



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

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

TO: Interested Parties / Applicant

DATE: April 7, 2010

RE: Cummins Inc., Power Generation Engine Testing Facility / 005-29008-00073

FROM: Matthew Stuckey, Branch 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, Suite N 501E, 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.dot12/3/07



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Valorie Werner  
Cummins Inc. Power Generation Engine Testing Facility  
4760 Ray Boll Blvd. MC 91619  
Columbus, Indiana 47203

April 7, 2010

Re: 005-29008-00073  
First Administrative Amendment to  
F005-23094-00073

Dear Valorie Werner:

Cummins Inc. Power Generation Engine Testing Facility was issued a Federally Enforceable State Operating Permit (FESOP) Renewal No. F005-23094-00073 on November 20, 2007, for a stationary engine testing operation located at 4760 Ray Boll Blvd., Columbus, Indiana 47203. On February 22, 2010, the Office of Air Quality (OAQ) received an application from the source requesting that the permit be revised as follows:

1. to allow for the combustion of liquefied petroleum gas (LPG) in the existing six engine test cells (TC#1 through TC#6) that are currently permitted to combust diesel fuel, biodiesel, and natural gas.

Since no AP-42 emission factors exist for combustion of LPG in reciprocating internal combustion engines (RICE), IDEM OAQ has assumed that the combustion of LPG will be similar to the combustion of natural gas in the engines at this source. Fuel usage (diesel, biodiesel, and natural gas) in the six engine test cells (TC#1 through TC#6) is currently limited in Condition D.1.1 of the permit in order to limit the total nitrogen oxides (NOx) emissions to less than or equal to 99.4 tons per twelve (12) consecutive month period. The usage of LPG in the six engine test cells will also be limited by Condition D.1.1 of the permit in order to limit the total nitrogen oxides (NOx) emissions to less than or equal to 99.4 tons per twelve (12) consecutive month period (see attached calculations). The limited potential to emit regulated criteria pollutants and hazardous air pollutants will not increase as a result of this change in operation. Therefore, this change in operation will be incorporated into the permit as an administrative amendment, since the potential emissions of regulated criteria pollutants and hazardous air pollutants are less than the ranges specified 326 IAC 2-8-11.1(d)(4) and 326 IAC 2-8-11.1(f)(1)(G), respectively. Sections A.2 and D.1 and the associated FESOP Quarterly Report Form have been revised to include combustion of LPG in the six engine test cells.

2. to extend the FESOP Renewal permit term to ten (10) years. On December 16, 2007, rule revisions to 326 IAC 2-1.1-9.5 and 326 IAC 2-8-4 were finalized allowing for ten (10) year permit terms on FESOP renewals. IDEM has determined that this change to the permit will be processed as an administrative amendment pursuant to 326 IAC 2-8-10. The expiration date on the cover page has been extended by five (5) years and Condition B.2 has been revised to reflect the ten (10) year permit term.
3. to update the mailing address listed in the permit to 4760 Ray Boll Blvd MC 91610, Columbus, IN 47203.

IDEM, OAQ has decided to make additional revisions to the permit as described below in order to update the language to match the most current version of the applicable rule, to eliminate redundancy within the permit, and to provide clarification regarding the requirements of these conditions.

3. Several of IDEM's branches and sections have been renamed. Therefore, IDEM has updated the addresses listed in the permit. References to "Permit Administration and Development Section" and the "Permits Branch" have been changed to "Permit Administration and Support Section". References to "Asbestos Section", "Compliance Data Section", "Air Compliance Section", and "Compliance Branch" have been changed to "Compliance and Enforcement Branch".
4. Section A.1 has been revised to indicate that Bartholomew County is now in unclassifiable or attainment for the PM2.5 standard.
5. For clarity, IDEM has changed references to the general conditions: "in accordance with Section B", "in accordance with Section C", or other similar language to "Section C...contains the Permittee's obligations with regard to the records required by this condition."
6. IDEM has decided that the phrases "no later than" and "not later than" are clearer than "within" in relation to the end of a timeline. Therefore all timelines have been switched to "no later than" or "not later than" except when the underlying rule states "within."
7. IDEM has decided to clarify throughout the permit that a certification needs to meet the requirements of 326 IAC 2-8-5(a)(1). In addition, IDEM has decided to remove the last sentence dealing with the need for certification from the forms because the conditions requiring the forms already addresses this issue.
8. IDEM has decided to clarify the certification requirements in Section B - Duty to Provide Information and Section B - Certification.
9. IDEM has decided to clarify the requirements of Section B - Preventive Maintenance Plan and to add a new paragraph (b) to handle a future situation where the Permittee adds units that need preventive maintenance plans.
10. IDEM has added the telephone and facsimile information for the Southwest and Southeast Regional Offices to Section B - Emergency Provisions.
11. IDEM has revised Section B - Emergency Provisions to delete paragraph (h). 326 IAC 2-8-4(3)(C)(ii) allows that deviations reported under an independent requirement do not have to be included in the Quarterly Deviation and Compliance Monitoring Report.
12. IDEM has decided that having a separate condition for the reporting of deviations is unnecessary. Therefore, IDEM has removed Section B - Deviation From Permit Requirements and Conditions and added the requirements of that condition to Section C - General Reporting Requirements. Paragraph (d) of Section C - General Reporting Requirements has been removed because IDEM already states the timeline and certification needs of each report in the condition requiring the report.
13. IDEM has revised Section B - Permit Renewal paragraph (c) to state which rule establishes the authority to set a deadline for the Permittee to submit additional information.
14. IDEM has decided to reference 326 IAC 2 in Section B - Source Modification Requirements, rather than specific construction rule.
15. IDEM has added 326 IAC 5-1-1 to the exception clause of Section C - Opacity, since 326 IAC 5-1-1 does list exceptions.

16. IDEM has revised Section C - Incineration to more closely reflect the two underlying rules.
17. IDEM has revised the language of the Section C - Asbestos Abatement Projects to change the terminology "Accredited" to "Licensed" in order to match the rule.
18. IDEM has removed the first paragraph of Section C - Performance Testing due to the fact that specific testing conditions elsewhere in the permit will specify the timeline and procedures.
19. IDEM has revised Section C - Compliance Monitoring. The reference to recordkeeping has been removed due to the fact that other conditions already address recordkeeping. The voice of the condition has been changed to clearly indicate that it is the Permittee that must follow the requirements of the condition.
20. IDEM has removed Section C - Monitoring Methods. The conditions that require the monitoring or testing, if required, state what methods shall be used.
21. IDEM has revised Section C - Response to Excursions or Exceedances. The introduction sentence has been added to clarify that it is only when an excursion or exceedance is detected that the requirements of this condition need to be followed. The word "excess" was added to the last sentence of paragraph (a) because the Permittee only has to minimize excess emissions. The middle of paragraph (b) has been deleted as it was duplicative of paragraph (a). The phrase "or are returning" was added to subparagraph (b)(2) as this is an acceptable response assuming the operation or emission unit does return to normal or its usual manner of operation. The phrase "within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable" was replaced with "normal or usual manner of operation" because the first phrase is just a limited list of the second phrase. The recordkeeping required by paragraph (e) was changed to require only records of the response because the previously listed items are required to be recorded elsewhere in the permit.
22. IDEM has revised Section C - Actions Related to Noncompliance Demonstrated by a Stack Test. The requirements to take response steps and minimize excess emissions have been removed because Section C - Response to Excursions or Exceedances already requires response steps related to exceedances and excess emissions minimization. The start of the timelines was switched from "the receipt of the test results" to "the date of the test." There was confusion if the "receipt" was by IDEM, the Permittee, or someone else. Since the start of the timelines has been moved up, the length of the timelines was increased. The new timelines require action within a comparable timeline; and the new timelines still ensure that the Permittee will return to compliance within a reasonable timeframe.
23. The voice of paragraph (b) of Section C - General Record Keeping Requirements has been changed to clearly indicate that it is the Permittee that must follow the requirements of the paragraph.
24. IDEM has decided to simplify the referencing in Section C - Compliance with 40 CFR 82 and 326 IAC 22-1.
25. IDEM has decided to clarify Section D - Testing Requirements.
26. The word "status" has been added to Section D - Record Keeping Requirements and Section D - Reporting Requirements. The Permittee has the obligation to document the compliance status. The wording has been revised to properly reflect this.
27. The phrase "of this permit" has been added to the paragraph of the Quarterly Deviation and Compliance Monitoring Report Form to match the underlying rule.

The permit has been revised as follows with deleted language as ~~strikeouts~~ and new language **bolded**:

COVER PAGE:

Operation Permit No.: F005-23094-00073	
Original Issued and Signed By: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: November 20, 2007  Expiration Date: November 20, <del>2012</del> <b>2017</b>

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.43 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 2-8-3(b)]

Source Location Status: ~~Nonattainment for PM 2.5 standard~~  
Attainment for all other criteria pollutants

Source Status: Federally Enforceable State Operating Permit Program  
~~Minor Source, under PSD and Emission Offset Rules~~

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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

- (a) One (1) engine test cell, firing diesel, biodiesel, **liquefied petroleum gas (LPG)**, or natural gas, identified as TC#1, constructed prior to 1980, rated at 4,960 horsepower, venting to stack S1.
- (b) One (1) engine test cell, firing diesel, biodiesel, **liquefied petroleum gas (LPG)**, or natural gas, identified as TC#2, constructed prior to 1980, rated at 2,815 horsepower, venting to stack S2.
- (c) One (1) engine test cell, firing diesel, biodiesel, **liquefied petroleum gas (LPG)**, or natural gas, identified as TC#3, constructed in 1985, rated at 1,340 horsepower, venting to stack S3.
- (d) One (1) engine test cell, firing diesel, biodiesel, **liquefied petroleum gas (LPG)**, or natural gas, identified as TC#4, constructed in 1988, rated at 870 horsepower, venting to stack S4.
- (e) One (1) engine test cell, firing diesel, biodiesel, **liquefied petroleum gas (LPG)**, or natural gas, identified as TC#5, constructed in 2006, rated at 1,200 horsepower, located outdoors and exhausting directly to the atmosphere.
- (f) One (1) engine test cell, firing diesel, biodiesel, **liquefied petroleum gas (LPG)**, or natural gas, identified as TC#6, constructed in 2006, rated at 1,200 horsepower, located outdoors and exhausting directly to the atmosphere.

A.4 FESOP Applicability [326 IAC 2-8-2]

This **stationary** source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

B.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, F005-23094-00073, is issued for a fixed term of ~~five (5)~~ **ten (10)** years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

B.4 Enforceability [326 IAC 2-8-6][IC 13-17-12]

B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. ~~The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~ Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

B.8 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

(a) ~~Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that,~~ **A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:**

- (i) **it contains a certification by an "authorized individual", as defined by 326 IAC 2-1.1-1(1), and**
- (ii) **the certification is based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.**

(b) ~~One (1) certification shall be included, using~~ **The Permittee may use** the attached Certification Form, **or its equivalent** with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

(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. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

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

(c) The annual compliance certification report shall include the following:

The submittal by the Permittee does require the a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

...  
B.11 Preventive Maintenance Plan. ~~326 IAC 1-6-3~~~~326 IAC 2-8-4(9)~~~~326 IAC 2-8-5(a)(1)~~

~~(a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:~~

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

- ~~(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;~~
- ~~(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and~~
- ~~(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.~~

~~The Permittee shall implement the PMPs.~~

~~(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:~~

- ~~(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;~~
- ~~(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and~~
- ~~(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.~~

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

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

~~The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

~~The Permittee shall implement the PMPs.~~

- (bc) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. ~~The PMPs. The PMPs and their submittal do not require the certification a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~
- (ed) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.12 Emergency Provisions [326 IAC 2-8-12]

- (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:
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, or **Southwest Regional Office and Southeast Regional Office** within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;
- Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section and Enforcement Branch), or  
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance Section and Enforcement Branch)  
Facsimile Number: 317-233-6865
- Southwest Regional Office phone: (812) 380-2305; fax: (812) 380-2304**  
**Southeast Regional Office phone: (812) 358-2027; fax: (812) 358-2058.**
- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:
- Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- The notification which shall be submitted by the Permittee does not require the a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (h) ~~The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.~~

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

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

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

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

The Quarterly Deviation and Compliance Monitoring Report does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

**B.1516 Permit Modification, Reopening, Revocation and Reissuance, or Termination**  
[326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]

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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 Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require ~~the certification a~~ **certification that meets the requirements of 326 IAC 2-8-5(a)(1)** by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**B.1617 Permit Renewal** [326 IAC 2-8-3(h)]

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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 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require ~~the a~~ **certification that meets the requirements of 326 IAC 2-8-5(a)(1)** by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, **pursuant to 326 IAC 2-8-3(g)**, in writing by IDEM, OAQ any additional information identified as being needed to process the application.

**B.1718 Permit Amendment or Revision** [326 IAC 2-8-10][326 IAC 2-8-11.1]

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

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

Any such application shall be certified ~~does~~ **require a certification that meets the requirements of 326 IAC 2-8-5(a)(1)** by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

...  
**B.1849 Operational Flexibility** [326 IAC 2-8-15][326 IAC 2-8-11.1]

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- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d) without a prior permit revision, if each of the following conditions is met:

- ...  
(4) The Permittee notifies the:

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

...  
**B.1920 Source Modification Requirement** [326 IAC 2-8-11.1]

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A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2- and 326 IAC 2-8-11.1.

**B.2024 Inspection and Entry** [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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...  
**B.2122 Transfer of Ownership or Operational Control** [326 IAC 2-8-10]

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- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

~~The~~ **Any such** application which shall be submitted by the Permittee does require thea certification **that meets the requirements of 326 IAC 2-8-5(a)(1)** by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

...  
**B.2223 Annual Fee Payment** [326 IAC 2-7-19][326 IAC 2-8-4(6)][326 IAC 2-8-16][326 IAC 2-1.1-7]

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- (a) The Permittee shall pay annual fees to IDEM, OAQ ~~within~~ **no later than thirty (30)** calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- ...

**B.2324 Credible Evidence** [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314][326 IAC 1-1-6]

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...  
C.2 Overall Source Limit [326 IAC 2-8]

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- ...  
(b) ~~The Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period. This limitation shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) not applicable.~~

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

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

...  
C.5 Incineration [326 IAC 4-2][326 IAC 9-1-2]

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

...  
C.8 Asbestos Abatement Projects [326 IAC 14-10][326 IAC 18][40 CFR 61, Subpart M]

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- ...  
(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~~ **Compliance and Enforcement Branch**, Office of Air Quality  
MC 61-52 IGCN 1003  
100 North Senate Avenue  
**MC 61-53 IGCN 1003**  
Indianapolis, Indiana 46204-2251

- ...  
(g) Indiana Accredited **Licensed** Asbestos Inspector  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited **Licensed** Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

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 any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.~~

**AF**or performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

...  
C.11 ~~Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]~~

~~Unless otherwise specified in this permit, for all monitoring and record-keeping requirements not already legally required, the Permittee shall be allowed up to shall be implemented within ninety (90) days of from the date of permit issuance or of initial start-up, whichever is later, to begin such monitoring. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its the Permittee's control, that any monitoring equipment required by this permit cannot be installed and operated within no later than ninety (90) days after permit issuance or the date of initial startup, whichever is later, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:~~

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

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

~~The notification which shall be submitted by the Permittee does require the a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

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

C.12 ~~Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]~~

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

C.1213 ~~Instrument Specifications [326 IAC 2-1.1-11][326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]~~

...  
C.1314 ~~Risk Management Plan [326 IAC 2-8-4][40 CFR 68]~~

...  
C.1415 ~~Response to Excursions or Exceedances [326 IAC 2-8-4][326 IAC 2-8-5]~~

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

- (a) ~~Upon detecting an excursion or exceedance, the~~ The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as

expeditiously as practicable in accordance with good air pollution control practices for minimizing **excess** emissions.

- (b) The response shall include minimizing the period of any startup, shutdown or malfunction ~~and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions).~~ Corrective actions. **The response may include, but areis not limited to, the following:**
- (1) initial inspection and evaluation;
  - (2) recording that operations returned **or are returning** to normal without operator action (such as through response by a computerized distribution control system);  
or
  - (3) any necessary follow-up actions to return operation to ~~within the indicator range, designated condition, or below the applicable emission limitation or standard,~~ as applicable **normal or usual manner of operation.**
- ...
- (e) The Permittee shall ~~record~~ maintain the following records **the reasonable response steps taken.:**
- (1) ~~monitoring data;~~
  - (2) ~~monitor performance data, if applicable; and~~
  - (3) ~~corrective actions taken.~~

C.1546 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. ~~The Permittee shall submit a description of theseits response actions to IDEM, OAQ, within no later than thirty (30) days of receipt of the test results~~ **seventy-five (75) days after the date of the test.** ~~The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.~~
- (b) A retest to demonstrate compliance shall be performed ~~within no later than one hundred and twenty (120) days of receipt of the original test results~~ **eighty (180) days after the date of the test.** Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty ~~(120)~~ **eighty (180)** days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require ~~the a~~ certification **that meets the requirements of 326 IAC 2-8-5(a)(1)** by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.1647 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]

- ...
- (b) Unless otherwise specified in this permit, **for** all record keeping requirements not already legally required, **the Permittee shall be allowed up to** ~~shall be implemented~~ within ninety

(90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.1748 General Reporting Requirements [326 IAC 2-8-4(3)(C)][326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported: **except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.** This report shall be submitted ~~within~~ **not later than** thirty (30) days ~~after~~ the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include ~~thea~~ **certification that meets the requirements of 326 IAC 2-8-5(a)(1)** by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). **A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.**
- (b) ~~The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to~~ **address for report submittal is:**
- Indiana Department of Environmental Management  
Compliance Data ~~Section~~ **and Enforcement Branch**, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- ...
- (d) ~~Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~
- (de) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

C.1819 Compliance with 40 CFR 82 and 326 IAC 22-1

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

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description [326 IAC 2-8-4(10)]:

- (a) One (1) engine test cell, firing diesel, biodiesel, **liquefied petroleum gas (LPG)**, or natural gas, identified as TC#1, constructed prior to 1980, rated at 4,960 horsepower, venting to stack S1.
- (b) One (1) engine test cell, firing diesel, biodiesel, **liquefied petroleum gas (LPG)**, or natural gas, identified as TC#2, constructed prior to 1980, rated at 2,815 horsepower, venting to stack S2.
- (c) One (1) engine test cell, firing diesel, biodiesel, **liquefied petroleum gas (LPG)**, or natural gas, identified as TC#3, constructed in 1985, rated at 1,340 horsepower, venting to stack S3.
- (d) One (1) engine test cell, firing diesel, biodiesel, **liquefied petroleum gas (LPG)**, or natural gas, identified as TC#4, constructed in 1988, rated at 870 horsepower, venting to stack S4.
- (e) One (1) engine test cell, firing diesel, biodiesel, **liquefied petroleum gas (LPG)**, or natural gas, identified as TC#5, constructed in 2006, rated at 1,200 horsepower, located outdoors and exhausting directly to the atmosphere.
- (f) One (1) engine test cell, firing diesel, biodiesel, **liquefied petroleum gas (LPG)**, or natural gas, identified as TC#6, constructed in 2006, rated at 1,200 horsepower, located outdoors and exhausting directly to the atmosphere.

D.1.1 ~~Nitrogen Oxides (NO<sub>x</sub>)~~ **Fuel Usage and Emission Limitations** [326 IAC 2-8-4][**326 IAC 2-2**]

- (a) Pursuant to 326 IAC 2-8-4, the input of diesel fuel to the six (6) engine test cells (TC#1 through TC#6) shall be limited to less than 453,467 gallons per twelve (12) consecutive month period. Each gallon of biodiesel fuel used shall be considered equal to 1.012 gallons of diesel fuel used.
- (b) For purposes of determining compliance based on NO<sub>x</sub> emissions, each million cubic foot (MMCF) of natural gas shall be equivalent to 6,478.70 gallons of diesel fuel.

The NO<sub>x</sub> emissions from the six (6) test engine cells shall not exceed 0.438 pounds of NO<sub>x</sub> per gallon of diesel fuel per month, 0.443 pounds of NO<sub>x</sub> per MMCF of natural gas per month and 0.452 pounds of NO<sub>x</sub> per gallon of biodiesel fuel per month. These limits shall limit the potential to emit NO<sub>x</sub> from the entire source to less than one hundred (100) tons per year and shall make the requirements of 326 IAC 2-7, not applicable.

In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), and to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable, the source shall comply with the following:

- (a) The total input of diesel fuel and diesel fuel equivalents to the six (6) engine test cells (TC#1 through TC#6) shall be limited to less than 453,467 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) For purposes of determining compliance based on NO<sub>x</sub> emissions, each gallon of biodiesel fuel used shall be considered equal to 1.012 gallons of diesel fuel, each gallon of liquefied petroleum gas (LPG) used shall be considered equal to 0.856 gallons of diesel fuel used, and each million cubic foot (MMCF) of natural gas used shall be equivalent to 9,492.7 gallons of diesel fuel.

- (c) **When burning natural gas:**
- (1) **NO<sub>x</sub> emissions from natural gas combustion shall not exceed 4161.6 pounds per MMCF; and**
  - (2) **CO emissions from natural gas combustion shall not exceed 3,977.4 pounds per MMCF.**
  - (3) **Formaldehyde emissions from natural gas combustion shall not exceed 397.8 pounds per MMCF.**
- (d) **When burning diesel fuel:**
- (1) **NO<sub>x</sub> emissions from diesel fuel combustion shall not exceed 0.4384 pounds per gallon;**
  - (2) **CO emissions from diesel fuel combustion shall not exceed 0.4190 pounds per gallon;**
  - (3) **SO<sub>2</sub> emissions from diesel fuel combustion shall not exceed 0.0685 pounds per gallon, which is equivalent to 0.5 pounds per MMBtu heat input; and**
- (e) **When burning biodiesel fuel:**
- (1) **NO<sub>x</sub> emissions from biodiesel fuel combustion shall not exceed 0.4437 pounds per gallon;**
  - (2) **CO emissions from biodiesel fuel combustion shall not exceed 0.4240 pounds per gallon;**
  - (3) **SO<sub>2</sub> emissions from biodiesel fuel combustion shall not exceed 0.0685 pounds per gallon, which is equivalent to 0.5 pounds per MMBtu heat input; and**
- (f) **When burning liquefied petroleum gas (LPG) fuel:**
- (1) **NO<sub>x</sub> emissions from LPG combustion shall not exceed 0.3754 pounds per gallon;**
  - (2) **CO emissions from LPG combustion shall not exceed 0.3587 pounds per gallon;**
  - (3) **Formaldehyde emissions from LPG combustion shall not exceed 0.03588 pounds per gallon.**

Compliance with these limits, combined with the NO<sub>x</sub>, CO, SO<sub>2</sub>, and formaldehyde emissions from other emission units at the source, shall limit the source-wide total NO<sub>x</sub>, CO, and SO<sub>2</sub> emissions to less than 100 tons per twelve (12) consecutive month period, each, the source-wide total formaldehyde emissions to less than 10 tons per twelve (12) consecutive month period, and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.1.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B—Preventive Maintenance Plan, of

this permit, is required for these facilities. **Section B – Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance Plan required by this condition.**

**D.1.4 Testing Requirements [326 IAC 2-8-4(3)(A)][326 IAC 2-1.1-11]**

The source is not currently using biodiesel fuel, but ~~within~~ **not later than 180 days of after** the startup of using biodiesel fuel for testing in order to demonstrate compliance with Condition D.1.1(e)(1)(a) and (b), the Permittee shall perform NO<sub>x</sub> testing for at least one (1) of the six (6) engine test cells, identified as TC#1 through TC#6, utilizing methods as approved by the Commissioner. **Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures).** ~~Testing shall be conducted in accordance with Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.~~

**D.1.5 Sulfur Dioxide Emissions and Sulfur Content**

Compliance with **Condition D.1.2** shall be determined utilizing one of the following options.

**D.1.6 Visible Emissions Notations**

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps ~~in accordance with Section C - Response to Excursions or Exceedances~~ **contains the Permittee's obligation with regard to the reasonable response steps required by this condition.** Failure to take response steps ~~in accordance with Section C - Response to Excursions or Exceedances~~ shall be considered a deviation from this permit.

**D.1.7 Record Keeping Requirements**

(a) To document **the compliance status** with Conditions D.1.1(a) and D.1.1(b), the Permittee shall maintain monthly records of the gallons of diesel fuel burned, **the gallons of biodiesel fuel burned, the gallons of liquefied petroleum gas (LPG) burned,** the cubic feet of natural gas burned, and the equivalent gallons of diesel fuel burned.

(b) To document **the compliance status** with Condition D.1.2, the Permittee shall maintain records in accordance with (1) through (6) below. **Records maintained for (1) through (6) below shall be complete and sufficient to establish compliance with the SO<sub>2</sub> emission limit established in condition D.1.2.**

(3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, ~~the natural gas-fired boiler certification does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); and~~

(c) To document **the compliance status** with Condition D.1.5, the Permittee shall maintain daily records of the visible emission notations of the six (6) engine test cells (TC#1 through TC#6) exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (i.e.e.g., the process did not operate that day).

(d) ~~All records shall be maintained in accordance with Section C - General Record Keeping Requirements,~~ of this permit **contains the Permittee's obligations with regard to the records required by this condition.**

**D.1.8 Reporting Requirements**

A quarterly summary of the information to document **the compliance status** with Conditions D.1.1(a) and D.1.1(b) shall be submitted to the addresses listed in Section C ~~General Reporting~~

Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within no later than thirty (30) days after the end of the quarter being reported.  
**Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition.** The report submitted by the Permittee does require the a certification that meet the requirements of 326 IAC 2-8-5(a)(1) by the an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

...  
**FESOP EMERGENCY OCCURRENCE REPORT FORM:**

A certification is not required for this report.

...  
**FESOP QUATERLY REPORT FORM:**

Facilities: Six (6) engine test cells (TC#1 through TC#6)  
 Parameter: Gallons of diesel fuel and diesel fuel equivalents burned (NO<sub>x</sub>)  
 Limit: ~~Less than a total of 453,467 gallons per twelve (12) consecutive month period. For purposes of determining compliance based on NO<sub>x</sub> emissions, each million cubic foot (MMCF) of natural gas shall be equivalent to 6,478.10 gallons of diesel fuel. Each gallon of biodiesel used shall be considered equal to using 1.012 gallons of diesel fuel. The NO<sub>x</sub> emissions from the six (6) test engine cells shall not exceed 0.438 pounds of NO<sub>x</sub> per gallon of diesel fuel per month, 0.443 pounds of NO<sub>x</sub> per MMCF of natural gas per month and 0.452 pounds of NO<sub>x</sub> per gallon of biodiesel fuel per month.~~

**Limit** The total input of diesel fuel and diesel fuel equivalents to the six (6) engine test cells (TC#1 through TC#6) shall be limited to less than 453,467 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

For purposes of determining compliance based on NO<sub>x</sub> emissions, each gallon of biodiesel fuel used shall be considered equal to 1.012 gallons of diesel fuel, each gallon of liquefied petroleum gas (LPG) used shall be considered equal to 0.856 gallons of diesel fuel used, and each million cubic foot (MMCF) of natural gas used shall be equivalent to 9,492.7 gallons of diesel fuel.

$$\text{Equivalent Diesel Fuel Usage (gallons)} = [\text{Diesel Fuel Usage (gallons)}] + [\text{Biodiesel Fuel Usage (gallons)} \times 1.012] + [\text{LPG Usage (gallons)} \times 0.856] + [\text{Natural Gas Usage (MMCF)} \times 9,492.7]$$

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

Month	Equivalent Diesel fuel burned (gallons)	Equivalent Diesel fuel burned (gallons)	Equivalent Diesel fuel burned (gallons)
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

...  
 Attach a signed certification to complete this report.

FESOP QUATERLY DEVIATION AND COMPLIANCE MONITORING REPORT FORM:

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

...

Attach a signed certification to complete this report.

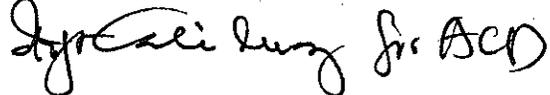
...

All other conditions of the permit shall remain unchanged and in effect. Attached please find the entire revised permit.

A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.idem.in.gov](http://www.idem.in.gov)

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 Nathan Bell of my staff, at 317-233-5670, or 1-800-451-6027, and ask for extension 3-5670.

Sincerely,



Alfred C. Dumauval, Ph. D., Section Chief  
Permits Branch  
Office of Air Quality

Attachments: Updated Permit and Updated Calculations

ACD/ncb

cc: File - Bartholomew County  
Bartholomew County Health Department  
U.S. EPA, Region V  
Compliance and Enforcement Branch  
Billing, Licensing and Training Section



**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

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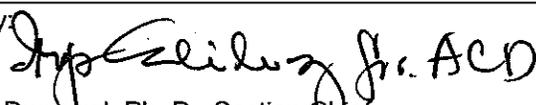
(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 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.

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 FESOP under 326 IAC 2-8.

Operation Permit No.: F005-23094-00073	
Original Issued and Signed By: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: November 20, 2007 Expiration Date: November 20, 2017

First Administrative Amendment No. 005-29008-00073	
Issued by:  Alfred C. Dumaul, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: April 7, 2010 Expiration Date: November 20, 2017

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C.10	Compliance Requirements [326 IAC 2-1.1-11]	

**Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

- C.11 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]
- C.12 Instrument Specifications [326 IAC 2-1.1-11][326 IAC 2-8-4(3)]  
[326 IAC 2-8-5(1)]

**Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

- C.13 Risk Management Plan [326 IAC 2-8-4][40 CFR 68]
- C.14 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]
- C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4]  
[326 IAC 2-8-5]

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

- C.16 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]
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- D.1.2 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1][326 IAC 7-2-1]
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- D.1.4 Testing Requirements [326 IAC 2-8-4(3)(A)][326 IAC 2-1.1-11]
- D.1.5 Sulfur Dioxide Emissions and Sulfur Content

**Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

- D.1.6 Visible Emissions Notations

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## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 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 2-8-3(b)]

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The Permittee owns and operates a stationary engine testing operation.

Source Address:	4760 Ray Boll Blvd., Columbus, Indiana 47203
Mailing Address:	4760 Ray Boll Blvd MC 91610, Columbus, IN 47203
General Source Phone Number:	812-377-1780
SIC Code:	8734
County Location:	Bartholomew
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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

- (a) One (1) engine test cell, firing diesel, biodiesel, liquefied petroleum gas (LPG), or natural gas, identified as TC#1, constructed prior to 1980, rated at 4,960 horsepower, venting to stack S1.
- (b) One (1) engine test cell, firing diesel, biodiesel, liquefied petroleum gas (LPG), or natural gas, identified as TC#2, constructed prior to 1980, rated at 2,815 horsepower, venting to stack S2.
- (c) One (1) engine test cell, firing diesel, biodiesel, liquefied petroleum gas (LPG), or natural gas, identified as TC#3, constructed in 1985, rated at 1,340 horsepower, venting to stack S3.
- (d) One (1) engine test cell, firing diesel, biodiesel, liquefied petroleum gas (LPG), or natural gas, identified as TC#4, constructed in 1988, rated at 870 horsepower, venting to stack S4.
- (e) One (1) engine test cell, firing diesel, biodiesel, liquefied petroleum gas (LPG), or natural gas, identified as TC#5, constructed in 2006, rated at 1,200 horsepower, located outdoors and exhausting directly to the atmosphere.
- (f) One (1) engine test cell, firing diesel, biodiesel, liquefied petroleum gas (LPG), or natural gas, identified as TC#6, constructed in 2006, rated at 1,200 horsepower, located outdoors and exhausting directly to the atmosphere.

### A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

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

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour: One (1) natural gas-fired boiler, originally installed in 1980, and replaced with a new unit after 1996, rated at 1.25 million British thermal units per hour. [326 IAC 6-2-4]
- (b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6: one (1) cold cleaner, identified as parts cleaner, installed in 1998. [326 IAC 8-3-5]
- (c) Two (2) diesel fuel storage tanks with a capacity of 270 gallons each.
- (d) Grinding and machining operations controlled with fabric filters with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute used for abrasive blasting. [326 IAC 6-3-2]

A.4 FESOP Applicability [326 IAC 2-8-2]

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This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

## SECTION B

## GENERAL CONDITIONS

### B.1 Definitions [326 IAC 2-8-1]

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

### B.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

---

- (a) This permit, F005-23094-00073, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

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

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

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

### B.4 Enforceability [326 IAC 2-8-6][IC 13-17-12]

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

### B.5 Severability [326 IAC 2-8-4(4)]

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

### B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

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

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

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

**B.8 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]**

---

- (a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:
  - (i) it contains a certification by an "authorized individual", as defined by 326 IAC 2-1.1-1(1), and
  - (ii) the certification is based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

**B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]**

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- (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. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
  - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]

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

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

The Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

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

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

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

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions.

The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.12 Emergency Provisions [326 IAC 2-8-12]

- (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 2-8-12.
- (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, or Southwest Regional Office and Southeast Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or  
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)  
Facsimile Number: 317-233-6865

Southwest Regional Office phone: (812) 380-2305; fax: (812) 380-2304  
Southeast Regional Office phone: (812) 358-2027; fax: (812) 358-2058.

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

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

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

The notice fulfills the requirement of 326 IAC 2-8-4(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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 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 material of substantial economic value.

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

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

- 
- (a) All terms and conditions of permits established prior to F005-23094-00073 and issued pursuant to permitting programs approved into the state implementation plan have been either:

- (1) incorporated as originally stated,
- (2) revised, or
- (3) deleted.

(b) All previous registrations and permits are superseded by this permit.

**B.14 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]**

---

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 2-8-3(h) and 326 IAC 2-8-9.

**B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination  
[326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]**

---

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (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 2-8-8(a)]
- (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 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(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 2-8-8(c)]

**B.16 Permit Renewal [326 IAC 2-8-3(h)]**

---

- (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 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
  - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

**B.17 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]**

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- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

**B.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]**

---

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d) 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 2-8-11.1 has been obtained;

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

(4) The Permittee notifies the:

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

and

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

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

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b) through (d). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

- (b) Emission Trades [326 IAC 2-8-15(c)]  
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (c) Alternative Operating Scenarios [326 IAC 2-8-15(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 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (d) 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.19 Source Modification Requirement [326 IAC 2-8-11.1]**

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

**B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]**

---

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

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

B.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:  
  
Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
  
Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.22 Annual Fee Payment [326 IAC 2-7-19][326 IAC 2-8-4(6)][326 IAC 2-8-16][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ no later than thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.23 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314][326 IAC 1-1-6]

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

## SECTION C

## SOURCE OPERATION CONDITIONS

Entire Source

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

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

#### C.2 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

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

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

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

Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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

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

C.5 Incineration [326 IAC 4-2][326 IAC 9-1-2]

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

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

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

C.7 Stack Height [326 IAC 1-7]

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The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.8 Asbestos Abatement Projects [326 IAC 14-10][326 IAC 18][40 CFR 61, Subpart M]

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

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

### **Testing Requirements [326 IAC 2-8-4(3)]**

#### **C.9 Performance Testing [326 IAC 3-6]**

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- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
  
no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

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

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

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The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U.S. EPA.

### **Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

#### **C.11 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]**

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Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or of initial start-up, whichever is later, to begin such monitoring. If due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance or the date of initial startup, whichever is later, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

#### **C.12 Instrument Specifications [326 IAC 2-1.1-11][326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]**

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- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

### **Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

#### **C.13 Risk Management Plan [326 IAC 2-8-4][40 CFR 68]**

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

C.14 Response to Excursions or Exceedances [326 IAC 2-8-4][326 IAC 2-8-5]

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

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

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

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

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

## **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

### C.16 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

### C.17 General Reporting Requirements [326 IAC 2-8-4(3)(C)][326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.
- (b) The address for report submittal is:  
  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- (c) 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) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

## **Stratospheric Ozone Protection**

### C.18 Compliance with 40 CFR 82 and 326 IAC 22-1

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

## SECTION D.1

## EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description [326 IAC 2-8-4(10)]:

- (a) One (1) engine test cell, firing diesel, biodiesel, liquefied petroleum gas (LPG), or natural gas, identified as TC#1, constructed prior to 1980, rated at 4,960 horsepower, venting to stack S1.
- (b) One (1) engine test cell, firing diesel, biodiesel, liquefied petroleum gas (LPG), or natural gas, identified as TC#2, constructed prior to 1980, rated at 2,815 horsepower, venting to stack S2.
- (c) One (1) engine test cell, firing diesel, biodiesel, liquefied petroleum gas (LPG), or natural gas, identified as TC#3, constructed in 1985, rated at 1,340 horsepower, venting to stack S3.
- (d) One (1) engine test cell, firing diesel, biodiesel, liquefied petroleum gas (LPG), or natural gas, identified as TC#4, constructed in 1988, rated at 870 horsepower, venting to stack S4.
- (e) One (1) engine test cell, firing diesel, biodiesel, liquefied petroleum gas (LPG), or natural gas, identified as TC#5, constructed in 2006, rated at 1,200 horsepower, located outdoors and exhausting directly to the atmosphere.
- (f) One (1) engine test cell, firing diesel, biodiesel, liquefied petroleum gas (LPG), or natural gas, identified as TC#6, constructed in 2006, rated at 1,200 horsepower, located outdoors and exhausting directly to the atmosphere.

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

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.1.1 Fuel Usage and Emission Limitations [326 IAC 2-8-4][326 IAC 2-2]

In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), and to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable, the source shall comply with the following:

- (a) The total input of diesel fuel and diesel fuel equivalents to the six (6) engine test cells (TC#1 through TC#6) shall be limited to less than 453,467 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) For purposes of determining compliance based on NO<sub>x</sub> emissions, each gallon of biodiesel fuel used shall be considered equal to 1.012 gallons of diesel fuel, each gallon of liquefied petroleum gas (LPG) used shall be considered equal to 0.856 gallons of diesel fuel used, and each million cubic foot (MMCF) of natural gas used shall be equivalent to 9,492.7 gallons of diesel fuel.
- (c) When burning natural gas:
  - (1) NO<sub>x</sub> emissions from natural gas combustion shall not exceed 4161.6 pounds per MMCF; and
  - (2) CO emissions from natural gas combustion shall not exceed 3,977.4 pounds per MMCF.
  - (3) Formaldehyde emissions from natural gas combustion shall not exceed 397.8 pounds per MMCF.

- (d) When burning diesel fuel:
  - (1) NO<sub>x</sub> emissions from diesel fuel combustion shall not exceed 0.4384 pounds per gallon;
  - (2) CO emissions from diesel fuel combustion shall not exceed 0.4190 pounds per gallon;
  - (3) SO<sub>2</sub> emissions from diesel fuel combustion shall not exceed 0.0685 pounds per gallon, which is equivalent to 0.5 pounds per MMBtu heat input; and
- (e) When burning biodiesel fuel:
  - (1) NO<sub>x</sub> emissions from biodiesel fuel combustion shall not exceed 0.4437 pounds per gallon;
  - (2) CO emissions from biodiesel fuel combustion shall not exceed 0.4240 pounds per gallon;
  - (3) SO<sub>2</sub> emissions from biodiesel fuel combustion shall not exceed 0.0685 pounds per gallon, which is equivalent to 0.5 pounds per MMBtu heat input; and
- (f) When burning liquefied petroleum gas (LPG) fuel:
  - (1) NO<sub>x</sub> emissions from LPG combustion shall not exceed 0.3754 pounds per gallon;
  - (2) CO emissions from LPG combustion shall not exceed 0.3587 pounds per gallon;
  - (3) Formaldehyde emissions from LPG combustion shall not exceed 0.03588 pounds per gallon.

Compliance with these limits, combined with the NO<sub>x</sub>, CO, SO<sub>2</sub>, and formaldehyde emissions from other emission units at the source, shall limit the source-wide total NO<sub>x</sub>, CO, and SO<sub>2</sub> emissions to less than 100 tons per twelve (12) consecutive month period, each, the source-wide total formaldehyde emissions to less than 10 tons per twelve (12) consecutive month period, and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

**D.1.2 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1][326 IAC 7-2-1]**

Pursuant to 326 IAC 7-1.1 (SO<sub>2</sub> Emissions Limitations) the SO<sub>2</sub> emissions from the six (6) engine test cells (TC#1 through TC#6) shall not exceed five tenths (0.5) pounds per MMBtu heat input when burning diesel fuel. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated using a calendar month average.

**D.1.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

A Preventive Maintenance Plan is required for these facilities. Section B – Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance Plan required by this condition.

**Compliance Determination Requirements**

**D.1.4 Testing Requirements [326 IAC 2-8-4(3)(A)][326 IAC 2-1.1-11]**

The source is not currently using biodiesel fuel, but not later than 180 days after the startup of using biodiesel fuel for testing in order to demonstrate compliance with Condition D.1.1(e)(1), the

Permittee shall perform NO<sub>x</sub> testing for at least one (1) of the six (6) engine test cells, identified as TC#1 through TC#6, utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

#### D.1.5 Sulfur Dioxide Emissions and Sulfur Content

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Compliance with Condition D.1.2 shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu heat input by:
  - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or
  - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
    - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
    - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the six (6) engine test cells (TC#1 through TC#6), using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

#### **Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

#### D.1.6 Visible Emissions Notations

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- (a) Visible emission notations of the six (6) engine test cells (TC#1 through TC#6) exhausts shall be performed once per day during normal daylight operations when burning diesel fuel. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

## Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-16]

### D.1.7 Record Keeping Requirements

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- (a) To document the compliance status with Conditions D.1.1(a) and D.1.1(b), the Permittee shall maintain monthly records of the gallons of diesel fuel burned, the gallons of biodiesel fuel burned, the gallons of liquefied petroleum gas (LPG) burned, the cubic feet of natural gas burned, and the equivalent gallons of diesel fuel burned.
- (b) To document the compliance status with Condition D.1.2, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) below shall be complete and sufficient to establish compliance with the SO<sub>2</sub> emission limit established in condition D.1.2.
- (1) Calendar dates covered in the compliance determination period;
- (2) Actual diesel and biodiesel fuel usage since last compliance determination period and equivalent sulfur dioxide emissions;
- (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications.
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (c) To document the compliance status with Condition D.1.5, the Permittee shall maintain daily records of the visible emission notations of the six (6) engine test cells (TC#1 through TC#6) exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g., the process did not operate that day).
- (d) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

### D.1.8 Reporting Requirements

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A quarterly summary of the information to document the compliance status with Conditions D.1.1(a) and D.1.1(b) shall be submitted using the reporting forms located at the end of this permit, or their equivalent, no later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meet the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

## SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description [326 IAC 2-8-4(10)]: Insignificant Activities

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour: One (1) natural gas-fired boiler, originally installed in 1980, and replaced with a new unit after 1996, rated at 1.25 million British thermal units per hour. [326 IAC 6-2-4]
- (b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6:
  - One (1) cold cleaner, identified as parts cleaner, installed in 1998. [326 IAC 8-3-5]
- (c) Two (2) diesel fuel storage tanks with a capacity of 270 gallons each.
- (d) Grinding and machining operations controlled with fabric filters with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute used for abrasive blasting. [326 IAC 6-3-2]

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

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.2.1 Particulate Matter (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4(a), the PM emissions from the one (1) boiler are limited to 0.6 pounds per million British thermal units.

#### D.2.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser without remote solvent reservoirs constructed after July 1, 1990, shall ensure that the following 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 (38°C) (one hundred degrees Fahrenheit (100°F));
    - (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 (38°C) (one hundred degrees Fahrenheit (100°F)), 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 (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
    - (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 construction of which commenced after July 1, 1990, 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.

#### D.2.3 Particulate [326 IAC 6-3-2]

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Pursuant to 326 IAC 6-3-2(e), the particulate matter from the grinding and machining operations shall not exceed 0.551 pounds per hour when operating at a process weight rate of less than 100 pounds per hour. When operating at a process weight rate of 100 pounds per hour or more, the particulate matter shall not exceed the pound per hour emission rate established as E in the following equation:

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

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

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

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

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
CERTIFICATION**

Source Name: Cummins Inc. Power Generation Engine Testing Facility  
Source Address: 4760 Ray Boll Blvd., Columbus, Indiana 47203  
Mailing Address: 4760 Ray Boll Blvd MC 91610, Columbus, IN 47203  
FESOP Permit No.: F005-23094-00073

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Date:

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

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
EMERGENCY OCCURRENCE REPORT**

Source Name: Cummins Inc. Power Generation Engine Testing Facility  
Source Address: 4760 Ray Boll Blvd., Columbus, Indiana 47203  
Mailing Address: 4760 Ray Boll Blvd MC 91610, Columbus, IN 47203  
FESOP Permit No.: F005-23094-00073

**This form consists of 2 pages**

**Page 1 of 2**

<input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12) <ul style="list-style-type: none"><li>• The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and</li><li>• The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16</li></ul>
---

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

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

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

**Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N 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:
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  
 FESOP Quarterly Report**

Source Name: Cummins Inc. Power Generation Engine Testing Facility  
 Source Address: 4760 Ray Boll Blvd., Columbus, Indiana 47203  
 Mailing Address: 4760 Ray Boll Blvd MC 91610, Columbus, IN 47203  
 FESOP Permit No.: F005-23094-00073  
 Facilities: Six (6) engine test cells (TC#1 through TC#6)  
 Parameter: Gallons of diesel fuel and diesel fuel equivalents burned (NO<sub>x</sub>)  
 Limit: The total input of diesel fuel and diesel fuel equivalents to the six (6) engine test cells (TC#1 through TC#6) shall be limited to less than 453,467 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

For purposes of determining compliance based on NO<sub>x</sub> emissions, each gallon of biodiesel fuel used shall be considered equal to 1.012 gallons of diesel fuel, each gallon of liquefied petroleum gas (LPG) used shall be considered equal to 0.856 gallons of diesel fuel used, and each million cubic foot (MMCF) of natural gas used shall be equivalent to 9,492.7 gallons of diesel fuel.

Equivalent Diesel Fuel Usage (gallons) = [Diesel Fuel Usage (gallons)] + [Biodiesel Fuel Usage (gallons) x 1.012] + [LPG Usage (gallons) x 0.856] + [Natural Gas Usage (MMCF) x 9,492.7]

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

Month	Equivalent Diesel fuel burned (gallons)	Equivalent Diesel fuel burned (gallons)	Equivalent Diesel fuel burned (gallons)
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
 Deviation has been reported on: \_\_\_\_\_

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

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

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

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

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

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR QUALITY  
 COMPLIANCE AND ENFORCEMENT BRANCH  
 FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
 QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Cummins Inc. Power Generation Engine Testing Facility  
 Source Address: 4760 Ray Boll Blvd., Columbus, Indiana 47203  
 Mailing Address: 4760 Ray Boll Blvd MC 91610, Columbus, IN 47203  
 FESOP Permit No.: F005-23094-00073

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

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

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

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

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

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

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

**Attachment A: Emission Summary**

**Company Name: Cummins Inc. Power Generation Engine Testing Facility**  
**Source Address: 4760 Ray Boll Blvd., Columbus, IN 47203**  
**Permit Number: F005-29008-00073**  
**Reviewer: Nathan C. Bell**

**Unlimited Emissions**

Emission Units	PM	PM10	PM2.5	SO <sub>2</sub>	NOx	VOC	CO	Total HAPs	Worst Single HAP
Test Cells TC#1 through 6 (worst case emissions from all fuels)	37.97	21.76	21.76	189.87	1549.36	44.81	322.78	27.15	20.05 (formaldehyde)
Parts Cleaner	0	0	0	0	0	0.493	0	0	0
Insignificant Activities	0.01	0.04	0.042	0.00	0.548	0.03	0.46	0.0103	0.0099 (hexane)
<b>Total</b>	<b>37.99</b>	<b>21.80</b>	<b>21.80</b>	<b>189.88</b>	<b>1549.91</b>	<b>45.33</b>	<b>323.24</b>	<b>27.16</b>	<b>9.50 (formaldehyde)</b>

**Limited Emissions**

Emission Units	PM	PM10	PM2.5	SO <sub>2</sub>	NOx	VOC	CO	Total HAPs	Worst Single HAP
Test Cells TC#1 through 6 (worst case emissions from all fuels)	3.11	1.78	1.78	15.53	99.40	2.87	95.00	9.96	9.50 (formaldehyde)
Parts Cleaner	0	0	0	0	0	0.493	0	0	0
Insignificant Activities	0.01	0.04	0.042	0.00	0.548	0.03	0.46	0.0103	0.0099 (hexane)
<b>Total</b>	<b>3.12</b>	<b>1.82</b>	<b>1.82</b>	<b>15.53</b>	<b>99.95</b>	<b>3.40</b>	<b>95.46</b>	<b>9.98</b>	<b>9.50 (formaldehyde)</b>

**Attachment A: Unlimited Emissions Calculations**  
**Fuel Combustion in Engine Test Cells TC#1 through TC#6**  
**4-Stroke Lean Burn Engines**  
**Output Rating (>600 HP)**

**Company Name:** Cummins Inc. Power Generation Engine Testing Facility  
**Source Address:** 4760 Ray Boll Blvd., Columbus, IN 47203  
**Permit Number:** F005-29008-00073  
**Reviewer:** Nathan C. Bell

The following calculations determine the unlimited/uncontrolled emissions created from the combustion of natural gas, diesel fuel, and liquified petroleum gas (LPG) in the engine test cells.

**Maximum Capacity**

Maximum Fuel Input Rate =	86.7	MMBtu/hr
Maximum Hours Operated per Year =	8760	
Maximum Annual Fuel Input Rate =	759492	MMBtu/yr

Fuel Type	Fuel Heating Value	Fuel Heating Value Units	Maximum Annual Usage	Maximum Annual Usage Units	Sulfur Content (lb/MMBtu)	Sulfur Content (% by weight)
Natural Gas	1020	MMBtu/MMCF	744.60	MMCF/yr	not needed	not needed
Diesel Fuel	0.137	MMBtu/gal	5,543,737	gal/yr	0.50	0.495
Biodiesel Fuel	0.137	MMBtu/gal	5,543,737	gal/yr	0.50	0.495
Liquified Petroleum Gas (LPG)	0.092	MMBtu/gal	8,255,348	gal/yr	not needed	not needed

**Unlimited/Uncontrolled Emissions**

Criteria Pollutant	Emission Factor				Unlimited/Uncontrolled Potential to Emit (tons/yr)				
	Natural Gas* (lb/MMBtu)	Diesel Fuel** (lb/MMBtu)	Biodiesel Fuel** (lb/MMBtu)	Liquified Petroleum Gas (LPG) (lb/MMBtu)	Natural Gas (tons/yr)	Diesel Fuel (tons/yr)	Biodiesel Fuel (tons/yr)	Liquified Petroleum Gas (LPG) (tons/yr)	Worse Case Fuel (tons/yr)
PM	9.99E-03	0.10	0.10	9.99E-03	3.79	37.97	37.97	3.79	37.97
PM10	7.71E-05	0.0573	0.0573	7.71E-05	0.03	21.76	21.76	0.03	21.76
PM2.5	7.71E-05	0.0573	0.0573	7.71E-05	0.03	21.76	21.76	0.03	21.76
SO2	5.88E-04	0.500	0.500	5.88E-04	0.22	189.87	189.87	0.22	189.87
NOx	4.08E+00	3.2	3.24	4.08E+00	1549.36	1215.19	1229.77	1549.36	1549.36
VOC	1.18E-01	0.09	0.09	1.18E-01	44.81	34.18	34.18	44.81	44.81
CO	3.17E-01	0.85	0.85	0.317	120.38	322.78	322.78	120.38	322.78
<b>Hazardous Air Pollutant</b>									
Acetaldehyde	8.36E-03	2.52E-05	2.52E-05	8.36E-03	3.17	0.01	0.01	3.17	3.17
Acrolein	5.14E-03	7.88E-06	7.88E-06	5.14E-03	1.95	0.00	0.00	1.95	1.95
Benzene	4.40E-04	7.76E-04	7.76E-04	4.40E-04	0.17	0.29	0.29	0.17	0.29
Formaldehyde	0.0528	7.89E-05	7.89E-05	0.0528	20.05	0.03	0.03	20.05	20.05
Hexane	1.11E-03	0	0	1.11E-03	0.42	0.00	0.00	0.42	0.42
Methanol	2.50E-03	0	0	2.50E-03	0.95	0.00	0.00	0.95	0.95
Toluene	4.08E-04	2.81E-04	2.81E-04	4.08E-04	0.15	0.11	0.11	0.15	0.15
Total PAH HAPs	2.69E-05	2.12E-04	2.12E-04	2.69E-05	0.01	0.08	0.08	0.01	0.08
Xylene	1.84E-04	1.93E-04	1.93E-04	1.84E-04	0.07	0.07	0.07	0.07	0.07
<b>Total HAPs</b>					<b>26.95</b>	<b>0.60</b>	<b>0.60</b>	<b>26.95</b>	<b>27.15</b>

**Methodology**

Maximum Annual Fuel Input Rate (MMBtu/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] \* [Maximum Hours Operated Per Year]  
Maximum Annual Natural Gas Usage (MMCF/yr) = [Maximum Annual Fuel Input Rate (MMBtu/yr)] \* [1 MMCF/1,020 MMBtu]  
Maximum Annual Diesel Usage (gal/yr) = [Maximum Annual Fuel Input Rate (MMBtu/yr)] \* [1 gal/0.137 MMBtu]  
Maximum Annual Biodiesel Usage (gal/yr) = [Maximum Annual Fuel Input Rate (MMBtu/yr)] \* [1 gal/0.137 MMBtu]  
Maximum Annual LPG Usage (gal/yr) = [Maximum Annual Fuel Input Rate (MMBtu/yr)] \* [1 gal/0.092 MMBtu]  
Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Fuel Usage (gals/yr)] \* [Emission Factor (lb/MMBtu)] \* [ton/2000 lbs]

**Sources of AP-42 Emission Factors for fuel combustion:**

Natural Gas : AP-42 Chapter 3.2 (dated 7/2000), Table 3.2-2 for 4-Stroke Lean Burn Engines  
\*PM emission factor is for condensable PM and filterable PM10 combined. PM10 (filterable) = PM2.5 (filterable).  
Diesel Fuel: AP 42 Chapter 3.4 (dated 10/1996) Tables 3.4-1 , 3.4-2, 3.4-3, and 3.4-4 for Large Reciprocating Internal Combustion Engines (>600 HP output)  
\*\*The PM10 emission factor is filterable PM10 and condensable PM combined. The PM2.5 emissions were assumed to be equal to PM10.  
Biodiesel Fuel: Biodiesel combustion emission factors assumed equal to diesel fuel emission factors, except NOx, which is assumed to be 1.2% greater than diesel.  
These assumptions are based on "Biodiesel Handling and Use Guidelines" NREL/TP-580-30004f  
Liquified Petroleum Gas (LPG): Liquified Petroleum Gas (LPG) combustion emission factors assumed equal to natural gas emission factors.

**Abbreviations**

PM = Particulate Matter  
PM10 = Particulate Matter (<10 um)  
PM2.5 = Particulate Matter (< 2.5 um)  
SO2 = Sulfur Dioxide  
NOx = Nitrous Oxides  
VOC = Volatile Organic Compounds  
CO = Carbon Monoxide  
HAP = Hazardous Air Pollutant  
PAH = Polyaromatic Hydrocarbon

**Attachment A: Limited Emissions Calculations**  
**Fuel Combustion in Engine Test Cells TC#1 through TC#6**  
**4-Stroke Lean Burn Engines**  
**Output Rating (>600 HP)**

**Company Name: Cummins Inc. Power Generation Engine Testing Facility**  
**Source Address: 4760 Ray Boll Blvd., Columbus, IN 47203**  
**Permit Number: F005-29008-00073**  
**Reviewer: Nathan C. Bell**

The following calculations determine the limited emissions created from the combustion of natural gas, diesel fuel, and liquified petroleum gas (LPG) in the engine test cells.

**Fuel Limitations**

Limited Annual NOx Emissions	99.4	tons/year
Limited Annual CO Emissions	95.0	tons/year
Limited Annual Formaldehyde Emissions	9.5	tons/year

Fuel Type	Fuel Heating Value	Fuel Heating Value Units	Limited Annual Usage	Limited Annual Usage Units	Equivalent Limited Heat Input (MMBtu/yr)	NOx Emission Limit	CO Emission Limit	SO2 Emission Limit	Formaldehyde Emission Limit	NOx, CO, and SO2 Emission Limit Units	Sulfur Content (lb/MMBtu)	Sulfur Content (% by weight)
Natural Gas	1020	MMBtu/MMCF	47.77	MMCF/yr	48,725	4,161.6	3,977.4	no limit	397.8	lb/MMCF	not needed	not needed
Diesel Fuel	0.137	MMBtu/gal	453,467	gal/yr	62,125	0.4384	0.4190	0.0685	no limit	lb/gal	0.50	0.495
Biodiesel Fuel	0.137	MMBtu/gal	448,090	gal/yr	61,388	0.4437	0.4240	0.0685	no limit	lb/gal	0.50	0.495
Liquified Petroleum Gas (LPG)	0.092	MMBtu/gal	529,625	gal/yr	48,725	0.3754	0.3587	no limit	0.03588	lb/gal	not needed	not needed

**Limited Emissions**

Criteria Pollutant	Emission Factor or Emission Limit				Limited Potential to Emit (tons/yr)					Worse Case Fuel (tons/yr)
	Natural Gas* (lb/MMBtu)	Diesel Fuel** (lb/MMBtu)	Biodiesel Fuel** (lb/MMBtu)	Liquified Petroleum Gas (LPG) (lb/MMBtu)	Natural Gas (tons/yr)	Diesel Fuel (tons/yr)	Biodiesel Fuel (tons/yr)	Liquified Petroleum Gas (LPG) (tons/yr)		
PM	9.99E-03	0.10	0.10	9.99E-03	0.24	3.11	3.07	0.24	<b>3.11</b>	
PM10	7.71E-05	0.0573	0.0573	7.71E-05	0.002	1.78	1.76	0.002	<b>1.78</b>	
PM2.5	7.71E-05	0.0573	0.0573	7.71E-05	0.002	1.78	1.76	0.002	<b>1.78</b>	
SO2	5.88E-04	0.500	0.500	5.88E-04	0.01	15.53	15.35	0.01	<b>15.53</b>	
NOx	4.08E+00	3.2	3.24	4.08E+00	99.40	99.40	99.40	99.40	<b>99.40</b>	
VOC	1.18E-01	0.09	0.09	1.18E-01	2.87	2.80	2.76	2.87	<b>2.87</b>	
CO	3.899	3.058	3.095	3.899	95.00	95.00	95.00	95.00	<b>95.00</b>	
<b>Hazardous Air Pollutant</b>										
Acetaldehyde	8.36E-03	2.52E-05	2.52E-05	8.36E-03	0.204	0.0008	0.0008	0.204	<b>0.20</b>	
Acrolein	5.14E-03	7.88E-06	7.88E-06	5.14E-03	0.125	0.0002	0.0002	0.125	<b>0.13</b>	
Benzene	4.40E-04	7.76E-04	7.76E-04	4.40E-04	0.011	0.0241	0.0238	0.011	<b>0.02</b>	
Formaldehyde	0.39	7.89E-05	7.89E-05	0.39	9.501	0.0025	0.0024	9.501	<b>9.50</b>	
Hexane	1.11E-03	0	0	1.11E-03	0.027	0	0	0.027	<b>0.03</b>	
Methanol	2.50E-03	0	0	2.50E-03	0.061	0	0	0.061	<b>0.06</b>	
Toluene	4.08E-04	2.81E-04	2.81E-04	4.08E-04	0.010	0.0087	0.0086	0.010	<b>0.01</b>	
Total PAH HAPs	2.69E-05	2.12E-04	2.12E-04	2.69E-05	0.001	0.0066	0.0065	0.001	<b>0.01</b>	
Xylene	1.84E-04	1.93E-04	1.93E-04	1.84E-04	0.004	0.0060	0.0059	0.004	<b>0.01</b>	
<b>Total HAPs</b>					<b>9.94</b>	<b>0.05</b>	<b>0.05</b>	<b>9.94</b>	<b>9.96</b>	

**Methodology**

Limited Annual Natural Gas Usage (MMCF/yr) = [Limited Annual NOx Emission (tons/yr)] \* [2000 lbs/ton] \* [1 MMCF/1,020 MMBtu] / (NOx Emission Factor (lb/MMBtu))  
 Limited Annual Diesel Usage (gal/yr) = [Limited Annual NOx Emission (tons/yr)] \* [2000 lbs/ton] \* [1 gal/0.137 MMBtu] / (NOx Emission Factor (lb/MMBtu))  
 Limited Annual Biodiesel Usage (gal/yr) = [Limited Annual NOx Emission (tons/yr)] \* [2000 lbs/ton] \* [1 gal/0.137 MMBtu] / (NOx Emission Factor (lb/MMBtu))  
 Limited Annual LPG Usage (gal/yr) = [Limited Annual NOx Emission (tons/yr)] \* [2000 lbs/ton] \* [1 gal/0.092 MMBtu] / (NOx Emission Factor (lb/MMBtu))  
 Limited Potential to Emit (tons/yr) = [Equivalent Limited Heat Input (MMBtu/yr)] \* [Emission Factor (lb/MMBtu)] \* [ton/2000 lbs]

Sources of AP-42 Emission Factors for fuel combustion:

- Natural Gas : AP-42 Chapter 3.2 (dated 7/2000), Table 3.2-2 for 4-Stroke Lean Burn Engines
  - \*PM emission factor is for condensable PM and filterable PM10 combined. PM10 (filterable) = PM2.5 (filterable).
- Diesel Fuel: AP 42 Chapter 3.4 (dated 10/1996) Tables 3.4-1, 3.4-2, 3.4-3, and 3.4-4 for Large Reciprocating Internal Combustion Engines (>600 HP output)
  - \*\*The PM10 emission factor is filterable PM10 and condensable PM combined. The PM2.5 emissions were assumed to be equal to PM10.
- Biodiesel Fuel: Biodiesel combustion emission factors assumed equal to diesel fuel emission factors, except NOx, which is assumed to be 1.2% greater than diesel. These assumptions are based on "Biodiesel Handling and Use Guidelines" NREL/TP-580-30004f
- Liquified Petroleum Gas (LPG): Liquified Petroleum Gas (LPG) combustion emission factors assumed equal to natural gas emission factors.

**Abbreviations**

PM = Particulate Matter  
 PM10 = Particulate Matter (<10 um)  
 PM2.5 = Particulate Matter (< 2.5 um)  
 SO2 = Sulfur Dioxide  
 NOx = Nitrous Oxides  
 VOC = Volatile Organic Compounds  
 CO = Carbon Monoxide  
 HAP = Hazardous Air Pollutant  
 PAH = Polyaromatic Hydrocarbon

**Attachment A: Emissions Calculations  
 Fuel Equivalency Calculations (Diesel fuel is the main fuel)  
 Engine Test Cells TC#1 through TC#6**

**Company Name: Cummins Inc. Power Generation Engine Testing Facility  
 Source Address: 4760 Ray Boll Blvd., Columbus, IN 47203  
 Permit Number: F005-29008-00073  
 Reviewer: Nathan C. Bell**

\*Note: these equivalencies are related back to diesel fuel (assumed to be the predominant fuel used at this source).

NOx Equivalency						
Fuel Type	AP-42 NOx Emission Factor	AP-42 Nox Emission Factor Units	Fuel Heating Value	Fuel Heating Value Units	Fuel Equivalency	Fuel Equivalency Units
Diesel Fuel	3.2	lb/MMBtu	0.137	MMBtu/gal		
Natural Gas	4.08	lb/MMBtu	1020	MMBtu/MMCF	9492.7	gallons of diesel fuel per MMCF natural gas
Biodiesel Fuel	3.24	lb/MMBtu	0.137	MMBtu/gal	1.012	gallons of diesel per gallon biodiesel fuel
Liquified Petroleum Gas (LPG)	4.08	lb/MMBtu	0.092	MMBtu/gal	0.856	gallons of diesel per gallon LPG fuel

**Methodology**

$$\text{Natural Gas Fuel Equivalency} = \frac{[\text{AP-42 Emission Factor natural gas (lb/MMBtu)}] * [\text{Fuel Heating Value for natural gas (MMBtu/MMCF)}]}{[\text{AP-42 Emission Factor for diesel fuel (lb/MMBtu)}] * [\text{Fuel Heating Value for diesel (MMBtu/gal)}]}$$

$$\text{Biodiesel Fuel Equivalency} = \frac{[\text{AP-42 Emission Factor biodiesel (lb/MMBtu)}] * [\text{Fuel Heating Value for biodiesel (MMBtu/gal)}]}{[\text{AP-42 Emission Factor for diesel fuel (lb/MMBtu)}] * [\text{Fuel Heating Value for diesel (MMBtu/gal)}]}$$

$$\text{LPG Fuel Equivalency} = \frac{[\text{AP-42 Emission Factor LPG (lb/MMBtu)}] * [\text{Fuel Heating Value for LPG (MMBtu/gal)}]}{[\text{AP-42 Emission Factor for diesel fuel (lb/MMBtu)}] * [\text{Fuel Heating Value for diesel (MMBtu/gal)}]}$$

Sources of AP-42 Emission Factors for fuel combustion:

Diesel Fuel: AP 42 Chapter 3.4 (dated 10/1996) Tables 3.4-1 , 3.4-2, 3.4-3, and 3.4-4 for Large Reciprocating Internal Combustion Engines

Natural Gas : AP-42 Chapter 3.2 (dated 7/2000), Table 3.2-2 for 4-Stroke Lean Burn Engines

Biodiesel Fuel: Biodiesel combustion emission factors assumed equal to diesel fuel emission factors, except NOx, which is assumed to be 1.2% greater than diesel.

These assumptions are based on "Biodiesel Handling and Use Guidelines" NREL/TP-580-30004f

Liquified Petroleum Gas (LPG): Liquified Petroleum Gas (LPG) combustion emission factors assumed equal to natural gas emission factors.

**Apttachment A: Emission Calculations  
Parts Cleaner Worst Case Emissions  
Insignificant Activity**

**Company Name: Cummins Inc. Power Generation Engine Testing Facility**  
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**Permit Number: F005-29008-00073**  
**Reviewer: Nathan C. Bell**

**Potential to Emit (PTE) of Volatile Organic Compounds (VOC)**

Material	Material Density (lbs/gallon)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Maximum Material Usage (gallons/year)	PTE of VOC (lbs/day)	PTE of VOC (tons/year)
Solvent	6.8	100.00%	0.0%	100.0%	145.0	2.70	0.49

**METHODOLOGY**

PTE of VOC (lbs/day) = [Material Density (lbs/gallon)] \* [Weight % Organics] \* [Maximum Material Usage (gallons/year)] \* [year/365 days]

PTE of VOC (tons/year) = [PTE of VOC (lbs/day)] \* [365 days/year] \* [ton/2000 lbs]

External Combustion

Natural Gas  
MM BTU/HR <100

Company Name: Cummins Inc. Power Generation Engine Testing Facility  
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Emission Unit	Number of Units	Unit Heat Input Capacity MMBtu/hr	Combined Total Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Pollutant					
					PM*	PM10/PM2.5*	SO2	NOx**	VOC	CO
Emission Factor (lb/MMCF)					1.9	7.6	0.6	100	5.5	84.0
Potential Emission tons/yr					PM*	PM10*	SO2	NOx**	VOC	CO
Natural Gas Boiler	1	1.25	1.25	10.95	1.0E-02	0.042	3.3E-03	0.548	0.030	0.460

Emission Unit	Pollutant									
	Benzene	DCB	Formaldehyde	Hexane	Toluene	Pb	Cd	Cr	Mn	Ni
Emission Factor (lb/MMCF)										
Potential Emission tons/yr										
Natural Gas Boiler	1.1E-05	6.6E-06	4.1E-04	9.9E-03	1.9E-05	2.7E-06	6.0E-06	7.7E-06	2.1E-06	1.1E-05

PTE of Totals HAPs (tons/year) = 1.0E-02

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined. The PM2.5 emissions were assumed to be equal to PM10.

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

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

Methodology

Potential Throughput (MMCF) = Combined Total Heat Input Capacity (MMBtu/hr) \* 8,760 hrs/yr \* 1 MMCF/1,000 MMBtu

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

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu, MMCF = 1,000,000 Cubic Feet of Gas

Abbreviations

PM = Particulate Matter

PM10 = Particulate Matter (<10 um)

SO2 = Sulfur Dioxide

NOx = Nitrous Oxides

VOC - Volatile Organic Compounds

CO = Carbon Monoxide

DCB = Dichlorobenzene

Pb = Lead

Cd = Cadmium

Cr = Chromium

Mn = Manganese

Ni = Nickel



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

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

**TO:** Valorie Werner  
Cummins, Inc - Power Generation Engine Testing Facility  
4760 Ray Boll Blvd, MC 91619  
Columbus, IN 47203

**DATE:** April 7, 2010

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

**SUBJECT:** Final Decision  
Administrative Amendment  
005-29008-00073

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

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

A copy of the final decision and supporting materials has also been sent via standard mail to:  
Cary Martson - Chief Engineer  
Paul Dubenetzky - Keramida Environmental, Inc.  
OAQ Permits Branch Interested Parties List

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

Final Applicant Cover letter.dot 11/30/07

# Mail Code 61-53

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4		Mr. Elbert Held 734 Hutchins Columbus IN 47201 (Affected Party)										
5		Mr. Boris Ladwig 333 2nd St Columbus IN 47201 (Affected Party)										
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13		Bartholomew County Health Department 440 3rd Street, Suite 303 Columbus IN 47201 (Health Department)										
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