Factor for these operations is established at the control exhaust point. Therefore, the emissions from these operations cannot be broken out.

- (a) The source is subject to NESHAP Subpart FFFF, which was promulgated on November 10, 2003. This NESHAP collectively limits batch and continuous process vents in a Miscellaneous Organic Chemical manufacturing Process Units (MCPU), including organic chemicals with SIC code of 286 for ethanol. This NESHAP regulates HAPs and Total Organic Carbon (TOC). Therefore, Fermentation process, Loading Rack, DDGS Dryers and Distillation and Evaporation will not be exempted from the CAM rule for VOC and CO, because this NESHAP regulates HAPs and TOC.

- (1) A CAM Plan for VOC and CO from the DDGS Dryers and Distillation and Evaporation must be submitted as part of the renewal application.
- (2) A CAM Plan for VOC from the Fermentation and Loading Rack operations must

be submitted as part of the renewal application.

- (3) The Fermentation is not subject to CAM for HAPs as laid out in the above table.
- (b) Each truck/rail dump pit at Aventine is subject to CAM, because the NSPS, Subpart DD that is applicable to each emission unit was promulgated before November 15, 1990.
- A CAM plan for PM10 from the three truck/rail dump pits must be submitted as part of the renewal application.
- (c) The grain handling, storing and drying operations at Consolidated Grain & Barge are not subject to CAM, because no emission unit has the potential to emit before controls equal to or greater than 100 tons per year of PM10.

<b>State Rule Applicability Determination - Entire Source</b>
---

The following state rules are applicable to the proposed source:

- (a) 326 IAC 2-2 (Prevention of Significant Deterioration (PSD))  
EPA published a final rule in the Federal Register on May 1, 2007, that excluded ethanol production facilities, that produces ethanol through natural fermentation from the major source category "Chemical Process Plants".

This proposed source consists of an ethanol production plant, and boilers with a total heat input rating of greater than 250 MMBtu/hr. Based on the PSD guidance for "nesting activities", these facilities will be nested for PSD applicability determination.

- (1) The proposed ethanol plant, which is not one of the 28 listed source categories has uncontrolled PTE of each regulated pollutant greater than 250 tons per year. Emissions from this ethanol plant will be combined with the Consolidated Grain & Barge emissions, since they are determined to be one source. The Permittee will control emissions through the use of the baghouses, wet scrubber, thermal oxidizers, and enclosed flare to limit each pollutant to less than 250 tons per year, in order to avoid the applicability of 326 IAC 2-2, PSD.
- (2) The proposed boilers with a total heat input rating of greater than 250 MMBtu/hr, are considered one of the 28 listed source categories. These boilers potential to emit for NOx is 100 tons per year or greater, or CO is 100 tons per year or greater. Therefore, they are subject to 326 IAC 2-2, PSD. However, the Permittee requested enforceable limits for these boilers to avoid the applicability of this rule to less than 100 tons per year for each major pollutant.

The source (Aventine's ethanol production plant and Consolidated Grain & Barge Co. grain merchandising plant), including the nested package boilers will be limited to less than 250 tons per year to avoid the applicability of 326 IAC 2-2, PSD.

The proposed ethanol production plant from Aventine in conjunction with the grain merchandising plant from Consolidated Grain & Barge will be limited as follows to avoid the applicability of 326 IAC 2-2, PSD, and to have room for expansion in the future and maintain its minor source status under PSD:

- (1) The particulate emissions from the following emission units at Aventine's ethanol production plant shall not exceed the emission limits in the table below:

Process ID	Process Description	Control ID	PM/PM10 Emissions Limits (pounds/hour)
Aventine			
EP-01	Truck dump pit	Baghouse C-1A	0.26
EP-02	Truck dump pit	Baghouse C-1B	0.26
EP-03	Truck/rail dump pit	Baghouse C-1C	0.26
EP-04	Corn storage bin	Vent filter C-1D	0.01
EP-05	Corn storage bin	Vent filter C-1E	0.01
EP-06	Corn storage bin	Vent filter C-1F	0.01
EP-07	Corn storage bin	Vent filter C-1G	0.01
EP-08	Corn storage bin	Vent filter C-1H	0.01
EP-09	Corn storage bin	Vent filter C-1I	0.01
EP-10	Corn storage bin	Vent filter C-1J	0.01
EP-15	Hammermill	Baghouse C-2A	0.05
EP-16	Hammermill	Baghouse C-2B	0.05
EP-17	Hammermill	Baghouse C-2C	0.05
EP-18	Hammermill	Baghouse C-2D	0.05
EP-19	Hammermill	Baghouse C-2E	0.05
EP-20	Hammermill	Baghouse C-2F	0.05
EP-21	Hammermill	Baghouse C-2G	0.05
EP-22	Hammermill	Baghouse C-2H	0.05
EP-23	DDGS conveyor	Filter-8A	0.02
EP-24	DDGS conveyor	Filter-8B	0.02
EP-25	DDGS truck loadout	Baghouse C-8C	0.02
EP-26	DDGS truck loadout	Baghouse C-8D	0.02
EP-27	DDGS truck loadout	Baghouse C-8E	0.02
EP-28	DDGS rail loadout	Baghouse C-8F	0.03
P-5	Fermentation	Scrubbers C-5A	0.07
		Scrubber and C-5B	0.07
P-7	DDGS Dryer #1, DDGS Cooler #1 Distillation, Evaporation and Thermal Oxidizer #1 (C-6A) combustion	*No Control	4.0
	DDGS Dryer #2, DDGS Cooler #2 Distillation, Evaporation and Thermal Oxidizer #2 (C-6B) combustion	*No Control	4.0

Process ID	Process Description	Control ID	PM/PM10 Emissions Limits (pounds/hour)
Aventine			
	DDGS Dryer #3, DDGS Cooler #3 Distillation, Evaporation and Thermal Oxidizer #3 (C-6C) combustion	*No Control	4.0
	DDGS Dryer #4, DDGS Cooler #4 Distillation, Evaporation and Thermal Oxidizer #4 (C-6D) combustion	*No Control	4.0
F-1	Cooling tower	–	0.38
P-12	2 Emergency fire pumps	–	0.64 each
P-13	2 Emergency generators	–	2.62 each

\* Although the Thermal Oxidizers control the VOC and CO emissions from the DDGS Dryers and Coolers, Aventine will not claim that the particulate emissions from these operations are controlled by the Thermal Oxidizers.

- (2) The annual grain throughput to the Consolidated Grain & Barge grain merchandising emission units, including the particulate emissions shall not exceed the limits in the table below:

Process/Emission Units	Throughput Limits (tons/year)	PM Emissions Limit (pound/ton)	PM10 Emissions Limit (pound/ton)
Truck Receiving and Receiving Pit (P1A & P1B)	2,000,000	0.18	0.059
Truck Receiving and Receiving Pit (P1C)	2,000,000	0.18	0.059
Conveyor Leg (P1D)	2,000,000	0.061	0.034
Rail/HB and Hopper Truck Receiving (P2)	784,000	0.035	0.0078
Grain Storage/ Handling (P3)	3,000,000	0.061	0.034
Grain Dryer (P4)	160,000	0.22	0.055
Grain Dryer (P4A)	200,000	0.22	0.055
Grain Barge Loadout (P5)	800,000	0.016	0.0040
Grain Truck Loadout (P6A)	56,000	0.086	0.029

Process/Emission Units	Throughput Limits (tons/year)	PM Emissions Limit (pound/ton)	PM10 Emissions Limit (pound/ton)
Enclosed Reclaim Conveyor Leg (P6B)	300,000	0.061	0.034
North Merchandising House Receiving (P7)	56,000	0.035	0.0078
North Merchandising House Conveying (P8)	56,000	0.061	0.034
North Merchandising House Enclosed Conveying (P8B)	56,000	0.061	0.034
North Merchandising House Loadout (P9)	56,000	0.086	0.029
North Merchandising House Loadout (Hopper Truck - P9B)	56,000	0.086	0.029

Each throughput limit shall be based on a twelve (12) month period, with compliance determined at the end of each month. Compliance with these particulate emission limits in conjunction with Aventine's particulate emissions limits in NSR/Part 70 Permit No. 129-24836-00051, shall limit the particulate emissions from the entire source (Aventine's ethanol production plant and Consolidated Grain & Barge grain merchandising plant) to less than 250 tons per year, which renders the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) not applicable.

- (3) The volatile organic compounds (VOC) emissions from the following ethanol production emission units shall be limited as follows:
- (A) The VOC emissions from fermentation scrubber C-5A and scrubber C-6A shall each not exceed 8.23 pounds per hour.
  - (B) The VOC emissions from Thermal Oxidizer #1 (C-6A), which controls the DDGS dryer #1, DDGS cooler #1, distillation and evaporation shall not exceed 6.4 pounds per hour.
  - (C) The VOC emissions from Thermal Oxidizer #2 (C-6B), which controls the DDGS dryer #2, DDGS cooler #2, distillation and evaporation shall not exceed 6.4 pounds per hour.
  - (D) The VOC emissions from Thermal Oxidizer #3 (C-6C), which controls the DDGS dryer #3, DDGS cooler #3, distillation and evaporation shall not exceed 6.4 pounds per hour.
  - (E) The VOC emissions from Thermal Oxidizer #4 (C-6D), which controls the DDGS dryer #4, DDGS cooler #4, distillation and evaporation shall not exceed 6.4 pounds per hour.
  - (F) The VOC emissions from the loading racks shall be limited as follows:

- (i) The VOC emissions from the enclosed flare, C-9, which controls one (1) truck ethanol loadout, one (1) rail ethanol loadout, and one (1) barge ethanol loadout system shall not exceed 0.00015 pounds per gallon of ethanol loaded out.
- (ii) The truck, rail and barge loading racks shall be limited to a combined throughput of 227,368,000 gallons of denatured ethanol per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these VOC limits shall limit the entire source's VOC emissions to less than 250 tons per year, rendering the requirements of 326 IAC 2-2, PSD not applicable.

- (4) The Nitrogen Oxides (NO<sub>x</sub>) emissions from the following emission units at Aventine's ethanol production plant shall be limited as follows:
  - (A) The NO<sub>x</sub> emissions from the four (4) Thermal Oxidizers stack exhaust shall not exceed 43.2 pounds per million cubic feet of natural gas burned by the four (4) DDGS Dryers and four (4) RTOs.

The total throughput of natural gas to the four (4) DDGS dryers #1 through #4 and four (4) Thermal Oxidizers, C-6A, C-6B, C-6C and C-6D shall be limited to 3,784 million cubic feet per twelve month period, with compliance determined at the end of each month.
  - (B) The input of diesel fuel to the two (2) 3,740 Brake horsepower (Bhp) emergency generators shall be limited to 38,469 gallons per twelve (12) consecutive month period, with compliance at the end of each month.

Each generator shall also be limited to 99 operating hours per twelve consecutive month period, with compliance determined at the end of each month.
  - (C) The input of diesel fuel to the two (2) 290 Brake horsepower (Bhp) emergency fire pumps shall be limited to 2,984 gallons per twelve (12) consecutive month period, with compliance at the end of each month.

Each fire pump shall also be limited to 99 operating hours per twelve consecutive month period, with compliance determined at the end of each month.
- (5) The NO<sub>x</sub> emissions from the two (2) Consolidated Grain & Barge grain dryers (P4 and P4A) shall not exceed 100 pounds per million cubic feet of natural gas, and the total natural gas fuel usage shall not exceed 504 million cubic feet per twelve (12) consecutive month period, with compliance at the end of each month.

Compliance with these NO<sub>x</sub> limits shall limit the entire source's (Aventine's ethanol production plant and Consolidated Grain & Barge Co. grain merchandising plant) NO<sub>x</sub> emissions to less than 250 tons per year, rendering the requirements of 326 IAC 2-2, PSD not applicable.

- (6) The Carbon Monoxide (CO) emissions from the following emission units at Aventine's ethanol production plant shall be limited as follows:
  - (A) The CO emissions from Thermal Oxidizer #1 (C-6A), which controls the

- DDGS dryer #1, DDGS cooler #1, distillation and evaporation shall not exceed 8.9 pounds per hour.
- (B) The CO emissions from Thermal Oxidizer #2 (C-6B), which controls the DDGS dryer #2, DDGS cooler #2, distillation and evaporation shall not exceed 8.9 pounds per hour.
  - (C) The CO emissions from Thermal Oxidizer #3 (C-6C), which controls the DDGS dryer #3, DDGS cooler #3, distillation and evaporation shall not exceed 8.9 pounds per hour.
  - (D) The CO emissions from Thermal Oxidizer #4 (C-6D), which controls the DDGS dryer #4, DDGS cooler #4, distillation and evaporation shall not exceed 8.9 pounds per hour.
- (7) The sulfur dioxide (SO<sub>2</sub>) emissions from the four (4) DDGS dryers #1 through #4 shall not exceed 0.053 pound per ton of DDGS dried, and the total DDGS throughput to the four DDGS dryers shall not exceed 726,930 tons per twelve consecutive month period, with compliance determined at the end of each month.
- (8) The CO emissions from the two (2) Consolidated Grain & Barge grain dryers (P4 and P4A) shall not exceed 84 pounds per million cubic feet of natural gas.

Compliance with these CO and SO<sub>2</sub> limits and the natural gas fuel usage limit for the Consolidated Grain & Barge Co. grain dryers shall limit the CO and SO<sub>2</sub> emissions from the entire source (Aventine's ethanol production plant and Consolidated Grain & Barge Co grain merchandising plant) to less than 250 tons per year, rendering the requirements of 326 IAC 2-2, PSD not applicable.

Aventine's proposed package boilers, which are considered one of the 28 listed source categories, will be limited to less than 100 tons per year as follows, for each major pollutant to avoid the applicability of 326 IAC 2-2.

- (1) The eight (8) package boilers shall only combust natural gas. The natural gas throughput to the eight package boilers shall be limited to 6,475 MMCF per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (2) The NO<sub>x</sub> emissions from the eight (8) package boilers shall not exceed 30.0 pounds per million cubic feet of natural gas.
- (3) The CO emissions from the eight (8) package boilers shall not exceed 18 pounds per million cubic feet of natural gas.

Compliance with these limits shall render 326 IAC 2-2, PSD not applicable to the boilers.

- (b) 326 IAC 2-6-1 (Emission Reporting)  
Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
  - (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
  - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1 (32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue, MC 61-50  
Indianapolis, Indiana 46204-2251

- (c) 326 IAC 2-4.1-1 (Major Sources of Hazardous Air Pollutants (HAP))  
The source is not subject to 326 IAC 2-4.1-1, because it is subject to NESHAPs.
- (d) 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 for sources shall meet the following, unless otherwise stated in this permit:
- (1) 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.
  - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (e) 326 IAC 6-4 (Fugitive Dust Emissions)  
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.
- (f) 326 IAC 6-5 (Fugitive Particulate Emissions Limitations)  
The potential fugitive particulate emissions, as defined in 326 IAC 6-5-2, from the paved roads at this source are less than 25 tons/yr. Therefore, the requirements of 326 IAC 6-5 are not applicable.

<b>State Rule Applicability Determination - Aventine - Package Boilers</b>
--

- (a) 326 IAC 6-2-4 (PM Emission Limitations for Sources of Indirect Heating)  
Pursuant to 326 IAC 6-2-4(a), indirect heating facilities constructed after September 12, 1983, shall be limited by the following equation:

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

Where

Pt = emission rate limit (lbs/MMBtu)
Q = total source heat input capacity (MMBtu/hr)
= 92.4 x 8 boilers
= 39.2 MMBtu/hr

Therefore, the PM emission limit for the package boilers is:

$$Pt = \frac{1.09}{739.2^{0.26}} = 0.19 \text{ lbs/MMBtu.}$$

The uncontrolled PM emission rate for the eight package boilers is 0.00745 pound per million British thermal units (lb/MMBtu), which is lower than what 326 IAC 6-2-4 allows.

- (b) 326 IAC 20-95 (Industrial, Commercial, and Institutional Boilers and Process Heaters)

This rule incorporates by reference 40 CFR Part 63, Subpart DDDDD, which is applicable to the proposed natural gas-fired package boilers.

**State Rule Applicability Determination – Consolidated Grain & Barge -Grain Dryers**

- (a) 326 IAC 6-2-4 (PM Emission Limitations for Sources of Indirect Heating)  
 This rule is not applicable to the Consolidated Grain & Barge grain dryers because they are not sources of indirect heating.

**State Rule Applicability Determination – Aventine - Grain Receiving and Handling Operations**

- (a) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
  - (1) Pursuant to 326 IAC 6-3-2, particulate emissions from each of the following operations shall not exceed the pound per hour limit listed in the table below:

Process/Facility	Process Weight Rate (tons/hr)	Particulate Emissions Limit (lbs/hr)
Grain Receiving, EP-01	980	77.33
Grain receiving, EP-02	980	77.33
Grain receiving, EP-03	980	77.33
Corn Storage Bin #1	980	77.33
Corn Storage Bin #2	980	77.33
Corn Storage Bin #3	980	77.33
Corn Storage Bin #4	980	77.33
Corn Storage Bin #5	980	77.33
Corn Storage Bin #6	980	77.33
Corn Storage Bin #7	980	77.33

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

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

- (2) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), when the process weight rate exceeds two hundred (200) tons per hour, the allowable emissions may exceed that shown in the table in 326 IAC 6-3-2(e) provided the concentration of particulate in the discharge gases to the atmosphere is less than one tenth (0.10) pound per one thousand (1,000) pounds of gases.

The baghouses and vent filters shall be in operation at all times when grain is received, handled and stored, in order to comply with these limits.

- (b) 326 IAC 6.5-1-2 (Particulate Emission Limitations: Grain Elevators)  
 This rule is applicable to grain elevators that were constructed or modified before January 13, 1977, with a grain storage elevator located at any grain processing source that has a permanent storage capacity of 1,000,000 U.S. bushels or more, and any grain terminal elevator that has a permanent grain storage capacity of 2,500,000 U.S.bushels.

Aventine - The proposed grain elevator at this plant is not subject to 326 IAC 6.5-1-2, because it is a proposed new facility.

Consolidated Grain & Barge Co. - The existing grain terminal is not subject to 326 IAC 6.5-1-2, because it was constructed in 1978, which is after the applicability date of January 13,

1977.

**State Rule Applicability Determination – Consolidated Grain & Barge - Grain Handling Operations**

- (a) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
  - (1) Pursuant to 326 IAC 6-3-2, particulate emissions from each of the following operations shall not exceed the pound per hour limit listed in the table below:

Process/Emission Units	Process Weight Rate (tons/hour)	PM Emissions Limit (pounds/hour)
Truck Receiving and Receiving Pit (P1A & P1B)	1,050	78.2
Truck Receiving and Receiving Pit (P1C)	1,050	78.2
Conveyor Leg (P1D)	700	73.0
Rail/HB and Hopper Truck Receiving (P2)	420	67.0
Grain Handling (P3)	1,260	80.6
Grain Dryer (P4)	84	49.5
Grain Dryer (P4A)	105	58.1
Grain Barge Loadout (P5)	500	69.0
Grain Truck Loadout (P6A)	336	64.3
Enclosed Reclaim Conveyor Leg (P6B)	850	75.5
North Merchandising House Receiving (P7)	336	64.3
North Merchandising House Conveying (P8)	336	64.3
North Merchandising House Enclosed Conveying (P8B)	500	69.0
North Merchandising House Loadout (P9)	375	65.6
North Merchandising House Loadout (Hopper Truck - P9B)	336	64.3

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

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

- (2) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), when the process weight rate exceeds two hundred (200) tons per hour, the allowable emissions may exceed that shown in the table in 326 IAC 6-3-2(e) provided the concentration of particulate in the discharge gases to the

atmosphere is less than one tenth (0.10) pound per one thousand (1,000) pounds of gases.

The baghouses shall be in operation at all times the various grain handling emission units are in operation, in order to comply with these limits.

**State Rule Applicability Determination – Aventine - Corn Hammermilling Operation**

- (a) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)  
 Pursuant to 326 IAC 6-3-2, particulate emissions from each of the following operations shall not exceed the pound per hour limit listed in the table below:

Process/Facility	Process Weight Rate (tons/hr)	Particulate Emissions Limit (lbs/hr)
Hammermill #1	42.0	42.97
Hammermill #2	42.0	42.97
Hammermill #3	42.0	42.97
Hammermill #4	42.0	42.97
Hammermill #5	42.0	42.97
Hammermill #6	42.0	42.97
Hammermill #7	42.0	42.97
Hammermill #8	42.0	42.97

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

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

The baghouses shall be in operation at all times the corn hammermills are in operation, in order to comply with these limits.

**State Rule Applicability Determination – Aventine - DDGS Handling, Drying and Cooling Operations**

- (a) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)  
 (1) Pursuant to 326 IAC 6-3-2, particulate emissions from each of the following operations shall not exceed the pound per hour limit listed in the table below:

Process/Facility	Process Weight Rate (tons/hr)	Particulate Emissions Limit (lbs/hr)
DDGS Reclaim, EP-23	55	45.47
DDGS Reclaim, EP-24	55	45.47
DDGS Storage	83	49.43
DDGS Truck Loadout, EP-25	55	45.47
DDGS Truck Loadout, EP-26	55	45.47
DDGS Truck Loadout, EP-27	55	45.47
DDGS Rail Loadout, EP-28	400	66.31
DDGS Dryer #1	26	36.38
DDGS Dryer #2	26	36.38
DDGS Dryer #3	26	36.38
DDGS Dryer #4	26	36.38
DDGS Cooler #1	26	36.38
DDGS Cooler #1	26	36.38
DDGS Cooler #1	26	36.38
DDGS Cooler #1	26	36.38

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:

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

And

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

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

- (2) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), when the process weight rate exceeds two hundred (200) tons per hour, the allowable emissions may exceed that shown in the table in 326 IAC 6-3-2(e) provided the concentration of particulate in the discharge gases to the atmosphere is less than one tenth (0.10) pound per one thousand (1,000) pounds of gases.

The baghouses and Thermal Oxidizers shall be in operation at all times the processes they are controlling are in operation, in order to comply with these limits.

- (b) 326 IAC 8-5-6 (Fuel Grade Ethanol Production at Dry Mills)  
This rule applies to the production of fuel grade ethanol at dry mills constructed or modified after April 1, 2007, with combined VOC emissions of 25 tons per year from the Fermentation, Distillation and Dehydration, DDGS Dryers and Ethanol Loadout operations.

Pursuant to Section (c) of this rule, the owner or operator of a fuel grade ethanol production plant that is a dry mill shall install and operate at least one (1) of the following control devices for VOC emissions from the plant:

- (1) A thermal oxidizer with an overall control efficiency of not less than ninety-eight percent (98%) or resulting in a volatile organic compound concentration of not more than ten (10) parts per million (ppm).
- (2) A wet scrubber with an overall control efficiency of not less than ninety-eight percent (98%) or resulting in a volatile organic compound concentration of not more than twenty (20) parts per million (ppm).
- (3) An enclosed flare with an overall control efficiency of not less than ninety-eight percent (98%).

Pursuant to Section (d) of this rule, the source shall determine initial compliance with the control efficiency requirement within sixty (60) days after achieving maximum production levels but no later than one hundred and eighty (180) days after startup.

Pursuant to Section (e) of this rule the owner or operator of a fuel grade ethanol production plant that is a dry mill shall ensure and verify initial and continuing compliance with the control efficiency requirement by doing the following:

- (1) If using a thermal oxidizer, the owner or operator shall meet the following requirements:

- (A) The three (3) hour average operating temperature of the oxidizer, as measured by a continuous temperature monitor, must be greater than or equal to the minimum operating temperature established during the most recent compliance demonstration.
  - (B) Maintain continuous temperature records for the thermal oxidizer and the three (3) hour average operating temperature used to demonstrate compliance during the most recent compliant stack test.
  - (C) The three (3) hour average duct pressure or fan amperage, as measured by a continuous parameter monitoring system, must be within the normal range established during the most recent compliance demonstration.
  - (D) Maintain daily records of the duct pressure or fan amperage for the thermal oxidizer.
- (2) If using a wet scrubber, the owner or operator shall meet the following requirements:
- (A) The pressure drop across the scrubber must be within the normal range established during the latest stack test. The pressure drop of the scrubber must be monitored at least once per day when the associated emission unit is in operation to ensure that the pressure drop across the scrubber is within the normal range established during the latest stack test.
  - (B) The scrubber flow rate must be greater than the minimum flow rate for the scrubber during normal operation. The scrubber flow rate must be monitored at least once per day when the associated emission unit is in operation to ensure that the flow rate of the scrubber is greater than the minimum flow rate established during the latest stack test.
  - (C) Maintain daily records of pressure drop and flow rate for the scrubber during normal operation.
- (3) If using an enclosed flare, the owner or operator shall meet the following requirements:
- (A) Maintain a flare pilot flame when the associated emission unit is in operation and continuously monitor the presence of a flare pilot flame using a thermocouple or any other equivalent device to detect the presence of a flame when the associated emission unit is in operation.
  - (B) Maintain records of temperature or other parameters sufficient to demonstrate the presence of a pilot flame when the loading rack is in operation.

The source will control the DDGS Dryers with thermal oxidizers to comply with 326 IAC 8-5-6.

- (c) 326 IAC 8-1-6 (New Facilities, General Reduction Requirements)  
This rule applies to new facilities with potential VOC emissions of 25 tons per year or more, located anywhere in the state, and are not otherwise regulated by other provisions of article, 326 IAC 8.

Each DDGS Cooler operates as a process line with one DDGS Dryer and the Distillation and Evaporation processes. Each cooler has VOC potential emissions of 13.6 tons per

year, which is less than 25 tons per year. Therefore, each DDGS Cooler is not subject to 326 IAC 8-1-6.

**State Rule Applicability Determination – Aventine - Cooling Tower**

- (a) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)  
Pursuant to 326 IAC 6-3-1, noncontact cooling tower systems are one of the manufacturing processes listed as exempt from this rule.

**State Rule Applicability Determination – Aventine - VOL Storage Tanks (Tk001 through Tk005, Tk006, Tk007 through Tk010)**

- (a) 326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)

This rule applies to all petroleum liquid storage vessels with capacities greater than one hundred fifty thousand (150,000) liters (thirty-nine thousand (39,000) gallons) containing volatile organic compounds with true vapor pressure greater than 10.5 kPa (1.52 psi). The proposed denaturant storage tank (Tk006) has a maximum capacity greater than 39,000 gallons and will be used to store gasoline which has a vapor pressure greater than 1.52 psi. Therefore, tank Tk006 is subject to the requirements of 326 IAC 8-4-3. Tank Tk006 will be equipped with an internal floating roof.

- (1) Pursuant to 326 IAC 8-4-3(b)(1)(B), storage tank Tk006 shall be maintained such that there are no visible holes, tears, or other openings in the seal or any seal fabric or materials.
- (2) Pursuant to 326 IAC 8-4-3(b)(1)(C), all openings, except stub drains, are equipped with covers, lids, or seals such that:
- (A) The cover, lid or seal in the closed position at all times except when in actual use;
- (B) Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports;
- (C) Rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting.
- (3) Pursuant to 326 IAC 8-4-3(d), the Permittee shall maintain the following records for a period of two (2) years for tank Tk006:
- (A) The types of volatile petroleum liquid stored;
- (B) The maximum true vapor pressure of the liquids as stored; and
- (C) The results of the inspections performed on the storage vessels.
- (b) 326 IAC 8-9-4 (Volatile Organic Liquid Storage Vessels)  
This rule only applies to sources located in Clark, Floyd, Lake or Porter Counties. The proposed source is not located in one of these counties. Therefore, the proposed tanks are not subject to this rule.

**State Rule Applicability Determination – Aventine - Emergency Fire Pumps and Emergency Generators**

- (a) 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations)  
This rule applies to emission units with a potential to emit of 25 tons per year or 10 pounds per hour, and are subject to the SO<sub>2</sub> limitations required under this rule.
- (1) The two (2) 290 BHp diesel emergency fire pumps (2.11 MMBtu/hr each) have a total potential to emit of 0.30 tons/year of SO<sub>2</sub>. Therefore, they are not subject to 326 IAC 7.1.1-2.
- (2) The two (2) 3740 BHp diesel emergency generators (27.2 MMBtu/hr each) have a total potential to emit of 0.61 tons/year of SO<sub>2</sub>. Therefore, they are not subject to 326 IAC 7.1.1-2.
- (b) 326 IAC 9-1-2 (Carbon Monoxide Emission Limits)  
The proposed ethanol production plant is not among the listed source categories in 326 IAC 9-1-2. Therefore, it is not subject to this rule.
- (c) 326 IAC 6.5-1-2 (Particulate Emission Limitations: Fuel Combustion Steam Generators)  
This rule is applicable to steam generators. The proposed two (2) 3740 BHp diesel emergency generators (27.2 MMBtu/hr each) are not subject to this rule, because they are not steam generators. These emergency generators will be used during power outage to provide electrical power to those ethanol operations that are supported by electrical power.

<b>State Rule Applicability Determination – Aventine - Fermentation</b>
---

- (a) 326 IAC 8-5-6 (Fuel Grade Ethanol Production at Dry Mills)  
This rule applies to the production of fuel grade ethanol at dry mills constructed or modified after April 1, 2007, with a combined VOC emissions of 25 tons per year from the Fermentation, Distillation and Dehydration, DDGS Dryers and Ethanol Loadout operations.

Pursuant to Section (c) of this rule, the owner or operator of a fuel grade ethanol production plant that is a dry mill shall install and operate at least one (1) of the following control devices for VOC emissions from the plant:

- (1) A thermal oxidizer with an overall control efficiency of not less than ninety-eight percent (98%) or resulting in a volatile organic compound concentration of not more than ten (10) parts per million (ppm).
- (2) A wet scrubber with an overall control efficiency of not less than ninety-eight percent (98%) or resulting in a volatile organic compound concentration of not more than twenty (20) parts per million (ppm).
- (3) An enclosed flare with an overall control efficiency of not less than ninety-eight percent (98%).

Pursuant to Section (d) of this rule, the source shall determine initial compliance with the control efficiency requirement within sixty (60) days after achieving maximum production levels but no later than one hundred and eighty (180) days after startup.

Pursuant to Section (e) of this rule the owner or operator of a fuel grade ethanol production plant that is a dry mill shall ensure and verify initial and continuing compliance with the control efficiency requirement by doing the following:

- (1) If using a thermal oxidizer, the owner or operator shall meet the following requirements:

- (A) The three (3) hour average operating temperature of the oxidizer, as measured by a continuous temperature monitor, must be greater than or equal to the minimum operating temperature established during the most recent compliance demonstration.
  - (B) Maintain continuous temperature records for the thermal oxidizer and the three (3) hour average operating temperature used to demonstrate compliance during the most recent compliant stack test.
  - (C) The three (3) hour average duct pressure or fan amperage, as measured by a continuous parameter monitoring system, must be within the normal range established during the most recent compliance demonstration.
  - (D) Maintain daily records of the duct pressure or fan amperage for the thermal oxidizer.
- (2) If using a wet scrubber, the owner or operator shall meet the following requirements:
- (A) The pressure drop across the scrubber must be within the normal range established during the latest stack test. The pressure drop of the scrubber must be monitored at least once per day when the associated emission unit is in operation to ensure that the pressure drop across the scrubber is within the normal range established during the latest stack test.
  - (B) The scrubber flow rate must be greater than the minimum flow rate for the scrubber during normal operation. The scrubber flow rate must be monitored at least once per day when the associated emission unit is in operation to ensure that the flow rate of the scrubber is greater than the minimum flow rate established during the latest stack test.
  - (C) Maintain daily records of pressure drop and flow rate for the scrubber during normal operation.
- (3) If using an enclosed flare, the owner or operator shall meet the following requirements:
- (A) Maintain a flare pilot flame when the associated emission unit is in operation and continuously monitor the presence of a flare pilot flame using a thermocouple or any other equivalent device to detect the presence of a flame when the associated emission unit is in operation.
  - (B) Maintain records of temperature or other parameters sufficient to demonstrate the presence of a pilot flame when the loading rack is in operation.

The source will control the Fermentation process with wet scrubbers to comply with 326 IAC 8-5-6.

<b>State Rule Applicability Determination – Aventine’s Distillation and Dehydration</b>
---

- (a) 326 IAC 8-5-6 (Fuel Grade Ethanol Production at Dry Mills)  
This rule applies to the production of fuel grade ethanol at dry mills constructed or modified after April 1, 2007, with a combined VOC emissions of 25 tons per year from the Fermentation, Distillation and Dehydration, DDGS Dryers and Ethanol Loadout operations.

Pursuant to Section (c) of this rule, the owner or operator of a fuel grade ethanol production plant that is a dry mill shall install and operate at least one (1) of the following control devices for VOC emissions from the plant:

- (1) A thermal oxidizer with an overall control efficiency of not less than ninety-eight percent (98%) or resulting in a volatile organic compound concentration of not more than ten (10) parts per million (ppm).
- (2) A wet scrubber with an overall control efficiency of not less than ninety-eight percent (98%) or resulting in a volatile organic compound concentration of not more than twenty (20) parts per million (ppm).
- (3) An enclosed flare with an overall control efficiency of not less than ninety-eight percent (98%).

Pursuant to Section (d) of this rule, the source shall determine initial compliance with the control efficiency requirement within sixty (60) days after achieving maximum production levels but no later than one hundred and eighty (180) days after startup.

Pursuant to Section (e) of this rule the owner or operator of a fuel grade ethanol production plant that is a dry mill shall ensure and verify initial and continuing compliance with the control efficiency requirement by doing the following:

- (1) If using a thermal oxidizer, the owner or operator shall meet the following requirements:
  - (A) The three (3) hour average operating temperature of the oxidizer, as measured by a continuous temperature monitor, must be greater than or equal to the minimum operating temperature established during the most recent compliance demonstration.
  - (B) Maintain continuous temperature records for the thermal oxidizer and the three (3) hour average operating temperature used to demonstrate compliance during the most recent compliant stack test.
  - (C) The three (3) hour average duct pressure or fan amperage, as measured by a continuous parameter monitoring system, must be within the normal range established during the most recent compliance demonstration.
  - (D) Maintain daily records of the duct pressure or fan amperage for the thermal oxidizer.
- (2) If using a wet scrubber, the owner or operator shall meet the following requirements:
  - (A) The pressure drop across the scrubber must be within the normal range established during the latest stack test. The pressure drop of the scrubber must be monitored at least once per day when the associated emission unit is in operation to ensure that the pressure drop across the scrubber is within the normal range established during the latest stack test.
  - (B) The scrubber flow rate must be greater than the minimum flow rate for the scrubber during normal operation. The scrubber flow rate must be monitored at least once per day when the associated emission unit is in

operation to ensure that the flow rate of the scrubber is greater than the minimum flow rate established during the latest stack test.

- (C) Maintain daily records of pressure drop and flow rate for the scrubber during normal operation.
- (3) If using an enclosed flare, the owner or operator shall meet the following requirements:
- (A) Maintain a flare pilot flame when the associated emission unit is in operation and continuously monitor the presence of a flare pilot flame using a thermocouple or any other equivalent device to detect the presence of a flame when the associated emission unit is in operation.
  - (B) Maintain records of temperature or other parameters sufficient to demonstrate the presence of a pilot flame when the loading rack is in operation.

The source will control the Distillation and Dehydration operations with thermal oxidizers to comply with 326 IAC 8-5-6.

<b>State Rule Applicability Determination – Aventine’s Ethanol Loadout</b>
--

- (a) 326 IAC 8-5-6 (Fuel Grade Ethanol Production at Dry Mills)  
This rule applies to the production of fuel grade ethanol at dry mills constructed or modified after April 1, 2007, with a combined VOC emissions of 25 tons per year from the Fermentation, Distillation and Dehydration, DDGS Dryers and Ethanol Loadout operations.

Pursuant to Section (c) of this rule, the owner or operator of a fuel grade ethanol production plant that is a dry mill shall install and operate at least one (1) of the following control devices for VOC emissions from the plant:

- (1) A thermal oxidizer with an overall control efficiency of not less than ninety-eight percent (98%) or resulting in a volatile organic compound concentration of not more than ten (10) parts per million (ppm).
- (2) A wet scrubber with an overall control efficiency of not less than ninety-eight percent (98%) or resulting in a volatile organic compound concentration of not more than twenty (20) parts per million (ppm).
- (3) An enclosed flare with an overall control efficiency of not less than ninety-eight percent (98%).

Pursuant to Section (d) of this rule, the source shall determine initial compliance with the control efficiency requirement within sixty (60) days after achieving maximum production levels but no later than one hundred and eighty (180) days after startup.

Pursuant to Section (e) of this rule the owner or operator of a fuel grade ethanol production plant that is a dry mill shall ensure and verify initial and continuing compliance with the control efficiency requirement by doing the following:

- (1) If using a thermal oxidizer, the owner or operator shall meet the following requirements:
  - (A) The three (3) hour average operating temperature of the oxidizer, as measured by a continuous temperature monitor, must be greater than or equal to the minimum operating temperature established during the most

- recent compliance demonstration.
- (B) Maintain continuous temperature records for the thermal oxidizer and the three (3) hour average operating temperature used to demonstrate compliance during the most recent compliant stack test.
  - (C) The three (3) hour average duct pressure or fan amperage, as measured by a continuous parameter monitoring system, must be within the normal range established during the most recent compliance demonstration.
  - (D) Maintain daily records of the duct pressure or fan amperage for the thermal oxidizer.
- (2) If using a wet scrubber, the owner or operator shall meet the following requirements:
- (A) The pressure drop across the scrubber must be within the normal range established during the latest stack test. The pressure drop of the scrubber must be monitored at least once per day when the associated emission unit is in operation to ensure that the pressure drop across the scrubber is within the normal range established during the latest stack test.
  - (B) The scrubber flow rate must be greater than the minimum flow rate for the scrubber during normal operation. The scrubber flow rate must be monitored at least once per day when the associated emission unit is in operation to ensure that the flow rate of the scrubber is greater than the minimum flow rate established during the latest stack test.
  - (C) Maintain daily records of pressure drop and flow rate for the scrubber during normal operation.
- (3) If using an enclosed flare, the owner or operator shall meet the following requirements:
- (A) Maintain a flare pilot flame when the associated emission unit is in operation and continuously monitor the presence of a flare pilot flame using a thermocouple or any other equivalent device to detect the presence of a flame when the associated emission unit is in operation.
  - (B) Maintain records of temperature or other parameters sufficient to demonstrate the presence of a pilot flame when the loading rack is in operation.

The source will control the Ethanol Loadout operation with enclosed flare to comply with 326 IAC 8-5-6.

### **Compliance Determination and Monitoring Requirements**

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

<b>Aventine's Compliance Determination and Monitoring Requirements</b>
--

The following are Aventine's Compliance Determination and Monitoring Requirements for the ethanol plant:

**SECTION D.1** - The grain handling, hammermilling and DDGS handling have applicable compliance determination conditions as specified below:

- (1) The following emission units shall be controlled by the associated baghouses and vent filters at all times as listed in the table below:

<b>Process ID</b>	<b>Process Description</b>	<b>Control ID</b>
EP-01	Truck dump pit	Baghouse C-1A
EP-02	Truck dump pit	Baghouse C-1B
EP-03	Truck/rail dump pit	Baghouse C-1C
EP-04	Corn storage bin	Vent filter C-1D
EP-05	Corn storage bin	Vent filter C-1E
EP-06	Corn storage bin	Vent filter C-1F
EP-07	Corn storage bin	Vent filter C-1G
EP-08	Corn storage bin	Vent filter C-1H
EP-09	Corn storage bin	Vent filter C-1I
EP-10	Corn storage bin	Vent filter C-1J
EP-11	Surge bin	Vent filter C-1K
EP-12	Surge bin	Vent filter C-1L
EP-13	Surge bin	Vent filter C-1M
EP-14	Surge bin	Vent filter C-1N
EP-15	Hammermill	Baghouse C-2A
EP-16	Hammermill	Baghouse C-2B
EP-17	Hammermill	Baghouse C-2C
EP-18	Hammermill	Baghouse C-2D
EP-19	Hammermill	Baghouse C-2E
EP-20	Hammermill	Baghouse C-2F
EP-21	Hammermill	Baghouse C-2G
EP-22	Hammermill	Baghouse C-2H
EP-23	DDGS conveyor	Filter-8A
EP-24	DDGS conveyor	Filter-8B
EP-25	DDGS truck loadout	Baghouse C-8C
EP-26	DDGS truck loadout	Baghouse C-8D
EP-27	DDGS truck loadout	Baghouse C-8E
EP-28	DDGS rail loadout	Baghouse C-8F

- (2) PM, PM10 testing shall be performed for one of Baghouses C-1A through C-1C, controlling three (3) grain dump pits, one of Baghouses C-2A through C-2H, controlling eight (8) hammermills within 60 days after achieving maximum production capacity, but no later than 180 days after initial startup.
- (3) Visible emission notations of the stacks exhausts from baghouses and vent filters controlling truck dump pit (EP-01), truck dump pit (EP-02), truck/rail dump pit (EP-03), corn storage bins (EP-04 through EP-10), surge bins (EP-11 through EP-14), hammermills (EP15 through 22), DDGS receiving conveyors and trucks/barge DDGS loadouts shall be performed once per day during normal daylight operations.
- (4) Recording of the pressure drop across baghouses; C-1A controlling one (1) truck dump pit (EP-01); C-1B controlling one (1) truck dump pit (EP-02) and C-1C controlling one (1) truck dump pit and rail dump pit (EP-03, baghouses (C-2A through C-2H), each controlling one (1) hammermill (EP15 through 22), must be performed at least once per day when the respective emission units are in operation.

Summary of Compliance Determination					
Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing	PM/PM10/PM2.5 Limit Requirement
Truck dump pits (EP-01 and EP-02) truck/rail dump pit (EP-03)	Baghouses	No later than 180 days	PM/PM10/PM2.5	One baghouse every 5 years	Each is limited to 0.26 lb/hr
Hammermills (EP-15 through EP-22)	Baghouses	No later than 180 days	PM and PM10	One baghouse every 5 years	Each is limited to 0.05 lb/hr

The above requirements are required to ensure compliance with the 326 IAC 6-3 (Particulate Emissions for Manufacturing Processes) and to render 326 IAC 2-2 (PSD) not applicable.

**SECTION D.2** - The milled grain cooking, distillation and dehydration, DDGS drying and DDGS cooling have applicable compliance determination conditions as specified below:

- (1) The Thermal Oxidizers (C-6A and C-6B or C-6C and C-6D used for VOC control, shall be in operation at all times when an emission unit that the Thermal Oxidizers control is in operation.
- (2) VOC and CO, including capture and destruction efficiency testing on the four (4) Thermal Oxidizers (C-6A and C-6B or C-6C and C-6D) used in conjunction with the milled grain cooking, distillation and dehydration, DDGS dryers and DDGS coolers must be performed within 60 days after achieving maximum production capacity, but no later than 180 days after initial startup.

Emission Unit	Control Device	Timeframe for Testing	Frequency of Testing	VOC Limit	CO Limit
Milled grain cooking, distillation and dehydration, DDGS dryers and DDGS coolers	Thermal Oxidizers	No later than 180 days	Every 5 years	Each Thermal Oxidizer 98% overall control efficiency, 10 ppmv outlet concentration and 6.4 lb/hr	8.9 lb/hr each Thermal Oxidizer

- (3) Visible emission notations of the Thermal Oxidizers stacks exhaust shall be performed once per day during normal daylight operations.

- (4) The Permittee shall determine the appropriate duct pressure or fan amperage from the most recent valid stack test and shall be observed at least once per day when any of the thermal oxidizers is in operation.
- (5) The Permittee shall operate the Thermal Oxidizers at or above the 3-hour average temperature of 1,600°F or temperature determined during the most recent valid stack test.

The above requirements are required to render 326 IAC 2-2 (PSD) not applicable.

**SECTION D.3** - The Fermentation operation has applicable compliance determination conditions as specified below:

- (1) The scrubbers, C-5A and C-5B for VOC control shall be in operation at all times when the Fermentation process is in operation.
- (2) VOC testing for the Fermentation process shall be performed, including the capture and absorption efficiency testing on scrubbers, C-5A and C-5B for controlling the Fermentation process within 60 days after achieving maximum production capacity, but no later than 180 days after initial startup.

Emission Unit	Control Device	Timeframe for Testing	Frequency of Testing	VOC Limit
Fermentation	scrubbers C-5A and C-5B	No later than 180 days	Every 5 years	Each Scrubber with 98% overall control efficiency or 20 ppmv outlet concentration and 8.23 lbs/hr

- (3) The Permittee shall record the pH of the scrubbing liquid, pressure drop and scrubbing liquid flow rate of scrubbers C-5A and C-5B at least once per day when the Fermentation process is in operation to ensure that the flow rate of the scrubbers are greater than the minimum flow rate established during the latest stack test

The above requirements are required to render 326 IAC 2-2 (PSD) not applicable.

**SECTION D.4** - The Ethanol loadout operation has applicable compliance determination conditions as specified below:

- (1) The enclosed Flare, C-9, shall be in operation at all times when denatured ethanol or undenatured ethanol is being loaded out.
- (2) VOC testing shall be performed for the enclosed Flare controlling the ethanol loading racks within 60 days after achieving maximum production capacity, but no later than 180 days after initial startup.

Emission Unit	Control Device	Timeframe for Testing	Frequency of Testing	VOC Limit
Ethanol Loadout	Enclosed Flare	No later than 180 days	Every 5 years	Enclosed Flare with 98% overall control efficiency and 3.77 lbs/hr

- (3) The flare must be operated with a flame present at all times the ethanol loading racks are in operation and are loading ethanol to trucks, railcars and barge.
- (4) The Permittee shall continuously monitor the presence of the Flare pilot flame and the combustion

chamber temperature using a thermocouple or any other equivalent device when the ethanol loading rack is in operation or is loading denatured ethanol to trucks and railcars and shall operate the flare at or above the 3-hour average temperature of 1,600°F or temperature determined during the most recent valid stack test.

The above requirements are required to render 326 IAC 2-2 (PSD) not applicable.

**SECTION D.5** - The storage tanks have applicable compliance determination conditions as specified below:

- (1) The Stage I vapor balance system for VOC control shall be in operation at all times when storage tank TK006 is being filled with gasoline.

**SECTION D.8** - The package boilers have compliance determination condition as specified below:

- (1) CO and NOx testing shall be performed for the package boilers, in order to determine compliance with the limits to avoid the applicability of 326 IAC 2-2.

Emission Unit	Control Device	Timeframe for Testing	Frequency of Testing	NOx Limit	CO Limit
Package Boilers	None	No later than 180 days	Every 5 years	30 lbs/MMCF of natural gas	18lbs/MMCF of natural gas

The above requirements are required to render 326 IAC 2-2 (PSD) not applicable.

<b>Consolidated Grain &amp; Barge Compliance Determination and Requirements</b>
---

The following are Consolidated Grain & Barge's Compliance Determination and Monitoring Requirements for the grain merchandising plant:

**SECTION D.1** - The grain merchandising plant have applicable compliance determination conditions as specified below:

- (1) The baghouses telescoping spouts and spout extensions for particulate control shall be in operation or in place at all times when P1A, P1B, P1C, P3, P5 and P6A, are in operation.
- (2) PM/PM10 testing shall be performed for baghouses used in conjunction with the Truck Only Receiving, identified as P-1 (P1A & P1B), Receiving Pit, identified as P1C, conveyor leg (P1D), the Grain Storage/Handling Areas, identified as P3, within 60 days after achieving maximum production capacity, but no later than 180 days after initial startup.
- (4) Visible emission notations of the stacks exhaust from baghouses controlling Truck Only Receiving, identified as P-1 (P1A & P1B), Receiving Pit, identified as P1C, the Grain Storage/Handling Areas, identified as P3 shall be performed once per day during normal daylight operations.
- (5) The Permittee shall record the pressure drop across baghouses; C-1 controlling the Truck Only Receiving, identified as P-1 (P1A & P1B); C-2 controlling Grain Storage/Handling Areas, identified as P3, and C-3 controlling Receiving Pit, identified as P1C, at least once per day when the respective emission unit is in operation.

The above requirements are required to ensure compliance with the 326 IAC 6-3 (Particulate Emissions for Manufacturing Processes) and to render 326 IAC 2-2 (PSD) not applicable.

### Conclusion and Recommendation

The construction of this proposed Aventine ethanol production plant and operation of the Consolidated Grain & Barge Co. grain merchandising plant shall be subject to the conditions of the attached proposed Aventine's **NSR/Part 70 Permit No. 129-24836-00051 and Consolidated Grain & Barge Co. Part 70 Permit No. 129-24928-00014**. The staff recommend to the Commissioner that these New Source Construction and Part 70 Permits be approved.

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

**Company Name: Consolidated Grain and Barge, Co.  
 Address City IN Zip: 2801 Bluff Road, Mt. Vernon, Indiana 47620  
 Permit Number: TV 129-24928  
 Pit ID: 129-00014  
 Reviewer: Aida De Guzman  
 Application Date: 15-Jun-07**

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

36.0	Grain Dryer (P4)	315.4
21.6	Grain Dryer (P4A)	189.2

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10/PM2.5	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Grain Dryer (P4) PTE(tons/yr)	0.3	1.2	0.09	15.8	0.9	13.2
Grain Dryer (P4A) PTE(tons/yr)	0.18	0.72	0.06	9.5	0.52	7.95
<b>TOTAL PTE (tons/yr)</b>	<b>0.48</b>	<b>1.92</b>	<b>0.15</b>	<b>25.23</b>	<b>1.39</b>	<b>21.19</b>

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

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, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

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

## Appendix A: Emissions Calculations

Company Name: Consolidated Grain & Barge, Co.  
Address City IN Zip: 2801 Bluff Road, Mt. Vernon, Indiana 47620  
Permit Number: TV 129-24928  
Plt ID: 129-00014  
Reviewer: Aida De Guzman  
Application Date: June 15, 2007

Process	Annual Throughput (tons/yr)	PM Emission Factor (lbs/ton)	PM10 Emission Factor (lbs/ton)	PM2.5 Emission Factor (lbs/ton)	Control Efficiency	Uncontrolled Potential to Emit PM (tons/yr)	Controlled & Limited Potential to Emit PM (tons/yr)	Uncontrolled Potential to Emit PM10 (tons/yr)	Controlled & Limited Potential to Emit PM10 (tons/yr)	Uncontrolled Potential to Emit PM2.5 (tons/yr)	Controlled & Limited Potential to Emit PM2.5 (tons/yr)
Truck Receiving and Receiving Pit (P1A & P1B)	2,000,000	0.18	0.059	0.01	95%	180.00	9.00	59.00	2.95	10.00	0.50
Truck Receiving and Receiving Pit (P1C)	2,000,000	0.18	0.059	0.01	95%	180.00	9.00	59.00	2.95	10.00	0.50
Conveyor Leg (P1D)	2,000,000	0.061	0.034	0.0058	95%	61.00	3.05	34.00	1.70	5.80	0.29
Rail/HB and Hopper Truck Receiving (P2)	784,000	0.035	0.0078	0.0013	0	13.72	13.72	3.06	3.06	0.51	0.51
Grain Handling (P3)	3,000,000	0.061	0.034	0.0058	95%	91.50	4.58	51.00	2.55	8.70	0.44
Grain Dryer (P4)	160,000	0.22	0.055	0.0094	0	17.60	17.60	4.4	4.4	0.75	0.75
Grain Dryer (P4A)	200,000	0.22	0.055	0.0094	0	22.00	22.00	5.50	5.5	0.94	0.94
Grain Barge Loadout (P5)	800,000	0.016	0.004	0.00055	0	6.40	6.40	1.6	1.6	0.22	0.22
Grain Truck Loadout (P6A)	56,000	0.086	0.029	0.0049	40%	2.41	1.44	0.81	0.49	0.14	0.08
Enclosed Reclaim Conveyor Leg (P6B)	300,000	0.061	0.034	0.0058	40%	9.15	5.49	5.10	3.06	0.87	0.522
North Merchandising House Receiving (P7)	56,000	0.035	0.0078	0.0013	0	0.98	0.98	0.22	0.22	0.04	0.04
North Merchandising House Conveying (P8)	56,000	0.061	0.034	0.0058	0	1.71	1.71	0.95	0.95	0.16	0.16
North Merchandising House Enclosed Conveying (P8B)	56,000	0.061	0.034	0.0058	0	1.71	1.71	0.95	0.95	0.16	0.16
North Merchandising House Loadout (P9)	56,000	0.086	0.029	0.0049	0	2.41	2.41	0.81	0.81	0.14	0.14
North Merchandising House Loadout (Hopper Truck - P9B)	56,000	0.086	0.029	0.0049	0	2.41	2.41	0.81	0.81	0.14	0.14
<b>TOTAL</b>						<b>592.99</b>	<b>101.49</b>	<b>227.22</b>	<b>32.00</b>	<b>38.56</b>	<b>5.39</b>

**Methodology**

Annual throughput (tons per year) x Emission Factor (lbs/ton) x (1 ton/2000 lbs) = Unrestricted Potential to Emit Before Controls (Tons Per Year)

Sources emission factors (AP-42 Table 9.9.1-1, SCC 3-02-005-27, and SCC 3-02-005-30)

## **Air Quality Analysis - Appendix B**

### **Aventine Renewable Energy, Inc. and Consolidated Grain & Barge Company**

#### **Mt. Vernon, Indiana (Posey County)**

**NSR/Part 70: 129-24268-00051**

**Part 70: 129-24928-00014**

#### **Proposed Project**

Aventine Renewable Energy, Inc. submitted a minor source application on June 18, 2007, to build an undenatured ethanol production facility in Mt. Vernon, Indiana. The ethanol production facility will have an annual capacity of 216 million gallons.

Malcolm Pirnie prepared the modeling portion of the permit application for Aventine Renewable Energy. This technical support document provides the air quality analysis review of the submitted modeling by Malcolm Pirnie for Aventine Renewable Energy.

#### **Analysis Summary**

Based on the potential emissions after controls, an air quality analysis was triggered for SO<sub>2</sub>, PM<sub>10</sub>, CO, and NO<sub>x</sub>. For VOCs, no analysis is required. The significant impact analysis for NO<sub>x</sub>, SO<sub>2</sub> and PM<sub>10</sub> determined that modeling concentrations exceeded the significant impact levels. A refined analysis was required and showed no contribution to violations of the NAAQS. CO did not exceed significant impact levels. (Pre-construction monitoring requirements are not necessary since nearby monitoring was available from Vanderburgh County.) An additional impact analysis was conducted and showed no significant impact. A Hazardous Air Pollutant (HAP) analysis was performed since emissions of one HAP were greater than 10 tons per year. Based on the HAPs modeling results, the source will not pose a health concern.

#### **Air Quality Impact Objectives**

The purpose of the air quality impact analysis in the permit application is to accomplish the following objectives. Each objective is individually addressed in this document in each section outlined below.

- A. Establish which pollutants require an air quality analysis based on PSD significant emission rates.
- B. Provide analyses of actual stack heights with respect to Good Engineering Practice (GEP), the meteorological data used, a description of the model used in the analysis, and the receptor grid utilized for the analyses.
- C. Determine the significant impact level, the area impacted by the source's emissions and background air quality levels.
- D. Demonstrate that the source will not cause or contribute to a violation of the National Ambient Air Quality Standard (NAAQS) if the applicant exceeds significant impact levels.

- E. Perform a qualitative analysis of the source's impact on general growth, soils, vegetation and visibility in the impact area with emphasis on any Class I areas. The nearest Class I area is Kentucky's Mammoth Cave National Park.
- F. Perform a Hazardous Air Pollutant (HAP) screening for informational purposes.
- G. Summarize the Air Quality Analysis.

## Section A - Pollutants Analyzed for Air Quality Impact

### Applicability

The PSD requirements, 326 IAC 2-2, apply in attainment and unclassifiable areas and require an air quality impact analysis of each regulated pollutant emitted in significant amounts by a major stationary source or modification. Significant emission levels for each pollutant are defined in 326 IAC 2-2-1 and in the Code of Federal Regulations (CFR) 52.21(b) (23) (i).

### Proposed Project Emissions

VOCs, PM<sub>10</sub>, NO<sub>x</sub>, SO<sub>2</sub>, and CO are the pollutants that will be emitted from Aventine Renewable Energy and are summarized below in Table 1. PM<sub>10</sub>, NO<sub>x</sub>, SO<sub>2</sub>, and CO potential emissions after controls exceed the PSD significant emission rates and will require an air quality analysis.

**TABLE 1**  
**Significant Emission Rates for PSD**

POLLUTANT	SOURCE EMISSION RATE (Facility totals in tons/year)	SIGNIFICANT EMISSION RATE (tons/year)	PRELIMINARY AQ ANALYSIS REQUIRED
VOC <sup>1</sup>	212.37	40	No <sup>1</sup>
PM <sub>10</sub>	128.89	15	Yes
NO <sub>x</sub>	214.5	40	Yes
SO <sub>2</sub>	79.34	40	Yes
CO	247.5	100	Yes

<sup>1</sup> An air quality analysis is not performed for VOCs because they are photochemically reactive. Photochemical models like UAM-V are used in regulatory or policy assessments to simulate the impacts from all sources by estimating pollutant concentrations and deposition of both inert and chemically reactive pollutants over large spatial scales. Currently, U.S. EPA has no regulatory photochemical models which can take into account small spatial scales or single source PSD modeling for ozone.

These are Aventine Renewable Energy permitted emission rates that are taken from emissions calculation sheets from IDEM's permit technical support document. These emissions include Consolidated Grain and Barge emissions. Aventine Renewable Energy will receive 99% of the corn output from Consolidated Grain & Barge. These are also the emission rates that were modeled.

## Section B – Good Engineering Practice (GEP), Met Data, Model Used, Receptor Grid and Terrain

### Stack Height Compliance with Good Engineering Practice (GEP)

#### Applicability

Stacks should comply with GEP requirements established in 326 IAC 1-7-4. If stacks are lower than GEP, excessive ambient concentrations due to aerodynamic downwash may occur. Dispersion modeling credit for stacks taller than 65 meters (213 feet) are limited to GEP for the purpose of establishing emission limitations. The GEP stack height takes into account the distance and dimensions of nearby structures, which would affect the downwind wake of the stack. The downwind wake is considered to extend five times the lesser of the structure's height or width. A GEP stack height is determined for each nearby structure by the following formula:

$$H_g = H + 1.5L$$

Where:                      H<sub>g</sub> is the GEP stack height  
                                  H is the structure height  
                                  L is the structure's lesser dimension (height or width)

#### New Stacks

Since the new stack heights for Aventine Renewable Energy are below GEP stack height, the effect of aerodynamic downwash will be accounted for in the air quality analysis for the project.

#### Meteorological Data

The meteorological data used in AERMOD consisted of 1986 through 1990 surface data from the Evansville, Indiana and upper air measurements taken at Peoria, Illinois. The meteorological data was downloaded from Lakes Environmental and preprocessed using AERMET.

#### Model Description

Malcolm Pirnie used AERMOD, Version 07026. OAQ used the same model version to determine maximum off-property concentrations or impacts for each pollutant. All regulatory default options were utilized in the U.S. EPA approved model, as listed in the 40 Code of Federal Register Part 51, Appendix W "Guideline on Air Quality Models".

#### Receptor Grid

OAQ modeling used the same receptor grids generated by Malcolm Pirnie. The receptor grid contains over 3100 individual receptors.

- 100 meter spacing along the facility's property boundary,
- 100 meter spacing from 0 to 1,000 meters from the facility,
- 250 meters spacing from 1,000 to 3,000 meters from the facility,
- 500 meters spacing from 3,000 to 10,000 meters from the facility.

### Treatment of Terrain

Receptor terrain elevation inputs were interpolated from DEM (Digital Elevation Model) data obtained from the USGS. DEM terrain data was preprocessed using AERMAP. The terrain files that were used in the terrain analysis can be found on the CD-ROM in Appendix B of the air quality technical support document provided by Malcolm Pirnie.

## Section C - Significant Impact Level/Area (SIA) and Background Air Quality Levels

A significant impact analysis was conducted to determine if the source would exceed the PSD significant impact levels (concentrations). If the source's concentrations would exceed these levels, further air quality analysis is required. Refined modeling for PM<sub>10</sub>, SO<sub>2</sub>, and NO<sub>x</sub> was required because the results did exceed significant impact levels. Significant impact levels are defined by the following time periods in Table 2 below with all maximum-modeled concentrations from the worst case operating scenarios.

**TABLE 2**  
**Significant Impact Analysis**

POLLUTANT	TIME AVERAGING PERIOD	MAXIMUM MODELED IMPACTS (ug/m <sup>3</sup> )	SIGNIFICANT IMPACT LEVEL (ug/m <sup>3</sup> )	REFINED AQ ANALYSIS REQUIRED
NO <sub>x</sub>	Annual*	10.2	1	Yes
PM <sub>10</sub>	Annual*	4.7	1	Yes
PM <sub>10</sub>	24 hour*	22.0	5	Yes
SO <sub>2</sub>	3 hour*	52.6	25	Yes
SO <sub>2</sub>	24 hour*	27.0	5	Yes
SO <sub>2</sub>	Annual*	4.4	1	Yes
CO	1 hour*	672	2000	No
CO	8 hour*	385	500	No

\*First highest values per EPA NSR manual October 1990. Impacts are from the Aventine Renewable Energy, Inc. only.

### Pre-construction Monitoring Analysis

#### Applicability

The PSD rule, 326 IAC 2-2-4, requires an air quality analysis of the new source or the major modification to determine if the pre-construction monitoring threshold is triggered. In most cases, monitoring data taken from a similar geographic location can satisfy this requirement if the pre-construction monitoring threshold has been exceeded. Also, post construction monitoring could be required if the air quality in that area could be adversely impacted by applicant's emissions.

### Modeling Results

A comparison of the modeling results was compared to the PSD preconstruction monitoring thresholds. The results are shown in the table below.

**TABLE 3**  
**Preconstruction Monitoring Analysis**

POLLUTANT	TIME AVERAGING PERIOD	MAXIMUM MODELED IMPACTS (ug/m <sup>3</sup> )	DEMINIMIS LEVEL (ug/m <sup>3</sup> )	ABOVE DE MINIMIS LEVEL
NO <sub>x</sub>	Annual*	10.2	14	No
PM <sub>10</sub>	24 hour*	22	10	Yes
SO <sub>2</sub>	24 hour*	27.0	13	Yes

\*First highest values per EPA NSR manual October 1990. Maximum modeled impacts are from Aventine Renewable Energy, Inc. only.

PM<sub>10</sub> and SO<sub>2</sub> did trigger the preconstruction monitoring threshold level. Aventine Renewable Energy, Inc. can satisfy the preconstruction monitoring requirement since there is air quality monitoring data representative of the area in Vanderburgh County.

### Background Concentrations

#### Applicability

EPA's "Ambient Monitoring Guidelines for Prevention of Significant Deterioration" (EPA-450/4-87-007) Section 2.4.1 is cited for approval of the monitoring sites for this area.

#### Background Monitors

Background data was taken from the closest monitoring stations from Aventine Renewable Energy, Inc. The closest SO<sub>2</sub>, PM<sub>10</sub> and NO<sub>x</sub> monitoring station is located in Vanderburgh County. Using background data from monitors located around industrialized areas represents a conservative approach since actual background values from rural Posey County would likely be lower. It was agreed between Aventine Renewable Energy, Inc. and IDEM that this approach be taken in place of the preconstruction monitoring requirement.

For all 24-hour background concentrations, the averaged second highest monitoring values were used. Annual background concentrations were taken from the maximum annual values.

**TABLE 4**  
**Existing Monitoring Data Used For Background Concentrations \***

Pollutant	Monitoring Site	Averaging Period	Concentration (ug/m <sup>3</sup> )
NO <sub>x</sub>	18-163-0012	Annual	22.9
PM <sub>10</sub>	18-163-0006	Annual	28.3

Pollutant	Monitoring Site	Averaging Period	Concentration (ug/m3)
PM <sub>10</sub>	18-163-0006	24 hour	49.3
SO <sub>2</sub>	18-163-0012	3 hour	165.8
SO <sub>2</sub>	18-163-0012	24 hour	53.2
SO <sub>2</sub>	18-163-0012	Annual	10.7

\*OAQ used the most conservative values for the air quality analysis. It is standard policy to use the latest 3 years of data.

## Section D - NAAQS Compliance

### NAAQS Compliance Analysis and Results

OAQ supplied emission inventories of all point sources within a 50-kilometer radius of Aventine Renewable Energy, Inc. The NAAQS inventories are generated from I-STEPS (State Emission Processing System) in accordance with 326 IAC 2-6.

NAAQS modeling for the appropriate time-averaging periods for NO<sub>x</sub>, PM<sub>10</sub> and SO<sub>2</sub> was conducted and compared to the respective NAAQS limit. OAQ modeling results are shown in Table 5. All maximum-modeled concentrations were compared to the respective NAAQS limit. All maximum-modeled concentrations during the five years were below the NAAQS limits and further modeling was not required.

**TABLE 5<sup>3</sup>**  
**NAAQS Analysis**

Pollutant	Time-Averaging Period	Maximum Concentration ug/m3	Background Concentration ug/m3	Total ug/m3	NAAQS Limit ug/m3	NAAQS Violation
NO <sub>x</sub>	Annual <sup>1</sup>	17.3	22.9	40.2	100	NO
PM <sub>10</sub>	24 hour	543	49.3	592	150	YES
PM <sub>10</sub>	Annual	35.4	28.3	63.7	50	YES
SO <sub>2</sub>	3 Hour <sup>2</sup>	1419	165.8	1584.8	1300	YES
SO <sub>2</sub>	24 hour <sup>2</sup>	311.7	53.2	364.9	365	NO
SO <sub>2</sub>	Annual <sup>1</sup>	33.6	10.7	44.3	80	NO

<sup>1</sup> First highest values per EPA NSR manual October 1990.

<sup>2</sup> High 2<sup>nd</sup> high values per EPA NSR manual October 1990.

<sup>3</sup> Table 2 maximum concentrations are from Aventine Renewable Energy, Inc. only.

The culpability study of PM<sub>10</sub> NAAQS violations indicates that Aventine is not responsible for any of the violations. These exceedances are located on the property of another permit source. A culpability study of SO<sub>2</sub> NAAQS violations shows no impact from Aventine at any of the receptors where the NAAQS concentration is predicted over the limit.

## **Part E – Qualitative Analysis**

### **Additional Impact Analysis**

All permit applicants must prepare additional impacts analysis for each pollutant subject to regulation under the Act. This analysis assesses the impacts on growth, soils and vegetation, endangered species and visibility caused by any increase in emissions of any regulated pollutant from the source. The Aventine Renewable Energy, Inc. modeling submittal provided an additional impact analysis performed by Malcolm Pirnie.

### **Economic Growth**

The purpose of the growth analysis is to quantify project associated growth and estimate the air quality impacts from this growth either quantitatively or qualitatively.

It is estimated that approximately 30 additional jobs will be created as a result of the proposed project. Some of the employees will be drawn from surrounding areas. Since the area is predominately rural, it is not expected the growth impacts will cause a violation of the NAAQs.

### **Soils and Vegetation Analysis**

A list of soil types present in the general area was determined. Soil types include the following: Sandy and Loamy Lacustrine deposits and Eolian sand, Alluvial and Outwash deposits, Eolian sand deposits.

Due to the agricultural nature of the land, crops in the Posey County area consist mainly of corn, sorghum, wheat, soybeans, and oats (2002 Agricultural Census for Posey County). The maximum modeled concentrations for Aventine Renewable Energy, Inc. are well below the threshold limits necessary to have adverse impacts on the surrounding vegetation such as autumn bent, nimblewill, barnyard grass, bishopscap and horsetail, and milkweed (Flora of Indiana – Charles Deam). Livestock in Posey County consist mainly of hogs, cattle, and sheep (2002 Agricultural Census for Posey County) and will not be adversely impacted from the facility. Trees in the area are mainly hardwoods. These are hardy trees and no significant adverse impacts are expected due to modeled concentrations.

### **Federal and State Endangered Species Analysis**

Federal and state endangered or threatened species are listed by the U.S. Fish and Wildlife Service; Division of Endangered Species for Indiana and includes 5 amphibians, 27 birds, 10 fishes, 7 mammals, 15 mollusks, and 15 reptiles. Of the federal and state endangered species on the list, 2 amphibians, 7 reptiles, 16 mollusks, 7 fish, 18 birds, and 4 mammals have habitat within Posey County. The mollusks, fish, amphibians and certain species of birds and mammals are found along rivers and lakes while the other species of birds and mammals are found in forested areas. The facility is not expected to have any additional adverse effects on the habitats of the species than what has already occurred from the industrial, farming, and residential activities in the area.

Federal and state endangered or threatened plants are listed by the U.S. Fish and Wildlife Service, Division of Endangered Species for Indiana. They list 22 state significant species of plants. At this time no federally endangered plant species are found in Posey County. The endangered plants do not thrive in industrialized and residential areas. The facility is not expected to adversely affect any plant on the endangered species list.

## Visibility Analysis

The VISCREEN model is designed as a screening model to determine the visual impact parameters from a single source plume. It is used basically to determine whether or not a plume is visible as an object itself. The visibility impairment analysis considers the impacts that occur within the impact area of the source as defined by the user distances. The user distances are determined by the nearest interstate or airport. EPA has defined these locations in guidance to the state.

The PM<sub>10</sub> and NO<sub>x</sub> emissions limits were used to run a local visibility Level 1 and a Level 2 analysis. VISCREEN Version 1.01 was used to determine if the color difference parameter (Delta-E) or the plume (green) contrast limits were exceeded. The Delta-E was developed to specify the perceived magnitude of color and brightness changes and is used as the primary basis for determining the perceptibility of plume visual impacts. The plume constant can be defined at any wavelength as the relative difference in the intensity (called spectral radiance) between the viewed object and its background. This is used to determine how the human eye responds differently to different wavelengths of light. The Delta-E of 2.0 and the plume contrast of 0.05 were not exceeded at the nearest interstate location along I-64.

Potential visibility impacts to Mammoth Cave National Park (further than 300 km from Aventine Renewable Energy, Inc.) would be insignificant. This is due to the distance from the Class 1 area and magnitude and characteristics of emission sources at Aventine Renewable Energy, Inc.

## Additional Analysis Conclusions

Finally, the results of the additional impact analysis conclude the operation of the facility will have no significant impact on economic growth, soils, vegetation or visibility in the immediate vicinity or on any Class I area.

## Part F – HAPs Analysis

OAQ currently requests data concerning the emission of 189 HAPs listed in the 1990 Clean Air Act Amendments (CAAA) that are either carcinogenic or otherwise considered toxic and may be used by industries in the State of Indiana. These substances are listed as air toxic compounds on the State of Indiana, Department of Environmental Management, Office of Air Quality's construction permit application Form GSD-08.

Potential emissions of aggregate HAPs are estimated to be 27 tons per year. Over 21 tons is acetaldehyde.

For Aventine Renewable Energy, Inc., a full HAP analysis was completed comparing the maximum estimated concentrations of each pollutant with the Unit Risk Factor (URF) or Inhalation Unit Risk and the Reference Concentration (RfC). This analysis offers a refined, up to date site specific analysis that takes into account the different potencies and health effects that each pollutant presents to the public.

The Unit risk factor (URF) is the upper-bound excess lifetime cancer risk estimated to result from continuous inhalation exposure to a pollutant over a 70 year lifetime. Multiplying the estimated concentration by the URF will produce a cancer risk estimate. The cancer risk estimate is the conservative probability of developing cancer from exposure to a pollutant or a mixture of pollutants over a 70 year lifetime, usually expressed as the number of additional cancer cases in a given number of people, e.g., one in a million. For screening purposes at Aventine Renewable Energy, Inc., the cancer estimates for each pollutant are considered to be additive when deriving the cumulative maximum individual cancer risk.

Non-cancer health effects are determined using the Reference Concentration (RfC). The RfC is an estimate of a continuous inhalation exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime. Dividing the estimated pollutant concentration by the RfC will determine the pollutant's Hazard Quotient (HQ). All of the HAPs' Hazard Quotients were added together to determine Aventine Renewable Energy, Inc.'s Hazard Index (HI).

This HAP screening analysis uses health protective assumptions that overestimate the actual risk associated with emissions from Aventine Renewable Energy, Inc. Estimates 1) assume a 70 year exposure time, 2) assume that all carcinogens cause the same type of cancer, 3) assume that all non-carcinogens have additive health effects, 4) assume maximum permit allowable emissions from the facility, and 5) use conservatively derived dose-response information. The risk analysis cannot accurately predict whether there will be observed health problems around Aventine Renewable Energy, Inc.; rather it identifies possible avenues of risk.

The results of the HAP modeling are in Table 6.

**TABLE 6  
 Hazardous Air Pollutant Modeling Results**

Compound	CAS Number	Annual Concentration (ug/m3)	Cancer URF*, (ug/m3)-1	Source	Cancer Risk	Non-Cancer Chronic RfC*, ug/m3	Source of IDEM RfC	Hazard Quotient
Acetaldehyde	75070	3.15	2.2E-06	IRIS	6.93E-06	9.00	IRIS	0.35
Acrolein	107028	0.035				0.02	IRIS	1.77
Formaldehyde	50000	0.167	1.3E-05	IRIS	2.18E-06	9.80	ATSDR	0.02
Hexane	110543	0.146				200	IRIS	0.00
Methanol	67651	0.115				4000	CAL EPA	0.00
				<b>Total Cancer Risk</b>	<b>8.48E-06</b>	<b>Hazard Index (HI)</b>		<b>2.14</b>

\* Further information on URFs and RfCs can be found at the following EPA website: <http://www.epa.gov/ttn/atw/toxsource/chronicsources.html>

The Hazard Index for the project does exceed 1. Pollutants with a Hazard Quotient (HQ) greater than 1 are considered to be at concentrations that could represent a health concern. Hazard Quotients above 1 do not represent areas where adverse health effects will be observed but indicate that the potential exists. Acrolein has a HQ of 1.77. This concentration falls on the fence line and is located in an area the general public will not have constant access.

The additive cancer risk estimate from all HAPs is 8.48 additional cancer cases in a million people. This means if an individual was exposed to these HAPs continuously for 70 years, the risk of getting cancer from this exposure would be 8.48 in a million. The US EPA considers one in ten thousand (1.0E-04) excess cancer risks to be the upper range of acceptability with an ample margin of safety. The probability for the general public to be exposed to these HAPs for 24 hours a day, seven days a week, 52 weeks a year for 70 years is minimal.

## **Part H - Summary of Air Quality Analysis**

Malcolm Pirnie prepared the modeling portion of the application. Posey County is designated as attainment for all criteria pollutants. VOCs, PM<sub>10</sub>, NO<sub>x</sub>, SO<sub>2</sub>, and CO emission rates associated with the proposed facility exceeded the respective significant emission rates. Modeling results taken from the latest version of the AERMOD model showed PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> impacts were predicted to be greater than the significant impact levels. Aventine Renewable Energy, Inc. did trigger the preconstruction monitoring threshold level for PM<sub>10</sub> and SO<sub>2</sub> but can satisfy the preconstruction monitoring requirement since there is existing air quality monitoring data representative of the area. The NAAQS modeling for PM<sub>10</sub>, NO<sub>x</sub>, and SO<sub>2</sub> showed no contributions to violations of the standards. The nearest Class I area is Mammoth Cave National Park in Kentucky over 170 kilometers away from the source. An additional impact analysis was required but the operation of the proposed facility will have no significant impact. A Hazardous Air Pollutant (HAP) analysis was performed and showed no likely adverse impact.