INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: September 24, 2007

RE: Cummins Engine Company, Inc. / 005-24406-00053

FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER.dot 03/23/06

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

Minor Source Operating Permit Renewal
OFFICE OF AIR QUALITY

Cummins Engine Company, Inc.
1460 National Rd.
Columbus, Indiana 47201

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

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a MSOP under 326 IAC 2-6.1.

Operation Permit No.: M005-24406-00053	
Issued by: *Original signed by* Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: September 24, 2007 Expiration Date: September 24, 2012

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 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 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary diesel fuel system manufacturing operation.

Source Address:	1460 National Rd., Columbus, Indiana 47201
Mailing Address:	P.O. Box 3005, Columbus, IN 47202-3005
General Source Phone Number:	(812)377-6072
SIC Code:	3519
County Location:	Bartholomew
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary

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

(a) One (1) natural gas-fired boiler, using fuel oil No. 2 as a back-up, identified as Boiler #1, with a maximum heat input capacity of 20.9 million British thermal units (MMBtu) per hour, constructed in 1967, and exhausting to stack #1.

(b) One (1) natural gas-fired boiler, using fuel oil No. 2 as a back-up, identified as Boiler #2, with a maximum heat input capacity of 14.6 million British thermal units (MMBtu) per hour, constructed in 1969, and exhausting to stack #2.

(c) One (1) No.2 fuel-fired emergency generator, identified as FSP-95-01, with a maximum heat input capacity of 1.4 million British thermal units (MMBtu) per hour, operating less than 500 hours per year, and exhausting to stack # FSP-95-01.

(d) One (1) No. 2 fuel oil storage tank, with a maximum capacity of 10,000 gallons, constructed in 1996.

(e) One (1) gasoline storage tank, with a maximum capacity of 500 gallons, constructed in 1996.

(f) One (1) diesel fuel system manufacturing plant which manufactures approximately 1,000,000 injector systems and 18,000 pumps per month. Thee are also three other business units at the site, Electronics, Parts and Services, and Product Development, that have largely office types of environments, with PM_{10} and SO_2 emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) ton per year of any combination of HAPs, including the following processes:

(1) Lubrite process for the fuel pump bases, including cleaning with an alkaline cleaner, grain refining, and coating with manganese-phosphate acid.

(2) Test rigs for fuel pumps and injectors, which circulate a simulated Japanese kerosene (16A calibration fluid) in a closed loop system to simulate the operation of kerosene fuel in an engine.

(3) Test stands for fuel injectors, which circulate a simulated diesel fuel (1487 calibration fluid) in a closed loop system to simulate the operation of diesel fuel in an engine.

(4) Metal machining processes, using a water based coolant and tooling process to remove the excess metal from parts.

(5) Water jet de-burring process, using water jets to remove excess metal from parts.

(6) Water cooling towers.

(7) Extrude hone process, used to remove excess metal from parts by pressing a semi-solid media through parts.

(8) Ultrasonic parts washers, using alkaline chemicals to remove residual oils, coolants, and debris from the injector parts.

(9) Electric VPC Process Units, used to heat treat metal parts.

(10) Thermal Deburring Units, commonly referred to as poppers, used to test pressure resistance in the fuel injectors and to remove any residual metal from the fuel injectors.

(g) Three (3) cold cleaning degreasers, constructed in 2003, with an air to solvent interface of less than 6.0 square feet and a maximum solvent usage of less than 360 gallons per year, each.

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]

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 2-1.1-1) shall prevail.

B.2 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, M005-24406-00053, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, 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

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

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

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

B.7 Duty to Provide Information

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

(b) 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

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This

certification shall state that, 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) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) The annual notice shall be submitted in the format attached no later than March 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, IN 46204-2251

(c) The notification 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.

B.10 Preventive Maintenance Plan [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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to M005-24406-00053 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(3) deleted.

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

B.12 Termination of Right to Operate [326 IAC 2-6.1-7(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 ninety (90) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

B.13 Permit Renewal [326 IAC 2-6.1-7]

(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 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, 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 ninety (90) days 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 2-6.1 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.14 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

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

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

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.15 Source Modification Requirement

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

B.16 Inspection and Entry
[326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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

(a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.17 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

(a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

B.18 Annual Fee Payment [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.

(b) 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.19 Credible Evidence [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 2-6.1-5(a)(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 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.3 Opacity [326 IAC 5-1]

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

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

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

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

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

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

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

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

C.7 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.

C.8 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-6.1-5(a)(2)]

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

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

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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

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

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 2-6.1-5(a)(2)]

C.11 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

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

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

C.13 Instrument Specifications [326 IAC 2-1.1-11]

(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

C.14 Response to Excursions or Exceedances

(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.15 Actions Related to Noncompliance Demonstrated by a Stack Test

(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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

C.16 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.17 General Record Keeping Requirements [326 IAC 2-6.1-5]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The

records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

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

C.18 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) 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

(b) 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.

(c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Facility Description [326 IAC 2-6.1]:

(a) One (1) natural gas-fired boiler, using fuel oil No. 2 as a back-up, identified as Boiler #1, with a maximum heat input capacity of 20.9 million British thermal units (MMBtu) per hour, constructed in 1967, and exhausting to stack #1.

(b) One (1) natural gas-fired boiler, using fuel oil No. 2 as a back-up, identified as Boiler #2, with a maximum heat input capacity of 14.6 million British thermal units (MMBtu) per hour, constructed in 1969, and exhausting to stack #2.

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

Emission Limitations and Standards [326 IAC 2-6.1]

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

Pursuant to 326 IAC 6-2-3 (d) (Particulate emission limitations for sources of indirect heating), PM emissions Boiler #1 and Boiler #2, shall not exceed 0.8 pounds of particulate matter per million British thermal units heat input.

D.1.2 Sulfur Dioxide (SO_2) [326 IAC 7-1.1-2] [326 IAC 7-2-1]

(a) Pursuant to 326 IAC 7-1.1 -2 (SO_2 Emissions Limitations), the SO_2 emissions from each boiler shall not exceed five-tenths (0.5) pound per million Btu heat input while combusting fuel oil.

(b) Pursuant to 326 IAC 7-2-1(e)(2), compliance shall be demonstrated on a calendar month average.

D.1.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive this permit, is required for the boilers.

Compliance Determination Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.4 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 3-7-4] [326 IAC 3-6]

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

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pound per million Btu heat input by:

(1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 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 (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.5 Visible Emissions Notations

(a) Visible emission notations of the boiler stacks exhaust (stack #1, stack #2) 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) 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.

(d) 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 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.6 Record Keeping Requirements

(a) To document compliance with Condition D.1.2, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO_2 emission limit established in Condition D.1.2.

(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) To certify compliance when burning natural gas only, the Permittee shall maintain records of fuel used.

If the fuel supplier certification is used to demonstrate compliance, when burning alternate fuels and not determining compliance pursuant to 326 IAC 3-7-4, 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.

(b) To document compliance with Condition D.1.5, the Permittee shall maintain daily records of the visible emission notations of the boiler stacks exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a 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.1.7 Reporting Requirements

The natural gas boiler certification 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 its equivalent, within thirty (30) days after the end of the six (6) month period being reported. The natural gas-fired boiler certification does require the certification by the “Authorized Individual” as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Facility Description [326 IAC 2-6.1]:

(a) One (1) diesel fuel system manufacturing plant which manufactures approximately 1,000,000 injector systems and 18,000 pumps per month. Thee are also three other business units at the site, Electronics, Parts and Services, and Product Development, that have largely office types of environments, with PM_{10} and SO_2 emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) ton per year of any combination of HAPs, including the following processes:

(1) Water jet de-burring process, using water jets to remove excess metal from parts.

(2) Water cooling towers.

(3) Thermal Deburring Units, commonly referred to as poppers, used to test pressure resistance in the fuel injectors and to remove any residual metal from the fuel injectors.

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

Emission Limitations and Standards [326 IAC 2-6.1]

D.2.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2(e)]

Pursuant to 326 IAC 6-3-2(e), (Particulate Emission Limitations for Manufacturing Processes), the particulate matter (PM) emissions from the water jet deburring process, water cooling towers, and poppers shall not exceed the pounds per hour emission rate established by the 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:

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

Where:
P = process weight in tons/hr and
E = rate of emission in pounds per hour.

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-6.1]:

(g) Three (3) cold cleaning degreasers, constructed in 2003, with an air to solvent interface of less than 6.0 square feet and a maximum solvent usage of less than 360 gallons per year, each. The degreasers do not use any regulated halogenated solvents.

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

Emission Limitations and Standards

D.3.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

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

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with a facility for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements; and

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.3.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

(a) Pursuant to 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control), or 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 facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent is used is insoluble in, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) The owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH

MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	Cummins Engine Company, Inc.
Address:	1460 National Rd.
City:	Columbus, Indiana 47201
Phone #:	(812)377-6072
MSOP #:	M005-24406-00053

I hereby certify that Cummins Engine Company, Inc. is :
☐ still in operation.
☐ no longer in operation.

I hereby certify that Cummins Engine Company, Inc. is :
☐ in compliance with the requirements of MSOP M005-24406-00053.
☐ not in compliance with the requirements of MSOP M005-24406-00053.

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317 233-6865

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100 TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF "MALFUNCTION" AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY:_____PHONE NO. ( )_____
LOCATION: (CITY AND COUNTY)_____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP:_____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON:_____
_____

DATE/TIME MALFUNCTION STARTED: _____/_____/ 20____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE_____/_____/ 20____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER:_____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

_____

MEASURES TAKEN TO MINIMIZE EMISSIONS:_____

_____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES:_____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS:_____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT:_____
INTERIM CONTROL MEASURES: (IF APPLICABLE)_____
_____
_____

MALFUNCTION REPORTED BY:_____TITLE:_____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY:_____DATE:_____TIME:_____
*SEE PAGE 2

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

_____

_____

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

SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION

Source Name: Cummins Engine Company, Inc.
Source Address: 1460 National Rd., Columbus, Indiana 47201
Mailing Address: P.O. Box 3005, Columbus, IN 47202-3005
MSOP Permit No.: M005-24406-00053

☐ Natural Gas Only ☐ Alternate Fuel burned From:_____ To:_____

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

A certification by an authorized individual as defined by 326 IAC 2-1.1-1(1) is required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

MINOR SOURCE OPERATING PERMIT (MSOP)
CERTIFICATION

Source Name: Cummins Engine Company, Inc.
Source Address: 1460 National Rd., Columbus, Indiana 47201
Mailing Address: P.O. Box 3005, Columbus, IN 47202-3005
MSOP Permit No.: M005-24406-00053

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 Notification _____

☐ Test Result (specify) _____

☐ Report (specify) _____

☐ Notification (specify) _____

☐ Affidavit (specify) _____

☐ Other (specify) _____

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

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document (TSD) for a Minor Source Operating Permit Renewal

Source Background and Description

Source Name:	**Cummins Engine Company, Inc.**
Source Location:	**1460 National Rd., Columbus, IN 47201**
County:	**Bartholomew**
SIC Code:	**3519**
Permit Renewal No.:	**M005-24406-00053**
Permit Reviewer:	**Brandon Snoddy**

On August 19, 2007, the Office of Air Quality (OAQ) had a notice published in The Republic, Columbus, Indiana, stating Cummins Engine Company, had applied for a Minor Source Operating Permit renewal (MSOP) to continue to operate a diesel fuel system manufacturing plant. The notice also stated that OAQ proposed to issue a MSOP renewal for this operation and provided information on how the public could review the proposed MSOP renewal 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 the MSOP renewal should be issued as proposed.

On September 14, 2007, Elizabeth Hill of Bruce Carter Associates, L.L.C. submitted comments on behalf of Cummins Engine Company, Inc. on the proposed MSOP renewal. The comments are as follows: the permit language if changed, has deleted language as ~~strikeouts~~ and the new language bolded.

Comment 1: **Page 5 Section A.2**

The following correction is necessary for the descriptive information:

A.2 Emission Units and Pollution Control Equipment Summary

(f)(2) The test rigs for fuel pumps and injectors are circulating a Japanese Kerosene and not diesel fuel;

Please correct to reflect the following:

(f)(2) The test rigs for fuel pumps and injectors which circulate **a simulated** Japanese Kerosene **(16A calibration fluid)** in a closed loop system to simulate the operation of **kerosene** fuel in an engine.

Response 1: The descriptive information in Section A.2 (f)(2) has been changed to reflect the requested correction. This change does not effect the emissions calculated for the source because the simulated Japanese kerosene is only circulated in a closed loop system. There are no emissions from this operation. The section now reads as:

(f)(2) Test rigs for fuel pumps and injectors which circulate **a simulated** Japanese kerosene **(16A calibration fluid)** in a closed loop system to simulate the operation of ~~diesel~~ **kerosene** fuel in an engine.

TSD

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.

Permitted Emission Units and Pollution Control Equipment

(f)(2) Test rigs for fuel pumps and injectors which circulate **a simulated** Japanese kerosene **(16A calibration fluid)** in a closed loop system to simulate the operation of ~~diesel~~ **kerosene** fuel in an engine.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Minor Source Operating Permit Renewal

Source Background and Description

Source Name:	**Cummins Engine Company, Inc.**
Source Location:	**1460 National Rd., Columbus, IN 47201**
County:	**Bartholomew**
SIC Code:	**3519**
Permit Renewal No.:	**M005-24406-00053**
Permit Reviewer:	**Brandon Snoddy**

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Cummins Engine Company, Inc. relating to the operation of a diesel fuel system manufacturing plant.

History

On March 5, 2007, Cummins Engine Company, Inc. submitted an application to the OAQ requesting to renew its operating permit. Cummins Engine Company, Inc. was issued a MSOP on July 24, 2002.

Source Definition

This engine manufacturing company consists of two (2) plants:

(1) Plant ID # 005-00015 located at 1000 5th Street, Columbus, IN 47201; and
(2) Plant ID # 005-00053 located at 1460 National Road, Columbus, IN 47201

In order to consider the plants as one major source, all three of the following criteria must be met:

(1) The plants must have common ownership or common control;
(2) The plants must have the same two digit SIC code or a support relationship; and
(3) The plants must be located on contiguous or adjacent properties.

IDEM has determined that these plants are not one major source based on the fact that the plants are at least 3 miles away from each other, and are not located on contiguous or adjacent properties. Therefore, based on this evaluation these plants will not be considered one (1) major source, as defined by 326 IAC 2-7-1(22). Currently plant # 005-00015 has a Part 70 permit # T005-7433-00015, issued on May 15, 2001.

Permitted Emission Units and Pollution Control Equipment

(a) One (1) natural gas-fired boiler, using No. 2 fuel oil as a back-up, identified as Boiler #1, with a maximum heat input capacity of 20.9 million British thermal units (MMBtu) per hour, constructed in 1967, and exhausting to stack #1.

(b) One (1) natural gas-fired boiler, using No. 2 fuel oil as a back-up, identified as Boiler #2, with a maximum heat input capacity of 14.6 million British thermal units (MMBtu) per hour, constructed in 1969, and exhausting to stack #2.

(c) One (1) No.2 fuel-fired emergency generator, identified as FSP-95-01, with a maximum heat input capacity of 1.4 million British thermal units (MMBtu) per hour, operating less than 500 hours per year, and exhausting to stack # FSP-95-01.

(d) One (1) No. 2 fuel oil storage tank, with a maximum capacity of 10,000 gallons, constructed in 1996.

(e) One (1) gasoline storage tank, with a maximum capacity of 500 gallons, constructed in 1996.

(f) One (1) diesel fuel system manufacturing plant which manufactures approximately 1,000,000 injector systems and 18,000 pumps per month. Thee are also three other business units at the site, Electronics, Parts and Services, and Product Development, that have largely office types of environments, with PM_{10} and SO_2 emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) ton per year of any combination of HAPs, including the following processes:

(1) Lubrite process for the fuel pump bases, including cleaning with an alkaline cleaner, grain refining, and coating with manganese-phosphate acid.

(2) Test rigs for fuel pumps and injectors, which circulate Japanese kerosene in a closed loop system to simulate the operation of diesel fuel in an engine.

(3) Test stands for fuel injectors, which circulate a simulated diesel fuel (1487 calibration fluid) in a closed loop system to simulate the operation of diesel fuel in an engine.

(4) Metal machining processes, using a water based coolant and tooling process to remove the excess metal from parts.

(5) Water jet de-burring process, using water jets to remove excess metal from parts.

(6) Water cooling towers.

(7) Extrude hone process, used to remove excess metal from parts by pressing a semi-solid media through parts.

(8) Ultrasonic parts washers, using alkaline chemicals to remove residual oils, coolants, and debris from the injector parts.

(9) Electric VPC Process Units, used to heat treat metal parts.

(10) Thermal Deburring Units, commonly referred to as poppers, used to test pressure resistance in the fuel injectors and to remove any residual metal from the fuel injectors.

(g) Three (3) cold cleaning degreasers, constructed in 2003, with an air to solvent interface of less than 6.0 square feet and a maximum solvent usage of less than 360 gallons per year, each.

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

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

Emission Units and Pollution Control Equipment Removed From the Source

(a) One (1) open-top vapor degreaser, constructed in 2003, with a maximum solvent usage of 63 gallons per year. This degreaser did not use any regulated halogenated solvents.

Existing Approvals

Since the issuance of the MSOP M005-15444-00053 on July 24, 2002, the source has constructed or has been operating under the following approvals as well:

(a) Notice-Only Change No. 005-17855-00053, issued on September 18, 2003.

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 permits are superseded by this permit.

The one (1) open top vapor degreaser has been removed from the source, as a result the following terms and conditions for this degreaser from previous approvals have been determined no longer applicable; therefore, were not incorporated into this MSOP Renewal:

(a) Volatile Organic Compounds (VOC) [326 IAC 8-3-3]

Pursuant to 326 IAC 8-3-3 (Open Top Vapor Degreasing Operations) for open top vapor degreasing operations constructed after January 1, 1980, the Permittee shall:

(a) Equip the open top vapor degreaser with a cover that can be opened and closed easily without disturbing the vapor zone;

(b) Keep the cover closed at all times except when processing workloads through the degreaser;

(c) Minimize solvent carry-out by:

(1) Racking parts to allow complete drainage;

(2) Moving parts in and out of the degreaser at less than eleven (11) feet per minute;

(3) Degreasing the workload in the vapor zone at least thirty (30) seconds or until condensation ceases;

(4) Tipping out any pools of solvent on the cleaned parts before removal;

(5) Allowing parts to dry within the degreaser for at least fifteen (15) seconds or until visually dry;

(d) Not degrease porous or absorbent materials, such as cloth, leather, wood or rope;

(e) Not occupy more than half of the degreaser's open top area with the workload;

(f) Not load the degreaser such that the vapor level drops more than fifty percent (50%) of the vapor depth when the workload is removed;

(g) Never spray above the vapor level;

(h) Repair solvent leaks immediately, or shut down the degreaser;

(i) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere;

(j) Not use workplace fans near the degreaser opening;

(k) Not allow visually detectable water in the solvent exiting the water separator; and

(l) Provide a permanent, conspicuous label summarizing the operating requirements.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
S-1	Boiler #1	45	1.5	244	340
S-2	Boiler #2	45	2.0	349	355
FSP-95-01	Generator	28	0.5	3,630	1800

Emission Calculations

See Appendix A of this document for detailed emission calculations. (1 through 7).

County Attainment Status

The source is located in Bartholomew County.

Pollutant	Status
PM_{10}	Attainment
$PM_{2.5}$	Attainment
SO_2	Attainment
NO_X	Attainment
8-hour Ozone	Attainment
CO	Attainment
Lead	Attainment

(a) Bartholomew County has been classified as attainment for $PM_{2.5}$. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for $PM_{2.5}$ emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for $PM_{2.5}$ emissions, it has directed states to regulate PM_{10} emissions as a surrogate for $PM_{2.5}$ emissions.

(b) Volatile organic compounds (VOC) and Nitrogen Oxides (NO_X) 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 emissions and NO_X emissions are considered when evaluating the rule applicability relating to ozone. Bartholomew County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(c) Bartholomew County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(d) 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.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	tons/year
PM	2.5
PM_{10}	9.5
SO_2	83.8
VOC	1.3
CO	23.3
NO_x	37.8

HAPs	tons/year
Arsenic	Less than 10
Benzene	Less than 10
Beryllium	Less than 10
Cadmium	Less than 10
Chromium	Less than 10
Dichlorobenzene	Less than 10
Formaldehyde	Less than 10
Hexane	Less than 10
Lead	Less than 10
Manganese	Less than 10
Mercury	Less than 10
Nickel	Less than 10
Selenium	Less than 10
Toluene	Less than 10
Total	Less than 25

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants is less than 100 tons per year. The source is not subject to the provisions of 326 IAC 2-7. The emissions of NO_X and SO_2 are more than 25 tons per year, each, therefore, the source will be issued a MSOP.

(b) 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 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.

Fugitive Emissions

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.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2000 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	0
PM_{10}	1
SO_2	0
VOC	0
CO	2
NO_x	6

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 enforceable only after issuance of this MSOP and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential To Emit (tons/year)						
Process/emission unit	**PM**	**PM_{10}**	**SO_2**	**VOC**	**CO**	**NO_x**	**HAPs**
B-1 & B-2 (Natural gas-fired)	0.3	0.2	0.1	0.9	13.1	15.5	0.29
B-1 & B-2 (No. 2 fuel oil-fired)	2.2	3.7	78.9	0.4	5.6	22.2	Negligible
Diesel Fuel System Manufacturing Line	-	4.6	4.6	-	4.6	-	2.5
FSP-95-01	-	-	0.2	-	-	0.1	Negligible
Total	2.5	9.5	83.8	1.3	23.3	37.8	less than 10 single HAP, less than 25 total HAPs

(a) This existing stationary source is not major for PSD because the emissions of each criteria pollutant and PM are less than two hundred fifty (<250) tons per year, and it 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, fugitive emissions are not counted toward the determination of PSD applicability.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit renewal for this source.

(b) The requirements of the New Source Performance Standard for Small Industrial-Commercial-Institutional Steam Unit, 40 CFR 60., Subpart Dc, are not included in the permit for Boiler #1 (B-1) and Boiler #2 (B-2). Construction of these units commenced prior to June 9, 1989.

(c) The requirements of the New Source Performance Standard for Volatile Organic Liquid Storage Vessels for which Construction, Reconstruction, or Modification Commenced after July 23, 1984, 40 CFR 60., Subpart Kb, are not included in the permit for the No. 2

fuel oil storage tank and the gasoline storage tank because both units have a maximum capacity of less than 75 cubic meters (m^3), each.

(d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit renewal for this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)
This source is located in Bartholomew County and the potential to emit of each criteria pollutant is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

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 from Indirect Heating Facilities)
Boilers #1 and #2 were constructed before 1972. Pursuant to 326 IAC 6-2-3, boilers existing and in operation before June 8, 1972 shall be limited by the following equation or by 0.8 lbs per MMBtu, whichever is more stringent:

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

Where

C = max ground level concentration (= 50 $\mu m/m^3$)
Pt = emission rate limit (lbs/MMBtu)
Q = total source heat input capacity (MMBtu/hr)
N = number of stacks = 2
a = plume rise factor = 0.67
h = stack height (ft) = 45 ft

The emission rate limit established from the equation above equals:

$$Pt = \frac{50 \times 0.67 \times 45}{76.5 \times (20.9 + 14.6)^{0.75} \times 2^{0.25}} = 1.14 \text{ lbs/MMBtu}$$

Therefore, the most stringent PM emission limit for these boilers is 0.8 lbs/MMBtu.

326 IAC 6-3-2(e) (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2(e) (Particulate Emission Limitations for Manufacturing Processes) the PM emissions from the water cooling towers, water jet deburring process, and poppers shall not exceed the emission limits determined from the following equation:

The PM emission limit shall be determined for process weights up to sixty thousand pounds (60,000) per hour from the following equation:

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

Where: E = Rate of emission in pounds per hour.
P = Process weight in tons per hour.

The operation of emergency generator FSP-95-01 will emit less than five hundred fifty-one thousandths (0.551) pound per hour of PM. Therefore, FSP-95-01 is exempt from this rule.

326 IAC 7-1.1-2 (SO_2 Emission Limitations)
The potential emissions of SO_2 from Boiler #1 and Boiler #2 are greater than 25 tons per year, each. Pursuant to 326 IAC 7-1.1-2, sulfur dioxide emissions from these boilers shall not exceed 0.5 pounds per million Btu heat input, when burning fuel oil No. 2.

The operation of FSP-95-01 will emit less than twenty-five (25) tons SO_2 per year. Therefore, FSP-95-01 is exempt from this rule.

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

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with a facility for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements; and

(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.

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

(a) Pursuant to 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control), or 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 facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent is used is insoluble in, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) The owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

326 IAC 8-3-8 (Material Requirements for Cold Cleaning Degreasers)
The source is not located in Clark, Floyd, Lake, or Porter County. Therefore, 326 IAC 8-3-8 is not applicable.

326 IAC 8-9-4 (Volatile Organic Liquid Storage Vessels)
The source is not located in Clark, Floyd, Lake, or Porter County. Therefore, 326 IAC 8-9-4 is not applicable.

Recommendation

The staff recommends to the Commissioner that the MSOP 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 March 5, 2007.

Conclusion

The operation of this diesel fuel system manufacturing plant shall be subject to the conditions of the attached MSOP Renewal No. M005-24406-00053.

Appendix A: Emissions Calculations
Emission Summary

Company Name: Cummins Engine Company, Inc.
Company Address: 1460 National Road, Columbus, Indiana 47201
Permit Number: M 005-15444-00053
Reviewer: Brandon Snoddy
Date: July 19, 2007

Uncontrolled Potential Emissions							
Emission Unit	**PM (tons/year)**	**PM_{10} (tons/year)**	**SO_2 (tons/year)**	**VOC (tons/year)**	**CO (tons/year)**	**NO_X (tons/year)**	**HAPs (tons/year)**
B-1 & B-2 (Natural gas-fired)	0.3	1.2	0.1	0.9	13.1	15.5	0.29
B-1 & B-2 (No. 2 fuel oil-fired)	2.2	3.7	78.9	0.4	5.6	22.2	0.01
Diesel Fuel System Manufacturing Line	0	4.6	4.6	0	4.6	0	2.5
FSP-95-01	0	0	0.2	0	0	0.1	0
Total	2.5	9.5	83.8	1.3	23.3	37.8	Single HAP <10 tpy, Total HAPs <25 tpy

Limited Potential Emissions							
Emission Unit	**PM (tons/year)**	**PM_{10} (tons/year)**	**SO_2 (tons/year)**	**VOC (tons/year)**	**CO (tons/year)**	**NO_X (tons/year)**	**HAPs (tons/year)**
B-1 & B-2 (Natural gas-fired)	0.3	1.2	0.1	0.9	13.1	15.5	0.29
B-1 & B-2 (No. 2 fuel oil-fired)	2.2	3.7	78.9	0.4	5.6	22.2	0.01
Diesel Fuel System Manufacturing Line	0	4.6	4.6	0	4.6	0	2.5
FSP-95-01	0	0	0.2	0	0	0.1	0
Total	2.5	9.5	83.8	1.3	23.3	37.8	Single HAP <10 tpy, Total HAPs <25 tpy

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Boilers #1 & #2

Company Name: Cummins Engine Company, Inc.
Company Address: 1460 National Road, Columbus Indiana 47201
Permit Number: M 005-24406-00053
Reviewer: Brandon Snoddy
Date: July 19, 2007

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
35.5	311.0

	Pollutant					
	PM*	PM_{10}*	SO_2	NO_X	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.3	1.2	0.1	15.5	0.9	13.1

*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 3 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions
Boiler's #1 & #2

Company Name: Cummins Engine Company, Inc.
Company Address: 1460 National Road, Columbus Indiana 47201
Permit Number: M 005-24406-00053
Reviewer: Brandon Snoddy
Date: July 19, 2007

	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	3.265E-04	1.866E-04	1.166E-02	2.799E-01	5.287E-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	7.775E-05	1.710E-04	2.177E-04	5.909E-05	3.265E-04

Methodology is the same as page 2.

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
#2 Fuel Oil Combustion Only
MM BTU/HR <100
Boilers # 1 and # 2

Company Name: Cummins Engine Company, Inc.
Company Address: 1460 National Road, Columbus, Indiana 47201
Permit Number: M 005-15444-00053
Reviewer: Brandon Snoddy
Date: July 19, 2007

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur
35.5	2221.29	0.5

	Pollutant					
	PM*	PM_{10}**	SO_2	NO_X	VOC	CO
Emission Factor in lb/kgal	2.0	3.3	71 *(142.0S)*	20.0	0.34	5.0
Potential Emission in tons/yr	2.2	3.7	78.9	22.2	0.4	5.6

Methodology

1 gallon of No. 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 MMBtu

Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)

*PM emission factor is filterable PM only.
**PM10 emission factor is filterable and condensable PM combined.
Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

See page 5 for HAPs emission calculations.

Appendix A: Emissions Calculations
#2 Fuel Oil Combustion Only
MM BTU/HR <100
HAPs Emissions
Boilers # 1 and # 2

Company Name: Cummins Engine Company, Inc.
Company Address: 1460 National Road, Columbus, Indiana 47201
Permit Number: M 005-15444-00053
Reviewer: Brandon Snoddy
Date: July 19, 2007

	HAPs - Metals				
	Arsenic	Beryllium	Cadmium	Chromium	Lead
Emission Factor in lb/mmBtu	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06
Potential Emission in tons/yr	6.22E-04	4.66E-04	4.66E-04	4.66E-04	1.40E-03

	HAPs - Metals (continued)			
	Mercury	Manganese	Nickel	Selenium
Emission Factor in lb/mmBtu	3.0E-06	6.0E-06	3.0E-06	1.5E-05
Potential Emission in tons/yr	4.66E-04	9.33E-04	4.66E-04	2.33E-03

Methodology

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
#2 Fuel Oil Combustion Only
MM BTU/HR <100
FSP-95-01

Company Name: Cummins Engine Company, Inc.
Company Address: 1460 National Road, Columbus, Indiana 47201
Permit Number: M 005-15444-00053
Reviewer: Brandon Snoddy
Date: July 19, 2007

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur
1.4	5.00	0.5

	Pollutant					
	PM*	PM_{10}**	SO_2	NO_X	VOC	CO
Emission Factor in lb/kgal	2.0	3.3	71 *(142.0S)*	20.0	0.34	5.0
Potential Emission in tons/yr	0.0	0.0	0.2	0.1	0.0	0.0

Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 500 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MMBtu

Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)

*PM emission factor is filterable PM only.
**PM10 emission factor is filterable and condensable PM combined.
Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

See page 7 for HAPs emission calculations.

Appendix A: Emissions Calculations
#2 Fuel Oil Combustion Only
MM BTU/HR <100
HAPs Emissions
FSP-95-01

Company Name: Cummins Engine Company, Inc.
Company Address: 1460 National Road, Columbus, Indiana 47201
Permit Number: M 005-15444-00053
Reviewer: Brandon Snoddy
Date: July 19, 2007

	HAPs - Metals				
	Arsenic	Beryllium	Cadmium	Chromium	Lead
Emission Factor in lb/mmBtu	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06
Potential Emission in tons/yr	2.45E-05	1.84E-05	1.84E-05	1.84E-05	5.52E-05

	HAPs - Metals (continued)			
	Mercury	Manganese	Nickel	Selenium
Emission Factor in lb/mmBtu	3.0E-06	6.0E-06	3.0E-06	1.5E-05
Potential Emission in tons/yr	1.84E-05	3.68E-05	1.84E-05	9.20E-05

Methodology

No data was available in AP-42 for organic HAPs.
Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*500 hrs/yr / 2,000 lb/ton