



*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: January 2, 2007  
RE: Cummins Engine Company / 005-23921-00002  
FROM: Nisha Sizemore  
Chief, Permits Branch  
Office of Air Quality

### Notice of Decision – Approval

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 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures  
FNPER-AM.dot 03/23/06



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We make Indiana a cleaner, healthier place to live.*

Mitchell E. Daniels, Jr.  
Governor

Thomas W. Easterly  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204-2251  
(317) 232-8603  
(800) 451-6027  
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January 2, 2007

Mr. Todd Walterman  
Cummins Engine Company, Columbus Technical Center - Plant 5  
P.O. Box 3005 - MC 50235  
Columbus, Indiana 47201

Re: **005-23921-00002**  
First Administrative Amendment to  
**Part 70 T 005-7466-00002**

Dear Mr. Walterman:

Cummins Engine Company, Columbus Technical Center - Plant 5 was issued a Part 70 Operating Permit T 005-7466-00002 on December 29, 1998, for a stationary research and development source for diesel-powered engines, located at 1900 McKinley Avenue, Columbus, Indiana 47201. A letter requesting a change was received on November 21, 2006. The changes are as follows with deleted language as ~~strikeouts~~ and new language **bolded**. Pursuant to the provisions of 326 IAC 2-7-11, the permit is hereby administratively amended as follows:

Cummins Engine Company, Columbus Technical Center - Plant 5 has requested to power the existing test cells with the alternative biodiesel fuel. The use of biodiesel will not result in the increase of the potential to emit of any criteria pollutant, will not trigger any new requirements, or violate terms of the existing permit and will be listed as a descriptive change pursuant to 326 IAC 2-7-11(a)(7). The cooling tower restrictions of 11,830 Hp shall remain unchanged. Supporting emission data is enclosed as Appendix A.

Cummins Engine Company, Columbus Technical Center - Plant 5 has also requested the removal of engine test cells, identified as 216 and 711 through 716. These engine test cells have been shut down and removed from the source. There are no specific emission limitations or standards associated with these existing test cells.

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

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

- (a) Three (3) natural gas or diesel-fired boilers known as Boiler #1 installed in 1964, Boiler #2 installed in 1964, and Boiler #3 installed in 1964, exhausting at one (1) stack, identified as Stack 1, rated at 25 million British thermal units per hour, each.
- (b) Two (2) natural gas or diesel-fired boilers known as Boiler #4 installed in 1969 and Boiler #5 installed in 1973, exhausting at one (1) stack, identified as Stack 1, rated at 14.6 million British thermal units per hour, each.
- (c) **Forty-seven (47)** ~~Forty-eight (48)~~ diesel/**biodiesel**-powered engine test cells known as 101-122, **217 – 218**, ~~216-218~~, 301-322, and 401, exhausted through stacks 101-122, 216-218, 301-322, and 401, respectively, rated at 500 horsepower, each. Five (5) of the test cells, known as 318-322, may be alternately powered by liquid propane gas and eleven (11) of the test cells, known as 121, 122, 303, 316-322, and 401 may be alternately powered by natural gas.

- (d) Twenty-one (21) diesel/**biodiesel**-powered engine test cells known as 201-215, 219, 402, 403, and 417-419, exhausted through stacks 201-215, 219, 402, 403, and 417-419, respectively, rated at 1000 horsepower, each. Five (5) of the test cells, known as 203, 204, and 417-419, may be alternately powered by liquid propane gas or natural gas.
- (e) Eleven (11) diesel/**biodiesel**-powered engine test cells known as 220-222, 404-409, 421, and 422, exhausted through stacks 220-222, 404-409, 421, and 422, respectively, rated at 1500 horsepower, each. One (1) of the test cells, known as 220, may be alternately powered by liquid propane gas or natural gas.
- (f) Seven (7) diesel/**biodiesel**-powered engine test cells known as 410-415, and 420, exhausted through stacks 410-415, and 420, respectively, rated at 2000 horsepower, each. One (1) of the test cells, known as 420, may be alternately powered by liquid propane gas. Two (2) of the test cells known as 410 and 414 may be alternately powered by natural gas.
- (g) One (1) diesel/**biodiesel**-powered engine test cell known as 416, exhausted through stack 416, rated at 3000 horsepower.
- (h) One (1) diesel-powered engine test cell known as 423, constructed prior to January 1, 1994, exhausted through stack 401, rated at 500 horsepower.
- ~~(i) Four (4) diesel-powered engine turbo test cells known as 711-714, constructed prior to January 1, 1994, exhausted through stacks 711-714, rated at 600 horsepower, each.~~
- ~~(j) One (1) diesel-powered engine turbo test cell known as 715, constructed prior to January 1, 1994, exhausted through stack 715, rated at 300 horsepower.~~
- ~~(k) One (1) electrically-powered engine turbo test cell known as 716, constructed prior to January 1, 1994, exhausted through stack 716, rated at 200 horsepower.~~
- (i) ~~(k)~~ Two (2) diesel/**biodiesel**-powered chassis dynamometer test cells known as Test Cell 731 and Test Cell 732, constructed prior to January 1, 1994, exhausted through stack CD, rated at 500 horsepower, each.

## SECTION D.2

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]

- (c) **Forty-seven (47)** ~~Forty-eight (48)~~ diesel/**biodiesel**-powered engine test cells known as 101-122, **217 – 218**, ~~216-218~~, 301-322, and 401, exhausted through stacks 101-122, 216-218, 301-322, and 401, respectively, rated at 500 horsepower, each. Five (5) of the test cells, known as 318-322, may be alternately powered by liquid propane gas and eleven (11) of the test cells, known as 121, 122, 303, 316-322, and 401 may be alternately powered by natural gas.
- (d) Twenty-one (21) diesel/**biodiesel**-powered engine test cells known as 201-215, 219, 402, 403, and 417-419, exhausted through stacks 201-215, 219, 402, 403, and 417-419, respectively, rated at 1000 horsepower, each. Five (5) of the test cells, known as 203, 204, and 417-419, may be alternately powered by liquid propane gas or natural gas.
- (e) Eleven (11) diesel/**biodiesel**-powered engine test cells known as 220-222, 404-409, 421, and 422, exhausted through stacks 220-222, 404-409, 421, and 422, respectively, rated at 1500

- horsepower, each. One (1) of the test cells, known as 220, may be alternately powered by liquid propane gas or natural gas.
- (f) Seven (7) diesel/**biodiesel**-powered engine test cells known as 410-415, and 420, exhausted through stacks 410-415, and 420, respectively, rated at 2000 horsepower, each. One (1) of the test cells, known as 420, may be alternately powered by liquid propane gas. Two (2) of the test cells known as 410 and 414 may be alternately powered by natural gas.
  - (g) One (1) diesel/**biodiesel**-powered engine test cell known as 416, exhausted through stack 416, rated at 3000 horsepower.
  - (h) One (1) diesel/**biodiesel**-powered engine test cell known as 423, constructed prior to January 1, 1994, exhausted through stack 401, rated at 500 horsepower.
  - ~~(i) Four (4) diesel-powered engine turbo test cells known as 711-714, constructed prior to January 1, 1994, exhausted through stacks 711-714, rated at 600 horsepower, each.~~
  - ~~(j) One (1) diesel-powered engine turbo test cell known as 715, constructed prior to January 1, 1994, exhausted through stack 715, rated at 300 horsepower.~~
  - ~~(k) One (1) electrically-powered engine turbo test cell known as 716, constructed prior to January 1, 1994, exhausted through stack 716, rated at 200 horsepower.~~
  - (i) (†)** Two (2) diesel/**biodiesel**-powered chassis dynamometer test cells known as Test Cell 731 and Test Cell 732, constructed prior to January 1, 1994, exhausted through stack CD, rated at 500 horsepower, each.

The letterhead of the permit has been revised to indicate the new Governor and the new Commissioner of IDEM. The phone and fax number for IDEM, OAQ (Compliance Section) have been updated throughout the permit, the P.O. Box in the address of the OAQ has been deleted throughout the permit, the ZIP code of the IDEM, OAQ has been revised and the mailing address for the source has been amended as follows:

- (a) Phone: 317-233-~~5674~~ **0178**  
Fax: 317-233-~~5967~~ **6865**
- (b) Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, ~~P.O. Box 6015~~  
Indianapolis, Indiana ~~46206-6015~~ **46204-2251**
- (c) P.O. Box 3005 - MC 50235, **Columbus, Indiana, 47201**

All other conditions of the permit shall remain unchanged and in effect. For your convenience, the entire revised Title V Operating Permit, with all modifications and amendments made to it, is being provided.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Brian J. Pedersen, c/o OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46204, at 631-691-3395 or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Original signed by

Nisha Sizemore, Chief  
Permits Branch  
Office of Air Quality

BJP/MES

Attachments

cc: File - Bartholomew County  
U.S. EPA, Region V  
Bartholomew County Health Department  
Air Compliance Section Inspector – Mr. Vaughn Ison  
Compliance Branch  
Administrative and Development Section  
Technical Support and Modeling - Michele Boner  
Malkiat Grewal - P.O. Box 3005 - MC 50235, Columbus, Indiana 47201



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Indianapolis, Indiana 46204-2251  
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## PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

### Cummins Engine Company, Columbus Technical Center - Plant 5 1900 McKinley Avenue Columbus, Indiana 47201

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

This permit is issued 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 and 326 IAC 2-1-3.2 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.: T 005-7466-00002	
Issued by:  Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: December 29, 1998  Expiration Date: December 29, 2003

Reopening 005-13151-00002, issued on October 9, 2001

First Administrative Amendment No.: 005-23921-00002	Section/Conditions Affected: A.2 and D.1
Issued by:Original signed by  Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: January 2, 2007

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D.2.3 Visible Emissions Notations

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**Semi-Annual Compliance Monitoring Form 36**

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**Natural Gas Fired Boiler Certification 39**

## 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)]

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The Permittee owns and operates a stationary research and development source for diesel-powered engines.

Responsible Official: John C. Wall  
Source Address: 1900 McKinley Avenue, Columbus, Indiana 47201  
Mailing Address: P.O. Box 3005 - MC 50235, Columbus, Indiana 47201  
SIC Code: 8734  
County Location: Bartholomew  
County Status: Attainment for all criteria pollutants  
Source Status: Part 70 Permit Program  
Major 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)]

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

- (a) Three (3) natural gas or diesel-fired boilers known as Boiler #1 installed in 1964, Boiler #2 installed in 1964, and Boiler #3 installed in 1964, exhausting at one (1) stack, identified as Stack 1, rated at 25 million British thermal units per hour, each.
- (b) Two (2) natural gas or diesel-fired boilers known as Boiler #4 installed in 1969 and Boiler #5 installed in 1973, exhausting at one (1) stack, identified as Stack 1, rated at 14.6 million British thermal units per hour, each.
- (c) Forty-seven (47) diesel/biodiesel-powered engine test cells known as 101-122, 217 – 218, 301-322, and 401, exhausted through stacks 101-122, 216-218, 301-322, and 401, respectively, rated at 500 horsepower, each. Five (5) of the test cells, known as 318-322, may be alternately powered by liquid propane gas and eleven (11) of the test cells, known as 121, 122, 303, 316-322, and 401 may be alternately powered by natural gas.
- (d) Twenty-one (21) diesel/biodiesel-powered engine test cells known as 201-215, 219, 402, 403, and 417-419, exhausted through stacks 201-215, 219, 402, 403, and 417-419, respectively, rated at 1000 horsepower, each. Five (5) of the test cells, known as 203, 204, and 417-419, may be alternately powered by liquid propane gas or natural gas.
- (e) Eleven (11) diesel/biodiesel-powered engine test cells known as 220-222, 404-409, 421, and 422, exhausted through stacks 220-222, 404-409, 421, and 422, respectively, rated at 1500 horsepower, each. One (1) of the test cells, known as 220, may be alternately powered by liquid propane gas or natural gas.
- (f) Seven (7) diesel/biodiesel-powered engine test cells known as 410-415, and 420, exhausted through stacks 410-415, and 420, respectively, rated at 2000 horsepower, each. One (1) of the test cells, known as 420, may be alternately powered by liquid

propane gas. Two (2) of the test cells known as 410 and 414 may be alternately powered by natural gas.

- (g) One (1) diesel/biodiesel-powered engine test cell known as 416, exhausted through stack 416, rated at 3000 horsepower.
- (h) One (1) diesel/biodiesel-powered engine test cell known as 423, constructed prior to January 1, 1994, exhausted through stack 401, rated at 500 horsepower.
- (i) Two (2) diesel/biodiesel-powered chassis dynamometer test cells known as Test Cell 731 and Test Cell 732, constructed prior to January 1, 1994, exhausted through stack CD, rated at 500 horsepower, each.

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

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This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 (Trichloroethylene degreaser, D-1, with a maximum throughput to 120 gallons per 12 months).

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

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This stationary 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 Permit No Defense [326 IAC 2-1-10] [IC 13]**

- (a) Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7.
- (b) This prohibition shall not apply to alleged violations of applicable requirements for which the Commissioner has granted a permit shield in accordance with 326 IAC 2-1-3.2 or 326 IAC 2-7-15, as set out in this permit in the Section B condition entitled "Permit Shield."

### **B.2 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, any applicable definitions found in IC 13-11, 326 IAC 1-2 and 326 IAC 2-7 shall prevail.

### **B.3 Permit Term [326 IAC 2-7-5(2)]**

This permit is issued for a fixed term of five (5) years from the effective date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3.

### **B.4 Enforceability [326 IAC 2-7-7(a)]**

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

### **B.5 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.6 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.7 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.8 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)]**

- (a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

- (b) 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.

- (c) Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit. If the Permittee wishes to assert a claim of confidentiality over any of the furnished records, the Permittee must furnish such records to IDEM, OAQ, along with a claim of confidentiality under 326 IAC 17. If requested by IDEM, OAQ, or the U.S. EPA, to furnish copies of requested records directly to U. S. EPA, and if the Permittee is making a claim of confidentiality regarding the furnished records, then the Permittee must furnish such confidential records directly to the U.S. EPA along with a claim of confidentiality under 40 CFR 2, Subpart B.

B.9 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit constitutes a violation of the Clean Air Act and is grounds for:
- (1) Enforcement action;
  - (2) Permit termination, revocation and reissuance, or modification; or
  - (3) Denial of a permit renewal application.
- (b) 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.

B.10 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)]

- (a) Any application form, report, or compliance certification submitted under this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, and any other certification required under this permit, 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, on the attached Certification Form, with each submittal.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

B.11 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 certification shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
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 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 compliance of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3);
  - (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.12 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]

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) 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;
    - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAQ, upon request and shall be subject to review and approval by IDEM, OAQ.

B.13 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, except as provided in 326 IAC 2-7-16.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or 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, 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

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted notice, either in writing or facsimile, of the emergency to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue  
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) for sources subject to this rule after the effective date of this rule. This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) 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 compliance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) 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.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is 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.

Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

**B.14 Permit Shield [326 IAC 2-7-15]**

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- (a) This condition provides a permit shield as addressed in 326 IAC 2-7-15.
- (b) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits. Compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance, provided that:
  - (1) The applicable requirements are included and specifically identified in this permit; or

- (2) The permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable.
- (c) 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, including any term or condition from a previously issued construction or operation permit, 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.
- (d) 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.
- (e) 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.
- (f) 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).
- (g) 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)]
- (h) 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.15 Multiple Exceedances [326 IAC 2-7-5(1)(E)]**

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Any exceedance of a permit limitation or condition contained in this permit, which occurs contemporaneously with an exceedance of an associated surrogate or operating parameter established to detect or assure compliance with that limit or condition, both arising out of the same act or occurrence, shall constitute a single potential violation of this permit.

**B.16 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]**

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- (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 Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

within ten (10) calendar days from the date of the discovery of the deviation.

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
- (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
  - (2) An emergency as defined in 326 IAC 2-7-1(12); or
  - (3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.
  - (4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

- (c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.

**B.17 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]**

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- (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 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated non-compliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)]
- (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.18 Permit Renewal [326 IAC 2-7-4]**

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-7-4. 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).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

- (b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]

(1) A timely renewal application is one that is:

- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (B) 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. [326 IAC 2-5-3]

(2) If IDEM, OAQ, upon receiving a timely and complete 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.

- (c) Right to Operate After Application for Renewal [326 IAC 2-7-3]

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.

- (d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]

If IDEM, OAQ, fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

**B.19 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]**

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- (a) The Permittee must comply with 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  
Indianapolis, Indiana 46204-2251

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule

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

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- (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)(D)(i) 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.21 Changes Under Section 502(b)(10) of the Clean Air Act [326 IAC 2-7-20(b)]**

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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) and the following additional conditions:

- (a) For each such change, the required written notification shall include a brief description of the change within the source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.
- (b) The permit shield, described in 326 IAC 2-7-15, shall not apply to any change made under 326 IAC 2-7-20(b).

**B.22 Operational Flexibility [326 IAC 2-7-20]**

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- (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 approval required by 326 IAC 2-1 has been obtained;
  - (3) The changes do not result in emissions which exceed the emissions allowable under 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  
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 which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes 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), (c)(1), and (e)(2).

- (b) 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 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 increases and decreases in emissions in 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.23 Construction Permit Requirement [326 IAC 2]**

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Except as allowed by Indiana P.L. 130-1996 Section 12, as amended by P.L. 244-1997, modification, construction, or reconstruction shall be approved as required by and in accordance with 326 IAC 2.

**B.24 Inspection and Entry [326 IAC 2-7-6(2)]**

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Upon presentation of proper identification cards, credentials, and other documents as may be required by law, 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) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements. [326 IAC 2-7-6(6)]
  - (1) The Permittee may assert a claim that, in the opinion of the Permittee, information removed or about to be removed from the source by IDEM, OAQ, or an authorized representative, contains information that is confidential under IC 5-14-3-4(a). The claim shall be made in writing before or at the time the information is removed from the source. In the event that a claim of confidentiality is so asserted, neither IDEM, OAQ, nor an authorized representative, may disclose the information unless and until IDEM, OAQ, makes a determination under 326 IAC 17-1-7 through 326 IAC 17-1-9 that the information is not entitled to confidential treatment and that determination becomes final. [IC 5-14-3-4; IC 13-14-11-3; 326 IAC 17-1-7 through 326 IAC 17-1-9]
  - (2) The Permittee, and IDEM, OAQ, acknowledge that the federal law applies to claims of confidentiality made by the Permittee with regard to information removed or about to be removed from the source by U.S. EPA. [40 CFR Part 2, Subpart B]

**B.25 Transfer of Ownership or Operation [326 IAC 2-1-6] [326 IAC 2-7-11]**

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Pursuant to 326 IAC 2-1-6 and 326 IAC 2-7-11:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change. Notification shall include a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the Permittee and the new owner.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an administrative amendment pursuant to 326 IAC 2-7-11. 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).

- (c) IDEM, OAQ, shall reserve the right to issue a new permit.

B.26 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. If the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) 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 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

B.27 Enhanced New Source Review [326 IAC 2]

The requirements of the construction permit rules in 326 IAC 2 are satisfied by this permit for any previously unpermitted facilities and facilities to be constructed within eighteen (18) months after the date of issuance of this permit, as listed in Sections A.2 and A.3.

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

#### C.1 Major Source

Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21, this source is a major source.

#### C.2 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

#### C.3 Opacity [326 IAC 5-1]

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

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

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

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.

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

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

#### C.7 Operation of Equipment [326 IAC 2-7-6(6)]

All air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

#### C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at

least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

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 emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are mandatory for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) Indiana Accredited Asbestos Inspector  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

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

#### **C.9 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 methods approved by IDEM, OAQ.

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

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

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

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

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

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

#### **C.10 Compliance Schedule [326 IAC 2-7-6(3)]**

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The Permittee:

- (a) Has certified that all facilities at this source are in compliance with all applicable requirements; and
- (b) Has submitted a statement that the Permittee will continue to comply with such requirements; and
- (c) Will comply with such applicable requirements that become effective during the term of this permit.

#### **C.11 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

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Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment, no more than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend compliance schedule an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

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).

#### **C.12 Monitoring Methods [326 IAC 3]**

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Any monitoring or testing performed to meet the applicable requirements of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

### **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]**

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

(a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

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

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

(c) If the ERP is disapproved by IDEM, 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 68.215]**

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If a regulated substance, subject to 40 CFR 68, is present in a process in more than the threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall:

(a) Submit:

(1) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or

(2) As a part of the compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and

(3) A verification to IDEM, OAQ, that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.

(b) Provide annual certification to IDEM, OAQ, that the Risk Management Plan is being properly implemented.

All documents submitted pursuant to this condition shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.15 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]  
[326 IAC 1-6]

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- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:
- (1) This condition;
  - (2) The Compliance Determination Requirements in Section D of this permit;
  - (3) The Compliance Monitoring Requirements in Section D of this permit;
  - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
  - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ upon request and shall be subject to review and approval by IDEM, OAQ. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:
    - (A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
    - (B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.
- (c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:
- (1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;

- (3) An automatic measurement was taken when the process was not operating; or
  - (4) The process has already returned to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

**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 corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAQ shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAQ within thirty (30) days of receipt of the notice of deficiency. IDEM, OAQ reserves the authority to use enforcement activities to resolve noncompliant stack tests.
- (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 and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected facility.

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

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

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

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

C.18 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]

- (a) With the exception of performance tests conducted in accordance with Section C- Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.19 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAQ, representative. 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 written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
  - (1) The date, place, and time of sampling or measurements;
  - (2) The dates analyses were performed;
  - (3) The company or entity performing the analyses;
  - (4) The analytic techniques or methods used;
  - (5) The results of such analyses; and
  - (6) The operating conditions existing at the time of sampling or measurement.

- (c) Support information shall include, where applicable:
- (1) Copies of all reports required by this permit;
  - (2) All original strip chart recordings for continuous monitoring instrumentation;
  - (3) All calibration and maintenance records;
  - (4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.20 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Semi-Annual Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported.
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:
- Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
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, any Semi-Annual report shall be submitted within thirty (30) days of the end of the reporting period.
- (e) All instances of deviations as described in Section B - Deviations from Permit Requirements Conditions must be clearly identified in such reports.
- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

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

### **Stratospheric Ozone Protection**

#### **C.21 Compliance with 40 CFR 82 and 326 IAC 22-1**

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

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

## SECTION D.1 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]

- (a) Three (3) natural gas or diesel-fired boilers known as Boiler #1 installed in 1964, Boiler #2 installed in 1964, and Boiler #3 installed in 1964, exhausting at one (1) stack, identified as Stack 1, rated at 25 million British thermal units per hour, each.
- (b) Two (2) natural gas or diesel-fired boilers known as Boiler #4 installed in 1969 and Boiler #5 installed in 1973, exhausting at one (1) stack, identified as Stack 1, rated at 14.6 million British thermal units per hour, each.

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

#### D.1.1 Particulate Emission Limitations for Sources of Indirect Heating (PM) [326 IAC 6-2-3(d)]

Pursuant to 326 IAC 6-2-3(d) (PM Emissions Limitations) the PM emissions from the three (3) natural gas or diesel-fired boilers known as Boiler #1, Boiler #2, and Boiler #3, rated at 25 million British thermal units per hour, each, and the one (1) natural gas or diesel-fired boiler known as Boiler #4, rated at 14.6 million British thermal units shall not exceed 0.774 pound per million British thermal unit heat input as specified by the following equation.

$$Pt = (C \times a \times h) / (76.5 \times Q^{0.75} \times N^{0.25})$$

where:

- Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input
- Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input on or prior to June 8, 1972. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the name-plate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.
- C = Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal 50 micrograms per cubic meter for a period not to exceed a sixty (60) minute time period.
- N = Number of stacks in fuel burning operation.
- a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 million British thermal units per hour heat input.
- h = Stack height in feet. If a number of stacks of different heights exist, the average stack height will be computed using a weighted average of stack heights.

#### D.1.2 Particulate Emission Limitations for Sources of Indirect Heating (PM) [326 IAC 6-2-3(e)]

Pursuant to 326 IAC 6-2-3(e) (PM Emissions Limitations) the PM emissions from the one (1) natural gas or diesel-fired boiler known as Boiler #5, rated at 14.6 million British thermal units shall not exceed 0.6 pound per million British thermal unit heat input as specified by the following equation.

$$Pt = (C \times a \times h) / (76.5 \times Q^{0.75} \times N^{0.25})$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

C = Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal 50 micrograms per cubic meter for a period not to exceed a sixty (60) minute time period.

N = Number of stacks in fuel burning operation.

a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 million British thermal units per hour heat input.

h = Stack height in feet. If a number of stacks of different heights exist, the average stack height will be computed using a weighted average of stack heights.

## Compliance Determination Requirements

### D.1.3 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the particulate matter limit specified in Conditions D.1.1 and D.1.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

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

### D.1.4 Visible Emissions Notations

- (a) Daily visible emission notations of the boiler stack exhausts shall be performed during normal daylight operations when burning diesel fuel and when exhausting to the atmosphere. 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) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

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

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

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- (a) To document compliance with Conditions D.1.4, the Permittee shall maintain records of daily visible emission notations of the boilers stack exhaust.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

### **D.1.6 Reporting Requirements**

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The natural gas boiler certification shall be submitted quarterly to the address listed in Section C - General Reporting Requirements, using the form provided at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

## SECTION D.2 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]

- (c) Forty-seven (47) diesel/biodiesel-powered engine test cells known as 101-122, 217 – 218, 301-322, 423 and 401, exhausted through stacks 101-122, 216-218, 301-322, and 401, respectively, rated at 500 horsepower, each. Five (5) of the test cells, known as 318-322, may be alternately powered by liquid propane gas and eleven (11) of the test cells, known as 121, 122, 303, 316-322, and 401 may be alternately powered by natural gas.
- (d) Twenty-one (21) diesel/biodiesel-powered engine test cells known as 201-215, 219, 402, 403, and 417-419, exhausted through stacks 201-215, 219, 402, 403, and 417-419, respectively, rated at 1000 horsepower, each. Five (5) of the test cells, known as 203, 204, and 417-419, may be alternately powered by liquid propane gas or natural gas.
- (e) Eleven (11) diesel/biodiesel-powered engine test cells known as 220-222, 404-409, 421, and 422, exhausted through stacks 220-222, 404-409, 421, and 422, respectively, rated at 1500 horsepower, each. One (1) of the test cells, known as 220, may be alternately powered by liquid propane gas or natural gas.
- (f) Seven (7) diesel/biodiesel-powered engine test cells known as 410-415, and 420, exhausted through stacks 410-415, and 420, respectively, rated at 2000 horsepower, each. One (1) of the test cells, known as 420, may be alternately powered by liquid propane gas. Two (2) of the test cells known as 410 and 414 may be alternately powered by natural gas.
- (g) One (1) diesel/biodiesel-powered engine test cell known as 416, exhausted through stack 416, rated at 3000 horsepower.
- (h) One (1) diesel/biodiesel-powered engine test cell known as 423, constructed prior to January 1, 1994, exhausted through stack 401, rated at 500 horsepower.
- (i) Two (2) diesel/biodiesel-powered chassis dynamometer test cells known as Test Cell 731 and Test Cell 732, constructed prior to January 1, 1994, exhausted through stack CD, rated at 500 horsepower, each.

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

#### D.2.1 PSD [326 IAC 2-2]

Any change or modification which may increase potential emissions needs prior approval from IDEM, OAQ.

### Compliance Determination Requirements

#### D.2.2 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM to confirm the emission factors for NO<sub>x</sub> and CO from the engine test cells, they shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

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

#### D.2.3 Visible Emissions Notations

- (a) Daily visible emission notations of the engine test cell stack exhausts shall be performed once per working shift during normal daylight operations when exhausted to the atmosphere. 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) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

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

**D.2.4 Record Keeping Requirements**

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- (a) To document compliance with Condition D.2.2, the Permittee shall maintain records of daily visible emission notations of the engine test cell stack exhausts.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## SECTION D.3 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)] Insignificant Activities

Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

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

#### D.3.1 Volatile Organic Compounds (VOC)

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

#### D.3.2 Volatile Organic Compounds (VOC)

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:
  - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
    - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));
    - (B) The solvent is agitated; or
    - (C) The solvent is heated.
  - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
  - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

- (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
  - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):
    - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
    - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
    - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
  - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

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

**PART 70 OPERATING PERMIT  
CERTIFICATION**

Source Name: Cummins Engine Company, Columbus Technical Center - Plant 5  
Source Address: 1900 McKinley Avenue, Columbus, Indiana 47201  
Mailing Address: P.O. Box 3005 - MC 50235, Columbus, Indiana, 47201  
Part 70 Permit No.: T 005-7466-00002

**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) \_\_\_\_\_
- 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:

Date:

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

**PART 70 OPERATING PERMIT  
 Semi-Annual Compliance Monitoring Report**

Source Name: Cummins Engine Company, Columbus Technical Center - Plant 5  
 Source Address: 1900 McKinley Avenue, Columbus, Indiana 47201  
 Mailing Address: P.O. Box 3005 - MC 50235, Columbus, Indiana, 47201  
 Part 70 Permit No.: T 005-7466-00002

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

This report is an affirmation that the source has met all the compliance monitoring requirements stated in this permit. This report shall be submitted semi-annually. Any deviation from the compliance monitoring requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. This form can be supplemented by attaching the Emergency/Deviation Occurrence Report. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

NO DEVIATIONS OCCURRED THIS REPORTING PERIOD

THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD.

Compliance Monitoring Requirement (e.g. Permit Condition D.1.3)	Number of Deviations	Date of Each Deviation

Form Completed By: \_\_\_\_\_

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

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

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

Attach a signed certification to complete this report.

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

**PART 70 OPERATING PERMIT  
EMERGENCY/DEVIATION OCCURRENCE REPORT**

Source Name: Cummins Engine Company, Columbus Technical Center - Plant 5  
Source Address: 1900 McKinley Avenue, Columbus, Indiana 47201  
Mailing Address: P.O. Box 3005 - MC 50235, Columbus, Indiana, 47201  
Part 70 Permit No.: T 005-7466-00002

**This form consists of 2 pages Page 1 of 2**

Check either No. 1 or No.2
<input checked="" type="radio"/> 1. This is an emergency as defined in 326 IAC 2-7-1(12) 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 permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-0178) follow the other requirements of 326 IAC 2-7-16
<input checked="" type="radio"/> 2. This is a deviation, reportable per 326 IAC 2-7-5(3)(c) permittee must submit notice in writing within ten (10) calendar days

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/Deviation:
Describe the cause of the Emergency/Deviation:

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

Date/Time Emergency/Deviation started:
Date/Time Emergency/Deviation was corrected:
Was the facility being properly operated at the time of the emergency/deviation?    Y    N Describe:
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/deviation:
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: \_\_\_\_\_

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

**PART 70 OPERATING PERMIT  
NATURAL GAS-FIRED BOILER CERTIFICATION**

Source Name: Cummins Engine Company, Columbus Technical Center - Plant 5  
Source Address: 1900 McKinley Avenue, Columbus, Indiana 47201  
Mailing Address: P.O. Box 3005 - MC 50235, Columbus, Indiana, 47201  
Part 70 Permit No.: T 005-7466-00002

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

Report period

Beginning: \_\_\_\_\_

Ending: \_\_\_\_\_

Boiler Affected

Alternate Fuel  
From To

Days burning alternate fuel

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:

Date:

**Appendix A: Emission Calculations**  
**Comparison of Engine Test Cells on #2 Diesel Oil, LPG, and Natural Gas vs Biodiesel**

Company Name: Cummins Engine Company, Columbus Technical Center - Plant 5  
 Address City IN Zip: 1900 McKinley Avenue, Columbus, Indiana 47201  
 Permit Number: AA 005-23921-00002  
 Pit ID: 005-00002  
 Reviewer: Brian J. Pedersen  
 Date: November 21, 2006

Capacity = 80,000 HP  
 Limited to 11830 HP due to cooling tower restrictions

**For PM/PM10 the worst case fuels are a combination of diesel and liquid propane**

Unit ID	# of test Cells per year	Individual Capacities (HP)	Potential Fuel Used per year	Potential fuel per cell/yr	Fuel Units	Fuel Type	Operating Rate ((units/hr)/cell)	PM/PM10 Factor (lbs/unit)	Potential PM/PM10 ((lbs/hr)/cell)	Potential PM/PM10 ((tons/yr)/cell)	Potential ((PM/PM10/hp)/cell) (tons/yr)	Potential PM/PM10-all cells (tons/yr)	Total Capacity HP	Partial HP used	Worst case PM/PM10 (tons/yr)
101 - 122, 217 - 218, 301 - 322, 401, and 423	48	500	1612	33.6	kilogallons	#2 Diesel	0.00383	10.7	0.0410	0.180	<b>0.000359</b>	<b>8.62</b>	<b>24000</b>	<b>9830</b>	<b>3.53</b>
201 - 215, 219, 402, 403, and 417 - 419	21	1000	1372	65.3	kilogallons	#2 Diesel	0.00746	10.7	0.0798	0.350	0.000350	7.34	21000	0	0.00
220 - 222, 404 - 409, 421, and 422	11	1500	1078	98.0	kilogallons	#2 Diesel	0.0112	10.7	0.120	0.524	0.000350	5.77	16500	0	0.000
410 - 415, and 420	7	2000	915	130.7	kilogallons	#2 Diesel	0.0149	10.7	0.160	0.699	0.000350	4.90	14000	0	0.00
416	1	3000	196	196.0	kilogallons	#2 Diesel	0.0224	10.7	0.239	1.05	0.000350	1.05	3000	0	0.00
318 - 322	5	500	229	45.8	kilogallons	LPG	0.00523	5.0	0.0261	0.115	0.000229	0.573	2500	0	0.00
203, 204, and 417 - 419	5	1000	457	91.4	kilogallons	LPG	0.0104	5.0	0.0522	0.229	0.000229	1.14	5000	0	0.00
220	1	1500	137	137.0	kilogallons	LPG	0.0156	5.0	0.0782	0.343	0.000228	0.343	1500	0	0.000
420	1	2000	549	549.0	kilogallons	LPG	0.0627	5.0	0.313	1.37	<b>0.000686</b>	<b>1.37</b>	<b>2000</b>	<b>2000</b>	<b>1.37</b>
121, 122, 303, 316 - 322, and 401	11	500	50.2	4.6	MM SCF	Natural Gas	0.000521	10.0	0.00521	0.0228	0.000046	0.251	5500	0	0.00
203, 204, and 417 - 419	5	1000	45.6	9.1	MM SCF	Natural Gas	0.00104	10.0	0.0104	0.0456	0.000046	0.228	5000	0	0.00
220	1	1500	13.7	13.7	MM SCF	Natural Gas	0.00156	10.0	0.0156	0.0685	0.000046	0.069	1500	0	0.00
410 and 414	2	2000	36.5	18.3	MM SCF	Natural Gas	0.00208	10.0	0.0208	0.0913	0.000046	0.183	4000	0	0.00
731 and 732	2	500	65.3	32.7	kilogallons	#2 Diesel	0.00373	10.7	0.0399	0.175	0.000349	0.349	1000	0	0.00
<b>Partial HP used: 11830</b>														<b>4.90</b>	

Unit ID	# of test Cells per year	Individual Capacities (HP)	Potential Fuel Used per year	Potential fuel per cell/yr	Fuel Units	Fuel Type	Operating Rate ((units/hr)/cell)	PM/PM10 Factor (lbs/unit)	Potential PM/PM10 ((lbs/hr)/cell)	Potential PM/PM10 ((tons/yr)/cell)	Potential ((PM/PM10/hp)/cell) (tons/yr)	Potential PM/PM10-all cells (tons/yr)	Total Capacity HP	Partial HP used	Worst case PM/PM10 (tons/yr)
101 - 122, 217 - 218, 301 - 322, 401, and 423	48	500	1612	33.6	kilogallons	biodiesel	0.00383	4.8	0.0183	0.080	0.000160	3.84	24000	11830	1.90
201 - 215, 219, 402, 403, and 417 - 419	21	1000	1372	65.3	kilogallons	biodiesel	0.00746	4.8	0.0356	0.156	0.000156	3.27	21000	0	0.00
220 - 222, 404 - 409, 421, and 422	11	1500	1078	98.0	kilogallons	biodiesel	0.0112	4.8	0.053	0.234	0.000156	2.57	16500	0	0.000
410 - 415, and 420	7	2000	915	130.7	kilogallons	biodiesel	0.0149	4.8	0.071	0.312	0.000156	2.18	14000	0	0.00
416	1	3000	196	196.0	kilogallons	biodiesel	0.0224	4.8	0.107	0.47	0.000156	0.47	3000	0	0.00
731 and 732	2	500	65.3	32.7	kilogallons	biodiesel	0.00373	4.8	0.0178	0.078	0.000156	0.156	1000	0	0.00
<b>Partial HP used: 11830</b>														<b>1.90</b>	

- 1) Potential PM all cells (tons/yr) = Operating rate ((units/hr) / cell) \* PM Emission factor (lbs/unit) \* (8760 hours/ 1 year) \* total number of cells
- 2) Worst case PM (tons/year) = Potential PM all cells (tons/yr) \* Total Capacity (HP) / Partial Capacity (HP)
- 3) Partial Capacity is the limited capacity available due to restrictions from the cooling tower
- 4) Some test cells may powered by different fuels (ie diesel , natural gas, or liquid propane)
- 5) Emission factors for the biodiesel were from an EPA study "Biodiesel Handling and Use Guidelines" September 2001

Note: The worse case VOC emissions, due to the limited 11,830 HP cooling tower restrictions, are calculated with the worse case VOC emission factors for a combination of test cells and fuels

**Appendix A: Emission Calculations**  
**Comparison of Engine Test Cells on #2 Diesel Oil, LPG, and Natural Gas vs Biodiesel**

Company Name: Cummins Engine Company, Columbus Technical Center - Plant 5  
 Address City IN Zip: 1900 McKinley Avenue, Columbus, Indiana 47201  
 Permit Number: AA 005-23921-00002  
 Pit ID: 005-00002  
 Reviewer: Brian J. Pedersen  
 Date: November 21, 2006

Capacity = 80,000 HP  
 Limited to 11830 HP due to cooling tower restrictions

**The worst case fuels for NOx are a combination of liquid propane and natural gas**

Unit ID	# of test Cells per year	Individual Capacities (HP)	Potential Fuel Used per year	Potential fuel per cell/yr	Fuel Units	Fuel Type	Operating Rate ((units/hr)/cell)	NOx Factor (lbs/unit)	Potential NOx ((lbs/hr)/cell)	Potential NOx ((tons/yr)/cell)	Potential ((NOx/hp)/cell) (tons/yr)	Potential NOx-all cells (tons/yr)	Total Capacity HP	Partial HP used	Worst case NOx (tons/yr)
101 - 122, 217 - 218, 301 - 322, 401, and 423	48	500	1612	33.6	kilogallons	#2 Diesel	0.00383	355.0	1.36	5.96	0.0119	286.1	24000	0	0.00
201 - 215, 219, 402, 403, and 417 - 419	21	1000	1372	65.3	kilogallons	#2 Diesel	0.00746	355.0	2.65	11.6	0.0116	243.5	21000	0	0.00
220 - 222, 404 - 409, 421, and 422	11	1500	1078	98.0	kilogallons	#2 Diesel	0.0112	355.0	3.97	17.4	0.0116	191.3	16500	0	0.00
410 - 415, and 420	7	2000	915	130.7	kilogallons	#2 Diesel	0.0149	355.0	5.30	23.2	0.0116	162.4	14000	0	0.00
416	1	3000	196	196.0	kilogallons	#2 Diesel	0.0224	355.0	7.94	34.8	0.0116	34.8	3000	0	0.00
318 - 322	5	500	229	45.8	kilogallons	LPG	0.00523	139.0	0.727	3.18	0.0064	15.9	2500	0	0.00
203, 204, and 417 - 419	5	1000	457	91.4	kilogallons	LPG	0.0104	139.0	1.45	6.35	0.0064	31.8	5000	0	0.00
220	1	1500	137	137.0	kilogallons	LPG	0.0156	139.0	2.17	9.52	0.0063	9.52	1500	0	0.00
420	1	2000	549	549.0	kilogallons	LPG	0.0627	139.0	8.71	38.2	<b>0.0191</b>	<b>38.2</b>	<b>2000</b>	<b>2000</b>	<b>38.2</b>
121, 122, 303, 316 - 322, and 401	11	500	50.2	4.6	MM SCF	Natural Gas	0.000521	3400.0	1.77	7.76	0.0155	85.3	<b>5500</b>	<b>4330</b>	<b>67.2</b>
203, 204, and 417 - 419	5	1000	45.6	9.1	MM SCF	Natural Gas	0.00104	3400.0	3.54	15.5	0.0155	77.5	5000	0	0.0
220	1	1500	13.7	13.7	MM SCF	Natural Gas	0.00156	3400.0	5.32	23.3	<b>0.0155</b>	<b>23.3</b>	<b>1500</b>	<b>1500</b>	<b>23.3</b>
410 and 414	2	2000	36.5	18.3	MM SCF	Natural Gas	0.00208	3400.0	7.08	31.0	<b>0.0155</b>	<b>62.1</b>	<b>4000</b>	<b>4000</b>	<b>62.05</b>
731 and 732	2	500	65.3	32.7	kilogallons	#2 Diesel	0.00373	355.0	1.32	5.80	0.0116	11.6	1000	0	0.00
<b>Partial HP used: 11830</b>														<b>191</b>	

Unit ID	# of test Cells per year	Individual Capacities (HP)	Potential Fuel Used per year	Potential fuel per cell/yr	Fuel Units	Fuel Type	Operating Rate ((units/hr)/cell)	NOx Factor (lbs/unit)	Potential NOx ((lbs/hr)/cell)	Potential NOx ((tons/yr)/cell)	Potential ((NOx/hp)/cell) (tons/yr)	Potential NOx-all cells (tons/yr)	Total Capacity HP	Partial HP used	Worst case NOx (tons/yr)
101 - 122, 217 - 218, 301 - 322, 401, and 423	48	500	1612	33.6	kilogallons	biodiesel	0.00383	375.6	1.4399	6.307	0.012614	302.73	24000	11830	149.22
201 - 215, 219, 402, 403, and 417 - 419	21	1000	1372	65.3	kilogallons	biodiesel	0.00746	375.6	2.8012	12.269	0.012269	257.65	21000	0	0.00
220 - 222, 404 - 409, 421, and 422	11	1500	1078	98.0	kilogallons	biodiesel	0.0112	375.6	4.202	18.404	0.012269	202.44	16500	0	0.000
410 - 415, and 420	7	2000	915	130.7	kilogallons	biodiesel	0.0149	375.6	5.604	24.547	0.012274	171.83	14000	0	0.00
416	1	3000	196	196.0	kilogallons	biodiesel	0.0224	375.6	8.404	36.81	0.012269	36.81	3000	0	0.00
731 and 732	2	500	65.3	32.7	kilogallons	biodiesel	0.00373	375.6	1.3999	6.132	0.012263	12.263	1000	0	0.00
<b>Partial HP used: 11830</b>														<b>149.22</b>	

- 1) Potential PM all cells (tons/yr) = Operating rate ((units/hr) / cell) \* PM Emission factor (lbs/unit) \* (8760 hours/ 1 year) \* total number of cells
- 2) Worst case PM (tons/year) = Potential PM all cells (tons/yr) \* Total Capacity (HP) / Partial Capacity (HP)
- 3) Partial Capacity is the limited capacity available due to restrictions from the cooling tower
- 4) Some test cells may powered by different fuels (ie diesel , natural gas, or liquid propane)
- 5) Emission factors for the biodiesel were from an EPA study "Biodiesel Handling and Use Guidelines" September 2001

Note: The worse case VOC emissions, due to the limited 11,830 HP cooling tower restrictions, are calculated with the worse case VOC emission factors for a combination of test cells and fuels

**Appendix A: Emission Calculations**  
**Comparison of Engine Test Cells on #2 Diesel Oil, LPG, and Natural Gas vs Biodiesel**

Company Name: Cummins Engine Company, Columbus Technical Center - Plant 5  
 Address City IN Zip: 1900 McKinley Avenue, Columbus, Indiana 47201  
 Permit Number: AA 005-23921-00002  
 Pit ID: 005-00002  
 Reviewer: Brian J. Pedersen  
 Date: November 21, 2006

Capacity = 80,000 HP  
 Limited to 11830 HP due to cooling tower restrictions

**The worst case fuels for VOC are a combination of liquid propane and diesel**

Unit ID	# of test Cells per year	Individual Capacities (HP)	Potential Fuel Used per year	Potential fuel per cell/yr	Fuel Units	Fuel Type	Operating Rate ((units/hr)/cell)	VOC Factor (lbs/unit)	Potential VOC ((lbs/hr)/cell)	Potential VOC ((tons/yr)/cell)	Potential ((VOC/hp)/cell) (tons/yr)	Potential VOC-all cells (tons/yr)	Total Capacity HP	Partial HP used	Worst case VOC (tons/yr)
101 - 122, 217 - 218, 301 - 322, 401, and 423	48	500	1612	33.6	kilogallons	#2 Diesel	0.00383	17.9	0.0686	0.301	<b>0.000601</b>	<b>14.43</b>	<b>24000</b>	<b>830</b>	<b>0.50</b>
201 - 215, 219, 402, 403, and 417 - 419	21	1000	1372	65.3	kilogallons	#2 Diesel	0.00746	17.9	0.134	0.585	0.000585	12.28	21000	0	0.00
220 - 222, 404 - 409, 421, and 422	11	1500	1078	98.0	kilogallons	#2 Diesel	0.0112	17.9	0.200	0.877	0.000585	9.65	16500	0	0.00
410 - 415, and 420	7	2000	915	130.7	kilogallons	#2 Diesel	0.0149	17.9	0.267	1.17	0.000585	8.19	14000	0	0.000
416	1	3000	196	196.0	kilogallons	#2 Diesel	0.0224	17.9	0.401	1.75	0.000585	1.754	3000	0	0.00
318 - 322	5	500	229	45.8	kilogallons	LPG	0.00523	83.0	0.434	1.90	<b>0.003801</b>	<b>9.50</b>	<b>2500</b>	<b>2500</b>	<b>9.50</b>
203, 204, and 417 - 419	5	1000	457	91.4	kilogallons	LPG	0.0104	83.0	0.866	3.79	<b>0.003793</b>	<b>18.97</b>	<b>5000</b>	<b>5000</b>	<b>18.97</b>
220	1	1500	137	137.0	kilogallons	LPG	0.0156	83.0	1.30	5.69	<b>0.003790</b>	<b>5.69</b>	<b>1500</b>	<b>1500</b>	<b>5.69</b>
420	1	2000	549	549.0	kilogallons	LPG	0.0627	83.0	5.20	22.8	<b>0.011392</b>	<b>22.8</b>	<b>2000</b>	<b>2000</b>	<b>22.8</b>
121, 122, 303, 316 - 322, and 401	11	500	50.2	4.6	MM SCF	Natural Gas	0.000521	82.9	0.0432	0.189	0.000378	2.08	5500	0	0.00
203, 204, and 417 - 419	5	1000	45.6	9.1	MM SCF	Natural Gas	0.00104	82.9	0.0863	0.378	0.000378	1.890	5000	0	0.00
220	1.00	1500	13.7	13.70	MM SCF	Natural Gas	0.00156	82.9	0.1296	0.568	0.000379	0.568	1500	0	0.000
410 and 414	2	2000	36.5	18.3	MM SCF	Natural Gas	0.00208	82.9	0.173	0.756	0.000378	1.513	4000	0	0.00
731 and 732	2	500	65.3	32.7	kilogallons	#2 Diesel	0.00373	17.9	0.0667	0.292	0.000584	0.584	1000	0	0.00
<b>Partial HP used: 11830</b>														<b>57.4</b>	

Unit ID	# of test Cells per year	Individual Capacities (HP)	Potential Fuel Used per year	Potential fuel per cell/yr	Fuel Units	Fuel Type	Operating Rate ((units/hr)/cell)	VOC Factor (lbs/unit)	Potential VOC ((lbs/hr)/cell)	Potential VOC ((tons/yr)/cell)	Potential ((VOC/hp)/cell) (tons/yr)	Potential VOC-all cells (tons/yr)	Total Capacity HP	Partial HP used	Worst case VOC (tons/yr)
101 - 122, 217 - 218, 301 - 322, 401, and 423	48	500	1612	33.6	kilogallons	biodiesel	0.00383	7.8	0.0300	0.131	0.000263	6.30	24000	11830	3.11
201 - 215, 219, 402, 403, and 417 - 419	21	1000	1372	65.3	kilogallons	biodiesel	0.00746	7.8	0.0583	0.255	0.000255	5.36	21000	0	0.00
220 - 222, 404 - 409, 421, and 422	11	1500	1078	98.0	kilogallons	biodiesel	0.0112	7.8	0.087	0.383	0.000255	4.21	16500	0	0.000
410 - 415, and 420	7	2000	915	130.7	kilogallons	biodiesel	0.0149	7.8	0.117	0.511	0.000256	3.58	14000	0	0.00
416	1	3000	196	196.0	kilogallons	biodiesel	0.0224	7.8	0.175	0.77	0.000255	0.77	3000	0	0.00
731 and 732	2	500	65.3	32.7	kilogallons	biodiesel	0.00373	7.8	0.0291	0.128	0.000255	0.255	1000	0	0.00
<b>Partial HP used: 11830</b>														<b>3.11</b>	

- 1) Potential PM all cells (tons/yr) = Operating rate ((units/hr) / cell) \* PM Emission factor (lbs/unit) \* (8760 hours/ 1 year) \* total number of cells
- 2) Worst case PM (tons/year) = Potential PM all cells (tons/yr) \* Total Capacity (HP) / Partial Capacity (HP)
- 3) Partial Capacity is the limited capacity available due to restrictions from the cooling tower
- 4) Some test cells may be powered by different fuels (ie diesel , natural gas, or liquid propane)
- 5) Emission factors for the biodiesel were from an EPA study "Biodiesel Handling and Use Guidelines" September 2001

Note: The worse case VOC emissions, due to the limited 11,830 HP cooling tower restrictions, are calculated with the worse case VOC emission factors for a combination of test cells and fuels

**Appendix A: Emission Calculations**  
**Comparison of Engine Test Cells on #2 Diesel Oil, LPG, and Natural Gas vs Biodiesel**

**Company Name: Cummins Engine Company, Columbus Technical Center - Plant 5**  
**Address City IN Zip: 1900 McKinley Avenue, Columbus, Indiana 47201**  
**Permit Number: AA 005-23921-00002**  
**Plt ID: 005-00002**  
**Reviewer: Brian J. Pedersen**  
**Date: November 21, 2006**

Capacity = 80,000 HP  
 Limited to 11830 HP due to cooling tower restrictions

**The worst case fuel for SO2 is diesel**

Unit ID	# of test Cells per year	Individual Capacities (HP)	Potential Fuel Used per year	Potential fuel per cell/yr	Fuel Units	Fuel Type	Operating Rate ((units/hr)/cell)	SO2 Factor (lbs/unit)	Potential SO2 ((lbs/hr)/cell)	Potential SO2 ((tons/yr)/cell)	Potential ((SO2/hp)/cell) (tons/yr)	Potential SO2-all cells (tons/yr)	Total Capacity HP	Partial HP used	Worst case SO2 (tons/yr)
101 - 122, 217 - 218, 301 - 322, 401, and 423	48	500	1612	33.6	kilogallons	#2 Diesel	0.00383	7.09	0.0272	0.119	<b>0.000238</b>	<b>5.71</b>	<b>24000</b>	<b>11830</b>	<b>2.82</b>
201 - 215, 219, 402, 403, and 417 - 419	21	1000	1372	65.3	kilogallons	#2 Diesel	0.00746	7.09	0.0529	0.232	0.000232	4.86	21000	0	0.00
220 - 222, 404 - 409, 421, and 422	11	1500	1078	98.0	kilogallons	#2 Diesel	0.0112	7.09	0.0793	0.347	0.000232	3.82	16500	0	0.00
410 - 415, and 420	7	2000	915	130.7	kilogallons	#2 Diesel	0.0149	7.09	0.106	0.463	0.000232	3.24	14000	0	0.00
416	1	3000	196	196.0	kilogallons	#2 Diesel	0.0224	7.09	0.159	0.695	0.000232	0.695	3000	0	0.00
318 - 322	5	500	229	45.8	kilogallons	LPG	0.00523	0.350	0.00183	0.00802	0.000016	0.040	2500	0	0.00
203, 204, and 417 - 419	5	1000	457	91.4	kilogallons	LPG	0.0104	0.350	0.00365	0.0160	0.000016	0.080	5000	0	0.00
220	1	1500	137	137.0	kilogallons	LPG	0.0156	0.350	0.00547	0.0240	0.000016	0.024	1500	0	0.00
420	1	2000	549	549.0	kilogallons	LPG	0.0627	0.350	0.0219	0.0961	0.000048	0.096	2000	0	0.00
121, 122, 303, 316 - 322, and 401	11	500	50.2	4.6	MM SCF	Natural Gas	0.000521	0.600	0.000313	0.00137	0.000003	0.015	5500	0	0.00
203, 204, and 417 - 419	5	1000	45.6	9.1	MM SCF	Natural Gas	0.00104	0.600	0.000625	0.00274	0.000003	0.014	5000	0	0.00
220	1	1500	13.7	13.7	MM SCF	Natural Gas	0.00156	0.600	0.000938	0.00411	0.000003	0.004	1500	0	0.00
410 and 414	2	2000	36.5	18.3	MM SCF	Natural Gas	0.00208	0.600	0.00125	0.00548	0.000003	0.011	4000	0	0.00
731 and 732	2	500	65.3	32.7	kilogallons	#2 Diesel	0.00373	7.09	0.0264	0.116	0.000231	0.231	1000	0	0.00
<b>Partial HP used: 11830</b>														<b>0</b>	<b>2.82</b>

Unit ID	# of test Cells per year	Individual Capacities (HP)	Potential Fuel Used per year	Potential fuel per cell/yr	Fuel Units	Fuel Type	Operating Rate ((units/hr)/cell)	SO2 Factor (lbs/unit)	Potential SO2 ((lbs/hr)/cell)	Potential SO2 ((tons/yr)/cell)	Potential ((SO2/hp)/cell) (tons/yr)	Potential SO2-all cells (tons/yr)	Total Capacity HP	Partial HP used	Worst case SO2 (tons/yr)
101 - 122, 217 - 218, 301 - 322, 401, and 423	48	500	1612	33.6	kilogallons	biodiesel	0.00383	2.4	0.0093	0.041	0.000082	1.96	24000	11830	0.965
201 - 215, 219, 402, 403, and 417 - 419	21	1000	1372	65.3	kilogallons	biodiesel	0.00746	2.4	0.0181	0.079	0.000079	1.67	21000	0	0.00
220 - 222, 404 - 409, 421, and 422	11	1500	1078	98.0	kilogallons	biodiesel	0.0112	2.4	0.027	0.119	0.000079	1.31	16500	0	0.000
410 - 415, and 420	7	2000	915	130.7	kilogallons	biodiesel	0.0149	2.4	0.036	0.159	0.000079	1.11	14000	0	0.00
416	1	3000	196	196.0	kilogallons	biodiesel	0.0224	2.4	0.054	0.24	0.000079	0.24	3000	0	0.00
731 and 732	2	500	65.3	32.7	kilogallons	biodiesel	0.00373	2.4	0.0091	0.040	0.000079	0.079	1000	0	0.00
<b>Partial HP used: 11830</b>														<b>0</b>	<b>0.965</b>

- 1) Potential PM all cells (tons/yr) = Operating rate ((units/hr) / cell) \* PM Emission factor (lbs/unit) \* (8760 hours/ 1 year) \* total number of cells
- 2) Worst case PM (tons/year) = Potential PM all cells (tons/yr) \* Total Capacity (HP) / Partial Capacity (HP)
- 3) Partial Capacity is the limited capacity available due to restrictions from the cooling tower
- 4) Some test cells may be powered by different fuels (ie diesel , natural gas, or liquid propane)
- 5) Emission factors for the biodiesel were from an EPA study "Biodiesel Handling and Use Guidelines" September 2001

Note: The worse case VOC emissions, due to the limited 11,830 HP cooling tower restrictions, are calculated with the worse case VOC emission factors for a combination of test cells and fuels

**Appendix A: Emission Calculations**  
**Comparison of Engine Test Cells on #2 Diesel Oil, LPG, and Natural Gas vs Biodiesel**

Company Name: Cummins Engine Company, Columbus Technical Center - Plant 5  
 Address City IN Zip: 1900 McKinley Avenue, Columbus, Indiana 47201  
 Permit Number: AA 005-23921-00002  
 Pit ID: 005-00002  
 Reviewer: Brian J. Pedersen  
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Capacity = 80,000 HP  
 Limited to 11830 HP due to cooling tower restrictions

**The worst case fuel for CO is a combination of liquid propane and natural gas**

Unit ID	# of test Cells per year	Individual Capacities (HP)	Potential Fuel Used per year	Potential fuel per cell/yr	Fuel Units	Fuel Type	Operating Rate ((units/hr)/cell)	CO Factor (lbs/unit)	Potential CO ((lbs/hr)/cell)	Potential CO ((tons/yr)/cell)	Potential ((CO/hp)/cell) (tons/yr)	Potential CO-all cells (tons/yr)	Total Capacity HP	Partial HP used	Worst case CO (tons/yr)
101 - 122, 217 - 218, 301 - 322, 401, and 423	48	500	1612	33.6	kilogallons	#2 Diesel	0.00383	55.8	0.214	0.937	0.00187	45.0	24000	0	0.00
201 - 215, 219, 402, 403, and 417 - 419	21	1000	1372	65.3	kilogallons	#2 Diesel	0.00746	55.8	0.416	1.82	0.00182	38.3	21000	0	0.00
220 - 222, 404 - 409, 421, and 422	11	1500	1078	98.0	kilogallons	#2 Diesel	0.0112	55.8	0.624	2.73	0.00182	30.1	16500	0	0.00
410 - 415, and 420	7	2000	915	130.7	kilogallons	#2 Diesel	0.0149	55.8	0.833	3.65	0.00182	25.5	14000	0	0.00
416	1	3000	196	196.0	kilogallons	#2 Diesel	0.0224	55.8	1.25	5.47	0.00182	5.47	3000	0	0.00
318 - 322	5	500	229	45.8	kilogallons	LPG	0.00523	129	0.674	2.95	<b>0.00591</b>	<b>14.77</b>	<b>2500</b>	<b>2500</b>	<b>14.77</b>
203, 204, and 417 - 419	5	1000	457	91.4	kilogallons	LPG	0.01043	129	1.35	5.90	<b>0.00590</b>	<b>29.48</b>	<b>5000</b>	<b>5000</b>	<b>29.5</b>
220	1	1500	137	137.0	kilogallons	LPG	0.0156	129	2.02	8.84	<b>0.00589</b>	<b>8.84</b>	<b>1500</b>	<b>1500</b>	<b>8.84</b>
420	1	2000	549	549.0	kilogallons	LPG	0.0627	129	8.08	35.4	<b>0.01771</b>	<b>35.4</b>	<b>2000</b>	<b>2000</b>	<b>35.4</b>
121, 122, 303, 316 - 322, and 401	11	500	50.2	4.6	MM SCF	Natural Gas	0.000521	430	0.224	0.981	0.00196	10.8	5500	0	0.00
203, 204, and 417 - 419	5	1000	45.6	9.1	MM SCF	Natural Gas	0.00104	430	0.448	1.96	0.00196	9.8	5000	0	0.00
220	1	1500	13.7	13.7	MM SCF	Natural Gas	0.00156	430	0.672	2.95	<b>0.00196</b>	<b>2.95</b>	<b>1500</b>	<b>830</b>	<b>1.63</b>
410 and 414	2	2000	36.5	18.3	MM SCF	Natural Gas	0.00208	430	0.896	3.92	0.00196	7.8	4000	0	0.00
731 and 732	2	500	65.3	32.7	kilogallons	#2 Diesel	0.00373	55.8	0.208	0.911	0.00182	1.8	1000	0	0.00
<b>Partial HP used: 11830</b>														<b>0</b>	<b>90.1</b>

Unit ID	# of test Cells per year	Individual Capacities (HP)	Potential Fuel Used per year	Potential fuel per cell/yr	Fuel Units	Fuel Type	Operating Rate ((units/hr)/cell)	CO Factor (lbs/unit)	Potential CO ((lbs/hr)/cell)	Potential CO ((tons/yr)/cell)	Potential ((CO/hp)/cell) (tons/yr)	Potential CO-all cells (tons/yr)	Total Capacity HP	Partial HP used	Worst case CO (tons/yr)
101 - 122, 217 - 218, 301 - 322, 401, and 423	48	500	1612	33.6	kilogallons	biodiesel	0.00383	31.7	0.1215	0.532	0.001064	25.55	24000	11830	12.592
201 - 215, 219, 402, 403, and 417 - 419	21	1000	1372	65.3	kilogallons	biodiesel	0.00746	31.7	0.2364	1.035	0.001035	21.74	21000	0	0.00
220 - 222, 404 - 409, 421, and 422	11	1500	1078	98.0	kilogallons	biodiesel	0.0112	31.7	0.355	1.553	0.001035	17.08	16500	0	0.000
410 - 415, and 420	7	2000	915	130.7	kilogallons	biodiesel	0.0149	31.7	0.473	2.071	0.001036	14.50	14000	0	0.00
416	1	3000	196	196.0	kilogallons	biodiesel	0.0224	31.7	0.709	3.11	0.001035	3.11	3000	0	0.00
731 and 732	2	500	65.3	32.7	kilogallons	biodiesel	0.00373	31.7	0.1181	0.517	0.001035	1.035	1000	0	0.00
<b>Partial HP used: 11830</b>														<b>0</b>	<b>12.6</b>

- 1) Potential PM all cells (tons/yr) = Operating rate ((units/hr) / cell) \* PM Emission factor (lbs/unit) \* (8760 hours/ 1 year) \* total number of cells
- 2) Worst case PM (tons/year) = Potential PM all cells (tons/yr) \* Total Capacity (HP) / Partial Capacity (HP)
- 3) Partial Capacity is the limited capacity available due to restrictions from the cooling tower
- 4) Some test cells may be powered by different fuels (ie diesel , natural gas, or liquid propane)
- 5) Emission factors for the biodiesel were from an EPA study "Biodiesel Handling and Use Guidelines" September 2001

Note: The worse case VOC emissions, due to the limited 11,830 HP cooling tower restrictions, are calculated with the worse case VOC emission factors for a combination of test cells and fuels