

PART 70 OPERATING PERMIT OFFICE OF AIR MANAGEMENT

**Cummins Engine Company, Inc., METC Facility
1532 East 14th 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.

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.: T 005-7068-00069	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Management	Issuance Date:

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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 Management (OAM). 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)]

The Permittee owns and operates a testing internal combustion engines source.

Responsible Official: Sean Milloy - Executive Director - World Wide MidRange Engineering
Source Address: 1532 East 14th Street, Columbus, Indiana 47201
Mailing Address: 1532 East 14th Street, Columbus, Indiana 47201
Phone Number: (812) 377-8527
SIC Code: 3519
County Location: Bartholomew
County Status: Attainment for all criteria pollutants
Source Status: Part 70 Permit Program
Minor Source, under PSD Rules;
Minor Source, Section 112 of the Clean Air Act

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

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

Twenty (20) diesel engine test cells, known as S1 through S20, installed in 1996, exhausted through stacks 1 through 20, respectively, rated at 22.15 million British thermal units per hour, total; maximum capacity: 268 gallons of diesel fuel per hour, total.

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) One (1) surface coating spray booth, known as E6, exhausted to stack E6, constructed in 1990, equipped with dry filters for overspray control, capacity: 0.048 gallon per hour. [326 IAC 6-3-2]
- (b) Two (2) metal inert gas (MIG) welding stations, known as E4 and E8, exhausted to stacks E4 and E8, respectively, installed in February 1996, with a maximum electrode usage rate of 0.2 pounds per hour, each. [326 IAC 6-3-2]
- (c) Four (4) solvent parts washers, known as PW1 through PW4, exhausted to the general ventilation, installed in January 1980, with a combined usage rate of 0.021 gallons of solvent per hour. [326 IAC 8-3-2]

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 Permit No Defense [IC 13]

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

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

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

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

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

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

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

B.5 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

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

B.6 Severability [326 IAC 2-7-5(5)]

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

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

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

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

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

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) The Permittee shall furnish to IDEM, OAM, within a reasonable time, any information that IDEM, OAM, may request in writing to determine whether cause exists for modifying,

revoking and reissuing, or terminating this permit, or to determine compliance with this permit.

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

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

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit, except those specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act and is grounds for:
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; or
 - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

B.10 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [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 under this permit shall contain certification by a 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, on the attached Certification Form, with each submittal.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

B.11 Annual Compliance Certification [326 IAC 2-7-6(5)]

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

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, OAM, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was based on continuous or intermittent data;
 - (4) The methods used for determining compliance 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, OAM, may require to determine the compliance status of the source.

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

B.12 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)]
[326 IAC 1-6-3]

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

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

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

B.13 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-7-16.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
 - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAM, 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 Management, Compliance Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967
 - (5) For each emergency lasting one (1) hour or more, the Permittee submitted notice, either in writing or facsimile, of the emergency to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

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

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

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

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

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions) for sources subject to this rule after the effective date of this rule. This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAM, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAM, by telephone or facsimile of an emergency lasting more than one (1) hour in compliance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value.

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

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

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

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

B.15 Multiple Exceedances [326 IAC 2-7-5(1)(E)]

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

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

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

measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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

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

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

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

B.17 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)]
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAM, 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, OAM, 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, OAM, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAM, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.18 Permit Renewal [326 IAC 2-7-4]

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

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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

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

- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

(2) If IDEM, OAM, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAM, 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, OAM, any additional information identified as being needed to process the application.

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

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

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

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

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

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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

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

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

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

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

B.21 Operational Flexibility [326 IAC 2-7-20]

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

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

(2) Any approval required by 326 IAC 2-1.1 has been obtained;

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

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

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

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

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

Such records shall consist of all information required to be submitted to IDEM, OAM, in the notices specified in 326 IAC 2-7-20(b), (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) and the following additional conditions:
 - (1) The permit shield, described in 326 IAC 2-7-15, shall not apply to any change made under 326 IAC 2-7-20(b).
 - (2) For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:
 - (i) A brief description of the change within the source;
 - (ii) The date on which the change will occur;
 - (iii) Any change in emissions; and
 - (iv) Any permit term or condition that is no longer applicable as a result of the change.

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

- (c) Emission Trades [326 IAC 2-7-20(c)]

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

The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAM, 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 require-

ments of part (a) of this condition do not apply.

B.22 Construction Permit Requirement [326 IAC 2]

A modification, construction, or reconstruction shall be approved if required by and in accordance with the applicable provisions of 326 IAC 2.

B.23 Inspection and Entry [326 IAC 2-7-6(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, OAM, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.
[326 IAC 2-7-6(6)]

B.24 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 Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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

- (c) 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.25 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

- C.1 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]
Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.
- C.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. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.
- 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. The provisions of 326 IAC 9-1-2 are not federally enforceable.
- 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 Operation of Equipment [326 IAC 2-7-6(6)]
Except as otherwise provided in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission unit vented to the control equipment is in operation.
- 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 61.140]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
- (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).
- All required notifications shall be submitted to:
- Indiana Department of Environmental Management
Asbestos Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015
- 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 14-10-4, 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) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

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

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

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing 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, OAM.

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 Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

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

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

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

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

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

The Permittee:

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

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

Compliance with applicable requirements shall be documented as required by this permit. All monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. 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 Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

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

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

C.12 Monitoring Methods [326 IAC 3]

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, or other approved methods as specified in this permit.

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

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

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

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

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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

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

(c) If the ERP is disapproved by IDEM, OAM, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.

(d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.

(e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.

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

C.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]

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

- (a) Submit:
 - (1) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or
 - (2) As a part of the compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and
 - (3) A verification to IDEM, OAM, that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.
- (b) Provide annual certification to IDEM, OAM, that the Risk Management Plan is being properly implemented.

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

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

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:
 - (1) This condition;
 - (2) The Compliance Determination Requirements in Section D of this permit;
 - (3) The Compliance Monitoring Requirements in Section D of this permit;
 - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
 - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:
 - (A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
 - (B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall consti-

tute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.

- (c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:
 - (1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;
 - (3) An automatic measurement was taken when the process was not operating; or
 - (4) The process has already returned to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

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

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected facility.

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

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

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

- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement

shall meet the following requirements:

- (1) Indicate actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
 - (2) Indicate actual emissions of other regulated pollutants from the source, for purposes of Part 70 fee assessment.
- (b) The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31. The annual emission statement must be submitted to:
- Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

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

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

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

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative. The records

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

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

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

- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The 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 Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

- (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, OAM, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports. The Emergency/Deviation Occurrence Report does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

Stratospheric Ozone Protection

C.21 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 FACILITY OPERATION CONDITIONS

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

Twenty (20) diesel engine test cells, known as S1 through S20, installed in 1996, exhausted through stacks one (1) through 20, respectively, rated at 22.15 million British thermal units per hour, total; maximum capacity: 268 gallons of diesel fuel per hour, total.

(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 2-7-5(1)]

D.1.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

- (a) The input of diesel fuel to the engine test cells shall be less than 819,536 gallons per year, rolled on a monthly basis. This usage limit is required to limit the potential to emit of NO_x to less than 250 tons per year. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.
- (b) Condition 3 of Permit Modification to CP 005-4995, 005-10625, issued on August 17, 1999 stated that to avoid the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration), the annual diesel fuel usage from the twenty (20) diesel engine test cells shall be limited to 811,700 gallons per year, rolled on a monthly basis. This limitation is equivalent to 247.5 tons of NO_x per year and 4.4 pounds of NO_x per MMBtu. A limit to emit 247.5 tons of NO_x per year is equivalent to 495,000 pounds of NO_x emitted per year. This value, divided by the new FIRE 6.22 NO_x emission factor of 0.604 pounds per gallon of diesel fuel burned, is equivalent to a throughput limit of 819,536 gallons of diesel fuel per year and 4.3 pounds of NO_x per million British thermal unit. The 811,700 gallon per year limit has been revised to 819,536 gallons of diesel fuel per year. In addition, the equivalent limitation of 4.4 pounds of NO_x per million British thermal unit has been revised to 4.3 pounds of NO_x per million British thermal unit.
- (c) Any change or modification which may increase potential emissions of SO₂, CO, or NO_x needs prior approval from IDEM, OAM.

Compliance Determination Requirements [326 IAC 2-1.1-11] [326 IAC 2-7-6(1)]

D.1.2 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if these facilities are in compliance. If testing is required by IDEM to confirm the emission factors for hazardous air pollutants (HAPs), from the engine test cells, they shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

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

D.1.3 Visible Emissions Notations

- (a) Visible emission notations of the engine test cell stack exhausts shall be performed once per working shift during normal daylight operations when exhausted to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

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

D.1.4 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1 the permittee shall maintain monthly fuel usage records for the diesel engines test cells.
- (b) To document compliance with Condition D.1.3, the Permittee shall maintain records of daily visible emission notations of the engine test cell stack exhausts.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.5 Reporting Requirements

A quarterly summary of the information 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.

SECTION D.2

FACILITY OPERATION CONDITIONS

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

- (a) One (1) surface coating spray booth, known as E6, exhausted to stack E6, constructed in 1990, equipped with dry filters for overspray control, capacity: 0.048 gallon per hour. [326 IAC 6-3-2]
- (b) Two (2) metal inert gas (MIG) welding stations, known as E4 and E8, exhausted to stacks E4 and E8, respectively, installed in February 1996, with a maximum electrode usage rate of 0.2 pounds per hour, each. [326 IAC 6-3-2]
- (c) Four (4) solvent parts washers, known as PW1 through PW4, exhausted to the general ventilation, installed in January 1980, with a combined usage rate of 0.021 gallons of solvent per hour. [326 IAC 8-3-2]

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

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

D.2.1 Particulate Matter (PM) [326 IAC 6-3]

- (a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the surface coating spray booth, known as E6, and the two (2) metal inert gas (MIG) welding stations, known as E4 and E8, shall not exceed allowable PM emission rate based on the following equation:

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

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

- (b) Condition 7 of CP 005-4995, issued on February 12, 1996, stated that pursuant to 326 IAC 6-3 (Process Operations), the welding station particulate matter (PM) emissions shall not exceed the allowable emission rate of 0.01 pounds PM per hour. This condition is no longer applicable because, pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour as stated in Condition C.1.
- (c) Condition 6 of CP 005-4995, issued on February 12, 1996, stated that pursuant to 326 IAC 6-3 (Process Operations), the wood/metal working area Torit Cyclone shall be in operation at all times when wood/metal working process is in operation, and shall not exceed the allowable particulate matter (PM) emission rate of 0.06 pounds per hour.

Condition 8 stated that the visible particulate matter (PM) emissions from the wood/metal working areas shall not exceed 10% opacity and that fugitive dust complies with 326 IAC 6-4 (fugitive Dust Emissions).

These conditions are no longer applicable because the wood/metal working areas have been permanently removed from the source.

D.2.2 Volatile Organic Compounds (VOC)

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

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

D.2.3 Nonapplicability of 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

Condition 11 of CP 005-4995, issued on February 12, 1996, stated that volatile organic compound (VOC) emissions from parts washers PW1, PW2, PW3, and PW4 shall comply with 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control). Since the parts washers PW1, PW2, PW3, and PW4 were all installed in January 1980, they are not subject to 326 IAC 8-3-5 because their construction commenced prior to the applicable date of July 1, 1990 as specified in 326 IAC 8-3-1(b)(2).

D.2.4 Nonapplicability of NSPS Subpart Kb

Condition 12 of CP 005-4995, issued on February 12, 1996 stated that pursuant to 326 IAC 12 (40 CFR Part 60.110b - 60.117b), Subpart Kb, readily accessible records showing the dimension of each storage vessel and an analysis showing the capacity of each storage vessel shall be kept for diesel fuel storage tanks 1 and 2. These records shall be kept for the life of the source. Since the two (2) 10,000 gallon vertical dome diesel fuel storage tanks, installed in 1996, are less than 40 cubic meters, each, 326 IAC 12 (40 CFR Part 60.110b - 60.117b), Subpart Kb, does not apply to the two storage tanks. These storage tanks have not been specifically listed in Condition A.3 and Section D.2 since they are deemed insignificant activities.

Compliance Determination Requirement [326 IAC 2-1.1-11] [326 IAC 2-7-6(1)]

D.2.5 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

The Permittee is not required to test the surface coating spray booth, known as E6, and the two (2) metal inert gas (MIG) welding stations, known as E4 and E8, by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the particulate matter limit specified in Condition D.2.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

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

D.2.6 Nonapplicability of Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

Condition 9 of CP 005-4995, issued on February 12, 1996, stated that the particulate matter overspray from the surface coating facility shall be prevented from being visibly detectable at the exhaust or accumulating on the rooftops or on the ground. This requirement is no longer applicable because the surface coating facility is deemed an insignificant activity and as such has no compliance monitoring requirements.

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

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

Condition 10 of CP 005-4995, issued on February 12, 1996, stated that pursuant to 326 IAC 2-1-3(j), records of surface coating quantities and organic solvent contents shall be maintained for a minimum period of 24 months and made available upon request of the Office of Air Management (OAM). This requirement is no longer applicable because the surface coating facility is deemed an insignificant activity and as such has no record keeping requirements.

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

**PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: Cummins Engine Company, Inc., METC Facility
Source Address: 1532 East 14th Street, Columbus, Indiana 47201
Mailing Address: 1532 East 14th Street, Columbus, Indiana 47201
Part 70 Permit No.: T 005-7068-00069

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:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 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 MANAGEMENT
COMPLIANCE DATA SECTION
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967**

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

Source Name: Cummins Engine Company, Inc., METC Facility
Source Address: 1532 East 14th Street, Columbus, Indiana 47201
Mailing Address: 1532 East 14th Street, Columbus, Indiana 47201
Part 70 Permit No.: T 005-7068-00069

This form consists of 2 pages

Page 1 of 2

Check either No. 1 or No.2	
9	1. This is an emergency as defined in 326 IAC 2-7-1(12) C The Permittee must notify the Office of Air Management (OAM), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and C The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16
9	2. This is a deviation, reportable per 326 IAC 2-7-5(3)(C) C The Permittee must submit notice in writing within ten (10) calendar days

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

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

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

Page 2 of 2

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

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

Part 70 Quarterly Report

Source Name: Cummins Engine Company, Inc., METC Facility
Source Address: 1532 East 14th Street, Columbus, Indiana 47201
Mailing Address: 1532 East 14th Street, Columbus, Indiana 47201
Part 70 Permit No.: T 005-7068-00069
Facility: Twenty (20) Diesel Engine Test Cells
Parameter: Diesel Fuel Usage
Limit: 819,536 gallons of diesel fuel per year, rolled on a monthly basis

YEAR: _____

Month	Fuel Usage This Month (gallons/month)	Fuel Usage Previous 11 Months (gallons/month)	Fuel Usage 12 Month Total (gallons/year)

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.

Deviation has been reported on: _____

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

Indiana Department of Environmental Management Office of Air Management

Addendum to the Technical Support Document for a Part 70 Operating Permit

Source Name: Cummins Engine Company, Inc., METC Facility
Source Location: 1532 East 14th Street, Columbus, Indiana 47201
County: Bartholomew
SIC Code: 3519
Operation Permit No.: T 005-7068-00069
Permit Reviewer: Peter E. Fontaine

On January 20, 2000, the Office of Air Management (OAM) had a notice published in The Republic, Columbus, Indiana, stating that Cummins Engine Company, Inc., METC Facility had applied for a Part 70 Operating Permit to operate a testing internal combustion engines source. The notice also stated that OAM proposed to issue a Part 70 Operating Permit for this operation and provided information on how the public could review the proposed Part 70 Operating Permit 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 Part 70 Operating Permit should be issued as proposed.

On January 23, 2000, Jeff Korman of Bruce Carter & Associates telephoned a comment on the proposed Part 70 Operating Permit. The comment is as follows and deleted language appears as ~~strikeouts~~ and new language is **bolded**.

Comment 1:

On page 5 of 36 of the permit, in Section A.1, the name of the responsible official should be changed from Pete Jones to Sean Milloy - Executive Director - World Wide MidRange Engineering.

Response 1:

As requested, the name and title of the responsible official has been changed. The change is as follows:

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

The Permittee owns and operates a testing internal combustion engines source.

Responsible Official: ~~Pete Jones~~ **Sean Milloy - Executive Director - World Wide MidRange Engineering**

Indiana Department of Environmental Management Office of Air Management

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

Source Background and Description

Source Name: Cummins Engine Company, Inc., METC Facility
Source Location: 1532 East 14th Street, Columbus, Indiana 47201
County: Bartholomew
SIC Code: 3519
Operation Permit No.: T 005-7068-00069
Permit Reviewer: Peter E. Fontaine

The Office of Air Management (OAM) has reviewed a Part 70 permit application from Cummins Engine Company, Inc., METC Facility relating to the testing internal combustion engines source.

Permitted Emission Units and Pollution Control Equipment

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

Twenty (20) diesel engine test cells, known as S1 through S20, installed in 1996, exhausted through stacks 1 through 20, respectively, rated at 22.15 million British thermal units per hour, total; maximum capacity: 268 gallons of diesel fuel per hour, total.

Unpermitted Emission Units and Pollution Control Equipment

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

New Emission Units and Pollution Control Equipment Receiving Prior Approval

There are no new facilities proposed at this source during this review process.

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) One (1) surface coating spray booth, known as E6, exhausted to stack E6, constructed in 1990, equipped with dry filters for overspray control, capacity: 0.048 gallon per hour. [326 IAC 6-3-2]
- (c) Two (2) metal inert gas (MIG) welding stations, known as E4 and E8, exhausted to stacks E4 and E8, respectively, installed in February 1996, with a maximum electrode usage rate of 0.2 pounds per hour, each. [326 IAC 6-3-2]
- (d) Four (4) solvent parts washers, known as PW1 through PW4, exhausted to the general ventilation, installed in January 1980, with a combined usage rate of 0.021 gallons of solvent per hour. [326 IAC 8-3-2]

- (e) Two (2) 10,000 gallon vertical dome diesel fuel storage tanks, installed in 1996.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) CP 005-4995, issued on February 12, 1996.
- (b) A-005-8578, issued on July 22, 1997.
- (c) CP 005-10625, issued on August 17, 1999.

All conditions from previous approvals were incorporated into this Part 70 permit except the following:

- (a) CP 005-4995, issued on February 12, 1996.

Condition 6. Pursuant to 326 IAC 6-3 (Process Operations), the wood/metal working area Torit Cyclone shall be in operation at all times when wood/metal working process is in operation, and shall not exceed the allowable particulate matter (PM) emission rate of 0.06 pounds per hour.

and

Condition 8. The visible particulate matter (PM) emissions from the wood/metal working areas shall not exceed 10% opacity and that fugitive dust complies with 326 IAC 6-4 (fugitive Dust Emissions). This opacity limit shall supercede the wood/metal working area opacity limitation of Operation Condition 5.

Reason not incorporated: The wood/metal working areas have been permanently removed from the source.

- (b) CP 005-4995, issued on February 12, 1996.

Condition 7. Pursuant to 326 IAC 6-3 (Process Operations), the welding station particulate matter (PM) emissions shall not exceed the allowable emission rate of 0.01 pounds PM per hour.

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

- (c) CP 005-4995, issued on February 12, 1996.

Condition 9. The particulate matter overspray from the surface coating facility shall be prevented from being visibly detectable at the exhaust or accumulating on the rooftops or on the ground.

and

Condition 10. That pursuant to 326 IAC 2-1-3(j), records of surface coating quantities and organic solvent contents shall be maintained for a minimum period of 24 months and made available upon request of the Office of Air Management

(OAM).

Reason not incorporated: The surface coating facility is deemed an insignificant activity and as such has no compliance monitoring requirements or record keeping requirements.

(d) CP 005-4995, issued on February 12, 1996.

Condition 11. That volatile organic compound (VOC) emissions from parts washers PW1, PW2, PW3, and PW4 shall comply with 326 IAC 8-3-2 (Cold Cleaner Operations) and 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control). Copies of these rules are enclosed.

Reason not incorporated: As stated on page 5 of 6 of the Technical Support Document for CP 005-4995, the parts washers are not subject to 326 IAC 8-3-5 because the construction date of January 1980 is prior to the applicability date of July 1, 1990 as specified in 326 IAC 8-3-1(a)(2). The parts washers are still required to comply with 326 IAC 8-3-2 (Cold Cleaner Operations).

(e) CP 005-4995, issued on February 12, 1996.

Condition 12. That pursuant to 326 IAC 12 (40 CFR Part 60.110b - 60.117b), Subpart Kb, readily accessible records showing the dimension of each storage vessel and an analysis showing the capacity of each storage vessel shall be kept for diesel fuel storage tanks 1 and 2. These records shall be kept for the life of the source.

Reason not incorporated: The two (2) 10,000 gallon vertical dome diesel fuel storage tanks, installed in 1996, are less than 40 cubic meters, each. Therefore, 326 IAC 12 (40 CFR Part 60.110b - 60.117b), Subpart Kb, does not apply.

(f) Permit Modification to CP 005-4995, 005-10625, issued on August 17, 1999.

Condition 3. That to avoid the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration), the annual diesel fuel usage from the twenty (20) diesel engine test cells shall be limited to 811,700 gallons per year, rolled on a monthly basis. This limitation is equivalent to 247.5 tons of NO_x per year and 4.4 pounds of NO_x per MMBtu.

Reason changed: A limit to emit 247.5 tons of NO_x per year is equivalent to 495,000 pounds of NO_x emitted per year. This value, divided by the new FIRE 6.22 NO_x emission factor of 0.604 pounds per gallon of diesel fuel burned, equals a revised throughput limit of 819,536 gallons of diesel fuel per year. This limitation is equivalent 4.3 pounds of NO_x per million British thermal unit.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Part 70 permit 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 administratively complete Part 70 permit application for the purposes of this review was received on October 31, 1996. Additional information was received on February 12, May 19, June 3, and July 20, 1999.

A notice of completeness letter was mailed to the source on November 12, 1996.

Emission Calculations

See pages 1 through 6 of 6 of Appendix A of this document for detailed emissions calculations.

Potential To Emit

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

Pollutant	Potential To Emit (tons/year)
PM	50.1
PM ₁₀	50.1
SO ₂	46.6
VOC	59.8
CO	153
NO _x	709

Note: For the purpose of determining Title V applicability for particulates, PM₁₀, not PM, is the regulated pollutant in consideration.

HAPs	Potential To Emit (tons/year)
Benzene	0.153
Toluene	0.421
Xylene	0.274
1,3 Butadiene	0.00643
Formaldehyde	0.194
Acetaldehyde	0.126
Acrolein	0.0152
Methanol	0.00707
Manganese	0.0000596

HAPs	Potential To Emit (tons/year)
Chromium	0.0000175
TOTAL	1.20

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of oxides of nitrogen (NO_x) and carbon monoxide (CO) are equal to or greater than one hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 1996 AIRS Facility Subsystem Quick Look Report emission data and applicant supplied HAPs emission data.

Pollutant	Actual Emissions (tons/year)
PM	1.21
PM ₁₀	1.21
SO ₂	0.182
VOC	4.41
CO	12.0
NO _x	16.5
Benzene	0.0086
Toluene	0.0038
Xylene	0.0026
1,3 Butadiene	0.0004
Formaldehyde	0.0109
Acetaldehyde	0.0071
Acrolein	0.0009
HAPs (combined)	0.0343

Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Twenty (20) Engine Test Cells	17.4	17.4	16.3	20.2	53.3	247.5	0.222
Insignificant Activities	0.0437	0.0437	0.00	1.86	0.00	0.00	0.588
Total Emissions	17.4	17.4	16.3	22.1	53.3	247.5	0.810

- (a) The values in the table represent the limited emissions after controls.
- (b) The twenty (20) engine test cells are limited to 819,536 gallons of diesel fuel per year, equivalent to emissions of 247.5 tons of NO_x per year.

County Attainment Status

The source is located in Bartholomew County.

Pollutant	Status
PM ₁₀	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Bartholomew County has been designated as attainment or unclassifiable for ozone.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source. The two (2) storage tanks each with a capacity of 10,000 gallons, installed in 1996, are not subject to NSPS Subpart Kb since their capacities are each less than 40 cubic meters (10,567 gallons).
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) applicable to this source.

The degreasing operation, deemed an insignificant activity, is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), Subpart T (40 CFR 63.460-469) since no halogenated HAP solvents are used.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

The annual diesel fuel usage from the twenty (20) diesel engine test cells shall be limited to 819,536 gallons per year, rolled on a monthly basis. This fuel limit is equivalent to 247.5 tons of NO_x per year and 4.3 pounds of NO_x per million British thermal unit. All other insignificant activities have been evaluated at their full potential to emit NO_x. Therefore, the requirements of 326 IAC 2-2 and 40 CFR 52.21, are not applicable.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of NO_x in Bartholomew County. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8) (Emission Statement Operating Year).

326 IAC 5-1 (Opacity Emissions Limitations)

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%) 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.

326 IAC 6-4 (Fugitive Dust Emissions)

Under no circumstance shall the source emit particulate matter to the extent that some visible portion of the material escapes beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located.

326 IAC 9-1 (CO Emission Limits)

This source does not engage in petroleum refining, ferrous metal smelting, or refuse incineration. Therefore, the requirements of 326 IAC 9-1 do not apply.

326 IAC 10-1 (NO_x Control In Clark and Floyd Counties)

Since this source is not in Clark or Floyd counties, the requirements of 326 IAC 10-1 do not apply.

State Rule Applicability - Individual Facilities

326 IAC 7-1.1 (Sulfur Dioxide Emission Limits)

The twenty (20) diesel engine test cells, known as S1 through S20, are not subject to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limits), because they do not have the potential to emit 25.0 tons per year or 10.0 pounds per hour or greater of sulfur dioxide, each.

State Rule Applicability - Insignificant Activities

326 IAC 6-3-2 (Process Operations)

- (a) The particulate matter (PM) from the one (1) paint spray booth, known as E6, shall be limited by the following:

Interpolation and extrapolation 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:

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

- (b) The particulate matter (PM) from the welding station shall not exceed the allowable emission rate of particulate matter per hour as determined by the following:

Interpolation and extrapolation 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 8-2-9 (Miscellaneous Metal Coating Operations)

The coatings applied in surface coating booth E6, constructed in 1990, are not subject to the limitations of 326 IAC 8-2-9, because the potential VOC emissions of six and ninety-four hundredths pounds of VOC per day (6.94 lbs VOC/day) are less than the applicable rate of fifteen pounds of VOC per day (15.0 lbs VOC/day) pursuant to 326 IAC 8-2-1(a)(4).

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

The volatile organic compound emissions from parts washers PW1, PW2, PW3, and PW4 must comply with 326 IAC 8-3-2.

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

The parts washers PW1, PW2, PW3, and PW4 were installed in January 1980 and are not subject to 326 IAC 8-3-5 because the construction commenced prior to the applicable date of July 1, 1990 as specified in 326 IAC 8-3-1(b)(2).

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement

for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also 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.

The compliance monitoring requirements applicable to this source are as follows:

The engine test cells have applicable compliance monitoring conditions as specified below:

Visible emissions notations of the engine test cells stack exhaust, known as S1 through S20, shall be performed once per working shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. 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. 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. 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. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

These monitoring conditions are necessary to ensure compliance with 326 IAC 2-7 (Part 70), 326 IAC 5-1 (Opacity Limitations), and 326 IAC 6-4 (Fugitive Dust Emissions).

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Part 70 Application Form GSD-08.

- (a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.
- (b) See attached pages 3 through 6 of 6 of Appendix A for detailed air toxic calculations.

Conclusion

The operation of this testing internal combustion engines source shall be subject to the conditions of the attached proposed **Part 70 Permit No. T 005-7068-00069**.

Appendix A: Summary of Potential Emissions Before Controls

Company Name: Cummins Engine Company, Inc. - METC Facility
 Address City IN Zip: 1532 East 14th Street, Columbus, IN 47201
 Part 70: T 005-7068
 Pit ID: 005-00069
 Reviewer: Peter E. Fontaine
 Date: October 31, 1996

Point	Source	Potential PM (tons/yr)	Potential PM-10 (tons/yr)	Potential NOx (tons/yr)	Potential CO (tons/yr)	Potential SO2 (tons/yr)	Potential VOC (tons/yr)	Potential HAPs (tons/yr)
Significant Emission Units								
S1 - S20 (c1996)	Twenty (20) engine test cells	49.9	49.9	709	153	46.6	57.9	0.637
Subtotal:		49.9	49.9	709	153	46.6	57.9	0.637
Insignificant Emission Units		PM (tons/yr)	PM-10 (tons/yr)	NOx (tons/yr)	CO (tons/yr)	SO2 (tons/yr)	VOC (tons/yr)	HAPs (tons/yr)
E6	One (1) Paint Spray Booth	0.147	0.147	0.00	0.00	0.00000	1.27	0.588
Diesel Tanks	Two (2) Diesel Storage Tanks	0.00	0.00	0.00	0.00	0.00	0.00300	0.00
PW1 - PW4	Four (4) Parts Washers	0.00	0.00	0.00	0.00	0.00	0.588	0.00
Welding	MIG Welding	0.0422	0.0422	0.000	0.000	0.00	0.00000	0.00
Totals:		50.1	50.1	709	153	46.6	59.8	1.23

The twenty (20) engine test cells have a potential fuel usage of 268 gallons of diesel fuel per hour, total. (c1996) indicates construction during 1996, dates for units may vary

Appendix A: Summary of Limited Emissions After Controls

Company Name: Cummins Engine Company, Inc. - METC Facility
 Address City IN Zip: 1532 East 14th Street, Columbus, IN 47201
 Part 70: T 005-7068
 Pit ID: 005-00069
 Reviewer: Peter E. Fontaine
 Date: October 31, 1996

Point	Source	Potential PM (tons/yr)	Potential PM-10 (tons/yr)	Potential NOx (tons/yr)	Potential CO (tons/yr)	Potential SO2 (tons/yr)	Potential VOC (tons/yr)	Potential HAPs (tons/yr)
Significant Emission Units								
S1 - S20 (c1996)	Twenty (20) engine test cells	17.4	17.4	247.5	53.3	16.3	20.2	0.222
Subtotal:		17.4	17.4	247.5	53.3	16.3	20.2	0.222
Insignificant Emission Units		PM (tons/yr)	PM-10 (tons/yr)	NOx (tons/yr)	CO (tons/yr)	SO2 (tons/yr)	VOC (tons/yr)	HAPs (tons/yr)
E6	One (1) Paint Spray Booth	0.00147	0.00147	0.00	0.00	0.00000	1.27	0.588
Diesel Tanks	Two (2) Diesel Storage Tanks	0.00	0.00	0.00	0.00	0.00	0.00300	0.00
PW1 - PW4	Four (4) Parts Washers	0.00	0.00	0.00	0.00	0.00	0.588	0.00
Welding	MIG Welding	0.0422	0.0422	0.000	0.000	0.00	0.00000	0.00
Totals:		17.4	17.4	247.5	53.3	16.3	22.1	0.810

The twenty (20) engine test cells are limited to 819,536 gallons of diesel fuel per year, total. (c1996) indicates construction during 1996, dates for units may vary

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

**Company Name: Cummins Engine Company, Inc. - METC Facility
Address City IN Zip: 1532 East 14th Street, Columbus, IN 47201
Part 70: T 005-7068
Plt ID: 005-00069
Reviewer: Peter E. Fountaine
Date: October 31, 1996**

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)
Engine Test Cells (c1996)										
S1 through S20	Twenty (20) engine test cells	2347680	#2 Diesel	328675	0.604	709	0.0425	49.9	0.0425	49.9
Total Pollutant (tons/yr):						709		49.9		49.9

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/gallon burned)	Potential VOC (tons/yr)
Engine Test Cells (c1996)										
S1 through S20	Twenty (20) engine test cells	2347680	#2 Diesel	328675	0.130	153	0.0397	46.6	0.0493	57.9
Total Pollutant (tons/yr):						153		46.6		57.9

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)
Engine Test Cells (c1996)												
S1 through S20	Twenty (20) engine test cells	2347680	#2 Diesel	328675	0.000933	0.153	0.000409	0.0672	0.000285	0.0468	0.0000391	0.00643
Total Pollutant (tons/yr):						0.153		0.0672		0.0468		0.00643

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)
Engine Test Cells (c1996)										
S1 through S20	Twenty (20) engine test cells	2347680	#2 Diesel	328675	0.00118	0.194	0.000767	0.126	0.0000925	0.0152
Total Pollutant (tons/yr):						0.194		0.126		0.0152
Total Combined HAPs (tons/yr):						0.609				

Methodology:

The twenty (20) engine test cells have a potential fuel usage of 268 gallons of diesel fuel per hour, total. Criteria Pollutant Emission factors were taken from the FIRE 6.2 Database, SCC# 2-02-001-02. The HAPs emission factors were supplied by Cummins Industrial Center. 1.0 gal. diesel fuel = 0.140 MMBtu (c1996) indicates construction during 1996

**Appendix A: Emission Calculations
Limited Emissions from Engine Test Cells**

**Company Name: Cummins Engine Company, Inc. - METC Facility
Address City IN Zip: 1532 East 14th Street, Columbus, IN 47201
Part 70: T 005-7068
Plt ID: 005-00069
Reviewer: Peter E. Fountaine
Date: October 31, 1996**

Limited Criteria Pollutant Emissions

Point	Source	Limited Fuel Used (gallons/year)	Fuel Type	Limited MMBtu/year	NOx Emission Factor (lbs/gallon burned)	Limited NOx (tons/yr)	PM Emission Factor (lbs/gallon burned)	Limited PM (tons/yr)	PM-10 Emission Factor (lbs/gallon burned)	Limited PM-10 (tons/yr)
Engine Test Cells (c1996)										
S1 through S20	Twenty (20) engine test cells	819536	#2 Diesel	114735	0.604	247.5	0.0425	17.4	0.0425	17.4
Total Pollutant (tons/yr):						247.5		17.4		17.4

Point	Source	Limited Fuel Used (gallons/year)	Fuel Type	Limited MMBtu/year	CO Emission Factor (lbs/gallon burned)	Limited CO (tons/yr)	SO2 Emission Factor (lbs/gallon burned)	Limited SO2 (tons/yr)	VOC Emission Factor (lbs/gallon burned)	Limited VOC (tons/yr)
Engine Test Cells (c1996)										
S1 through S20	Twenty (20) engine test cells	819536	#2 Diesel	114735	0.130	53.3	0.0397	16.3	0.0493	20.2
Total Pollutant (tons/yr):						53.3		16.3		20.2

Limited HAPs Emissions

Point	Source	Limited Fuel Used (gallons/year)	Fuel Type	Potential MMBtu/year	Benzene Emission Factor (lbs/MMBtu)	Limited Benzene (tons/yr)	Toluene Emission Factor (lbs/MMBtu)	Limited Toluene (tons/yr)	Xylene Emission Factor (lbs/MMBtu)	Limited Xylene (tons/yr)	1, 3 Butadiene Emission Factor (lbs/MMBtu)	Limited 1, 3 Butadiene (tons/yr)
Engine Test Cells (c1996)												
S1 through S20	Twenty (20) engine test cells	819536	#2 Diesel	114735	0.000933	0.0535	0.000409	0.0235	0.000285	0.0163	0.0000391	0.00224
Total Pollutant (tons/yr):						0.0535		0.0235		0.0163		0.00224

Point	Source	Limited Fuel Used (gallons/year)	Fuel Type	Potential MMBtu/year	Formaldehyde Emission Factor (lbs/MMBtu)	Limited Formaldehyde (tons/yr)	Acetaldehyde Emission Factor (lbs/MMBtu)	Limited Acetaldehyde (tons/yr)	Acrolien Emission Factor (lbs/MMBtu)	Limited Acrolien (tons/yr)	PAH Emission Factor (lbs/MMBtu)	Limited PAH (tons/yr)
Main Facility Test Cells (c1996)												
S1 through S20	Twenty (20) engine test cells	819536	#2 Diesel	114735	0.00118	0.0677	0.000767	0.0440	0.0000925	0.00531	0.000168	0.00964
Total Pollutant (tons/yr):						0.0677		0.0440		0.00531		0.00964
Total Combined HAPs (tons/yr):						0.222						

Methodology:

The twenty (20) engine test cells are limited to 819,536 gallons of diesel fuel per year, total. Criteria Pollutant Emission factors were taken from the FIRE 6.2 Database, SCC# 2-02-001-02. The HAPs emission factors were supplied by Cummins Industrial Center. 1.0 gal. diesel fuel = 0.140 MMBtu (c1996) indicates construction during 1996

**Appendix A: Emissions Calculations
VOC and Particulate
From Insignificant Surface Coating, Parts Washing and Welding Operations**

**Company Name: Cummins Engine Company, Inc. - METC Facility
Address City IN Zip: 1532 East 14th Street, Columbus, IN 47201
Part 70: T 005-7068
Plt ID: 005-00069
Reviewer: Peter E. Fontaine
Date: October 31, 1996**

Material	Density (lbs/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency
One (1) paint spray booth E6																
Simax Beige Air Dry Enamel	8.10	65.5%	0.0%	65.5%	0.0%	27.0%	0.120	0.200	5.31	5.31	0.127	3.06	0.558	0.147	19.7	50%
Superior Thinner	6.73	100.0%	0.0%	100.0%	0.0%	0.00%	0.120	0.200	6.73	6.73	0.162	3.88	0.707	0.00	n/a	100%
Four (4) parts washers PW1 - PW4																
Solvent	6.44	100.0%	0.0%	100.0%	0.0%	0.00%	0.500	0.0417	6.44	6.44	0.134	3.22	0.588	0.00	n/a	100%
State Potential Emissions										Control Efficiency						
Add worst case coating to all solvents																
											Potential Emissions:	0.423	10.2	1.85	0.147	
											Potential Emissions after controls:	0.423	10.2	1.85	0.00147	

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	Emission Factor (lb. pollutant/lb. electrode) PM = PM10	Potential Emissions		
				(lb/hr)	(lbs/day)	(tons/year)
WELDING Metal Inert Gas (MIG)(ER5154)	2.0	0.200	0.0241	0.00964	0.231	0.0422

Methodology

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lbs/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) * (8760 hrs/yr) * (1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column. Consult AP-42 or other reference for different electrode types.
Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)
Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day
Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/day x 1 ton/2,000 lbs.
Welding and other flame cutting emission factors are from an internal training session document.
See AP-42, Chapter 12.19 for additional emission factors for welding.

**Appendix A: Emission Calculations
HAP Emission Calculations
for Insignificant Surface Coating, Parts Washing, and Welding Operations**

**Company Name: Cummins Engine Company, Inc. - METC Facility
Address City IN Zip: 1532 East 14th Street, Columbus, IN 47201
Part 70: T 005-7068
Plt ID: 005-00069
Reviewer: Peter E. Fontaine
Date: October 31, 1996**

Material	Density (lbs/gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Methanol	Xylene Emissions (tons/yr)	Toluene Emissions (tons/yr)	Methanol Emissions (tons/yr)
One (1) paint spray booth E6									
Simax Beige Air Dry Enamel	8.10	0.120	0.200	26.7%	0.00%	0.00%	0.227	0.00	0.00
Superior Thinner	6.73	0.120	0.200	0.00%	50.0%	1.00%	0.00	0.354	0.00707
Four (4) parts washers PW1 - PW4									
Solvent	6.44	0.500	0.0417	0.00%	0.00%	0.00%	0.00	0.00	0.00
Total State Potential Emissions							0.227	0.354	0.00707

Process	Number of Stations	Max. electrode consumption per station (lbs/hr)	Emission Factors (lb. pollutant/lb. electrode)			Emissions (lbs/hr)				
			Mn	Ni	Cr	Mn	Ni	Cr		
Welding										
Metal Inert Gas (MIG)(ER5154)	2.0	0.200	0.00003	0.00	0.00001	0.0000136	0.000	0.00000400		
						Manganese	Nickel	Chromium	Total HAPs	
						Potential Emissions (lbs/hr):	0.0000136	0.00	0.00000400	0.0000176
						Potential Emissions (lbs/day):	0.000326	0.00	0.0000960	0.000422
						Potential Emissions (tons/year):	0.0000596	0.00	0.0000175	0.0000771

Methodology

HAPS emission rate (tons/yr) = Density (lbs/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column. Consult AP-42 or other reference for different electrode types.

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/day x 1 ton/2,000 lbs.

Welding and other flame cutting emission factors are from an internal training session document.

See AP-42, Chapter 12.19 for additional emission factors for welding.

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/day x 1 ton/2,000 lbs.

Plasma cutting emission factors are from the American Welding Society study published in Sweden (March 1994).

Welding and other flame cutting emission factors are from an internal training session document.

See AP-42, Chapter 12.19 for additional emission factors for welding.