



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

Part 70 Operating Permit Renewal OFFICE OF AIR QUALITY

**Cummins Engine Company, Inc Plant #1
1000 5th Street,
Columbus, Indiana 47201**

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

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

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

Operation Permit No.: T005-21670-00015	
Issued by:	Issuance Date: October 1, 2008
Original signed by:	
Tripurari P. Sinha, Ph. D., Section Chief Permits Branch Office of Air Quality	Expiration Date: October 1, 2013

TABLE OF CONTENTS

A. SOURCE SUMMARY.....	5
A.1	General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]
A.2	Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]
A.3	Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]
A.4	Part 70 Permit Applicability [326 IAC 2-7-2]
B. GENERAL CONDITIONS	7
B.1	Definitions [326 IAC 2-7-1]
B.2	Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)] [IC 13-15-3-6(a)]
B.3	Term of Conditions [326 IAC 2-1.1-9.5]
B.4	Enforceability [326 IAC 2-7-7]
B.5	Severability [326 IAC 2-7-5(5)]
B.6	Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]
B.7	Duty to Provide Information [326 IAC 2-7-5(6)(E)]
B.8	Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]
B.9	Annual Compliance Certification [326 IAC 2-7-6(5)]
B.10	Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]
B.11	Emergency Provisions [326 IAC 2-7-16]
B.12	Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]
B.13	Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]
B.14	Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]
B.15	Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]
B.16	Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]
B.17	Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]
B.18	Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12] [40 CFR 72]
B.19	Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12(b)(2)]
B.20	Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]
B.21	Source Modification Requirement [326 IAC 2-7-10.5]
B.22	Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]
B.23	Transfer of Ownership or Operational Control [326 IAC 2-7-11]
B.24	Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]
B.25	Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]
C. SOURCE OPERATION CONDITIONS	18
Emission Limitations and Standards [326 IAC 2-7-5(1)]	
C.1	Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]
C.2	Opacity [326 IAC 5-1]
C.3	Open Burning [326 IAC 4-1] [IC 13-17-9]
C.4	Incineration [326 IAC 4-2] [326 IAC 9-1-2]
C.5	Fugitive Dust Emissions [326 IAC 6-4]
C.6	Stack Height [326 IAC 1-7]
C.7	Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]

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

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

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

Stratospheric Ozone Protection

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

D.1. EMISSIONS UNIT OPERATION CONDITIONS..... 27

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

- D.1.1 PSD Minor Limits [326 IAC 2-2]
- D.1.2 Sulfur Dioxide (SO₂) Limitations [326 IAC 7-1.1-1]
- D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

- D.1.4 Sulfur Dioxide Emissions and Sulfur Content

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

- D.1.5 Visible Emission Notations

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

- D.1.6 Record Keeping Requirement
- D.1.7 Reporting Requirements

D.2. EMISSIONS UNIT OPERATION CONDITIONS..... 30

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

- D.2.1 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-3]
- D.2.2 Sulfur Dioxide (SO₂) Limitations [326 IAC 7-1.1-1]
- D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

- D.2.4 Sulfur Dioxide Emissions and Sulfur Content

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]
D.2.5 Visible Emission Notations

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]
D.2.6 Record Keeping Requirement
D.2.7 Reporting Requirement

D.3. EMISSIONS UNIT OPERATION CONDITIONS..... 33

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

- D.3.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]
- D.3.2 Organic Solvent Degreasing Operations: Cold Cleaner Operations [326 IAC 8-3-2]
- D.3.3 Organic Solvent Degreasing Operations: Cold Cleaner Operations and Control [326 IAC 8-3-5]

E.1. PLANTWIDE APPLICABILITY LIMITATIONS REQUIREMENTS..... 36

Source Wide Emission Limits [326 IAC 2-2.4-7(1)]

- E.1.1 Emission limits [326 IAC 2-2.4-1(d)][326 IAC 2-2.4-7(1)]
- E.1.2 Major New Source Review Applicability [326 IAC 2-2.4-1(c)]
- E.1.3 General PAL Requirements [326 IAC 2-2.4-7 through 326 IAC 2-2.4-11] [326 IAC 2-2.4-15]

Testing and Monitoring Requirements [326 IAC 2-2.4-7(6) & (7)] [326 IAC 2-2.4-12]

- E.1.4 Nitrogen Oxides (NOx) Emission Limit Determination [326 IAC 2-2.4-7(6) and (7)] [326 IAC 2-2.4-12]
- E.1.5 Revalidation of emissions determination methods [326 IAC 2-2.4-12(i)]

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

- E.1.6 Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-2.4-13]
- E.1.7 Reporting requirements [326 IAC 2-7-5(3)] [326 IAC 2-2.4-14]

E.1 Quarterly Report	40
Certification	41
Emergency Occurrence Report	42
Semi-Annual Natural Gas Fired Boiler Certification.....	44
Quarterly Report.....	45
Quarterly Deviation and Compliance Monitoring Report	46

SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a stationary manufacturing, testing and painting internal combustion engines source.

Source Address:	1000 5th Street,, Columbus, Indiana 47201
Mailing Address:	P.O Box 3005, Columbus, IN 47202
General Source Phone Number:	812-377-8867
SIC Code:	3519
County Location:	Bartholomew
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Major 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 2-7-4(c)(3) [326 IAC 2-7-5(15)]

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

- (a) One (1) diesel fuel endurance test cell, known as EU-04, approved for construction in 2008, with a rated capacity of 500 HP, exhausted to common stack CS1.
- (b) Ten (10) diesel fuel endurance test cells, known as EU-02A, constructed in 1974 or prior. Seven (7) cells are exhausted to a manifold, with booster fan, to common stack CS1. Three (3) cells are exhausted to Stacks 101-103. EU-02A has a combined total heat input of 33.73 million British thermal units per hour.
- (c) Twelve (12) diesel fuel production test cells, known as EU-02B, constructed in 1974 or prior, exhausted to stacks 201-203, 301-303, 401-403, and 501-503, with a combined total heat input of 27.72 million British thermal units per hour.
- (d) Two (2) diesel fuel reciprocating internal combustion engine test stands, known as EU-TS1 and EU-TS2, constructed in 1997, with a heat input rating of 0.008 million British thermal units per hour, capacity: 22 engines per hour.
- (e) Four (4) diesel containerized production cells, known as EU-09, EU-10, EU-11, EU-12, approved for construction in 2008, each with a rated capacity of 450 HP.
- (f) Four (4) electric motor-powered engine test cells, known as EU-13, EU-14, EU-15, EU-16, approved for construction in 2008. The cells power four (4) diesel engines, each with a maximum heat input of 1.0 MMBtu/hr. The combined maximum capacity of diesel fuel usage by the test cells is 0.055 gallons per hour (485.8 gallons of diesel fuel per year).
- (g) One (1) natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03B, constructed in 1961, exhausted to Stack B1, rated at 36 million British thermal units per hour.

- (h) One (1) natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03C, constructed in 1951, exhausted to Stack B2, rated at 21 million British thermal units per hour.

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

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

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-2] [326 IAC 8-3-5].
- (b) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone [326 IAC 6-3-2].
- (c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators 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 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6-3-2].

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

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

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

SECTION B GENERAL CONDITIONS

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

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

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

- (a) This permit, T005-21670-00015, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit or of permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control).
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

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

B.4 Enforceability [326 IAC 2-7-7]

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

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

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

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

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

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

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

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

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

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

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. 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 Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

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

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

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

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

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

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

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,
Compliance Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)

Facsimile Number: 317-233-6865

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

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

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

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

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

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

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
 - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
 - (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
 - (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
 - (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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

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

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

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
- (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

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

- (a) All terms and conditions of permits established prior to T005-21670-00015 and issued pursuant to permitting programs approved into the state implementation plan have been either:
- (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or
 - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit, except for permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control)

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

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

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

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

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

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

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

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

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

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

- (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

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

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

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

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

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Pursuant to 326 IAC 2-7-11(b) and 326 IAC 2-7-12(a), administrative Part 70 operating permit amendments and permit modifications for purposes of the acid rain portion of a Part 70 permit shall be governed by regulations promulgated under Title IV of the Clean Air Act. [40 CFR 72]

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

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

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

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

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

(a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

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

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b),(c), or (e) without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

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

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue

MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

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

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

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

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

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

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

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

- (c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.
- (f) This condition does not apply to emission trades of SO₂ or NO_x under 326 IAC 21 or 326 IAC 10-4.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

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

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

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

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

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

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

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

C.6 Stack Height [326 IAC 1-7]

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 by using ambient air quality modeling pursuant to 326 IAC 1-7-4. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.

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

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least

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

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

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

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

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

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

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

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

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

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

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

Indianapolis, Indiana 46204-2251

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

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

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

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

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

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

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

Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]

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

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

- (a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on.
- (b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

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

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

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

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

- (1) initial inspection and evaluation;
 - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
- (1) monitoring results;
 - (2) review of operation and maintenance procedures and records; and/or
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
- (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.

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

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

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

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

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

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

The statement must be submitted to:

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

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

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

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

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.
- (c) If there is a reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A), 40 CFR 51.165 (a)(6)(vi)(B), 40 CFR 51.166 (r)(6)(vi)(a), and/or 40 CFR 51.166 (r)(6)(vi)(b)) that a "project" (as defined in 326 IAC 2-2-1(qq) and 326 IAC 2-3-1(II)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and 326 IAC 2-3-1(z)) and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and 326 IAC 2-3-1(mm)), the Permittee shall comply with following:
- (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1

(qq) and/or 326 IAC 2-3-1 (ll) at an existing emissions unit, document and maintain the following records:

- (A) A description of the project.
- (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
- (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
 - (i) Baseline actual emissions;
 - (ii) Projected actual emissions;
 - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1(mm)(2)(A)(3); and
 - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (d) If there is a reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A) and/or 40 CFR 51.166 (r)(6)(vi)(a)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:
 - (1) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
 - (2) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

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

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

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

MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) 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.
- (f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C- General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (qq)) and/or 326 IAC 2-3-1 (ll) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
 - (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx)) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and
 - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(ii).

The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:

- (1) The name, address, and telephone number of the major stationary source.
- (2) The annual emissions calculated in accordance with (c)(2) and (3) in Section C- General Record Keeping Requirements.
- (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
- (4) Any other information that the Permittee deems fit to include in this report,

Reports required in this part shall be submitted to:

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

- (g) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ.

- (h) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

Stratospheric Ozone Protection

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

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

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) diesel fuel endurance test cell, known as EU-04, approved for construction in 2008, with a rated capacity of 500 HP, exhausted to common stack CS1.
- (b) Ten (10) diesel fuel endurance test cells, known as EU-02A, constructed in 1974 or prior. Seven (7) cells are exhausted to a manifold, with booster fan, to common stack CS1. Three (3) cells are exhausted to Stacks 101-103. EU-02A has a combined total heat input of 33.73 million British thermal units per hour.
- (c) Twelve (12) diesel fuel production test cells, known as EU-02B, constructed in 1974 or prior, exhausted to stacks 201-203, 301-303, 401-403, and 501-503, with a combined total heat input of 27.72 million British thermal units per hour.
- (d) Two (2) diesel fuel reciprocating internal combustion engine test stands, known as EU-TS1 and EU-TS2, constructed in 1997, with a heat input rating of 0.008 million British thermal units per hour, capacity: 22 engines per hour.
- (e) Four (4) diesel containerized production cells, known as EU-09, EU-10, EU-11, EU-12, approved for construction in 2008, each with a rated capacity of 450 HP.
- (f) Four (4) electric motor-powered engine test cells, known as EU-13, EU-14, EU-15, EU-16, approved for construction in 2008. The cells power four (4) diesel engines, each with a maximum heat input of 1.0 MMBtu/hr. The combined maximum capacity of diesel fuel usage by the test cells is 0.055 gallons per hour (485.8 gallons of diesel fuel per year).

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

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

D.1.1 PSD Minor Limits [326 IAC 2-2]

The fuel oil #2 usage of the endurance test cells, identified as EU-04 and the four (4) containerized production cells, identified as EU-09, EU-10, EU-11, EU-12 shall be limited to less than 675 kilo gallons per twelve (12) consecutive month period, with compliance determined at the end of each month, and the PM10 emissions shall not exceed 43.4 pounds per kilo gallons of fuel oil #2.

Compliance with the above limits will limit the PM10 emissions to less than 15 tons per year and render 326 IAC 2-2 (PSD) not applicable to the 2008 modification.

D.1.2 Sulfur Dioxide (SO₂) Limitations [326 IAC 7-1.1-1]

Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations) the SO₂ emissions from the each of the test cells, EU-02A and EU-02B, shall not exceed five tenths (0.5) pounds per million British thermal units heat input.

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.1.4 Sulfur Dioxide Emissions and Sulfur Content

Compliance 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 British thermal units 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 thirty (30) test cells and the two (2) test stands, 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 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.5 Visible Emissions Notations

- (a) Visible emission notations of the test cell stack exhausts 101 -103, 201 - 203, 301 - 303, 401 - 403, 501 - 503 and CS1 shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

D.1.6 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records of monthly diesel fuel usage for the endurance test cell (EU-04) and the containerized production cells (EU-09, EU-10, EU-11, EU-12).
- (b) To document compliance with Condition D.1.2, the Permittee shall maintain records in accordance with (1) through (6) below.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual fuel oil 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, the natural gas-fired boiler certification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34); 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 compliance with Condition D.1.5 - Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the stack exhausts 101 -103, 201 - 203, 301 - 303, 401 - 403, 501 - 503 and CS1. 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) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.7 Reporting Requirements

A quarterly summary of the fuel oil #2 usage to document compliance with Condition D.1.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "Responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (g) One (1) natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03B, constructed in 1961, exhausted to Stack B1, rated at 36 million British thermal units per hour.
- (h) One (1) natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03C, constructed in 1951, exhausted to Stack B2, rated at 21 million British thermal units per hour.

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

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

D.2.1 Particulate Matter (Particulate Emission Limitations for Sources of Indirect Heating) [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3(d), particulate matter (PM) emissions from the two (2) boilers, identified as EU-03B and EU-03C shall not exceed 0.8 pounds of PM per million British thermal units, each.

D.2.2 Sulfur Dioxide (SO₂) Limitations [326 IAC 7-1.1-1]

Pursuant to 326 IAC 7-1.1-2, the sulfur dioxide (SO₂) emissions from each of the boilers, identified as EU-03B and EU-03C shall not exceed five-tenths (0.5) pounds per million Btu while combusting fuel oil.

D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.2.4 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options for boilers EU-03B and EU-03C.

- (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 British thermal units 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 boiler 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 (1) or (2) above shall not be refuted by evidence of compliance pursuant to the other method.

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

D.2.5 Visible Emissions Notations

- (a) Visible emission notations of the boiler stack exhausts (B1 and B2) shall be performed once per day during normal daylight operations while combusting fuel oil. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

D.2.6 Record Keeping Requirements

- (a) To document compliance with Condition D.2.2 - Sulfur Dioxide Limitations, the Permittee shall maintain records in accordance with (1) through (6) below.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual fuel oil 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, the natural gas-fired boiler certification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34); 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.

- (b) To document compliance with Condition D.2.5 - Visible Emission Notations, the Permittee shall maintain daily records of visible emission notations of the boiler 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).
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.7 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Conditions D.2.1 and D.2.2 shall be submitted to the address listed in Section C – General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).
- (b) Alternatively, the Permittee shall report the number of days during which an alternate fuel was burned during each quarter.

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-2] [326 IAC 8-3-5].
- (b) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone [326 IAC 6-3-2].
- (c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators 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 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6-3-2].

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

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

D.3.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the trimmer, grinding and machining operations shall not exceed the amounts of pounds per hour determined by the following equation:

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

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

D.3.2 Organic Solvent Degreasing Operations: Cold Cleaner Operations [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operation), for cold cleaning facilities constructed after January 1, 1980, the Permittee shall:

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

D.3.3 Organic Solvent Degreasing Operations: Cold Cleaner Operation and Control [326 IAC 8-3-5]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements are met:
- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (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 emissions unit 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 emissions unit must be internal such that articles are enclosed under the cover while draining. The drainage emissions unit 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 Permittee 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.

SECTION E.1 PLANTWIDE APPLICATION LIMITATION REQUIREMENTS

Emissions Unit Description:

Entire Source

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

Source wide emission Limits [326 IAC 2-2.4-7(1)]

E.1.1 Emission limits [326 IAC 2-2.4-1(d)][326 IAC 2-2.4-7(1)]

- (a) Pursuant to 326 IAC 2-2.4-7(1), the nitrogen oxides (NOx) emissions from the entire source shall not exceed 268.71 tons per 12 consecutive month period with compliance determined at the end of each month.
- (b) Pursuant to 326 IAC 2-2.4-1(d), the Permittee shall continue to comply with all applicable federal or state requirements, emission limitations, and work practice requirements that were established prior to the effective date of the PAL

E.1.2 Major New Source Review Applicability [326 IAC 2-2.4-1(c)]

Pursuant to 326 IAC 2-2.4-1(c), any physical change in or change in the method of operation of this source that maintains its total source wide emissions below the PAL level, that meets the requirements in this rule, and that complies with the PAL permit:

- (a) is not a major modification for the PAL pollutant;
- (b) does not have to be approved through 326 IAC 2-2; and
- (c) is not subject to 326 IAC 2-2-8(a)(3).

E.1.3 General PAL requirements [326 IAC 2-2.4-7, 326 IAC 2-2.4-8, 326 IAC 2-2.4-9, 326 IAC 2-2.4-10, 326 IAC 2-2.4-11, 326 IAC 2-2.4-15]

- (a) Pursuant to 326 IAC 2-2.4-8(a), the requirements of this section E become effective on the issuance date of the PAL permit, and expire ten years after the issuance date of the PAL permit (SPM005-25282-00015).
- (b) Pursuant to 326 IAC 2-2.4-10(b), if the Permittee applies to renew this PAL at least six months prior to expiration of the PAL, but no earlier than eighteen months prior to the expiration of the PAL, then notwithstanding the expiration date in subsection E.1.3(a), the PAL shall continue to be effective until the revised permit with the renewed PAL is issued. The application must contain the elements described in 326 IAC 2-2.4-3 and 326 IAC 2-2.4-10.
- (c) Pursuant to 326 IAC 2-2.4-9(a), once this PAL expires, if not otherwise renewed, then the requirements of 326 IAC 2-2.4-9 are applicable.
- (d) The Permittee shall comply with the requirements for renewing this PAL as described in 326 IAC 2-2.4-10.
- (e) The Permittee shall comply with the requirements for increasing the emissions limits

described in Condition E.1.1 as described in 326 IAC 2-2.4-11.

- (f) The requirements applicable to terminating or revoking this PAL are described in 326 IAC 2-2.4-15.

Testing and Monitoring Requirements [326 IAC 2-2.4-7(6) & (7)] [326 IAC 2-2.4-12]

E.1.4 Nitrogen Oxides (NO_x) Emission Limit Determination [326 IAC 2-2.4-7(6) & (7)] [326 IAC 2-2.4-12]

The Permittee shall determine actual annual emissions of NO_x by employing the following techniques:

- (a) The Permittee shall calculate NO_x emissions from burning natural gas in Boilers EU-03B and EU-03C, in tons, each calendar month, by multiplying the amount of natural gas burned in each calendar month by an NO_x emission factor of 100 lb NO_x/million cubic feet of natural gas burned in Boilers EU-03B and EU-03C.
- (b) The Permittee shall calculate NO_x emissions from burning fuel oil in Boilers EU-03B and EU-03C, in tons, each calendar month, by multiplying the amount of fuel oil burned in each calendar month by a NO_x emission factor of 20 lb NO_x/1000 gallons of fuel oil burned in Boilers EU-03B and EU-03C.
- (c) The Permittee shall determine NO_x emissions from diesel engines EU-02A, EU-02B, EU-TS1, EU-TS2, EU-04, and EU-09 through EU-16 in tons, each calendar month, by multiplying the amount of fuel oil burned in each calendar month by a NO_x emission factor of 4.41 lb NO_x/million British thermal unit for diesel engines EU-02A, EU-03B, EU-TS1, EU-TS2, EU-04, and EU-09 through EU-16.
- (d) Within six (6) months after the issuance of Significant Permit Modification SPM005-25282-00015, the Permittee shall perform validation testing to determine a site-specific emission factor for emission units EU-02A and EU-02B.
- (e) When determining the actual annual emissions of NO_x, the Permittee shall include emissions occurring as a result of startups, shutdown, and malfunctions.

E.1.5 Revalidation of emissions determination methods [326 IAC 2-2.4-12(i)]

The Permittee shall revalidate the emissions determination methods described in Condition E.1.4 through performance testing or other scientifically valid means approved by the department no later than five years after the effective date of the PAL provisions.

Record keeping and reporting [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

E.1.6 Record keeping requirements [326 IAC 2-7-5(3)] [326 IAC 2-2.4-13]

- (a) The Permittee shall retain a copy of all records necessary to determine compliance with the requirements of this E Section, including a determination of each emissions unit's twelve (12) month rolling total emissions, for five years from the date of the record.
- (b) The Permittee shall retain a copy of the PAL permit application, any applications for revisions to the PAL, each annual compliance certification as required by Condition B.9 of this permit, and data relied on in the certification for the duration of the PAL plus five years.

E.1.7 Reporting requirements [326 IAC 2-7-5(3)] [326 IAC 2-2.4-14]

- (a) The Permittee shall submit a semi-annual report, containing the information described below, to the address listed in Section C – General Reporting Requirements, within thirty (30) days after the end of the calendar quarter being reported. This report requires the certification by the “responsible official” as defined by 326 IAC 2-7-1(34). The report shall include the following information:
- (1) The identification of the owner and operator of the facility and the permit number.
 - (2) Total emissions of NO_x, in tons per rolling 12 month period for each month in the reporting period, as determined by Condition E.1.4.
 - (3) All data relied upon, including but not limited to, any quality assurance or quality control data, in determining emissions.
 - (4) A list of any emissions units modified or added to the major stationary source during the reporting period.
 - (5) If not previously reported pursuant to another condition in this permit, the number, duration, and cause of any deviations or monitoring malfunctions, other than the time associated with zero and span calibration checks, and any corrective action taken.
 - (6) If not required to be reported pursuant to another condition in this permit, information about monitoring system shutdowns including the following information:
 - (A) Notification to the department of the shutdown of any monitoring system.
 - (B) Whether the shutdown was permanent or temporary.
 - (C) The reason for the shutdown.
 - (D) The anticipated date that the monitoring system will be fully operational or replaced with another monitoring system.
 - (E) Whether the emissions unit monitored by the monitoring system continued to operate.
 - (F) If the emission unit monitored by the monitoring system continued to operate, the calculation of the:
 - (i) Emissions of the pollutant; or
 - (ii) Number determined by method included in the permit, as provided by 326 IAC 2-2.4-12(g).

- (b) The procedures for reporting deviations from the requirements of this Section E, and the procedures for reporting emissions in excess of the limits described in Condition E.1.1 are described in Condition B.15. A report that describes emissions exceeding the PAL limits shall include the quantity of emissions emitted by the source. This term satisfies the requirements of 326 IAC 2-2.4-14(c).

- (c) The Permittee shall submit to the department the results of any revalidation test or method within three months of completion of the test or method. These results do not require responsible official certification.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY**

Section E.1 – Plantwide Applicability Limitations Requirements

Source Name: Cummins Inc. - Plant #1
 Source Address: 1000 5th Street, Columbus, Indiana 47201
 Mailing Address: P.O. Box 3005, Columbus, Indiana 47202-3005
 Part 70 Permit No.: T 005-7433-00015
 Facility: Source wide
 Parameter: Plantwide Emission Limits for NOx
 PAL Limit: 268.71 tpy of NOx

Quarter:	Year:	Actual Emission Estimates, tons								
		Month 1	Previous 11 Months	12-month Total	Month 2	Previous 11 Months	12-month Total	Month 3	Previous 11 Months	12-month total
Endurance Test Cells (EU-02A, EU-04)										
	NOx									
Performance and Production Test Cells (EU-02B, EU-09)										
	NOx									
Test Stands (EU-TS1, EU-TS2, EU-13, EU-14, EU-15, EU-16)										
	NOx									
Boilers (EU-03B - EU-03C)										
	NOx									
	TOTAL NOx									

No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

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

Source Name: Cummins Engine Company, Inc Plant #1
Source Address: 1000 5th Street, Columbus, Indiana 47201
Mailing Address: P.O Box 3005, Columbus, IN 47202
Part 70 Permit No.: T005-21670-00015

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

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

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Cummins Engine Company, Inc Plant #1
Source Address: 1000 5th Street, Columbus, Indiana 47201
Mailing Address: P.O Box 3005, Columbus, IN 47202
Part 70 Permit No.: T005-21670-00015

This form consists of 2 pages

Page 1 of 2

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

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

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

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

Page 2 of 2

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

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

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

Source Name: Cummins Engine Company, Inc Plant #1
Source Address: 1000 5th Street, Columbus, Indiana 47201
Mailing Address: P.O Box 3005, Columbus, IN 47202
Part 70 Permit No.: T005-21670-00015

<input type="checkbox"/> Natural Gas Only <input type="checkbox"/> Alternate Fuel burned From: _____ To: _____
--

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
Signature:
Printed Name:
Title/Position:
Phone:
Date:

A certification by the responsible official as defined by 326 IAC 2-7-1(34) is required for this report.

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

Part 70 Quarterly Report

Source Name: Cummins Engine Company, Inc Plant #1
 Source Address: 1000 5th Street, Columbus, Indiana 47201
 Mailing Address: P.O Box 3005, Columbus, IN 47202
 Part 70 Permit No.: T005-21670-00015
 Facility: Endurance test cells (EU-04) and Containerized production cells (EU-09, EU-10, EU-11 and EU-12)
 Parameter: Diesel Fuel
 Limit: 675 kilo-gallons (kgal) per twelve (12) consecutive month period with compliance determined at the end of each month

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	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: _____

Attach a signed certification to complete this report.

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

Source Name: Cummins Engine Company, Inc Plant #1
 Source Address: 1000 5th Street, Columbus, Indiana 47201
 Mailing Address: P.O Box 3005, Columbus, IN 47202
 Part 70 Permit No.: T005-21670-00015

Months: _____ to _____ Year: _____

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

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document (ATSD) for a Part 70 Operating Permit (TITLE V)

Source Background and Description

Source Name:	Cummins Engine Company, Inc. Plant #1
Source Location:	1000 5th Street, Columbus, Indiana 47201
County:	Bartholomew
SIC Code:	3519
Permit Renewal No.:	T005-21670-00015
Permit Reviewer:	Josiah Balogun

On August 8, 2008, the Office of Air Quality (OAQ) had a notice published in The Republic, Columbus, Indiana, stating that Cummins Engine Company, Inc Plant #1 had applied for a Part 70 Operating Permit (TITLE V) to continue to operate a manufacturing, testing and painting internal combustion engines. The notice also stated that OAQ proposed to issue a Title V for this operation and provided information on how the public could review the proposed Title V and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this Title V should be issued as proposed.

On September 11, 2008, Elizabeth Hill of Bruce Carter Associates, LLC submitted comments on the proposed Title V Operating Permit. The comments are summarized in the subsequent pages, with IDEM's corresponding responses.

No changes have been made to the TSD because the OAQ prefers that the Technical Support Document reflects the permit that was on public notice. Changes that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result, ensuring that these types of concerns are documented and part of the record regarding this permit decision.

The summary of the comments and IDEM, OAQ responses, including changes to the permit (language deleted is shown in ~~strikeout~~ and language added is shown in **bold**) are as follows:

Comment 1: It appears that Conditions C.16 and C.17 are the same and the requirement for Emission reporting, that is required annually by the source, has been omitted from the permit. It was previously Condition C.17.

Response 1: Previous Condition C.17 due to programming error was deleted from the permit. Condition C.17-Emission Statement has been added to the permit.

~~C.17~~ ~~Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]~~

~~(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.~~

~~(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.~~

~~(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.~~

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

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

(a) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

- (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);**
- (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1 (32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.**

The statement must be submitted to:

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

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

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

Comment 2: There is a semi-annual natural Gas-Fired Boiler Certification, but the requirement to complete this report has been removed. Is the report still required or has the form been included in error?

Response 2: The requirement to complete the semi-annual natural gas-fired boiler certification has been added to Section D.2 of the permit

D.2.7 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Conditions D.2.1 and D.2.2 shall be submitted to the address listed in Section C – General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).**

- (b) Alternatively, the Permittee shall report the number of days during which an alternate fuel was burned during each quarter.**

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

Source Background and Description

Source Name:	Cummins Engine Company, Inc. Plant #1
Source Location:	1000 5th Street, Columbus, IN 47201
County:	Bartholomew
SIC Code:	3519
Permit Renewal No.:	T005-21670-00015
Permit Reviewer:	Josiah Balogun

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Cummins Engine Company, Inc. Plant #1 relating to the operation of a manufacturing, testing and painting internal combustion engines source.

History

On August 15, 2005, Cummins Engine Company, Inc. Plant #1 submitted an application to the OAQ requesting to renew its operating permit. Cummins Engine Company, Inc. Plant #1 was issued a Part 70 Operating Permit on May 15, 2001

Permitted Emission Units and Pollution Control Equipment

- (a) One (1) diesel fuel endurance test cell, known as EU-04, approved for construction in 2008, with a rated capacity of 500 HP, exhausted to common stack CS1.
- (b) Ten (10) diesel fuel endurance test cells, known as EU-02A, constructed in 1974 or prior. Seven (7) cells are exhausted to a manifold, with booster fan, to common stack CS1. Three (3) cells are exhausted to Stacks 101-103. EU-02A has a combined total heat input of 33.73 million British thermal units per hour.
- (c) Twelve (12) diesel fuel production test cells, known as EU-02B, constructed in 1974 or prior, exhausted to stacks 201-203, 301-303, 401-403, and 501-503, with a combined total heat input of 27.72 million British thermal units per hour.
- (d) Two (2) diesel fuel reciprocating internal combustion engine test stands, known as EU-TS1 and EU-TS2, constructed in 1997, with a heat input rating of 0.008 million British thermal units per hour, capacity: 22 engines per hour.
- (e) Four (4) diesel containerized production cells, known as EU-09, EU-10, EU-11, EU-12, approved for construction in 2008, each with a rated capacity of 450 HP.
- (f) Four (4) electric motor-powered engine test cells, known as EU-13, EU-14, EU-15, EU-16, approved for construction in 2008. The cells power four (4) diesel engines, each with a maximum heat input of 1.0 MMBtu/hr. The combined maximum capacity of diesel fuel usage by the test cells is 0.055 gallons per hour (485.8 gallons of diesel fuel per year).
- (g) One (1) natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03B, constructed in 1961, exhausted to Stack B1, rated at 36 million British thermal units per hour.

- (h) One (1) natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03C, constructed in 1951, exhausted to Stack B2, rated at 21 million British thermal units per hour.

Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit

There are no unpermitted facilities operating at this source during this review process.

Emission Units and Pollution Control Equipment Removed From the Source

- (a) One (1) N-14 painting line, known collectively as EU-01, consisting of the following equipment:
 - (1) One (1) primer application booth, known as EU-01A, installed in 1985, equipped with one (1) fixed spray gun system with 24 spray guns and dry filters for overspray control, exhausted to Stacks P1 and P2, capacity: 30 engines per hour.
 - (2) One (1) top coat application booth, known as EU-01B, installed in 1960, equipped with one (1) fixed spray gun system with 24 spray guns and dry filters for overspray control, exhausted to Stacks T1 and T2, capacity: 30 engines per hour.
 - (3) One (1) final touch-up booth, known as EU-01C, installed in 1960, equipped with two (2) fixed conventional air applicators and aerosol cans, exhausted to Stacks TU1 and TU2, dry filters for overspray control, capacity: 30 engines per hour.
 - (4) One (1) toluene solvent wiping operation, known as EU-01D, installed in 1960, exhausted to the general ventilation, capacity: 30 engines per hour.
 - (5) One (1) Mod spray booth, known as EU-01E, installed in 1963, equipped with one (1) conventional air applicator, exhausted to Stack MOD, capacity: 2 engines per hour.
- (b) One (1) natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03A, installed in 1960, exhausted to Stack B1, rated at 36 million British thermal units per hour.
- (c) One (1) natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03D, installed in 1985, exhausted to Stack B2, rated at 50 million British thermal units per hour.
- (d) One (1) heavy duty robotic paint line, known as EU-04, installed in 1997, exhausted to Stacks RB, MB-1 and MB-2, capacity: 20 engines per hour, consisting of:
 - (1) One (1) robotic paint booth, equipped with electrostatic application system and dry filters for overspray control, and
 - (2) One (1) manual paint booth, equipped with electrostatic application system and dry filters for overspray control.
- (e) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.
- (f) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.

- (g) Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the owner/operator, that is, an on-site sewage treatment facility.
- (h) Quenching operations used with heat treating processes.
- (i) Other emergency equipment as follows:
Stationary fire pumps.

Insignificant Activities

The source also consists of the following insignificant activities, 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.
- (b) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 British thermal units per hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 British thermal units per hour.
- (c) The following VOC and HAP storage containers:
Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
- (d) Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.
- (e) Application of oils, greases lubricants or other nonvolatile materials applied as temporary protective coatings.
- (f) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (g) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-2] [326 IAC 8-3-5].
- (h) Cleaners and solvents characterized as follows:
 - (1) having a vapor pressure equal to or less than 2 kiloPascals; 15 millimeters of mercury; or 0.3 pounds per square inch measured at 38EC (100EF) or;
 - (2) having a vapor pressure equal to or less than 0.7 kiloPascals; 5 millimeters of mercury; or 0.1 pounds per square inch measured at 20EC (68EF); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
- (i) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1 percent by volume.
- (j) Any operation using aqueous solutions containing less than 1 percent by weight of VOCs excluding HAPs.
- (k) Noncontact cooling tower systems with either of the following:
Forced and induced draft cooling tower system not regulated under a NESHAP.

- (l) Replacement or repair of filters in air filtration equipment.
- (m) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone.
- (n) Paved and unpaved roads and parking lots with public access.
- (o) Asbestos abatement projects regulated by 326 IAC 14-10.
- (p) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (q) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (r) Emergency generators as follows:
 - Diesel generators not exceeding 1,600 horsepower. (none exceeding 500 horsepower)
- (s) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators 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 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6-3-2].
- (t) Make up air units, approved for construction in 2008, with at combined total heat input of less than 10 MMBtu/hr.

Existing Approvals

Since the issuance of the Part 70 Operating Permit T005-7433-00015 on May 15, 2001, the source has constructed or has been operating under the following approvals as well:

- (a) First Administrative Amendment, 005-14634-00015, issued on November 13, 2001;
- (b) Second Administrative Amendment, 005-16171-00015, issued on July 17, 2002;
- (c) First Significant Permit Modification, 005-17802-00015, issued on January 26, 2004;
- (d) Third Administrative Amendment, 005-21280-00015, issued on July 19, 2005;
- (e) Second Significant Permit Modification, 005-22915-00015, issued on December 22, 2006;
- (f) Significant Permit Modification and PAL, 005-25282-00015, issued on December 10, 2007;
- (g) Significant source Modification, 005-25493-00015, issued on January 23, 2008;
- (h) Significant Permit Modification, 005-25597-00015, issued on February 13, 2008; and
- (i) Fourth Administrative Amendment, 005-26610-00015, issued on July 16, 2008.

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

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Bartholomew County

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

¹Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM_{2.5}.

(a) Ozone Standards

- (1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
- (2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, St. Joseph as attainment for the 8-hour ozone standard.
- (3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.
- (4) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Bartholomew County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (b) **PM2.5**
Bartholomew County has been classified as attainment for PM2.5. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM2.5 emissions, and the effective date of these rules was July 15th, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM10 emissions as a surrogate for PM2.5 emissions until 326 IAC 2-2 is revised.
- (c) **Other Criteria Pollutants**
Bartholomew County has been classified as attainment or unclassifiable in Indiana for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) **Fugitive Emissions**
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	tons/year
PM	< 250
PM ₁₀	< 250
PM2.5	< 250
SO ₂	< 250
VOC	< 250
CO	> 250
NO _x	> 250

HAPs	tons/year
Single HAP	less than 10
Total HAPs	less than 25

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of CO and NOx are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants are less than 100 tons per year.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year.
- (d) Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-7, fugitive emissions are not counted toward the determination of Part 70 applicability.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 permit renewal, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Emission Unit	Potential to Emit						
	PM (tons/yr)	PM10/PM2.5 (ton/yr)	SO2 (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOX (tons/yr)	HAPs (tons/yr)
Test Cell EU-04 and EU-09 through EU-12	14.6	14.6	13.7	17.0	44.9	< 268.71	0.55
Ten (10) Endurance test cells EU-02A	45.4	45.4	42.4	51.7	139.0		0.57
Twelve (12) Production test cells EU-02B	37.3	37.3	34.8	42.5	114		0.47
Two (2) RICE test stands EU-TS1 and EU-TS2	0.0074	0.0074	0.0069	0.0084	0.023		0.0001
Boiler EU-03B	2.25	2.25	80	0.9	13.2		0.3
Boiler EU-03C	1.31	1.31	47	0.5	7.7		0.2
Four (4) Electric test cells EU-13 through EU-16	0.01	0.01	0.01	0.01	0.03		neg
Make up units	0.1	0.3	0	0.2	3.7		0.08
Insignificant Activities	4.5	4.5	0	0	0		0
Total Emissions	105.5	105.7	217.9	112.8	322.6		< 268.71

- (a) This existing stationary source is major for PSD because the emissions of at least one regulated pollutant are greater than two hundred fifty (>250) tons per year, and is not one of the twenty-eight (28) listed source categories.

- (b) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

Federal Rule Applicability

- (a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to existing emission units that involve a pollutant-specific emission unit and meet the following criteria:
- (1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;
 - (2) is subject to an emission limitation or standard for that pollutant; and
 - (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

Although some of the emission units have potential to emit more than 100 tons per year but all the emission units have no control device.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are not applicable to any of the existing units as part of this Part 70 permit renewal.

- (a) The requirements of the New Source Performance Standard for 326 IAC 12 and 40 CFR 60, Subpart D (Standard of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced after August 17, 1971), are not included in the permit for boilers EU-03B and EU-03C because construction of this unit commenced prior to August 17, 1971.
- (b) The requirements of the New Source Performance Standard for 326 IAC 12 and 40 CFR 60, Subpart Dc (Standard of Performance for Small Industrial-Commercial Institutional Steam Unit), are not included in the permit for boilers EU-03B and EU-03C because construction of this unit commenced prior to June 9, 1989.
- (c) The requirements of the NSPS, 40 CFR Part 60, Subpart IIII, Stationary Compression Ignition Internal Combustion Engines are not included in this permit for the test cells because pursuant to 40 CFR 60.4200(b), the testing of internal combustion engines at a stationary engine test cell is exempt from this NSPS.
- (d) The requirements of the NESHAP, 40 CFR Part 63, Subpart ZZZZ for Stationary Reciprocating Internal Combustion Engines (326 IAC 20-82) are not included in this permit because pursuant to 40 CFR 63.6585, the testing of internal combustion engines at a stationary engine test cell is exempt from this NESHAP.
- (e) The requirements of the NESHAP, 40 CFR Part 63, Subpart P P P P P for Engine Test Cells/Stands (326 IAC 20-75) are not included in this permit because this source is not a major source of HAPs.

State Rule Applicability - Entire Source

326 IAC 2-2 (PSD)

This source was constructed before 1977 and at that time it has the potential to emit of at least one regulated pollutant greater than 250 tons per year. Therefore the source was a major source for PSD in 1977, and it is not one of the twenty-eight (28) listed sources.

1997 Modification

The two (2) RICE test cells stands, identified as EU-TS1 and EU-TS2, constructed in 1997, have uncontrolled PM, PM10, SO2, VOC and CO emissions less than 25, 15, 40, 40, 40 and 100 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 are not applicable to the 1997 modification.

2007 Modification

Pursuant to SPM 005-25282-00015, issued on December 10, 2007, the nitrogen oxides (NOx) emissions from the entire source shall not exceed 268.71 tons per twelve (12) month period with compliance determined at the end of each month. The permittee shall continue to comply with all applicable federal or state requirements, emission limitations and work practice requirements that were established prior to the effective date of the PAL.

2008 Modification

The endurance test cells, identified as EU-04, the four (4) containerized production cells, identified as EU-09, EU-10, EU-11, EU-12 and the new makeup air units, constructed in 2008 have uncontrolled PM10 emissions of greater than 15 tons per year. The fuel oil #2 usage of the endurance test cells, identified as EU-04 and the four (4) containerized production cells, identified as EU-09, EU-10, EU-11, EU-12 shall be limited to less than 675 kilo gallons per twelve (12) consecutive month period, with compliance determined at the end of each month, and the PM10 emissions shall not exceed 43.4 pounds per kilo gallons of fuel oil #2. Compliance with these limits will limit the PM10 emissions to less than 15 tons per year and render 326 IAC 2-2 (PSD) not applicable to the 2008 modification.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit under 326 IAC 2-7, Part 70 program. Pursuant to this rule, the Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. In accordance with the compliance schedule specified in 326 IAC 2-6-3, an emission statement must be submitted triennially by July 1 beginning in 2006 and every 3 years after. Therefore, the next emission statement for this source must be submitted by July 1, 2009. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 5-1 (Opacity Limitations)

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

State Rule Applicability – Individual Facilities

326 IAC 6-2-3 (Particulate Emissions Limitations for Indirect Heating Facilities)

This rule requires that particulate matter (PM) emissions from natural gas boilers, identified as EU-03C and EU-03B, which were built prior to September 21, 1983, to not exceed 1.09 pounds per million Btu. The following calculation determines compliance with 326 IAC 6-2-3 for indirect heating facilities (i.e. boilers) built prior to September 21, 1983.

$$\text{Limit} = \frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}} = 1.09 \text{ lb/MMBtu}$$

Where:

C = 50 micrograms/cu. Meter, maximum ground level concentration
Q = 21+36+36 =93 MMBtu/hr, heat input rate (1951)
N = 2 number of stacks
a = 0.67 dimensionless, plume rise factor
h = 89 ft, average stack height

Pursuant to 326 IAC 6-2-3(d), since the boiler was constructed before June 8, 1972, the particulate emissions shall not exceed 0.8 lbs/MMBtu.

326 IAC 7-1.1 Sulfur Dioxide Emission Limitations

- (a) Pursuant to 326 IAC 7-1.1-2, the sulfur dioxide (SO₂) emissions from each of the boilers, identified as EU-03B and EU-03C shall not exceed five-tenths (0.5) pounds per million Btu while combusting fuel oil.
- (a) Pursuant to 326 IAC 7-1.1-2, the sulfur dioxide (SO₂) emissions from each of the test cells, identified as EU-02A and EU-02B shall not exceed five-tenths (0.5) pounds per million Btu heat input.

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the trimmer, grinding and machining operations shall not exceed the amounts of pounds per hour determined by the following equation:

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

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

326 IAC 8-3-2 (Cold Cleaner Operation)

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operation), for cold cleaning facilities constructed after January 1, 1980, the Permittee shall:

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

362 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements are met:

- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (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 emissions unit 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 emissions unit must be internal such that articles are enclosed under the cover while draining. The drainage emissions unit 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 Permittee 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.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

Recommendation

The staff recommends to the Commissioner that the Part 70 Operating Permit Renewal be approved. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on August 15, 2005.

Conclusion

The operation of this manufacturing, testing and painting internal combustion engines source shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No. T005-21670-00015.

Appendix A: Emissions Calculations

Emission Summary

Source Name: Cummins Engine Company, Inc. Plant #1

Source Location: 1000 5th Street, Columbus, IN 47201

Permit Number: T005-21670-00015

Permit Reviewer: Josiah Balogun

Date: 23-Jul-2008

Uncontrolled Potential Emissions

	Year of Construction	PM (tons/yr)	PM₁₀ (tons/yr)	SO₂ (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOx (tons/yr)	HAPs (tons/yr)
Emission Unit								
Test Cell EU-04 and EU-09 through EU-12	2008	20.9	20.9	19.6	24.3	64.1	298	0.79
Ten (10) Endurance test cells EU-02A	1974	45.4	45.4	42.4	51.7	139	646	0.57
Twelve (12) Production test cells EU-02B	1974	37.3	37.3	34.8	42.5	114	530	0.47
Two (2) RICE test stands EU-TS1 and EU-TS2	1997	9.08	9.08	8.49	10.3	27.8	129	0.11
Boiler EU-03B	1961	2.25	2.25	80	0.9	13.2	22.5	0.3
Boiler EU-03C	1951	1.31	1.31	47	0.5	7.7	13.1	0.2
Four (4) Electric test cells EU-13 through EU-16	2008	0.01	0.01	0.01	0.01	0.03	0.15	neg
Make up units	2008	0.1	0.3	0	0.2	3.7	4.4	0.08
Insignificant Activities	NA	4.5	4.5	0	0	0	0	0
Total Emissions		120.9	121.1	232.3	130.41	369.53	1643.2	Single HAP <10 Combined HAPs < 25

Note: Boiler EU-03B and EU-03C emissions are based on worst case between natural gas and #2 fuel oil.

Appendix A: Emissions Calculations

Emission Summary

Source Name: Cummins Engine Company, Inc. Plant #1

Source Location: 1000 5th Street, Columbus, IN 47201

Permit Number: T005-21670-00015

Permit Reviewer: Josiah Balogun

Date: 23-Jul-2008

Limited Potential Emissions

	Year of Construction	PM (tons/yr)	PM₁₀ (tons/yr)	SO₂ (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOx (tons/yr)	HAPs (tons/yr)
Emission Unit								
Test Cell EU-04 and EU-09 through EU-12	2008	14.6	14.6	13.7	17	44.9	< 268.71	0.55
Ten (10) Endurance test cells EU-02A	1974	45.4	45.4	42.4	51.7	139		0.57
Twelve (12) Production test cells EU-02B	1974	37.3	37.3	34.8	42.5	114		0.47
Two (2) RICE test stands EU-TS1 and EU-TS2	1997	0.00737	0.00737	0.00688	0.00839	0.0225		0.0001
Boiler EU-03B	1961	2.25	2.25	80	0.9	13.2		0.3
Boiler EU-03C	1951	1.31	1.31	47	0.5	7.7		0.2
Four (4) Electric test cells EU-13 through EU-16	2008	0.01	0.01	0.01	0.01	0.03		neg
Make up units	2008	0.1	0.3	0	0.2	3.7		0.08
Insignificant Activities	NA	4.5	4.5	0	0	0		0
Total Emissions		105.5	105.7	217.9	112.8	322.6		< 268.71

Note: Boiler EU-03B and EU-03C emissions are based on worst case between natural gas and #2 fuel oil.

Note: The Sourcewide NOx limit is from PAL (SPM 005-25282-00015, issued on December 10, 2007).

**Appendix A: Emission Calculations
Potential Emissions Engine Test Cells**

Company Name: Cummins Engine Company, Inc. Plant #1
Address City IN Zip: 1000 5th Street, Columbus, IN 47201
Permit Number: T005-21670-00015
Reviewer: Josiah Balogun
Date: 23-Jul-2008

Potential Criteria Pollutant Emissions

Point	Source	Potential Fuel Used (gallons/year)	Fuel Type	Potential MMBtu/year	NOx Emission Factor (lbs/gallon burned)	Potential NOx (tons/yr)	PM Emission Factor (lbs/gallon burned)	Potential PM (tons/yr)	PM-10 Emission Factor (lbs/gallon burned)	Potential PM-10 (tons/yr)
EU-02A	Endurance Test Cells 10-500 HP engine test cells	2137440	#2 Diesel	295525	0.604	646	0.0425	45.4	0.0425	45.4
EU-02B	Production Test Cells 12-450 HP engine test cells	1755504	#2 Diesel	242718	0.604	530	0.0425	37.3	0.0425	37.3
EU-TS1 and TS2	Engine Test Cells 2-550 HP engine test cells	427488	#2 Diesel	59105	0.604	129	0.0425	9.08	0.0425	9.08
Total Potential Fuel Throughput (gallons/year):		4320432				Total Pollutant (tons/yr): 1305		92		92

Point	Source	Potential Fuel Used (gallons/year)	Fuel Type	Potential MMBtu/year	CO Emission Factor (lbs/gallon burned)	Potential CO (tons/yr)	SO2 Emission Factor (lbs/gallon burned)	Potential SO2 (tons/yr)	VOC Emission Factor (lbs/MMBtu)	Potential VOC (tons/yr)
EU-02A	Endurance Test Cells 10-500 HP engine test cells	2137440	#2 Diesel	295525	0.130	139	0.0397	42.4	0.350	51.7
EU-02B	Production Test Cells 12-450 HP engine test cells	1755504	#2 Diesel	242718	0.130	114	0.0397	34.8	0.350	42.5
EU-TS1 and TS2	Engine Test Cells 2-550 HP engine test cells	427488	#2 Diesel	59105	0.130	27.8	0.0397	8.49	0.350	10.3
Total Potential Fuel Throughput (gallons/year):		4320432				Total Pollutant (tons/yr): 281		86		105

Potential HAPs Emissions

Point	Source	Potential Fuel Used (gallons/year)	Fuel Type	Potential MMBtu/year	Benzene Emission Factor (lbs/MMBtu)	Potential Benzene (tons/yr)	Toluene Emission Factor (lbs/MMBtu)	Potential Toluene (tons/yr)	Xylene Emission Factor (lbs/MMBtu)	Potential Xylene (tons/yr)	1, 3 Butadiene Emission Factor (lbs/MMBtu)	Potential 1, 3 Butadiene (tons/yr)
EU-02A	Endurance Test Cells 10-500 HP engine test cells	2137440	#2 Diesel	295525	0.000933	0.138	0.000409	0.0604	0.000285	0.0421	0.0000391	0.00578
EU-02B	Production Test Cells 12-450 HP engine test cells	1755504	#2 Diesel	242718	0.000933	0.113	0.000409	0.0496	0.000285	0.0346	0.0000391	0.00475
EU-TS1 and TS2	Engine Test Cells 2-550 HP engine test cells	427488	#2 Diesel	59105	0.000933	0.0276	0.000409	0.0121	0.000285	0.00842	0.0000391	0.00116
Total Potential Fuel Throughput (gallons/year):		4320432				Total Pollutant (tons/yr): 0.279		0.122		0.085		0.0117

Point	Source	Potential Fuel Used (gallons/year)	Fuel Type	Potential MMBtu/year	Formaldehyde Emission Factor (lbs/MMBtu)	Potential Formaldehyde (tons/yr)	Acetaldehyde Emission Factor (lbs/MMBtu)	Potential Acetaldehyde (tons/yr)	Acrolien Emission Factor (lbs/MMBtu)	Potential Acrolien (tons/yr)	PAH Emission Factor (lbs/MMBtu)	Potential PAH (tons/yr)
EU-02A	Endurance Test Cells 10-500 HP engine test cells	2137440	#2 Diesel	295525	0.00118	0.174	0.000767	0.113	0.0000925	0.0137	0.000168	0.0248
EU-02B	Production Test Cells 12-450 HP engine test cells	1755504	#2 Diesel	242718	0.00118	0.143	0.000767	0.093	0.0000925	0.0112	0.000168	0.0204
EU-TS1 and TS2	Engine Test Cells 2-550 HP engine test cells	427488	#2 Diesel	59105	0.00118	0.0349	0.000767	0.0227	0.0000925	0.00273	0.000168	0.00496
Total Potential Fuel Throughput (gallons/year):		4320432				Total Pollutant (tons/yr): 0.352		0.229		0.0276		0.0502

Total Combined HAPs (tons/yr): 1.16
--

Methodology:

Emission factors were taken from the FIRE 6.2 Database, VOC from AP-42, Table 3.3-1. The HAPs emission factors were supplied by Cummins Industrial Center. 1.0 gal. diesel fuel = 0.138261 MMBtu

Appendix A: Emission Calculations
Limited Emissions Engine Test Cells

Company Name: Cummins Engine Company, Inc. Plant #1
 Address City IN Zip: 1000 5th Street, Columbus, IN 47201
 Permit Number: T005-21670-00015
 Reviewer: Josiah Balogun
 Date: 23-Jul-2008

Limited Criteria Pollutant Emissions

Point	Source	Potential Fuel Used (gallons/year)	Fuel Type	Potential MMBtu/year	NOx Emission Factor (lbs/gallon burned)	Potential NOx (tons/yr)	PM Emission Factor (lbs/gallon burned)	Potential PM (tons/yr)	PM-10 Emission Factor (lbs/gallon burned)	Potential PM-10 (tons/yr)
EU-TS1 and TS2 limited to 0.95 gal./day (c1997)	Engine Test Cells 2-550 HP engine test cells	347	#2 Diesel	47.9	0.604	0.105	0.0425	0.00737	0.0425	0.00737
Total Potential Fuel Throughput (gallons/year):		347		Total Pollutant (tons/yr):		0.105		0.00737		0.00737

Point	Source	Potential Fuel Used (gallons/year)	Fuel Type	Potential MMBtu/year	CO Emission Factor (lbs/gallon burned)	Potential CO (tons/yr)	SO2 Emission Factor (lbs/gallon burned)	Potential SO2 (tons/yr)	VOC Emission Factor (lbs/MMBtu)	Potential VOC (tons/yr)
EU-TS1 and TS2 limited to 0.95 gal./day (c1997)	Engine Test Cells 2-550 HP engine test cells	347	#2 Diesel	47.9	0.130	0.0225	0.0397	0.00688	0.350	0.00839
Total Potential Fuel Throughput (gallons/year):		347		Total Pollutant (tons/yr):		0.0225		0.00688		0.00839

Limited HAPs Emissions

Point	Source	Potential Fuel Used (gallons/year)	Fuel Type	Potential MMBtu/year	Benzene Emission Factor (lbs/MMBtu)	Potential Benzene (tons/yr)	Toluene Emission Factor (lbs/MMBtu)	Potential Toluene (tons/yr)	Xylene Emission Factor (lbs/MMBtu)	Potential Xylene (tons/yr)	1, 3 Butadiene Emission Factor (lbs/MMBtu)	Potential 1, 3 Butadiene (tons/yr)
EU-TS1 and TS2 limited to 0.95 gal./day (c1997)	Engine Test Cells 2-550 HP engine test cells	347	#2 Diesel	47.9	0.000933	0.0000224	0.000409	0.00000980	0.000285	0.00000683	0.0000391	0.000000937
Total Potential Fuel Throughput (gallons/year):		347		Total Pollutant (tons/yr):		0.0000224		0.00000980		0.00000683		0.000000937

Point	Source	Potential Fuel Used (gallons/year)	Fuel Type	Potential MMBtu/year	Formaldehyde Emission Factor (lbs/MMBtu)	Potential Formaldehyde (tons/yr)	Acetaldehyde Emission Factor (lbs/MMBtu)	Potential Acetaldehyde (tons/yr)	Acrolien Emission Factor (lbs/MMBtu)	Potential Acrolien (tons/yr)	PAH Emission Factor (lbs/MMBtu)	Potential PAH (tons/yr)
EU-TS1 and TS2 limited to 0.95 gal./day (c1997)	Engine Test Cells 2-550 HP engine test cells	347	#2 Diesel	47.9	0.00118	0.0000283	0.000767	0.0000184	0.0000925	0.00000222	0.000168	0.00000403
Total Potential Fuel Throughput (gallons/year):		347		Total Pollutant (tons/yr):		0.0000283		0.0000184		0.00000222		0.00000403
				Total Combined HAPs (tons/yr):		0.0000929						

Methodology:

Emission factors were taken from the FIRE 6.2 Database, VOC from AP-42, Table 3.3-1. The HAPs emission factors were supplied by Cummins Industrial Center. 1.0 gal. diesel fuel = 0.140 MMBtu

**Appendix A: Emission Calculations
Industrial Engine Test Cells**

Company Name: Cummins Engine Company, Inc. Plant #1
 Source Location: 1000 5th Street, Columbus, IN 47201
 Permit Number: T005-21670-00015
 Reviewer: Josiah Balogun
 Date: 23-Jul-2008

Industrial Engine Test Cells:

One (1) endurance test cell, rated at 500 HP
 Four (4) containerized production cells, each rated at 450 HP.

Total Heat Output Hp 2,300	Total Heat Input * MMBtu/hr 15.4	Fuel Usage kgal/yr 964	Engine Efficiency * 0.38
----------------------------------	--	------------------------------	-----------------------------

	Pollutant					
	PM	PM10	SO ₂	NOx	VOC	CO
Emission Factor in lb/MMBtu, input	0.31	0.31	0.29	4.41	0.36	0.95
Potential to Emit in tons/yr	20.9	20.9	19.6	298	24.3	64.1

* Engine efficiency provided by the Permittee 38 percent.

Emission Factors are from AP 42, Chapter 3.3 Gasoline And Diesel Industrial Engines, Tables 3.3-1 and 3.3-2 (SCC 2-02-001-02, 2-03-001-01, Diesel engines) [Supplement B, October 1996].

Methodology

Total Heat Input (MMBtu/hr) = Total Heat Output (Hp) / Engine Efficiency x 2545.1 Btu/Hp x 1 MMBtu/1,000,000 Btu

Fuel Usage (gal/yr) = Total Heat Input (MMBtu/hr) x 1,000,000 Btu/1 MMBtu x 1 gal/140,000 Btu x 8,760 hrs/yr x 1kgal/1,000 gal

Potential to Emit (tons/yr) = Total Heat Input (MMBtu/hr) x Emission Factor (lb/MMBtu) x 1 ton/2,000 lb x 8,760 hrs/yr

See page 6 for HAP emission calculations.

**Appendix A: HAP Emission Calculations
Industrial Engine Test Cells**

Company Name: Cummins Engine Company, Inc. Plant #1
 Source Location: 1000 5th Street, Columbus, IN 47201
 Permit Number: T005-21670-00015
 Reviewer: Josiah Balogun
 Date: 23-Jul-2008

	HAPs					
Emission Factor in lb/MMBtu, input	Benzene 9.3E-04	Toluene 4.1E-04	Xylenes 2.9E-04	Propylene 2.6E-03	Formaldehyde 1.2E-03	Total HAPs 6.4E-03
Limited Potential to Emit in tons/yr	0.06	0.03	0.02	0.17	0.08	0.43

Methodology

Potential to Emit (tons/yr) = Total Heat Input (MMBtu/hr) x Emission Factor (lb/MMBtu) x 1 ton/2,000 lb x 8,760 hrs/yr

**Appendix A: Emission Calculations
Industrial Engine Test Cells**

Company Name: Cummins Engine Company, Inc. Plant #1
 Source Location: 1000 5th Street, Columbus, IN 47201
 Permit Number: T005-21670-00015
 Reviewer: Josiah Balogun
 Date: 23-Jul-2008

Industrial Engine Test Cells:

One (1) endurance test cell, rated at 500 HP
 Four (4) containerized production cells, each rated at 450 HP.

Total Heat Output Hp 2,300	Limited Heat Input * MMBtu/hr 10.8	Limited Fuel Usage kgal/yr 675	Engine Efficiency * 0.38
----------------------------------	--	--------------------------------------	-----------------------------

	Pollutant					
	PM	PM10	SO ₂	NOx	VOC	CO
Emission Factor in lb/MMBtu, input	0.31	0.31	0.29	4.41	0.36	0.95
Limited Potential to Emit in tons/yr	14.6	14.6	13.7	208	17.0	44.9

* Engine efficiency provided by the Permittee 38 percent.

Emission Factors are from AP 42, Chapter 3.3 Gasoline And Diesel Industrial Engines, Tables 3.3-1 and 3.3-2 (SCC 2-02-001-02, 2-03-001-01, Diesel engines) [Supplement B, October 1996].

Methodology

Limited Heat Input (MMBtu/hr) = Limited Fuel Usage (kgal/yr) x 1,000 gal/kgal x 140,000 Btu/gal x MMBtu/1,000,000 Btu x 1yr/8,760 hrs

Limited Potential to Emit (tons/yr) = Limited Heat Input (MMBtu/hr) x Emission Factor (lb/MMBtu) x 1 ton/2,000 lb x 8,760 hrs/yr

See page 8 for HAP emission calculations.

**Appendix A: HAP Emission Calculations
Industrial Engine Test Cells**

Company Name: Cummins Engine Company, Inc. Plant #1
 Source Location: 1000 5th Street, Columbus, IN 47201
 Permit Number T005-21670-00015
 Reviewer: Josiah Balogun
 Date: 23-Jul-2008

	HAPs					
Emission Factor in lb/MMBtu, input	Benzene 9.3E-04	Toluene 4.1E-04	Xylenes 2.9E-04	Propylene 2.6E-03	Formaldehyde 1.2E-03	Total HAPs 6.4E-03
Limited Potential to Emit in tons/yr	0.04	0.02	0.01	0.12	0.06	0.30

Methodology

Limited Potential to Emit (tons/yr) = Limited Heat Input (MMBtu/hr) x Emission Factor (lb/MMBtu) x 1 ton/2,000 lb x 8,760 hrs/yr

**Appendix A: Emission Calculations
Electric Powered Industrial Engine Test Cells**

Company Name: Cummins Engine Company, Inc. Plant #1
 Source Location: 1000 5th Street, Columbus, IN 47201
 Permit Number: T005-21670-00015
 Reviewer: Josiah Balogun
 Date: 23-Jul-2008

Four (4) electric motor-powered engine test cells

Total Heat Input MMBtu/hr 0.01			Total Heat Input MMBtu/yr 68.0				Fuel Usage * gal/yr 486
Pollutant							
Emission Factor in lb/MMBtu	PM 0.31	PM10 0.31	SO ₂ 0.29	NOx 4.41	VOC 0.35	CO 0.95	
Potential to Emit in tons/yr	0.01	0.01	0.01	0.15	0.01	0.03	

* These test cells are turned over by an electric motor instead of using fuel for combustion. They use a little bit of fuel because fuel is misted through a certain engine component, approximately a tablespoon is used in each test. The permittee has provided the total maximum capacity of 485.8 gallons of diesel fuel per year for the four (4) electric motor-powered engines. To calculate a heat input IDEM assumed the thermal value of diesel fuel is 140,000 Btu per gallon.

Emission Factors are from AP 42, Chapter 3.3 Gasoline And Diesel Industrial Engines, Tables 3.3-1 and 3.3-2 (SCC 2-02-001-02, 2-03-001-01, Diesel engines) [Supplement B, October 1996].

Methodology

Total Heat Input (MMBtu/yr) = Fuel Usage (gal/yr) x 140,000 Btu/gal x 1 MMBtu/1,000,000 Btu

Total Heat Input (MMBtu/hr) = Total Heat Input (MMBtu/yr) x 1 yr/8,760 hrs

Potential to Emit (tons/yr) = Total Heat Input (MMBtu/yr) x Emission Factor (lb/MMBtu) x 1 ton/2,000 lb

See page 10 for HAP emission calculations.

**Appendix A: HAP Emission Calculations
Electric Powered Industrial Engine Test Cells**

Company Name: Cummins Engine Company, Inc. Plant #1
 Source Location: 1000 5th Street, Columbus, IN 47201
 Permit Number T005-21670-00015
 Reviewer: Josiah Balogun
 Date: 23-Jul-2008

	HAPs					
Emission Factor in lb/MMBtu	Benzene 9.3E-04	Toluene 4.1E-04	Xylenes 2.9E-04	Propylene 2.6E-03	Formaldehyde 1.2E-03	Total HAPs 6.4E-03
Limited Potential to Emit in tons/yr	3.2E-05	1.4E-05	9.7E-06	8.8E-05	4.0E-05	2.2E-04

Methodology

Potential to Emit (tons/yr) = Total Heat Input (MMBtu/yr) x Emission Factor (lb/MMBtu) x 1 ton/2,000 lb

#2 Fuel Oil
MM BTU/HR <100
Boiler EU-03B and EU-03C

Company Name: Cummins Engine Company, Inc. Plant #1
Address, City IN Zip: 1000 5th Street, Columbus, IN 47201
Permit Number: T005-21670-00015
Reviewer: Josiah Balogun
Date: 23-Jul-2008

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur
36.0	2253	0.5

Emission Factor in lb/kgal	Pollutant				
	PM*	SO2	NOx	VOC	CO
	2.00	71.00 (142.0S)	20.0	0.340	5.00
Potential Emission in tons/yr	2.25	80	22.5	0.383	5.6

Emission Factor in lb/mmBtu	HAPs - Metals				
	Arsenic	Beryllium	Cadmium	Chromium	Lead
	0.0000400	0.00000300	0.00000300	0.00000300	0.00000900
Potential Emission in tons/yr	0.00063	0.00047	0.00047	0.00047	0.00142

Emission Factor in lb/mmBtu	HAPs - Metals (continued)			
	Mercury	Manganese	Nickel	Selenium
	0.00000300	0.00000600	0.00000300	0.0000150
Potential Emission in tons/yr	0.00047	0.00095	0.00047	0.00237

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur
21.0	1314	0.5

Emission Factor in lb/kgal	Pollutant				
	PM*	SO2	NOx	VOC	CO
	2.00	71.00 (142.0S)	20.0	0.340	5.00
Potential Emission in tons/yr	1.31	47	13.1	0.223	3.29

Emission Factor in lb/mmBtu	HAPs - Metals				
	Arsenic	Beryllium	Cadmium	Chromium	Lead
	0.0000400	0.00000300	0.00000300	0.00000300	0.00000900
Potential Emission in tons/yr	0.00063	0.00047	0.00047	0.00047	0.00142

Emission Factor in lb/mmBtu	HAPs - Metals (continued)			
	Mercury	Manganese	Nickel	Selenium
	0.00000300	0.00000600	0.00000300	0.0000150
Potential Emission in tons/yr	0.00047	0.00095	0.00047	0.00237

Methodology
1.0 gallon of # 2 Fuel Oil has a heating value of 140,000 Btu
Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu
Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-02-005-01/02/03) Supplement E 9/98
*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.
Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton
No data was available in AP-42 for organic HAPs.
Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8,760 hrs/yr / 2,000 lb/ton

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Boiler EU-03B**

Company Name: Cummins Engine Company, Inc. Plant #1
Address City IN Zip: 1000 5th Street, Columbus, IN 47201
Permit Number: T005-21670-00015
Reviewer: Josiah Balogun
Date: 23-Jul-2008

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

36.0

315.4

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Potential Emission in tons/yr	1.9	7.6	0.6	100.0 **see below	5.5	84.0
	0.3	1.2	0.1	15.8	0.9	13.2

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

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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

See page 13 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 Boiler EU-03B
 HAPs Emissions**

Company Name: Cummins Engine Company, Inc. Plant #1
Address City IN Zip: 1000 5th Street, Columbus, IN 47201
Permit Number: T005-21670-00015
Reviewer: Josiah Balogun
Date: 23-Jul-2008

HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	3.311E-04	1.892E-04	1.183E-02	2.838E-01	5.361E-04

HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	7.884E-05	1.734E-04	2.208E-04	5.992E-05	3.311E-04

Methodology is the same as page 12.

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

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Boiler EU-03C**

Company Name: Cummins Engine Company, Inc. Plant #1
Address City IN Zip: 1000 5th Street, Columbus, IN 47201
Permit Number: T005-21670-00015
Reviewer: Josiah Balogun
Date: 23-Jul-2008

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

21.0

184.0

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Potential Emission in tons/yr	1.9	7.6	0.6	100.0 **see below	5.5	84.0
	0.2	0.7	0.1	9.2	0.5	7.7

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

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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

See page 15 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 Boiler EU-03C
 HAPs Emissions**

Company Name: Cummins Engine Company, Inc. Plant #1
Address City IN Zip: 1000 5th Street, Columbus, IN 47201
Permit Number: T005-21670-00015
Reviewer: Josiah Balogun
Date: 23-Jul-2008

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.932E-04	1.104E-04	6.899E-03	1.656E-01	3.127E-04

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	4.599E-05	1.012E-04	1.288E-04	3.495E-05	1.932E-04

Methodology is the same as page 14.

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

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

Company Name: Cummins Engine Company, Inc. Plant #1
Address City IN Zip: 1000 5th Street, Columbus, IN 47201
Permit Number: T005-21670-00015
Reviewer: Josiah Balogun
Date: 23-Jul-2008

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

10.0

87.6

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.1	0.3	0.0	4.4	0.2	3.7

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

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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

See page 17 for HAPs emissions calculations.

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

Company Name: Cummins Engine Company, Inc. Plant #1
Address City IN Zip: 1000 5th Street, Columbus, IN 47201
Permit Number: T005-21670-00015
Reviewer: Josiah Balogun
Date: 23-Jul-2008

HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	9.198E-05	5.256E-05	3.285E-03	7.884E-02	1.489E-04

HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	2.190E-05	4.818E-05	6.132E-05	1.664E-05	9.198E-05

Methodology is the same as page 16.

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

**Appendix A: Emissions Calculations
Insignificant Activities**

Source Name: Cummins Engine Company, Inc. Plant #1
Source Location: 1000 5th Street, Columbus, IN 47201
Permit Number: T005-21670-00015
Permit Reviewer: Josiah Balogun
Date: 23-Jul-2008

Particulate Emissions (PM/PM10) (tons/year)				
Emission Unit	Grain Loading (gr/dscf)	Air Flow Rate (scfm)	Uncontrolled Emissions (tons/yr)	Controlled Emissions (tons/yr) 90% Controlled Efficiency
Grinding and machining operation	0.03	4000	4.5	0.45
Total Emissions			4.5	0.45

Methodology

Uncontrolled Emissions (tons/yr)= Grain Loading(gr/dscf) *Air Flow rate(scfm) *(60min/hr)* (lb/7000)*4.38 (tons hr/lb)
 Contolled Emissions = Uncontrolled Emissions *Controlled Efficiency