NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT

Preliminary Findings Regarding a Significant Revision to a Federally Enforceable State Operating Permit (FESOP) Renewal for Cummins, Inc. in Bartholomew County

Significant Permit Revision No.: 005-41661-00063

The Indiana Department of Environmental Management (IDEM) has received an application from Cummins, Inc., located at 3540 West 450 South, Columbus, Indiana 47201, for a significant revision of its FESOP Renewal issued on August 2, 2012. If approved by IDEM’s Office of Air Quality (OAQ), this proposed revision would allow Cummins, Inc. to make certain changes at its existing source. Cummins, Inc. has applied to add one (1) new diesel-fired/gasoline-fired engine Chassis Roll Dyne test cell (Cell 14), three (3) new Power Test Stations, and one (1) new natural gas-fired combustion space heater for Cell 14.

The applicant intends to construct and operate new equipment that will emit air pollutants; therefore, the permit contains new or different permit conditions. In addition, some conditions from previously issued permits/approvals have been corrected, changed, or removed. These corrections, changes, and removals may include Title I changes (e.g., changes that add or modify synthetic minor emission limits). The potential to emit regulated air pollutants will continue to be limited to less than the Title V and PSD major threshold levels. IDEM has reviewed this application and has developed preliminary findings, consisting of a draft permit and several supporting documents, which would allow the applicant to make this change.

A copy of the permit application and IDEM’s preliminary findings are available at:

Bartholomew Public Library
536 5th Street
Columbus, IN 47201

and

IDEM Southeast Regional Office
820 West Sweet Street
Brownstown, IN 47220-9557

A copy of the preliminary findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/.

A copy of the preliminary findings is also available via IDEM’s Virtual File Cabinet (VFC). Please go to http://www.in.gov/idem/ and enter VFC in the search box. You will then have the option to search for permit documents using a variety of criteria.

How can you participate in this process?

The date that this notice is posted on IDEM’s website (https://www.in.gov/idem/5474.htm) marks the beginning of a 30-day public comment period. If the 30th day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.
You may request that IDEM hold a public hearing about this draft permit. If adverse comments concerning the air pollution impact of this draft permit are received, with a request for a public hearing, IDEM will decide whether or not to hold a public hearing. IDEM could also decide to hold a public meeting instead of, or in addition to, a public hearing. If a public hearing or meeting is held, IDEM will make a separate announcement of the date, time, and location of that hearing or meeting. At a hearing, you would have an opportunity to submit written comments and make verbal comments. At a meeting, you would have an opportunity to submit written comments, ask questions, and discuss any air pollution concerns with IDEM staff.

Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. If you comment via e-mail, please include your full U.S. mailing address so that you can be added to IDEM’s mailing list to receive notice of future action related to this permit. If you do not want to comment at this time, but would like to receive notice of future action related to this permit application, please contact IDEM at the address below. Please refer to permit number SPR 005-41661-00063 in all correspondence.

Comments should be sent to:

Michaela Hecox
IDEM, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(800) 451-6027, ask for Michaela Hecox or (317) 233-3031
Or dial directly: (317) 233-3031
Fax: (317) 232-6749 attn: Michaela Hecox
E-mail: MHecox@idem.IN.gov

All comments will be considered by IDEM when we make a decision to issue or deny the permit. Comments that are most likely to affect final permit decisions are those based on the rules and laws governing this permitting process (326 IAC 2), air quality issues, and technical issues. IDEM does not have legal authority to regulate zoning, odor, or noise. For such issues, please contact your local officials.

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Air Permits page on the Internet at: http://www.in.gov/idem/airquality/2356.htm; and the Citizens’ Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

What will happen after IDEM makes a decision?

Following the end of the public comment period, IDEM will issue a Notice of Decision stating whether the permit has been issued or denied. If the permit is issued, it may be different than the draft permit because of comments that were received during the public comment period. If comments are received during the public notice period, the final decision will include a document that summarizes the comments and IDEM’s response to those comments. If you have submitted comments or have asked to be added to the mailing list, you will receive a Notice of the Decision. The notice will provide details on how you may appeal IDEM’s decision, if you disagree with that decision. The final decision will also be available on the Internet at the address indicated above, at the local library indicated above, IDEM Southeast Regional Office, and the IDEM public file room on the 12th floor of the Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, Indiana 46204-2251.
If you have any questions, please contact Michaela Hecox of my staff at the above address.

Brian Williams, Section Chief
Permits Branch
Office of Air Quality
Mr. Dan Myers  
Cummins, Inc.  
3540 West 450 South  
Columbus, IN 47201

Re: 005-41661-00063  
Significant Revision to  
F005-31393-00063

Dear Mr. Myers:

Cummins, Inc. was issued a Federally Enforceable State Operating Permit (FESOP) Renewal No. F005-31393-00063, on August 2, 2012, for a stationary diesel engine test facility located at 3540 W 450 S, Columbus, Indiana 47201. On July 12, 2019, the Office of Air Quality (OAQ) received an application from the source requesting to add one (1) new diesel-fired/gasoline-fired engine Chassis Roll Dyne test cell (Cell 14), three (3) new Power Test Stations, and one (1) new natural gas-fired combustion space heater for Cell 14. Pursuant to the provisions of 326 IAC 2-8-11.1, these changes to the permit are required to be reviewed in accordance with the Significant Permit Revision (SPR) procedures of 326 IAC 2-8-11.1(f). Pursuant to the provisions of 326 IAC 2-8-11.1, a Significant Permit Revision to this permit is hereby approved as described in the attached Technical Support Document (TSD).

Pursuant to 326 IAC 2-8-11.1, the following emission units are approved for construction at the source:

(a) One (1) diesel-fired/gasoline-fired engine Chassis Roll Dyne test cell, identified a Cell 14, approved in 2019 for construction, which is a 4-stroke lean-burn engine, using either diesel fuel with compression ignition, or gasoline with spark ignition using lean-premix staged combustion, with a maximum power output capacity of 500 horsepower, and exhausting to stack 14.

(b) Three (3) Power Test Stations, approved in 2019 for construction, where compression ignition diesel engines are placed on skids for testing under hydraulic load, with a maximum power output capacity of up to 700 horsepower, and exhausting to temporary stacks through building windows.

(c) One (1) natural gas-fired space heater for Cell 14, approved in 2019 for construction, with a maximum heat input capacity of 0.8 MMBtu/hr.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this permit revision approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the
rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

**Effective Date of the Permit**

3. Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

**Commenced Construction**

4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the Significant Permit Revision into the permit.

All other conditions of the permit shall remain unchanged and in effect. Please find attached the entire FESOP as revised.

A copy of the permit is available on the Internet at: [http://www.in.gov/ai/appfiles/idem-caats/](http://www.in.gov/ai/appfiles/idem-caats/). A copy of the permit is also available via IDEM’s Virtual File Cabinet (VFC.) Please go to: [http://www.in.gov/idem/](http://www.in.gov/idem/) and enter VFC in the search box. You will then have the option to search for permit documents using a variety of criteria. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Air Permits page on the Internet at: [http://www.in.gov/idem/airquality/2356.htm](http://www.in.gov/idem/airquality/2356.htm); and the Citizens’ Guide to IDEM on the Internet at: [http://www.in.gov/idem/6900.htm](http://www.in.gov/idem/6900.htm).

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5.

If you have any questions regarding this matter, please contact Michaela Hecox, Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251, or by telephone at (317) 233-3031 or (800) 451-6027, and ask for Michaela Hecox or (317) 233-3031.

Sincerely,

Brian Williams, Section Chief
Permits Branch
Office of Air Quality

Attachments: Revised permit and Technical Support Document.

cc: File - Bartholomew County
Bartholomew County Health Department
U.S. EPA, Region 5
Compliance and Enforcement Branch
IDEM Southeast Regional Office
Federally Enforceable State Operating Permit Renewal
OFFICE OF AIR QUALITY

Cummins, Inc.
3540 W 450 S
Columbus, Indiana 47201

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

Operation Permit No.: F005-31393-00063
Master Agency Interest ID.: 14982
Issued by: Original Signed By Nathan C. Bell
Section Chief, Permits Branch Office of Air Quality Issuance Date: August 2, 2012
Expiration Date: August 2, 2022

FESOP SPR No. 005-35339-00063, issued on March 13, 2015

Significant Permit Revision No.: 005-41661-00063
Issued by: Brian Williams
Section Chief, Permits Branch Office of Air Quality
Issuance Date: 
Expiration Date: August 2, 2022

An Equal Opportunity Employer

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SECTION A

SOURCE SUMMARY

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

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary diesel engine test facility.

| Source Address:                        | 3540 W 450 S, Columbus, Indiana 47201 |
| General Source Phone Number:           | 812-377-5000                             |
| SIC Code:                              | 8734 (Testing Laboratories)              |
| County Location:                       | Bartholomew                              |
| Source Location Status:                | Attainment for all criteria pollutants   |
| Source Status:                         | Federally Enforceable State Operating Permit Program |
|                                       | Minor Source, under PSD and Emission Offset Rules |
|                                       | Minor Source, Section 112 of the Clean Air Act |
|                                       | Not 1 of 28 Source Categories            |

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

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

(a) Fourteen (14) engine test cells, including:

(1) One (1) performance diesel-fired engine test cell, identified as cell 1, constructed in 1995, which is a 4-stroke lean-burn compression ignition engine, using lean-premix staged combustion, with a maximum power output capacity of 440 horsepower, and exhausting to stack 1.

(2) One (1) performance diesel-fired engine test cell, identified as cell 2, constructed in 1995, which is a 4-stroke lean-burn compression ignition engine, using lean-premix staged combustion, with a maximum power output capacity of 550 horsepower, and exhausting to stack 2.

(3) Two (2) performance diesel-fired engine test cells, identified as cells 3 and 4, constructed in 1995 and modified in 2002, which are 4-stroke lean-burn compression ignition engines, using lean-premix staged combustion, each with a maximum power output capacity of 600 horsepower, and exhausting to stacks 3 and 4, respectively.

(4) Three (3) standard diesel-fired engine test cells, identified as cells 5 through 7, constructed in 1995, which are 4-stroke lean-burn compression ignition engines, using lean-premix staged combustion, each with a maximum power output capacity of 600 horsepower, and exhausting to stacks 5 through 7, respectively.

(5) One (1) standard diesel-fired engine test cell, identified as cells 8, constructed in 1995, which is a 4-stroke lean-burn compression ignition engine, using lean-premix staged combustion, with a maximum power output capacity of 440 horsepower, and exhausting to stack 8.
(6) Three (3) rig room test cells, identified as 31, 32, and 33, constructed in 1995, which are 4-stroke lean-burn compression ignition engines, using lean-premix staged combustion, each with a maximum power output capacity of 400 horsepower, and exhausting to stacks 31, 32, and 33, respectively.

(7) One (1) cold test cell, identified as cell 41, constructed in 1995, which is a 4-stroke lean-burn compression ignition engine, using lean-premix staged combustion, with a maximum power output capacity of 400 horsepower, and exhausting to stack 41.

(8) One (1) diesel-fired Chassis Roll Dyne test cell, identified as Cell 13, approved in 2015 for construction, testing 4-stroke lean-burn diesel-fired compression ignition engines, using lean-premix staged combustion, with a maximum power output capacity of 460 horsepower, and exhausting to stack 13.

(9) One (1) diesel-fired/gasoline-fired engine Chassis Roll Dyne test cell, identified as Cell 14, approved in 2019 for construction, which is a 4-stroke lean-burn engine, using either diesel fuel with compression ignition, or gasoline with spark ignition using lean-premix staged combustion, with a maximum power output capacity of 500 horsepower, and exhausting to stack 14.

(b) Three (3) Power Test Stations, approved in 2019 for construction, where compression ignition diesel engines are placed on skids for testing under hydraulic load, with a maximum power output capacity of up to 700 horsepower, and exhausting to temporary stacks through building windows.

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

This stationary source also includes the following insignificant activities:

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:

(1) One (1) natural gas-fired boiler, using No. 2 fuel oil as back-up, identified as boiler B-1, constructed in 1995, with a maximum heat input capacity of 7.4 MMBtu/hr, and exhausting to Stack S.

(2) One (1) natural gas-fired boiler, identified as boiler B-2, constructed in 2000, with a maximum heat input capacity of 0.84 MMBtu/hr, and exhausting to Stack T.

(3) One (1) forced draft natural gas-fired hot water heater (for a pressure washer), identified as Hotsy H-1, constructed in 2011, with a maximum heat input capacity of 0.36 MMBtu/hr.

(4) Natural gas-fired space heaters for Cell 13 permitted in 2015, with a maximum heat input capacity of 0.80 million Btu per hour (MMBtu/hr).

(5) One (1) natural gas-fired space heater for Cell 14, approved in 2019 for construction, with a maximum heat input capacity of 0.8 MMBtu/hr.

(b) Five (5) diesel storage tanks, each constructed in 1995, including: two (2) 10,000 gallon tanks, two (2) 1,000 gallon tanks, and one (1) 500 gallon tank.

(c) Other emission units, not regulated by a NESHAP, with PM10, NOx, and SO2 emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour.
or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) tons per year of any combination of HAPs. Engines tested here are idled and carry no load.

(d) Welding operations: two (2) Arc welding, one (1) MIG welding, and one (1) Acetylene which do not result in HAP emissions.

(e) One (1) bead blaster, identified as BB-1, with particulate emissions controlled by dust collector, with a design outlet grain loading of less than or equal to three one-hundredths grains per actual cubic foot (0.03 gr/acf) and a gas flow rate less than or equal to 800 actual cubic feet per minute (acf/min).

(f) Two (2) thirty (30) gallon parts cleaners, with a maximum capacity less than 145 gallons per twelve months, except if subject to 326 IAC 20-6.

(g) Paved and unpaved roads and parking lots with public access.

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

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

B.1 Definitions [326 IAC 2-8-1]
Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]
(a) This permit, F005-31393-00063, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

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

B.3 Term of Conditions [326 IAC 2-1.1-9.5]
Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-8-6] [IC 13-17-12]
Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability [326 IAC 2-8-4(4)]
The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]
This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]
(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.
B.8 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

(a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:

1. it contains a certification by an "authorized individual", as defined by 326 IAC 2-1.1-1(1), and

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

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

(c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

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

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

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

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

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

1. The appropriate identification of each term or condition of this permit that is the basis of the certification;

2. The compliance status;

3. Whether compliance was continuous or intermittent;

4. The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and

5. Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]

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

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

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

1. Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

2. A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

3. Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

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

1. Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

2. A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

3. Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

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

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The
PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, or Southeast Regional Office and Southwest Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

    Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
    Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
    Facsimile Number: 317-233-6865
    Southeast Regional Office phone: (812) 358-2027; fax (812) 358-2058,
    Southwest Regional Office phone: (812) 380-2305; fax: (812) 380-2304.

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

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

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

    The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:
(A) A description of the emergency;
(B) Any steps taken to mitigate the emissions; and
(C) Corrective actions taken.

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

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.
B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to F005-31393-00063 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(3) deleted.

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

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

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

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

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

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]
B.16 Permit Renewal [326 IAC 2-8-3(h)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(42). The renewal application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

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

(1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

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

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

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

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

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

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

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

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]
B.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

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

1. The changes are not modifications under any provision of Title I of the Clean Air Act;
2. Any approval required by 326 IAC 2-8-11.1 has been obtained;
3. The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
4. The Permittee notifies the:
   Indiana Department of Environmental Management
   Permit Administration and Support Section, Office of Air Quality
   100 North Senate Avenue
   MC 61-53 IGCN 1003
   Indianapolis, Indiana 46204-2251

   and

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

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

5. The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b)(1) and (c). The Permittee shall make such records available, upon reasonable request, for public review.

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

(b) Emission Trades [326 IAC 2-8-15(b)]

The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(b).

(c) Alternative Operating Scenarios [326 IAC 2-8-15(c)]

The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.

(d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.
B.19 Source Modification Requirement [326 IAC 2-8-11.1]

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

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

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

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

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

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

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

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

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

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

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

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

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

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]
B.22 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

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

(b) Failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

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

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

Entire Source

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

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

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

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

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

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

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

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

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

C.3 Opacity [326 IAC 5-1]

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

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

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

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

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

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

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

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

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

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

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

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

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

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

(a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.
Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

C.10 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

(a) For new units:
   Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.

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

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

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

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

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

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale. The analog instrument shall be capable of measuring values outside of the normal range.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

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

C.12 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.
C.13 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

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

(a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to normal or usual manner of operation.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall record the reasonable response steps taken.

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.

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

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.15 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following, where applicable:

- (AA) All calibration and maintenance records.
- (BB) All original strip chart recordings for continuous monitoring instrumentation.
- (CC) Copies of all reports required by the FESOP.

Records of required monitoring information include the following, where applicable:

- (AA) The date, place, as defined in this permit, and time of sampling or measurements.
- (BB) The dates analyses were performed.
- (CC) The company or entity that performed the analyses.
- (DD) The analytical techniques or methods used.
- (EE) The results of such analyses.
- (FF) The operating conditions as existing at the time of sampling or measurement.

These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.16 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(b) The address for report submittal is:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

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

Stratospheric Ozone Protection

C.17 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with applicable standards for recycling and emissions reduction.
SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) Fourteen (14) engine test cells, including:

(1) One (1) performance diesel-fired engine test cell, identified as cell 1, constructed in 1995, which is a 4-stroke lean-burn compression ignition engine, using lean-premix staged combustion, with a maximum power output capacity of 440 horsepower, and exhausting to stack 1.

(2) One (1) performance diesel-fired engine test cell, identified as cell 2, constructed in 1995, which is a 4-stroke lean-burn compression ignition engine, using lean-premix staged combustion, with a maximum power output capacity of 550 horsepower, and exhausting to stack 2.

(3) Two (2) performance diesel-fired engine test cells, identified as cells 3 and 4, constructed in 1995 and modified in 2002, which are 4-stroke lean-burn compression ignition engines, using lean-premix staged combustion, each with a maximum power output capacity of 600 horsepower, and exhausting to stacks 3 and 4, respectively.

(4) Three (3) standard diesel-fired engine test cells, identified as cells 5 through 7, constructed in 1995, which are 4-stroke lean-burn compression ignition engines, using lean-premix staged combustion, each with a maximum power output capacity of 600 horsepower, and exhausting to stacks 5 through 7, respectively.

(5) One (1) standard diesel-fired engine test cell, identified as cells 8, constructed in 1995, which is a 4-stroke lean-burn compression ignition engine, using lean-premix staged combustion, with a maximum power output capacity of 440 horsepower, and exhausting to stack 8.

(6) Three (3) rig room test cells, identified as 31, 32, and 33, constructed in 1995, which are 4-stroke lean-burn compression ignition engines, using lean-premix staged combustion, each with a maximum power output capacity of 400 horsepower, and exhausting to stacks 31, 32, and 33, respectively.

(7) One (1) cold test cell, identified as cell 41, constructed in 1995, which is a 4-stroke lean-burn compression ignition engine, using lean-premix staged combustion, with a maximum power output capacity of 400 horsepower, and exhausting to stack 41.

(8) One (1) diesel-fired Chassis Roll Dyne test cell, identified as Cell 13, approved in 2015 for construction, testing 4-stroke lean-burn diesel-fired compression ignition engines, using lean-premix staged combustion, with a maximum power output capacity of 460 horsepower, and exhausting to stack 13.

(9) One (1) diesel-fired/gasoline-fired engine Chassis Roll Dyne test cell, identified a Cell 14, approved in 2019 for construction, which is a 4-stroke lean-burn engine, using either diesel fuel with compression ignition, or gasoline with spark ignition using lean-premix staged combustion, with a maximum power output capacity of 500 horsepower, and exhausting to stack 14.

(b) Three (3) Power Test Stations, approved in 2019 for construction, where compression ignition diesel engines are placed on skids for testing under hydraulic load, with a maximum power output capacity of up to 700 horsepower, and exhausting to temporary stacks through building windows.
**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

**D.1.1 FESOP and PSD Minor Limitations [326 IAC 2-8] [326 IAC 2-2]**

Pursuant to 326 IAC 2-8-4, and in order to render 326 IAC 2-2 not applicable, the Permittee shall comply with the following:

(a) The total NOx emissions from all the engine test cells and power test stations shall not exceed 93 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The total VOC emissions from all the engine test cells and power test stations shall not exceed 98 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(c) The total CO emissions from all the engine test cells and power test stations shall not exceed 95 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits, combined with the potential to emit NOx, VOC, and CO from all other emission units at this source, shall limit the source-wide total potential to emit of NOx, VOC, and CO to less than one hundred (100) tons per twelve (12) consecutive month period, each, and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

**D.1.2 VOC BACT Avoidance Limitations [326 IAC 8-1-6]**

In order to render the requirements of 326 IAC 8-1-6 (VOC BACT) not applicable, the Permittee shall comply with the following:

(a) VOC emissions from the one (1) diesel-fired/gasoline-fired Engine Chassis Roll dyne test cell (Test Cell 14) shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits will render the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) not applicable to the one (1) diesel-fired/gasoline-fired Engine Chassis Roll dyne test cell (Test Cell 14).

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

A Preventive Maintenance Plan is required for these facilities and their control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

**Compliance Determination Requirements [326 IAC 2-8-4(1)]**

**D.1.4 NOx, VOC, and CO Emission Compliance Determination Calculation**

(a) In order to demonstrate compliance with Conditions D.1.1, the following calculations shall be used to determine the NOx, VOC, and CO emissions:

\[
\text{NOx Emissions} = \frac{[\text{TCD} \times \text{TCDef} + \text{TCG} \times \text{TCGef} + \text{PTSD} \times \text{PTSDef}]}{2000} \text{ (lb/ton)}
\]

\[
\text{VOC Emissions} = \frac{[\text{TCD} \times \text{TCDef} + \text{TCG} \times \text{TCGef} + \text{PTSD} \times \text{PTSDef}]}{2000} \text{ (lb/ton)}
\]
CO Emissions = [(TCD*TCDef) + (TCG*TCGef) + (PTSD*PTSDef)] x 1/2000 (lb/ton)

Where:

- **TCD** = Test Cell Diesel usage over the period (MMBtu/month)
- **TCDNOx EF** = NOx emission factor for diesel for test cells
- **TCDVOC EF** = VOC emission factor for diesel for test cells
- **TCDCO EF** = CO emission factor for diesel for test cells
- **TCG** = Test Cell Gasoline usage over the period (MMBtu/month)
- **TCGNOx EF** = NOx emission factor for gasoline for test cells
- **TCGVOC EF** = VOC emission factor for gasoline for test cells
- **TCGCO EF** = CO emission factor for gasoline for test cells
- **PTSD** = Power Test Station Diesel usage over the period (MMBtu/month)
- **PTSDNOx EF** = NOx emission factor for diesel for power test stations
- **PTSDVOC EF** = VOC emission factor for diesel for power test stations
- **PTSDCO EF** = CO emission factor for diesel for power test stations

(b) In order to demonstrate compliance with Condition D.1.2, the following calculation shall be used to determine the VOC emissions from the one (1) diesel-fired/gasoline-fired Engine Chassis Roll dyne test cell (Test Cell 14):

VOC Emissions = [(TCD*TCDef) + (TCG*TCGef)] x 1/2000 (lb/ton)

Where:

- **TCD** = Test Cell Diesel usage over the period (MMBtu/month)
- **TCDVOC EF** = VOC emission factor for diesel for test cell
- **TCG** = Test Cell Gasoline usage over the period (MMBtu/month)
- **TCGVOC EF** = VOC emission factor for gasoline for test cell

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

D.1.5 Visible Emissions Notations

(a) Daily visible emission notations of the fourteen (14) engine test cells and the three (3) power test stations stack exhaust and shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take a reasonable response. Section C – Response to Excursions and Exceedances contains the Permittee’s obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.
Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.1.6 Record Keeping Requirement

(a) To document compliance with Condition D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken as stated below and shall be complete and sufficient to establish compliance with the NOx, VOC, and CO emission limits established in D.1.1 and D.1.2.

   (1) Fuel usage and dates used for the compliance determination calculations.

   (2) Calendar dates covered in the compliance determination period; and

   (3) Actual monthly diesel and gasoline usage for the fourteen (14) engine test cells and the three (3) power test stations.

   (4) Calculated NOx, VOC, and CO emissions for each month and compliance period.

(b) To document the compliance status with Condition D.1.5, the Permittee shall maintain a daily record of visible emission notations of each of the engine test cells and power test stations stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the process did not operate that day).

(c) Section C - General Record Keeping Requirements contains the Permittee’s obligations with regard to the records required by this condition.

D.1.7 Reporting Requirements

A quarterly report of NOx, VOC, and CO emissions and a quarterly summary of the information to document the compliance status with D.1.1 and D.1.2 shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee’s obligations with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an “authorized individual” as defined by 326 IAC 2-1.1-1(1).
SECTION D.2  EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Insignificant Activities

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:

(1) One (1) natural gas-fired boiler, using No. 2 fuel oil as back-up, identified as boiler B-1, constructed in 1995, with a maximum heat input capacity of 7.4 MMBtu/hr, and exhausting to Stack S.

(2) One (1) natural gas-fired boiler, identified as boiler B-2, constructed in 2000, with a maximum heat input capacity of 0.84 MMBtu/hr, and exhausting to Stack T.

(3) One (1) forced draft natural gas-fired hot water heater (for a pressure washer), identified as Hotsy H-1, constructed in 2011, with a maximum heat input capacity of 0.36 MMBtu/hr.

(4) Natural gas-fired space heaters for Cell 13 permitted in 2015, with a maximum heat input capacity of 0.80 million Btu per hour (MMBtu/hr).

(5) One (1) natural gas-fired space heater for Cell 14, approved in 2019 for construction, with a maximum heat input capacity of 0.8 MMBtu/hr.

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

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

D.2.1 Particulate [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), the PM emissions from the following units shall be limited to Pt pounds per MMBtu heat input, as follows:

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Unit ID</th>
<th>Pt (lb/MMBtu)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiler</td>
<td>B-1</td>
<td>0.6</td>
</tr>
<tr>
<td>Boiler</td>
<td>B-2</td>
<td>0.6</td>
</tr>
<tr>
<td>Hotsy</td>
<td>H-1</td>
<td>0.6</td>
</tr>
<tr>
<td>Space heater</td>
<td>Cell 13</td>
<td>0.6</td>
</tr>
<tr>
<td>Space heater</td>
<td>Cell 14</td>
<td>0.59</td>
</tr>
</tbody>
</table>
SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Insignificant Activities

(f) Two (2) thirty (30) gallon parts cleaners, with a maximum capacity less than 145 gallons per twelve months.

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

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

D.3.1 Cold Cleaner Degreaser Control Equipment and Operating Requirements [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Control and Equipment Operating Requirements), the Permittee shall:

(a) Ensure the following control equipment and operating requirements are met:

   (1) Equip the degreaser with a cover.
   (2) Equip the degreaser with a device for draining cleaned parts.
   (3) Close the degreaser cover whenever parts are not being handled in the degreaser.
   (4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
   (5) Provide a permanent, conspicuous label that lists the operating requirements in subdivisions (3), (4), (6), and (7).
   (6) Store waste solvent only in closed containers.
   (7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

(b) Ensure the following additional control equipment and operating requirements are met:

   (1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):

      (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
      (B) A water cover when solvent used is insoluble in, and heavier than, water.
      (C) A refrigerated chiller.
      (D) Carbon adsorption.
      (E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.
(2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.

(3) If used, solvent spray:
   (A) must be a solid, fluid stream; and
   (B) shall be applied at a pressure that does not cause excessive splashing.

D.3.2 Material Requirements for Cold Cleaner Degreasers [326 IAC 8-3-8]

Pursuant to 326 IAC 8-3-8 (Material Requirements for Cold Cleaner Degreasers), the Permittee shall not operate a cold cleaning degreaser with a solvent that has a VOC composite partial vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

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

D.3.3 Record Keeping Requirements [326 IAC 8-3-8]

To document the compliance status with Condition D.3.2, the Permittee shall maintain the following records for each purchase of solvent used in the cold cleaner degreasing operations. These records shall be retained on-site or accessible electronically for the most recent three (3) year period and shall be reasonably accessible for an additional two (2) year period.

(a) The name and address of the solvent supplier.

(b) The date of purchase.

(c) The type of solvent purchased.

(d) The total volume of the solvent purchased.

(e) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

Section C - General Record Keeping Requirements contains the Permittee’s obligation with regard to the records required by this condition.
SECTION D.4  EMISSIONS UNIT OPERATION CONDITIONS

**Emissions Unit Description:**

Insignificant Activities

(e) One (1) bead blaster, identified as BB-1, with particulate emissions controlled by dust collector, with a design outlet grain loading of less than or equal to three one-hundredths grains per actual cubic foot (0.03 gr/acf) and a gas flow rate less than or equal to 800 actual cubic feet per minute (acf/min).

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

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

D.4.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e), the allowable particulate emission rate from the bead blaster, identified as BB-1, shall be not exceed 0.949 pounds per hour when operating at process weight rate of 225 pounds per hour (135 lb/hr of blast media + 90 lb/hr of parts blasted).

**Compliance Determination Requirements**

D.4.2 Particulate Control

In order to comply with Condition D.4.1, the dust collector shall be in operation and control particulate emissions from the bead blaster at all times that the bead blaster is in operation.
INdiana Department of Environmental Management
Office of Air Quality
Compliance and Enforcement Branch

Federally Enforceable State Operating Permit (FESOP) Certification

Source Name: Cummins, Inc.
Source Address: 3540 W 450 S, Columbus, Indiana 47201
FESOP Permit No.: F005-31393-00063

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

Please check what document is being certified:

☐ Annual Compliance Certification Letter
☐ Test Result (specify)_____________________________________________________
☐ Report (specify)________________________________________________________
☐ Notification (specify)___________________________________________________
☐ Affidavit (specify)______________________________________________________
☐ Other (specify)________________________________________________________

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

Signature:______________________________________________________________
Printed Name:__________________________________________________________
Title/Position:__________________________________________________________
Date:__________________________
**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)**

**EMERGENCY OCCURRENCE REPORT**

Source Name: Cummins, Inc.
Source Address: 3540 W 450 S, Columbus, Indiana 47201
FESOP Permit No.: F005-31393-00063

<table>
<thead>
<tr>
<th>This form consists of 2 pages</th>
<th>Page 1 of 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ This is an emergency as defined in 326 IAC 2-7-1(12)</td>
<td></td>
</tr>
<tr>
<td>• The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and</td>
<td></td>
</tr>
<tr>
<td>• The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16</td>
<td></td>
</tr>
</tbody>
</table>

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

| Facility/Equipment/Operation: |
| Control Equipment: |
| Permit Condition or Operation Limitation in Permit: |
| Description of the Emergency: |
| Describe the cause of the Emergency: |
If any of the following are not applicable, mark N/A

<table>
<thead>
<tr>
<th>Date/Time Emergency started:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date/Time Emergency was corrected:</td>
</tr>
<tr>
<td>Was the facility being properly operated at the time of the emergency? Y N</td>
</tr>
<tr>
<td>Describe:</td>
</tr>
<tr>
<td>Type of Pollutants Emitted: TSP, PM-10, SO₂, VOC, NOₓ, CO, Pb, other:</td>
</tr>
<tr>
<td>Estimated amount of pollutant(s) emitted during emergency:</td>
</tr>
<tr>
<td>Describe the steps taken to mitigate the problem:</td>
</tr>
<tr>
<td>Describe the corrective actions/response steps taken:</td>
</tr>
<tr>
<td>Describe the measures taken to minimize emissions:</td>
</tr>
<tr>
<td>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:</td>
</tr>
</tbody>
</table>

Form Completed by:______________________________
Title / Position:______________________________
Date:_______________________________________
Phone:_______________________________________
# FESOP Quarterly Report

**Source Name:** Cummins, Inc.  
**Source Address:** 3540 W 450 S, Columbus, Indiana 47201  
**FESOP Permit No.:** F005-31393-00063  
**Facility:** Fourteen (14) engine test cells and three (3) power test stations  
**Parameter:** NOx Emissions  
**Limit:** Shall not exceed 93 tons per twelve (12) consecutive month period

<table>
<thead>
<tr>
<th>QUARTER: _________</th>
<th>YEAR: ___________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month</td>
<td>Column 1</td>
</tr>
<tr>
<td></td>
<td>This Month</td>
</tr>
</tbody>
</table>

☐ No deviation occurred in this quarter.  
☐ Deviation/s occurred in this quarter.  
Deviation has been reported on: ________________

Submitted by: ___________________________________________________

Title / Position: ___________________________________________________

Signature: _______________________________________________________

Date: ___________________________________________________________

Phone: ___________________________________________________________
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FESOP Quarterly Report

Source Name: Cummins, Inc.
Source Address: 3540 W 450 S, Columbus, Indiana 47201
FESOP Permit No.: F005-31393-00063
Facility: Fourteen (14) engine test cells and three (3) power test stations
Parameter: VOC Emissions
Limit: Shall not exceed 98 tons per twelve (12) consecutive month period

<table>
<thead>
<tr>
<th>QUARTER: _________</th>
<th>YEAR: _____________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month</td>
<td>Column 1</td>
</tr>
<tr>
<td></td>
<td>This Month</td>
</tr>
<tr>
<td>This Month</td>
<td>Previous 11 Months</td>
</tr>
</tbody>
</table>

☐ No deviation occurred in this quarter.
☐ Deviation/s occurred in this quarter.
Deviation has been reported on: ________________

Submitted by: _____________________________________________________
Title / Position: ____________________________________________________
Signature: ________________________________________________________
Date: ____________________
Phone: ____________________
Indiana Department of Environmental Management
Office of Air Quality
Compliance and Enforcement Branch

FESOP Quarterly Report

Source Name: Cummins, Inc.
Source Address: 3540 W 450 S, Columbus, Indiana 47201
FESOP Permit No.: F005-31393-00063
Facility: Fourteen (14) engine test cells and three (3) power test stations
Parameter: CO Emissions
Limit: Shall not exceed 95 tons per twelve (12) consecutive month period

<table>
<thead>
<tr>
<th>QUARTER: _________</th>
<th>YEAR: ______________</th>
</tr>
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<tr>
<td>Month</td>
<td>Column 1</td>
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</tbody>
</table>

☐ No deviation occurred in this quarter.
☐ Deviation/s occurred in this quarter.

Deviation has been reported on: ___________________

Submitted by: _____________________________________________________

Title / Position: ____________________________________________________

Signature: _________________________________________________________

Date: ____________________________________________________________

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

**FESOP Quarterly Report**

Source Name: Cummins, Inc.  
Source Address: 3540 W 450 S, Columbus, Indiana 47201  
FESOP Permit No.: F005-31393-00063  
Facility: One (1) diesel fired/gasoline-fired Engine Chassis Roll dyne test cell (Test Cell 14)  
Parameter: VOC Emissions  
Limit: Shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period

<table>
<thead>
<tr>
<th>QUARTER: ___________</th>
<th>YEAR: _____________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month</td>
<td>Column 1</td>
</tr>
<tr>
<td>This Month</td>
<td>Previous 11 Months</td>
</tr>
</tbody>
</table>

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

Submitted by: ____________________________________________________
Title / Position: ____________________________________________________
Signature: ________________________________________________________
Date: ____________________________________________________________
Phone: ___________________________________________________________
This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C- General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

<table>
<thead>
<tr>
<th>Permit Requirement (specify permit condition #)</th>
<th>Date of Deviation</th>
<th>Duration of Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Deviations:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Probable Cause of Deviation:</td>
<td></td>
<td></td>
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<tr>
<td>Response Steps Taken:</td>
<td></td>
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</tbody>
</table>

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<td>Response Steps Taken:</td>
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<td>Permit Requirement (specify permit condition #)</td>
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<tr>
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<td><strong>Probable Cause of Deviation:</strong></td>
<td></td>
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<tr>
<td><strong>Response Steps Taken:</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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<th>Permit Requirement (specify permit condition #)</th>
</tr>
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<tr>
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</tr>
<tr>
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<tr>
<td><strong>Probable Cause of Deviation:</strong></td>
</tr>
<tr>
<td><strong>Response Steps Taken:</strong></td>
</tr>
</tbody>
</table>

Form Completed by: _______________________________________________________

Title / Position: ___________________________________________________________

Date: ___________________________________________________________________

Phone: _________________________________________________________________
Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Significant Permit Revision to a Federally Enforceable State Operating Permit (FESOP) Renewal

Source Description and Location

| Source Name: | Cummins, Inc. |
| Source Location: | 3540 West 450 South, Columbus, IN 47201 |
| County: | Bartholomew |
| SIC Code: | 8734 (Testing Laboratories) |
| Operation Permit No.: | F 005-31393-00063 |
| Operation Permit Issuance Date: | August 2, 2012 |
| Significant Permit Revision No.: | 005-41661-00063 |
| Permit Reviewer: | Michaela Hecox |

Existing Approvals

The source was issued FESOP Renewal No. 005-31393-00063 on August 2, 2012. The source has since received the following approval:

(a) FESOP SPR No. 005-35339-00063, issued on March 13, 2015

County Attainment Status

The source is located in Bartholomew County.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO₂</td>
<td>Better than national standards.</td>
</tr>
<tr>
<td>CO</td>
<td>Unclassifiable or attainment effective November 15, 1990.</td>
</tr>
<tr>
<td>O₃</td>
<td>Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard.¹</td>
</tr>
<tr>
<td>PM₁₀</td>
<td>Unclassifiable effective November 15, 1990.</td>
</tr>
<tr>
<td>PM₂.₅</td>
<td>Unclassifiable or attainment effective April 5, 2005, for the annual PM₂.₅ standard.</td>
</tr>
<tr>
<td>PM₂.₅</td>
<td>Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM₂.₅ standard.</td>
</tr>
<tr>
<td>NO₂</td>
<td>Cannot be classified or better than national standards.</td>
</tr>
<tr>
<td>Pb</td>
<td>Unclassifiable or attainment effective December 31, 2011.</td>
</tr>
</tbody>
</table>

¹Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NOₓ) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOₓ emissions are considered when evaluating the rule applicability relating to ozone. Bartholomew County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOₓ emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) PM₂.₅
Bartholomew County has been classified as attainment for PM₂.₅. Therefore, direct PM₂.₅, SO₂, and NOₓ emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
(c) Other Criteria Pollutants
   Bartholomew County has been classified as attainment or unclassifiable in Indiana for all the
   other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements
   for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

Since this type of operation is not one (1) of the twenty-eight (28) listed source categories under 326 IAC
2-2-1(ff)(1), 326 IAC 2-3-2(g), or 326 IAC 2-7-1(22)(B), and there is no applicable New Source
Performance Standard or National Emission Standard for Hazardous Air Pollutants that was in effect on
August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset,
and Part 70 Permit applicability.

The fugitive emissions of hazardous air pollutants (HAP) are counted toward the determination of Part 70
Permit applicability and source status under Section 112 of the Clean Air Act (CAA).

Greenhouse Gas (GHG) Emissions

http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf) the United States Supreme Court ruled
that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for
the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014,
the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting
decisions in light of the Supreme Court’s decision. U.S. EPA’s guidance states that U.S. EPA will no
longer require PSD or Title V permits for sources “previously classified as ‘Major’ based solely on
greenhouse gas emissions.”

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC
2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted
under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is
invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHG
emissions to determine operating permit applicability or PSD applicability to a source or modification.

Source Status - Existing Source

The table below summarizes the potential to emit of the entire source, prior to the proposed revision, after
consideration of all enforceable limits established in the effective permits. If the control equipment has
been determined to be integral, the table reflects the potential to emit (PTE) after consideration of the
integral control device.

<table>
<thead>
<tr>
<th>Source-Wide Emissions Prior to Revision (ton/year)</th>
<th>PM¹</th>
<th>PM₁₀¹</th>
<th>PM₂.₅¹,₂</th>
<th>SO₂</th>
<th>NOₓ</th>
<th>VOC</th>
<th>CO</th>
<th>Total HAPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total PTE of Entire Source Excluding Fugitives*</td>
<td>68.25</td>
<td>66.61</td>
<td>66.56</td>
<td>59.35</td>
<td>94.78</td>
<td>72.37</td>
<td>22.69</td>
<td>0.76</td>
</tr>
</tbody>
</table>
Cummins, Inc.
Columbus, Indiana
Columbus, Indiana TSD for FESOP SPR No. 005-41661-00063
Permit Reviewer: Michaela Hecox

Source-Wide Emissions Prior to Revision (ton/year)

<table>
<thead>
<tr>
<th>Source Type</th>
<th>PM^1</th>
<th>PM_{10}^1</th>
<th>PM_{2.5}^{1,2}</th>
<th>SO_{2}</th>
<th>NO_{x}</th>
<th>VOC</th>
<th>CO</th>
<th>Total HAPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title V Major Source</td>
<td>NA</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>25</td>
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<tr>
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<td></td>
</tr>
<tr>
<td>PSD Major Source</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emission Offset Major</td>
<td>---</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
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<td>NA</td>
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<tr>
<td>Source Thresholds</td>
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<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

1Under the Part 70 Permit program (40 CFR 70), PM_{10} and PM_{2.5}, not particulate matter (PM), are each considered as a "regulated air pollutant."

2PM_{2.5} listed is direct PM_{2.5}.

*Fugitive HAP emissions are always included in the source-wide emissions.

(a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no PSD regulated pollutant is emitted at a rate of two hundred fifty (250) tons per year or more and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).

(b) This existing source is not a major source of HAP, as defined in 40 CFR 63.2, because HAP emissions are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs.

(c) These emissions are based on the TSD of FESOP SPR No. 005-35339-00063, issued on March 13, 2015.

Description of Proposed Revision

The Office of Air Quality (OAQ) has reviewed an application, submitted by Cummins, Inc. on July 12, 2019, relating to the addition of one (1) new diesel-fired/gasoline-fired engine Chassis Roll Dyne test cell (Cell 14), three (3) new Power Test Stations, and one (1) new natural gas-fired combustion space heater for Cell 14.

The following is a list of the new emission units:

(a) One (1) diesel-fired/gasoline-fired engine Chassis Roll Dyne test cell, identified a Cell 14, approved in 2019 for construction, which is a 4-stroke lean-burn engine, using either diesel fuel with compression ignition, or gasoline with spark ignition using lean-premix staged combustion, with a maximum power output capacity of 500 horsepower, and exhausting to stack 14.

(b) Three (3) Power Test Stations, approved in 2019 for construction, where compression ignition diesel engines are placed on skids for testing under hydraulic load, with a maximum power output capacity of up to 700 horsepower, and exhausting to temporary stacks through building windows.

(c) One (1) natural gas-fired space heater for Cell 14, approved in 2019 for construction, with a maximum heat input capacity of 0.8 MMBtu/hr.

Enforcement Issues

There are no pending enforcement actions related to this revision.

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.
Permit Level Determination – FESOP Significant Permit Revision

Pursuant to 326 IAC 2-1.1-1(12), Potential to Emit is defined as “the maximum capacity of a stationary source or emission unit 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, IDEM, or the appropriate local air pollution control agency.”

The following table is used to determine the appropriate permit level under 326 IAC 2-8-11.1 (Permit Revisions). This table reflects the PTE before controls of the proposed revision. If the control equipment has been determined to be integral, the table reflects the potential to emit (PTE) after consideration of the integral control device.

<table>
<thead>
<tr>
<th>Process / Emission Unit</th>
<th>PM</th>
<th>PM\textsubscript{10}</th>
<th>PM\textsubscript{2.5}\textsuperscript{1}</th>
<th>SO\textsubscript{2}</th>
<th>NO\textsubscript{X}</th>
<th>VOC</th>
<th>CO</th>
<th>Single HAP\textsuperscript{2}</th>
<th>Total HAPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Cell 14: Diesel or Gasoline Combustion\textsuperscript{3}</td>
<td>4.75</td>
<td>4.75</td>
<td>4.75</td>
<td>4.45</td>
<td>67.61</td>
<td>46.45</td>
<td>15.18</td>
<td>4.36</td>
<td>18.59</td>
</tr>
<tr>
<td>Cell 14 Space Heater</td>
<td>0.01</td>
<td>0.03</td>
<td>0.03</td>
<td>2.06E-03</td>
<td>0.34</td>
<td>0.02</td>
<td>0.29</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Power Test Stations 1, 2, &amp; 3</td>
<td>19.96</td>
<td>19.96</td>
<td>19.96</td>
<td>18.67</td>
<td>283.94</td>
<td>23.18</td>
<td>61.17</td>
<td>0.08</td>
<td>0.25</td>
</tr>
<tr>
<td><strong>Total PTE Before Controls of the New Emission Units:</strong></td>
<td><strong>24.72</strong></td>
<td><strong>24.74</strong></td>
<td><strong>24.74</strong></td>
<td><strong>23.12</strong></td>
<td><strong>351.89</strong></td>
<td><strong>69.65</strong></td>
<td><strong>76.63</strong></td>
<td><strong>4.44</strong></td>
<td><strong>18.84</strong></td>
</tr>
</tbody>
</table>

\textsuperscript{1}PM\textsubscript{2.5} listed is direct PM\textsubscript{2.5}.

\textsuperscript{2}Single highest HAP is Toluene.

\textsuperscript{3}The PTE of the worst-case fuel is counted.

Appendix A of this TSD reflects the detailed potential emissions of the proposed revision.

Pursuant to 326 IAC 2-8-11.1(f)(1)(E), this FESOP is being revised through a FESOP Significant Permit Revision because the proposed revision is not an Administrative Amendment or Minor Permit revision and the proposed revision involves the construction of new emission units with potential to emit greater than or equal to twenty-five (25) tons per year of the following pollutants:

(i) Nitrogen oxides (NO\textsubscript{X}).

(ii) Volatile Organic Compounds (VOC).

<table>
<thead>
<tr>
<th>PTE of the Entire Source After Issuance of the FESOP Revision</th>
</tr>
</thead>
</table>

The table below summarizes the after issuance source-wide potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of the revision, and only to the extent that the effect of the control equipment is made practically enforceable in the permit. If the control equipment has been determined to be integral, the table reflects the potential to emit (PTE) after consideration of the integral control device.
### Source-Wide Emissions After Issuance (ton/year)

<table>
<thead>
<tr>
<th></th>
<th>PM¹</th>
<th>PM₁₀¹</th>
<th>PM₂.₅¹,₂</th>
<th>SO₂</th>
<th>NOₓ</th>
<th>VOC</th>
<th>CO</th>
<th>Single HAP³</th>
<th>Total HAPs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total PTE of Entire Source Excluding Fugitives</strong></td>
<td>92.97</td>
<td>91.35</td>
<td>91.29</td>
<td>82.47</td>
<td>98.84</td>
<td>98.76</td>
<td>98.74</td>
<td>4.36</td>
<td>19.59</td>
</tr>
<tr>
<td><strong>Title V Major Source Thresholds</strong></td>
<td>NA</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>10</td>
<td>25</td>
</tr>
<tr>
<td><strong>PSD Major Source Thresholds</strong></td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
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</tr>
<tr>
<td><strong>Emission Offset Major Source Thresholds</strong></td>
<td>---</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

¹Under the Part 70 Permit program (40 CFR 70), PM₁₀ and PM₂.₅, not particulate matter (PM), are each considered as a "regulated air pollutant."

²PM₂.₅ listed is direct PM₂.₅.

³Single highest source-wide HAP is Toluene.

*Fugitive HAP emissions are always included in the source-wide emissions.

Appendix A of this TSD reflects the detailed potential to emit of the entire source after issuance.

The source opted to take NOₓ, VOC, and CO limits in order to render the requirements of 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to this source. See Technical Support Document (TSD) State Rule Applicability - Entire Source section, 326 IAC 2-2 (PSD) and 326 IAC 2-8 (FESOP) for more information regarding the limit(s).

(a) This existing Title V minor stationary source will continue to be minor under 326 IAC 2-7 because the potential to emit criteria pollutants and HAPs from the entire source will continue to be less than or limited to less than the Title V major source threshold levels. Therefore, the source is subject to the provisions of 326 IAC 2-8 (FESOP) and is an area source under Section 112 of the Clean Air Act (CAA).

(b) This existing minor PSD stationary source will continue to be minor under 326 IAC 2-2 because the potential to emit of all PSD regulated pollutants from the entire source will continue to be less than or limited to less than the PSD major source thresholds. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

### Federal Rule Applicability Determination

Due to the proposed revision, federal rule applicability has been reviewed as follows:

**New Source Performance Standards (NSPS):**

(a) The requirements of the New Source Performance Standard for Small Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60, Subpart Dc) are not included for the proposed revision since the Cell 14 space heater is not a steam generating unit.

(b) The requirements of the New Source Performance Standard for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60, Subpart III) are not included in the proposed revision for the one (1) diesel-fired/gasoline-fired engine Chassis Roll Dyne test cell and the three (3) Power Test Stations, because pursuant to 40 CFR 60.4200(b), the provisions of the subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.
(c) There are no other New Source Performance Standards (40 CFR Part 60) and 326 IAC 12 included for this proposed revision.

**National Emission Standards for Hazardous Air Pollutants (NESHAP):**

(a) The requirements of the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63, Subpart ZZZZZ are not included in the proposed revision for the one (1) diesel-fired/gasoline-fired engine Chassis Roll Dyne test cell and the three (3) Power Test Stations, because pursuant to 40 CFR 63.6590(a), the affected source under the subpart excludes stationary RICE being tested at a stationary RICE test cell/stand.

(b) The requirements of the National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDDD and 326 IAC 20-95 are not included in the permit for Cell 14 space heater, because the source is not located in or part of a major source of HAPs.

(c) The requirements of the National Emission Standards for Hazardous Air Pollutants for Engine Test Cells/Stands, 40 CFR 63 9280, Subpart PPPPPP and 326 IAC 20-75, are not included for this proposed revision, because, pursuant to 40 CFR 63.9280, the source is not a major source of HAP emissions.

(d) The requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63 11193, Subpart JJJJJJ, are not included for this proposed revision, because the Cell 14 space heater is not a boiler as defined at 40 CFR 63.11237.

(e) There are no other National Emission Standards for Hazardous Air Pollutants under 40 CFR 63, 326 IAC 14 and 326 IAC 20 included for this proposed revision.

**Compliance Assurance Monitoring (CAM):**

Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is limited to less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

<table>
<thead>
<tr>
<th>State Rule Applicability - Entire Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due to this revision, state rule applicability has been reviewed as follows:</td>
</tr>
</tbody>
</table>

**326 IAC 2-2 (PSD) and 326 IAC 2-8-4 (FESOP)**

PSD and FESOP applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP Revision section of this document.

**PSD Minor Source Limits and FESOP NOx and CO Limits**

Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the Permitee shall continue to comply with the following:

(a) The total NOx emissions from all the engine test cells and power test stations shall not exceed 93 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The total VOC emissions from all the engine test cells and power test stations shall not exceed 98 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
The total CO emissions from all the engine test cells and power test stations shall not exceed 95 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits, combined with the potential to emit NOx, VOC, and CO from all other emission units at this source, shall limit the source-wide total potential to emit of NOx, VOC, and CO to less than one hundred (100) tons per twelve (12) consecutive month period, each, and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

Equations to calculate NOx, VOC, and CO will be used to verify compliance.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The new emission unit(s) will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, LaPorte, or Lawrenceburg Township, Dearborn County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.

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

   (1) 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.

   (2) 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 6.5 (Particulate Matter Limitations Except Lake County)
Pursuant to 326 IAC 6.5-1-1(a), this source (located in Bartholomew County) is not subject to the requirements of 326 IAC 6.5 because it is not located in one of the following counties: Clark, Dearborn, Dubois, Howard, Marion, St. Joseph, Vanderburgh, Vigo or Wayne.

326 IAC 6.8 (Particulate Matter Limitations for Lake County)
Pursuant to 326 IAC 6.8-1-1(a), this source (located in Bartholomew County) is not subject to the requirements of 326 IAC 6.8 because it is not located in Lake County.

326 IAC 6.8 (Lake County: Fugitive Particulate Matter)
Pursuant to 326 IAC 6.8-10-1, this source (located in Bartholomew County) is not subject to the requirements of 326 IAC 6.8-10 because it is not located in Lake County.

326 IAC 7-1.1 Sulfur Dioxide Emission Limitations
The emission units are not subject to 326 IAC 326 IAC 7-1.1 because they each have a potential to emit (or limited potential to emit) sulfur dioxide (SO2) of less than 25 tons per year or 10 pounds per hour.

326 IAC 9-1 (Carbon Monoxide Emission Limits)
The requirements of 326 IAC 9-1 do not apply to the source, because this source does not operate a catalyst regeneration petroleum cracking system or a petroleum fluid coker, grey iron cupola, blast furnace, basic oxygen steel furnace, or other ferrous metal smelting equipment.
326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Categories)
The requirements of 326 IAC 10-3 do not apply to the source, since the source does not operate a blast furnace gas-fired boiler, a Portland cement kiln, or a facility specifically listed under 326 IAC 10-3-1(a)(2).

Due to the proposed revision, state rule applicability has been reviewed as follows:

**Diesel-fired/Gasoline-fired Engine Test Cells (Cells 1-14)**

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Liquid and gaseous fuels and combustion air are excluded from the definition of process weight as defined in 326 IAC 1-2-59(a). Therefore, the one new (1) diesel-fired/gasoline-fired engine Chassis Roll Dyna test cell (Cell 14) is not subject to the requirements of 326 IAC 6-3-2.

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)

(a) The one (1) diesel-fired/gasoline-fired Engine Chassis Roll dyna test cell (Test Cell 14) was constructed after January 1, 1980, and its unlimited VOC potential emissions are equal to or greater than twenty-five (25) tons per year and the one (1) diesel-fired/gasoline-fired Engine Chassis Roll dyna test cell (Test Cell 14) is not regulated by other rules in 326 IAC 8. The source has opted to limit the potential to emit VOC from the one (1) diesel-fired/gasoline-fired Engine Chassis Roll dyna test cell (Test Cell 14) to less than twenty-five (25) tons per twelve (12) consecutive month period in order to render the requirements of 326 IAC 8-1-6 not applicable. Therefore, the one (1) diesel-fired/gasoline-fired Engine Chassis Roll dyna test cell (Test Cell 14) is not subject to the requirements of 326 IAC 8-1-6.

In order to render the requirements of 326 IAC 8-1-6 not applicable, Permittee shall comply with the following:

(1) VOC emissions from the one (1) diesel-fired/gasoline-fired Engine Chassis Roll dyna test cell (Test Cell 14) shall be less than twenty-five (25) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with this limit will render the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) not applicable to the one (1) diesel-fired/gasoline-fired Engine Chassis Roll dyna test cell (Test Cell 14).

(b) Even though, the thirteen (13) diesel-fired engine test cells (Test Cells 1-13) were constructed after January 1, 1980, they are not subject to the requirements of 326 IAC 8-1-6 because each of their unlimited VOC potential emissions are less than twenty-five (25) tons per year.

**Power Test Stations**

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Liquid and gaseous fuels and combustion air are excluded from the definition of process weight as defined in 326 IAC 1-2-59(a). Therefore, the three (3) Power Test Stations are not subject to the requirements of 326 IAC 6-3-2.

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)

Even though, the three (3) Power Test Stations were constructed after January 1, 1980, they are not subject to the requirements of 326 IAC 8-1-6 because their unlimited VOC potential emissions are less than twenty-five (25) tons per year.

**Cell 14 Space Heater**

326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating)
Pursuant to 326 IAC 6-2-1(d), indirect heating facilities which received permit to construct after
September 21, 1983 are subject to the requirements of 326 IAC 6-2-4.

The particulate matter emissions (Pt) shall be limited by the following equation:

\[ Pt = \frac{1.09}{Q^{0.26}} \]

Where:

- \( Pt \) = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu).
- \( Q \) = Total source maximum operating capacity rating in MMBtu/hr heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility’s permit application, except when some lower capacity is contained in the facility’s operation permit; in which case, the capacity specified in the operation.

### Indirect Heating Units Which Began Operation After September 21, 1983

<table>
<thead>
<tr>
<th>Facility</th>
<th>Construction Date (Removal Date)</th>
<th>Operating Capacity (MMBtu/hr)</th>
<th>( Q ) (MMBtu/hr)</th>
<th>Calculated Pt (lb/MMBtu)</th>
<th>Particulate Limitation, ( Pt ) (lb/MMBtu)</th>
<th>PM PTE based on AP-42 (lb/MMBtu)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiler B-1</td>
<td>1995</td>
<td>7.4</td>
<td>7.4</td>
<td>0.6</td>
<td>0.6</td>
<td>0.014</td>
</tr>
<tr>
<td>Boiler B-2</td>
<td>2000</td>
<td>0.84</td>
<td>8.24</td>
<td>0.6</td>
<td>0.6</td>
<td>0.002</td>
</tr>
<tr>
<td>Hotsy H-1</td>
<td>2011</td>
<td>0.36</td>
<td>8.60</td>
<td>0.6</td>
<td>0.6</td>
<td>0.002</td>
</tr>
<tr>
<td>Cell 13 space heaters</td>
<td>2015</td>
<td>0.80</td>
<td>9.40</td>
<td>0.6</td>
<td>0.6</td>
<td>0.002</td>
</tr>
<tr>
<td>Cell 14 space heater</td>
<td>2019</td>
<td>0.80</td>
<td>10.2</td>
<td>0.59</td>
<td>0.59</td>
<td>0.002</td>
</tr>
</tbody>
</table>

Where: \( Q \) = Includes the capacity (MMBtu/hr) of the new unit(s) and the capacities for those unit(s) which were in operation at the source at the time the new unit(s) was constructed.

Note: Emission units shown in strikethrough were subsequently removed from the source. The effect of removing these units on "Q" is shown in the year the boiler was removed.

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

Liquid and gaseous fuels and combustion air are excluded from the definition of process weight as defined in 326 IAC 1-2-59(a). Therefore, the one (1) Cell 14 space heater is not subject to the requirements of 326 IAC 6-3-2.

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)

Even though, this one (1) Cell 14 space heater was constructed after January 1, 1980, it is not subject to the requirements of 326 IAC 8-1-6 because its unlimited VOC potential emissions are less than twenty-five (25) tons per year.

### Compliance Determination and Monitoring Requirements

(a) The Compliance Determination Requirements applicable to this revision are as follows:

(1) The following equations to calculate NOx, VOC, and CO emissions from the fourteen (14) engine test cells and three (3) power test stations will be used to verify compliance:
\[
\text{NOx Emissions} = \left( TCD \times TCD\text{NOx EF} + TCG \times TCG\text{NOx EF} + PTSD \times PTSD\text{NOx EF} \right) \times \frac{1}{2000} \text{ (lb/ton)}
\]

\[
\text{VOC Emissions} = \left( TCD \times TCD\text{VOC EF} + TCG \times TCG\text{VOC EF} + PTSD \times PTSD\text{VOC EF} \right) \times \frac{1}{2000} \text{ (lb/ton)}
\]

\[
\text{CO Emissions} = \left( TCD \times TCD\text{CO EF} + TCG \times TCG\text{CO EF} + PTSD \times PTSD\text{CO EF} \right) \times \frac{1}{2000} \text{ (lb/ton)}
\]

Where:

- **TCD** = Test Cell Diesel usage over the period (MMBtu/month)
- **TCD\text{NOx EF}** = NOx emission factor for diesel for test cells
- **TCD\text{VOC EF}** = VOC emission factor for diesel for test cells
- **TCD\text{CO EF}** = CO emission factor for diesel for test cells
- **TCG** = Test cell gasoline usage over the period (MMBtu/month)
- **TCG\text{NOx EF}** = NOx emission factor for gasoline for test cells
- **TCG\text{VOC EF}** = VOC emission factor for gasoline for test cells
- **TCG\text{CO EF}** = CO emission factor for gasoline for test cells
- **PTSD** = Power Test Station Diesel usage over the period (MMBtu/month)
- **PTSD\text{NOx EF}** = NOx emission factor for diesel for power test stations
- **PTSD\text{VOC EF}** = VOC emission factor for diesel for power test stations
- **PTSD\text{CO EF}** = CO emission factor for diesel for power test stations

(2) The following calculation shall be used to determine the VOC emissions from the one (1) diesel-fired/gasoline-fired Engine Chassis Roll dyne test cell (Test Cell 14):

\[
\text{VOC Emissions} = \left( TCD \times TCD\text{VOC EF} + TCG \times TCG\text{VOC EF} \right) \times \frac{1}{2000} \text{ (lb/ton)}
\]

Where:

- **TCD** = Test Cell Diesel usage over the period (MMBtu/month)
- **TCD\text{VOC EF}** = VOC emission factor for diesel for test cell
- **TCG** = Test Cell Gasoline usage over the period (MMBtu/month)
- **TCG\text{VOC EF}** = VOC emission factor for gasoline for test cell

(3) These compliance determination conditions shall render the requirements of 326 IAC 2-7 (Part 70 Permits), 326 IAC 2-2 (PSD), and 326 IAC 8-1-6 not applicable.

(b) The Compliance Monitoring Requirements applicable to this proposed revision are as follows:

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Type of Parametric Monitoring</th>
<th>Frequency</th>
<th>Range or Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>One (1) diesel-fired/gasoline-fired Engine Chassis Roll dyne test cell (Test Cell 14)</td>
<td>Visible Emissions</td>
<td>Daily</td>
<td>Normal-Abnormal</td>
</tr>
<tr>
<td>Three (3) Power Test Stations</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Proposed Changes

The following changes listed below are due to the proposed revision. Deleted language appears as strikethrough text and new language appears as bold text:

1. A.2, A.3, D.1, and D.2 have been updated to include new emission units.

2. Four Quarterly Reports for NOx, VOC, and CO emission limits were added due to the addition of the new emission units.

... 

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

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

(a) **Thirteen (13) Fourteen (14) diesel-fired** engine test cells, including:

(9) One (1) diesel-fired/gasoline-fired engine Chassis Roll Dyne test cell, identified a Cell 14, approved in 2019 for construction, which is a 4-stroke lean-burn engine, using either diesel fuel with compression ignition, or gasoline with spark ignition using lean-premix staged combustion, with a maximum power output capacity of 500 horsepower, and exhausting to stack 14.

(b) Three (3) Power Test Stations, approved in 2019 for construction, where compression ignition diesel engines are placed on skids for testing under hydraulic load, with a maximum power output capacity of up to 700 horsepower, and exhausting to temporary stacks through building windows.

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

This stationary source also includes the following insignificant activities:

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:

(5) One (1) natural gas-fired space heater for Cell 14, approved in 2019 for construction, with a maximum heat input capacity of 0.8 MMBtu/hr.

... 

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

<table>
<thead>
<tr>
<th>Emissions Unit Description:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) <strong>Thirteen (13) Fourteen (14) diesel-fired</strong> engine test cells, including:</td>
</tr>
<tr>
<td>(9) One (1) diesel-fired engine Chassis Roll Dyne test cell, identified a Cell 14, approved in 2019 for construction, which is a 4-stroke lean-burn engine, using either diesel fuel with compression ignition, or gasoline with spark ignition using lean-premix staged combustion, with a maximum power output capacity of 500 horsepower, and exhausting to stack 14.</td>
</tr>
<tr>
<td>(b) Three (3) Power Test Stations, approved in 2019 for construction, where compression ignition diesel engines are placed on skids for testing under hydraulic load, with a maximum power output capacity of up to 700 horsepower, and exhausting to temporary stacks through building windows.</td>
</tr>
</tbody>
</table>
Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 FESOP and PSD Minor Limitations [326 IAC 2-8] [326 IAC 2-2]

Pursuant to 326 IAC 2-8-4, and in order to render 326 IAC 2-2 not applicable, the Permittee shall comply with the following:

(a) The diesel fuel oil used by the engine test cells shall be less than a combined 291,309 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) NOx emissions from the engine test cells shall not exceed 4.41 pounds per MMBtu (diesel heating value 0.139 MMBtu/gal).

(b) CO emissions from the engine test cells shall not exceed 0.95 pounds per MMBtu (diesel heating value 0.139 MMBtu/gal).

Compliance with these limits, combined with the potential to emit NOx and CO from all other emission units at this source, will limit the source-wide total potential to emit of NOx and CO to less than one hundred (100) tons per twelve (12) consecutive month period, each, and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

(a) The total NOx emissions from all the engine test cells and power test stations shall not exceed 93 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The total VOC emissions from all the engine test cells and power test stations shall not exceed 98 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(c) The total CO emissions from all the engine test cells and power test stations shall not exceed 95 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits, combined with the potential to emit NOx, VOC, and CO from all other emission units at this source, shall limit the source-wide total potential to emit of NOx, VOC, and CO to less than one hundred (100) tons per twelve (12) consecutive month period, each, and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.1.2 VOC BACT Avoidance Limitations [326 IAC 8-1-6]

In order to render the requirements of 326 IAC 8-1-6 (VOC BACT) not applicable, the Permittee shall comply with the following:

(a) VOC emissions from the one (1) diesel-fired/gasoline-fired Engine Chassis Roll dyne test cell (Test Cell 14) shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits will render the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) not applicable to the one (1) diesel-fired/gasoline-fired Engine Chassis Roll dyne test cell (Test Cell 14).
D.1.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for these facilities and their control devices. Section B - Preventive Maintenance Plan contains the Permittee’s obligation with regard to the preventive maintenance plan required by this condition.

... 

Compliance Determination Requirements [326 IAC 2-8-4(1)]

D.1.4 NOx, VOC, and CO Emission Compliance Determination Calculation

(a) In order to demonstrate compliance with Condition D.1.1, the following calculations shall be used to determine the NOx, VOC, and CO emissions:

\[
\text{NOx Emissions} = \left[ (\text{TCD}\times\text{TCD}\text{EF}) + (\text{TCG}\times\text{TCG}\text{EF}) + (\text{PTSD}\times\text{PTSD}\text{EF}) \right] \times \frac{1}{2000} \text{ (lb/ton)} \\
\text{VOC Emissions} = \left[ (\text{TCD}\times\text{TCD}\text{EF}) + (\text{TCG}\times\text{TCG}\text{EF}) + (\text{PTSD}\times\text{PTSD}\text{EF}) \right] \times \frac{1}{2000} \text{ (lb/ton)} \\
\text{CO Emissions} = \left[ (\text{TCD}\times\text{TCD}\text{EF}) + (\text{TCG}\times\text{TCG}\text{EF}) + (\text{PTSD}\times\text{PTSD}\text{EF}) \right] \times \frac{1}{2000} \text{ (lb/ton)}
\]

Where:

- \( \text{TCD} \): Test Cell Diesel usage over the period (MMBtu/month)
- \( \text{TCD}_{\text{NOx EF}} \): NOx emission factor for diesel for test cells
- \( \text{TCD}_{\text{VOC EF}} \): VOC emission factor for diesel for test cells
- \( \text{TCD}_{\text{CO EF}} \): CO emission factor for diesel for test cells
- \( \text{TCG} \): Test Cell Gasoline usage over the period (MMBtu/month)
- \( \text{TCG}_{\text{NOx EF}} \): NOx emission factor for gasoline for test cells
- \( \text{TCG}_{\text{VOC EF}} \): VOC emission factor for gasoline for test cells
- \( \text{TCG}_{\text{CO EF}} \): CO emission factor for gasoline for test cells
- \( \text{PTSD} \): Power Test Station Diesel usage over the period (MMBtu/month)
- \( \text{PTSD}_{\text{NOx EF}} \): NOx emission factor for diesel for power test stations
- \( \text{PTSD}_{\text{VOC EF}} \): VOC emission factor for diesel for power test stations
- \( \text{PTSD}_{\text{CO EF}} \): CO emission factor for diesel for power test stations

(b) In order to demonstrate compliance with Condition D.1.2, the following calculation shall be used to determine the VOC emissions from the one (1) diesel-fired/gasoline-fired Engine Chassis Roll dyne test cell (Test Cell 14):

\[
\text{VOC Emissions} = \left[ (\text{TCD}\times\text{TCD}\text{EF}) + (\text{TCG}\times\text{TCG}\text{EF}) \right] \times \frac{1}{2000} \text{ (lb/ton)}
\]

Where:

- \( \text{TCD} \): Test Cell Diesel usage over the period (MMBtu/month)
- \( \text{TCD}_{\text{VOC EF}} \): VOC emission factor for diesel for test cell
- \( \text{TCG} \): Test Cell Gasoline usage over the period (MMBtu/month)
- \( \text{TCG}_{\text{VOC EF}} \): VOC emission factor for gasoline for test cell

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

D.1.35 Visible Emissions Notations

(a) Daily visible emission notations of the diesel fourteen (14) engine test cells and the three (3) power test stations stack exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are
normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take a reasonable response. Section C – Response to Excursions and Exceedances contains the Permittee’s obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

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

D.1.4 Record Keeping Requirement

(a) To document the compliance status with Condition D.1.1(a), the Permittee shall maintain records of the total amount of diesel fuel used in the engine test cells each month and each compliance period.

(a) To document compliance with Condition D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken as stated below and shall be complete and sufficient to establish compliance with the NOx, VOC, and CO emission limits established in D.1.1 and D.1.2.

(1) Fuel usage and dates used for the compliance determination calculations.

(2) Calendar dates covered in the compliance determination period; and

(3) Actual monthly diesel and gasoline usage for the fourteen (14) engine test cells and the three (3) power test stations.

(4) Calculated NOX, VOC, and CO emissions for each month and compliance period.

(b) To document the compliance status with Condition D.1.3-5, the Permittee shall maintain a daily record of visible emission notations of each of the diesel engine test cells and power test stations stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the process did not operate that day).

(c) Section C - General Record Keeping Requirements contains the Permittee’s obligations with regard to the records required by this condition.

D.1.5 Reporting Requirements

A quarterly report of NOx, VOC, and CO emissions and a quarterly summary of the information to document the compliance status with D.1.4(a) and D.1.2 shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligations with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Insignificant Activities

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:

(5) One (1) natural gas-fired space heater for Cell 14, approved in 2019 for construction, with a maximum heat input capacity of 0.8 MMBtu/hr.

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

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

D.2.1 Particulate [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4, the PM emissions from the natural gas-fired combustion sources shall not exceed 0.6 pound per million Btu heat input (lb/MMBtu).

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), the PM emissions from the following units shall be limited to Pt pounds per MMBtu heat input, as follows:

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Unit ID</th>
<th>Pt (lb/MMBtu)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiler</td>
<td>B-1</td>
<td>0.6</td>
</tr>
<tr>
<td>Boiler</td>
<td>B-2</td>
<td>0.6</td>
</tr>
<tr>
<td>Hotsy</td>
<td>H-1</td>
<td>0.6</td>
</tr>
<tr>
<td>Space heater</td>
<td>Cell 13</td>
<td>0.6</td>
</tr>
<tr>
<td>Space heater</td>
<td>Cell 14</td>
<td>0.59</td>
</tr>
</tbody>
</table>

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

FESOP Quarterly Report

Source Name: Cummins, Inc.
Source Address: 3540 W 450 S, Columbus, Indiana 47201
FESOP Permit No.: F005-31393-00063
Facility: Fourteen (14) engine test cells and three (3) power test stations
Parameter: NOx Emissions
Limit: Shall not exceed 93 tons per twelve (12) consecutive month period

QUARTER: __________ YEAR: ___________
<table>
<thead>
<tr>
<th>Month</th>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 1 + Column 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>This Month</td>
<td>Previous 11 Months</td>
<td>12 Month Total</td>
<td></td>
</tr>
</tbody>
</table>

☐ No deviation occurred in this quarter.
☐ Deviation/s occurred in this quarter.
  Deviation has been reported on: _________________

Submitted by: ________________________________________
Title / Position: ______________________________________
Signature: ___________________________________________
Date: _______________________________________________
Phone: _____________________________________________

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

FESOP Quarterly Report

Source Name: Cummins, Inc.
Source Address: 3540 W 450 S, Columbus, Indiana 47201
FESOP Permit No.: F005-31393-00063
Facility: Fourteen (14) engine test cells and three (3) power test stations
Parameter: VOC Emissions
Limit: Shall not exceed 98 tons per twelve (12) consecutive month period

QUARTER: ________ YEAR: _____________
☐ No deviation occurred in this quarter.
☐ Deviation/s occurred in this quarter.
  Deviation has been reported on: _________________

Submitted by: ____________________________________________________
Title / Position: _________________________________________________
Signature: _______________________________________________________
Date: ____________________________________________________________
Phone: __________________________________________________________

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

FESOP Quarterly Report

Source Name: Cummins, Inc.
Source Address: 3540 W 450 S, Columbus, Indiana 47201
FESOP Permit No.: F005-31393-00063
Facility: Fourteen (14) engine test cells and three (3) power test stations
Parameter: CO Emissions
Limit: Shall not exceed 95 tons per twelve (12) consecutive month period

QUARTER: ___________  YEAR: ____________

<table>
<thead>
<tr>
<th>Month</th>
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<th>Column 1 + Column 2</th>
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</thead>
<tbody>
<tr>
<td>This Month</td>
<td>Previous 11 Months</td>
<td>12 Month Total</td>
<td></td>
</tr>
</tbody>
</table>
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☐ Deviation/s occurred in this quarter.

Deviation has been reported on: _________________

Submitted by: ____________________________________________________

Title / Position: ___________________________________________________

Signature: _______________________________________________________  

Date: ____________________________________________________________

Phone: __________________________________________________________

…

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

FESOP Quarterly Report

Source Name: Cummins, Inc.
Source Address: 3540 W 450 S, Columbus, Indiana 47201
FESOP Permit No.: F005-31393-00063
Facility: One (1) diesel fired/gasoline-fired Engine Chassis Roll dyne test cell (Test Cell 14)
Parameter: VOC Emissions
Limit: Shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period

QUARTER: __________ YEAR: _____________

<table>
<thead>
<tr>
<th>Month</th>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 1 + Column 2</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
</tr>
</tbody>
</table>

☐ No deviation occurred in this quarter.
☐ Deviation/s occurred in this quarter.
Deviations have been reported on: _______________

Submitted by: ____________________________________________________

Title / Position: ___________________________________________________

Signature: _______________________________________________________

Date: ____________________________________________________________

Phone: __________________________________________________________

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

FESOP Quarterly Report

Source Name: Cummins, Inc.
Source Address: 3540 W 450 S, Columbus, Indiana 47201
FESOP Permit No.: F005-31393-00063
Facility: Thirteen (13) diesel engine test cells
Parameter: Diesel fuel usage
Limit: The diesel fuel used by the engine test cells shall be less than a combined total of 291,309 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: ___________  YEAR: ___________

<table>
<thead>
<tr>
<th>Month</th>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 1 + Column 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>This Month</td>
<td>Previous 11 Months</td>
<td>12-Month Total</td>
<td></td>
</tr>
</tbody>
</table>

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.

Deviations have been reported on: _______________

Submitted by: ____________________________________________________

Title / Position: ___________________________________________________
Additional Changes

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

(1) For this FESOP SPR, IDEM OAQ has updated the letterhead.

(2) IDEM OAQ has included IDEM’s Master Agency Interest Identification (ID) number of 14982 in the permit cover page signature box.

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

| Operating Permit No.: F005-31393-00063 |
| Master Agency Interest ID.: 14982 |
| --- | --- |
| Issued by: Original Signed By: | Issuance Date: August 2, 2012 |
| Nathan C. Bell | |
| Section Chief, Permits Branch | |
| Office of Air Quality | |

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on July 12, 2019.

The construction and operation of this proposed revision shall be subject to the conditions of the attached proposed FESOP Significant Permit Revision No. 005-41661-00063. The staff recommends to the Commissioner that the FESOP Significant Permit Revision be approved.

IDEM Contact

(a) If you have any questions regarding this permit, please contact Michaela Hecox, Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251, or by telephone at (317) 233-3031 or (800) 451-6027, and ask for Michaela Hecox or (317) 233-3031.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Air Permits page on the Internet at: http://www.in.gov/idem/airquality2356.htm; and the Citizens’ Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.
### Uncontrolled Potential to Emit (tons/yr)

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
<th>SO₂</th>
<th>NOₓ</th>
<th>VOC</th>
<th>CO</th>
<th>Single HAP</th>
<th>Total HAPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel Test Cells 1-13: Diesel Combustion</td>
<td>61.68</td>
<td>61.68</td>
<td>61.68</td>
<td>57.71</td>
<td>877.02</td>
<td>71.63</td>
<td>189.03</td>
<td>0.23</td>
<td>0.62</td>
</tr>
<tr>
<td>Test Cell 14: Diesel or Gasoline Combustion²</td>
<td>4.75</td>
<td>4.75</td>
<td>4.75</td>
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<td>67.61</td>
<td>46.45</td>
<td>15.18</td>
<td>4.36</td>
<td>18.59</td>
</tr>
<tr>
<td>Power Test Stations 1, 2, &amp; 3</td>
<td>19.96</td>
<td>19.96</td>
<td>19.96</td>
<td>18.67</td>
<td>283.94</td>
<td>23.18</td>
<td>61.17</td>
<td>0.08</td>
<td>0.25</td>
</tr>
<tr>
<td>Boiler B-1: Natural Gas or No. 2 Fuel Oil Combustion²</td>
<td>0.46</td>
<td>0.55</td>
<td>0.49</td>
<td>1.64</td>
<td>4.63</td>
<td>0.18</td>
<td>2.72</td>
<td>0.06</td>
<td>0.06</td>
</tr>
<tr>
<td>Hotty H-1: 24.39 tons</td>
<td>2.80E-02</td>
<td>2.80E-02</td>
<td>2.80E-02</td>
<td>2.80E-02</td>
<td>2.80E-02</td>
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<td>2.80E-02</td>
<td>2.80E-02</td>
<td>2.80E-02</td>
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<tr>
<td>Cell 13 Space Heat</td>
<td>4.53E-02</td>
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<td>2.61E-02</td>
<td>2.61E-02</td>
<td>2.61E-02</td>
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<td>2.61E-02</td>
<td>2.61E-02</td>
<td>2.61E-02</td>
</tr>
<tr>
<td>Cell 14 Space Heat</td>
<td>6.53E-03</td>
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<td>2.61E-02</td>
<td>2.61E-02</td>
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<tr>
<td>Welding</td>
<td>0.17</td>
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</tr>
<tr>
<td>Bead Blaster BB-1</td>
<td>5.91</td>
<td>4.14</td>
<td>4.14</td>
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<tr>
<td>Parts Cleaners</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td>92.97</td>
<td>91.35</td>
<td>91.29</td>
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<td>1,234.91</td>
<td>142.02</td>
<td>269.12</td>
<td>4.76</td>
<td>19.59</td>
</tr>
</tbody>
</table>

### Potential to Emit after Control (tons/yr)

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
<th>SO₂</th>
<th>NOₓ</th>
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<td>Cell 13 Space Heat</td>
<td>4.53E-02</td>
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<tr>
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<tr>
<td>Bead Blaster BB-1</td>
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<td>4.14E-03</td>
<td>4.14E-03</td>
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<tr>
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<td>269.12</td>
<td>4.76</td>
<td>19.59</td>
</tr>
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</table>

### Potential to Emit after Issuance (tons/yr)

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
<th>SO₂</th>
<th>NOₓ</th>
<th>VOC</th>
<th>CO</th>
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<td>4.53E-02</td>
<td>2.61E-02</td>
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<td>5.91</td>
<td>4.14</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td>92.97</td>
<td>91.35</td>
<td>91.29</td>
<td>82.47</td>
<td>98.04</td>
<td>98.76</td>
<td>98.74</td>
<td>4.36</td>
<td>19.59</td>
</tr>
</tbody>
</table>

### Notes:
1. PM0.5 listed is direct PM0.5
2. The PTE of the worst-case fuel is counted.
3. The PTE of the worst-case fuel is counted.
4. VOC limited to 24.9 tons per twelve (12) consecutive month period to avoid 326 IAC 8-1-6 BACT.
**Appendix A: Emission Calculations**

**Revision Summary**

**Company Name:** Cummins, Inc.

**Address City IN Zip:** 3540 W 450 S, Columbus, IN 47201

**FESOP SPR No.:** 005-41661-00063

**Reviewer:** Michaela Hecox

**Date:** 7/31/2019

<table>
<thead>
<tr>
<th>New Emission Units</th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
<th>SO₂</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
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</thead>
<tbody>
<tr>
<td>Test Cell 14: Diesel or Gasoline Combustion¹</td>
<td>4.75</td>
<td>4.75</td>
<td>4.75</td>
<td>4.45</td>
<td>67.61</td>
<td>46.45</td>
<td>15.18</td>
<td>4.36</td>
<td>18.59</td>
</tr>
<tr>
<td>Cell 14 Space Heat</td>
<td>0.01</td>
<td>0.03</td>
<td>0.03</td>
<td>2.06E-03</td>
<td>0.34</td>
<td>0.32</td>
<td>0.29</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Power Test Stations 1, 2, &amp; 3</td>
<td>19.96</td>
<td>19.96</td>
<td>19.96</td>
<td>18.67</td>
<td>283.94</td>
<td>23.18</td>
<td>61.17</td>
<td>0.08</td>
<td>0.25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>24.72</td>
<td>24.74</td>
<td>24.74</td>
<td>23.12</td>
<td>351.89</td>
<td>69.65</td>
<td>76.63</td>
<td>4.44</td>
<td>18.84</td>
</tr>
</tbody>
</table>

**Note:**

1. The PTE of the worst-case fuel is counted.
Appendix A: Emission Calculations
Test Cell Data

Company Name: Cummins, Inc.
Address City IN Zip: 3540 W 450 S, Columbus, IN 47201
FESOP SPR No.: 005-41661-00063
Reviewer: Michaela Hecox
Date: 7/31/2019

Emissions calculated based on output rating (hp)

<table>
<thead>
<tr>
<th>Unit</th>
<th>Output Horsepower Rating (hp)</th>
<th>Input gal/hr diesel</th>
<th>Input MMBtu/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell #1 (test cell)</td>
<td>440</td>
<td>22.0</td>
<td>3.08</td>
</tr>
<tr>
<td>Cell #2 (test cell)</td>
<td>550</td>
<td>27.5</td>
<td>3.85</td>
</tr>
<tr>
<td>Cell #3 (test cell)</td>
<td>600</td>
<td>30.0</td>
<td>4.20</td>
</tr>
<tr>
<td>Cell #4 (test cell)</td>
<td>600</td>
<td>30.0</td>
<td>4.20</td>
</tr>
<tr>
<td>Cell #5 (test cell)</td>
<td>600</td>
<td>30.0</td>
<td>4.20</td>
</tr>
<tr>
<td>Cell #6 (test cell)</td>
<td>600</td>
<td>30.0</td>
<td>4.20</td>
</tr>
<tr>
<td>Cell #7 (test cell)</td>
<td>600</td>
<td>30.0</td>
<td>4.20</td>
</tr>
<tr>
<td>Cell #8 (test cell)</td>
<td>440</td>
<td>22.0</td>
<td>3.08</td>
</tr>
<tr>
<td>Cell #41 (cold cell)</td>
<td>400</td>
<td>20.0</td>
<td>2.80</td>
</tr>
<tr>
<td>Cell #31 (rig room)</td>
<td>400</td>
<td>20.0</td>
<td>2.80</td>
</tr>
<tr>
<td>Cell #32 (rig room)</td>
<td>400</td>
<td>20.0</td>
<td>2.80</td>
</tr>
<tr>
<td>Cell #33 (rig room)</td>
<td>400</td>
<td>20.0</td>
<td>2.80</td>
</tr>
<tr>
<td>Cell #13 (CRD)</td>
<td>460</td>
<td>23.0</td>
<td>3.22</td>
</tr>
</tbody>
</table>

Totals 6490.0 324.5 45.43

Cell #14 (CRD) - w/Alternative Fuels
Fuel = Diesel

<table>
<thead>
<tr>
<th>Unit</th>
<th>Output Horsepower Rating (hp)</th>
<th>Input gal/hr gasoline</th>
<th>Input MMBtu/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell #14 (CRD)</td>
<td>500</td>
<td>25.0</td>
<td>3.50</td>
</tr>
</tbody>
</table>

Alternative Fuel = Gasoline

<table>
<thead>
<tr>
<th>Unit</th>
<th>Output Horsepower Rating (hp)</th>
<th>Input gal/hr gasoline</th>
<th>Input MMBtu/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell #14 (CRD)</td>
<td>500</td>
<td>26.9</td>
<td>3.50</td>
</tr>
</tbody>
</table>
## Appendix A: Emission Calculations

### Reciprocating Internal Combustion Engines - Diesel Fuel

<table>
<thead>
<tr>
<th>Output Rating (&lt;=600 HP)</th>
<th>Maximum Input Rate (&lt;=4.2 MMBtu/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>13 Diesel Testing Cells</td>
</tr>
</tbody>
</table>

**Company Name:** Cummins, Inc.  
**Address City IN Zip:** 3540 W 450 S, Columbus, IN 47201  
**FESOP SPR No.:** 005-41661-00063  
**Reviewer:** Michaela Hecox  
**Date:** 7/31/2019

Emissions calculated based on heat input capacity (MMBtu/hr)

| Heat Input Capacity (MMBtu/hr) | 45.43 |
| Maximum Hours Operated per Year | 8760  |
| Potential Throughput (MMBtu/yr) | 397,967 |

### Pollutant Emissions

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor in lb/MMBtu</th>
<th>Potential Emission in tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM*</td>
<td>0.31</td>
<td>61.68</td>
</tr>
<tr>
<td>PM10*</td>
<td>0.31</td>
<td>61.68</td>
</tr>
<tr>
<td>direct PM2.5*</td>
<td>0.31</td>
<td>61.68</td>
</tr>
<tr>
<td>SO2</td>
<td>0.29</td>
<td>57.71</td>
</tr>
<tr>
<td>NOx</td>
<td>4.41</td>
<td>877.52</td>
</tr>
<tr>
<td>VOC</td>
<td>0.36</td>
<td>71.63</td>
</tr>
<tr>
<td>CO</td>
<td>0.95</td>
<td>189.03</td>
</tr>
</tbody>
</table>

*PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

### Hazardous Air Pollutants (HAPs)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor in lb/MMBtu</th>
<th>Potential Emission in tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene</td>
<td>9.33E-04</td>
<td>0.19</td>
</tr>
<tr>
<td>Toluene</td>
<td>4.09E-04</td>
<td>8.14E-02</td>
</tr>
<tr>
<td>Xylene</td>
<td>2.85E-04</td>
<td>5.67E-02</td>
</tr>
<tr>
<td>1,3-Butadiene</td>
<td>3.91E-05</td>
<td>7.78E-03</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>1.18E-03</td>
<td>0.23</td>
</tr>
<tr>
<td>Acetaldehyde</td>
<td>7.67E-04</td>
<td>3.36E-03</td>
</tr>
<tr>
<td>Acrolein</td>
<td>9.25E-05</td>
<td>1.84E-02</td>
</tr>
<tr>
<td>Total PAH HAPs***</td>
<td>1.68E-04</td>
<td>3.34E-02</td>
</tr>
</tbody>
</table>

| Total Emission of Total HAPs (tons/yr) | 0.62 |

### Methodology

Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.4-1, 3.4-2, 3.4-3, and 3.4-4.

Potential Throughput (MMBtu/yr) = [Heat Input Capacity (MMBtu/hr)] * [Maximum Hours Operated per Year]

Potential Emission (tons/yr) = [Potential Throughput (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2,000 lb/ton]
Appendix A: Emission Calculations
Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (<=600 HP)
Maximum Input Rate (<=4.2 MMBtu/hr)
Test Cell #14 - Diesel

Company Name: Cummins, Inc.
Address City IN Zip: 3540 W 450 S, Columbus, IN 47201
FESOP SPR No.: 005-41661-00063
Reviewer: Michaela Hecox
Date: 7/31/2019

Includes:

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit ID</th>
<th>Output (hp)</th>
<th>BSFC (Btu/hp-hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chassis Roll Dyne test cell</td>
<td>Cell 14</td>
<td>500</td>
<td>7000</td>
</tr>
</tbody>
</table>

Heat Input Capacity (MMBtu/hr) | 3.50
Maximum Hours Operated per Year | 8760
Potential Throughput (MMBtu/yr) | 30,660

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor in lb/MMBtu</th>
<th>Potential Emission in tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM*</td>
<td>0.31</td>
<td>4.75</td>
</tr>
<tr>
<td>PM10*</td>
<td>0.31</td>
<td>4.75</td>
</tr>
<tr>
<td>direct PM2.5*</td>
<td>0.31</td>
<td>4.75</td>
</tr>
<tr>
<td>SO2</td>
<td>0.29</td>
<td>4.45</td>
</tr>
<tr>
<td>NOx</td>
<td>4.41</td>
<td>67.61</td>
</tr>
<tr>
<td>VOC</td>
<td>0.36</td>
<td>5.52</td>
</tr>
<tr>
<td>CO</td>
<td>0.95</td>
<td>14.56</td>
</tr>
</tbody>
</table>

*PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Hazardous Air Pollutants (HAPs)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor in lb/MMBtu</th>
<th>Potential Emission in tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene</td>
<td>9.33E-04</td>
<td>1.43E-02</td>
</tr>
<tr>
<td>Toluene</td>
<td>4.09E-04</td>
<td>6.27E-03</td>
</tr>
<tr>
<td>Xylene</td>
<td>2.86E-04</td>
<td>4.37E-03</td>
</tr>
<tr>
<td>1,3-Butadiene</td>
<td>3.91E-05</td>
<td>5.99E-04</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>1.18E-03</td>
<td>1.81E-02</td>
</tr>
<tr>
<td>Acetaldehyde</td>
<td>7.67E-04</td>
<td>1.18E-02</td>
</tr>
<tr>
<td>Acrolein</td>
<td>9.25E-05</td>
<td>1.42E-03</td>
</tr>
<tr>
<td>Total PAH HAPs***</td>
<td></td>
<td>5.94E-02</td>
</tr>
</tbody>
</table>

Methodology
Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.4-1, 3.4-2, 3.4-3, and 3.4-4.
Potential Throughput (MMBtu/yr) = [Heat Input Capacity (MMBtu/hr)] * [Maximum Hours Operated per Year]
POTENTIAL EMISSION (Tons/yr) = [Potential Throughput (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2,000 lb/ton]
Appendix A: Emission Calculations

Reciprocating Internal Combustion Engines - Gasoline

Output Rating (<=600 HP)

Maximum Input Rate (<=4.2 MMBtu/hr)

Test Cell #14 - Gasoline

Company Name: Cummins, Inc.
Address City IN Zip: 3540 W 450 S, Columbus, IN 47201
FESOP SPR No.: 005-41661-00063
Reviewer: Michaela Hecox
Date: 7/31/2019

Includes:

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit ID</th>
<th>Output (hp)</th>
<th>BSFC (Btu/hp-hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chassis Roll Dyne test cell</td>
<td>Cell 14</td>
<td>500</td>
<td>7000</td>
</tr>
</tbody>
</table>

(Fuel = Diesel)

Heat Input Capacity (MMBtu/hr) 3.56

Maximum Hours Operated per Year 8760

Potential Throughput (MMBtu/yr) 30,660

### Methodology

Emission Factors for Criteria Pollutants and total VOCs are from AP-42 (Supplement B 10/96) Table 3.3-1

Speciated HAPs emissions based on EPA SPECIATE Profile 4557

Potential Throughput (MMBtu/yr) = [Heat Input Capacity (MMBtu/hr)] * [Maximum Hours Operated per Year]

Potential Emission (ton/yr) = [Potential Throughput (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2,000 lb/ton]

### Hazardous Air Pollutants (HAPs)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Benzene</th>
<th>Toluene</th>
<th>Ethylbenzene</th>
<th>o-xylene</th>
<th>m&amp;p-xylene</th>
<th>n-hexane</th>
<th>Methyl t-butyl ether</th>
<th>Formaldehyde</th>
<th>Acetaldehyde</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Total VOCs from Above AP-42</td>
<td>1.87923</td>
<td>0.37605</td>
<td>1.24435</td>
<td>0.08866</td>
<td>1.62898</td>
<td>6.43845</td>
<td>3.51124</td>
<td>1.13581</td>
<td></td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>0.67293</td>
<td>4.35544</td>
<td>0.58085</td>
<td>4.21443</td>
<td>0.70828</td>
<td>2.89735</td>
<td>1.58143</td>
<td>0.53556</td>
<td></td>
</tr>
</tbody>
</table>

PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Editorial correction to CO Emission Factor - March 24, 2009

Potential Emission of Total HAPs (tons/yr) 18.6

Largest Potential Emission of Single HAP - Toluene (tons/yr) 4.36
## Appendix A: Emission Calculations

### Power Station Data

**Company Name:** Cummins, Inc.  
**Address City IN Zip:** 3540 W 450 S, Columbus, IN 47201  
**FESOP SPR No.:** 005-41661-00063  
**Reviewer:** Michaela Hecox  
**Date:** 7/31/2019

Emissions calculated based on output rating (hp)  
**Fuel = Diesel**

<table>
<thead>
<tr>
<th>Unit</th>
<th>Output Horsepower Rating (hp)</th>
<th>Input gal/hr diesel</th>
<th>Input MMBtu/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Station #1</td>
<td>700</td>
<td>35.0</td>
<td>4.90</td>
</tr>
<tr>
<td>Power Station #2</td>
<td>700</td>
<td>35.0</td>
<td>4.90</td>
</tr>
<tr>
<td>Power Station #3</td>
<td>700</td>
<td>35.0</td>
<td>4.90</td>
</tr>
</tbody>
</table>

**Totals** 2,100 105 14.7
Appendix A: Emission Calculations

Reciprocating Internal Combustion Engines - Diesel Fuel
Large Stationary Diesel Engine
Output Rating (> 600 HP)
Maximum Input Rate (< 4.2 MMBtu/hr)
3 Power Test Stations - Diesel

Company Name: Cummins, Inc.
Address City IN Zip: 3540 W 450 S, Columbus, IN 47201
FESOP SPR No.: 005-41661-00063
Reviewer: Michaela Hecox
Date: 7/31/2019

Emissions calculated based on heat input capacity (MMBtu/hr)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PM10*</th>
<th>PM10*</th>
<th>direct PM2.5*</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMBtu</td>
<td>0.31</td>
<td>0.31</td>
<td>0.31</td>
<td>0.29</td>
<td>4.41</td>
<td>0.36</td>
<td>0.95</td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>19.96</td>
<td>19.96</td>
<td>19.96</td>
<td>18.67</td>
<td>283.94</td>
<td>23.18</td>
<td>61.17</td>
</tr>
</tbody>
</table>

*PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which

Hazardous Air Pollutants (HAPs)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Benzene</th>
<th>Toluene</th>
<th>Xylene</th>
<th>Propylene</th>
<th>Formaldehyde</th>
<th>Acetaldehyde</th>
<th>Acrolein</th>
<th>Total PAH HAPs***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential Emission in tons/yr</td>
<td>0.060</td>
<td>0.026</td>
<td>0.018</td>
<td>0.003</td>
<td>0.076</td>
<td>0.049</td>
<td>0.00596</td>
<td>0.01082</td>
</tr>
</tbody>
</table>

Methodology
Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.3-1, 3.3-2, 3.3-3, and 3.3-4.
Potential Throughput (MMBtu/yr) = [Heat Input Capacity (MMBtu/hr)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2,000 lb/ton]
## Appendix A: Emissions Calculations
### Natural Gas Combustion Only
#### MM BTU/HR <100

<table>
<thead>
<tr>
<th>Unit ID</th>
<th>Heat Input Capacity MMBtu/hr</th>
<th>HHV Potential Throughput mmBtu/mmstd</th>
<th>Potential Throughput MMCF/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiler B-1</td>
<td>7.40</td>
<td>1000</td>
<td>64.8</td>
</tr>
<tr>
<td>Boiler B-2</td>
<td>0.84</td>
<td>1000</td>
<td>7.4</td>
</tr>
<tr>
<td>Hotsy 1</td>
<td>0.36</td>
<td>1000</td>
<td>3.2</td>
</tr>
</tbody>
</table>

### Emission Factors

#### Pollutant

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor in lb/MMCF</th>
<th>Potential Emission in tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM*</td>
<td>1.9</td>
<td>Boiler B-1: 0.06</td>
</tr>
<tr>
<td>PM10*</td>
<td>7.6</td>
<td>Boiler B-1: 0.25</td>
</tr>
<tr>
<td>direct PM2.5*</td>
<td>7.6</td>
<td>Boiler B-2: 0.03</td>
</tr>
<tr>
<td>SO2</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>NOx</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>VOC</td>
<td>5.5</td>
<td></td>
</tr>
<tr>
<td>CO</td>
<td>84</td>
<td></td>
</tr>
</tbody>
</table>

**see below**

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

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

### Methodology

All emission factors are based on normal firing.

- MMScf = 1,000,000 Btu
- Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
- Potential Throughput (MMSCF/hr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
- Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMSCF)/2,000 lb/ton

### HAP Emissions

#### HAPs - Organics

<table>
<thead>
<tr>
<th>HAPs - Organics</th>
<th>Emission Factor in lb/MMcf</th>
<th>Potential Emission in tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Benzene</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dichlorobenzene</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Formaldehyde</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hexane</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Toluene</td>
<td></td>
</tr>
</tbody>
</table>

#### HAPs - Metals

<table>
<thead>
<tr>
<th>HAPs - Metals</th>
<th>Emission Factor in lb/MMcf</th>
<th>Potential Emission in tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lead</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cadmium</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chromium</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Manganese</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nickel</td>
<td></td>
</tr>
</tbody>
</table>

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.
### Appendix A: Emissions Calculations

#### Industrial Boilers (< 100 mmBtu/hr)

#1 and #2 Fuel Oil

**Boiler B-1**

<table>
<thead>
<tr>
<th>Company Name:</th>
<th>Cummins, Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address City IN Zip:</td>
<td>3540 W 450 S, Columbus, IN 47201</td>
</tr>
<tr>
<td>FESOP SPR No.:</td>
<td>005-41661-00063</td>
</tr>
<tr>
<td>Reviewer:</td>
<td>Michaela Hecox</td>
</tr>
<tr>
<td>Date:</td>
<td>7/31/2019</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Heat Input Capacity</th>
<th>Potential Throughput</th>
<th>S = Weight % Sulfur</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMBtu/hr</td>
<td>kgals/year</td>
<td>0.05</td>
</tr>
<tr>
<td>7.4</td>
<td>463.029</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor in lb/kgal</th>
<th>Potential Emission in tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM*</td>
<td>2.00</td>
<td>0.46</td>
</tr>
<tr>
<td>PM10</td>
<td>2.38</td>
<td>0.55</td>
</tr>
<tr>
<td>direct PM2.5</td>
<td>2.13</td>
<td>0.49</td>
</tr>
<tr>
<td>SO2</td>
<td>7.10</td>
<td>1.64</td>
</tr>
<tr>
<td>NOx</td>
<td>20.00</td>
<td>4.63</td>
</tr>
<tr>
<td>VOC</td>
<td>0.34</td>
<td>0.08</td>
</tr>
<tr>
<td>CO</td>
<td>5.00</td>
<td>1.16</td>
</tr>
</tbody>
</table>

#### Methodology

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

Potential Throughput (kgals/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu

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

*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.

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

#### HAP Emissions

<table>
<thead>
<tr>
<th>HAPs - Metals</th>
<th>Emission Factor in lb/mmBtu</th>
<th>Potential Emission in tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic</td>
<td>4.00E-06</td>
<td>1.30E-04</td>
</tr>
<tr>
<td>Beryllium</td>
<td>3.00E-06</td>
<td>9.72E-05</td>
</tr>
<tr>
<td>Cadmium</td>
<td>3.00E-06</td>
<td>9.72E-05</td>
</tr>
<tr>
<td>Chromium</td>
<td>3.00E-06</td>
<td>9.72E-05</td>
</tr>
<tr>
<td>Lead</td>
<td>9.00E-06</td>
<td>2.92E-04</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HAPs - Metals (continued)</th>
<th>Emission Factor in lb/mmBtu</th>
<th>Potential Emission in tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>3.0E-06</td>
<td>9.72E-05</td>
</tr>
<tr>
<td>Manganese</td>
<td>6.0E-06</td>
<td>1.94E-04</td>
</tr>
<tr>
<td>Nickel</td>
<td>3.0E-06</td>
<td>9.72E-05</td>
</tr>
<tr>
<td>Selenium</td>
<td>1.5E-05</td>
<td>4.86E-04</td>
</tr>
</tbody>
</table>

Total HAPs 1.20E-03

Single Highest HAP 4.86E-04 Selenium

#### Methodology

No data was available in AP-42 for organic HAPs.

Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8.760 hrs/yr / 2,000 lb/ton
## Appendix A: Emissions Calculations
### Natural Gas Combustion Only
#### Test Cell 13 Space Heater

**Company Name:** Cummins, Inc.  
**Address City IN Zip:** 3540 W 450 S, Columbus, IN 47201  
**FESOP SPR No.:** 005-41661-00063  
**Reviewer:** Michaela Hecox  
**Date:** 7/31/2019

### Emission Calculations

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor in lb/MMCF</th>
<th>Potential Emission in tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM*</td>
<td>6.53E-03</td>
<td>6.9</td>
</tr>
<tr>
<td>PM10*</td>
<td>2.61E-02</td>
<td></td>
</tr>
<tr>
<td>direct PM2.5*</td>
<td>2.61E-02</td>
<td></td>
</tr>
<tr>
<td>SO2</td>
<td>6.9</td>
<td></td>
</tr>
<tr>
<td>NOx</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>VOC</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>CO</td>
<td>84</td>
<td></td>
</tr>
</tbody>
</table>

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined. PM2.5 emission factor is filterable and condensable PM2.5 combined. **Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

### Methodology

All emission factors are based on normal firing.  
MMBtu = 1,000,000 Btu  
MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

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

### HAPs Calculations

#### HAPs - Organics

<table>
<thead>
<tr>
<th>Emission Factor in lb/MMcf</th>
<th>Benzene (E-03)</th>
<th>Dichlorobenzene (E-03)</th>
<th>Formaldehyde (E-02)</th>
<th>Hexane (E-00)</th>
<th>Toluene (E-03)</th>
<th>Total - Organics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.1E-03</td>
<td>1.2E-03</td>
<td>7.5E-02</td>
<td>1.8E+00</td>
<td>3.4E-03</td>
<td></td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>7.21E-06</td>
<td>4.12E-06</td>
<td>2.58E-04</td>
<td>6.18E-03</td>
<td>1.17E-05</td>
<td>6.46E-03</td>
</tr>
</tbody>
</table>

#### HAPs - Metals

<table>
<thead>
<tr>
<th>Emission Factor in lb/MMcf</th>
<th>Lead (E-04)</th>
<th>Cadmium (E-03)</th>
<th>Chromium (E-03)</th>
<th>Manganese (E-04)</th>
<th>Nickel (E-03)</th>
<th>Total - Metals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5.0E-04</td>
<td>1.1E-03</td>
<td>1.4E-03</td>
<td>3.8E-04</td>
<td>2.1E-03</td>
<td></td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>1.72E-06</td>
<td>3.78E-06</td>
<td>4.81E-06</td>
<td>1.31E-06</td>
<td>7.21E-06</td>
<td>1.88E-05</td>
</tr>
</tbody>
</table>

Methodology is the same as above. The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.
### Appendix A: Emissions Calculations

#### Natural Gas Combustion Only

**MM BTU/HR <100**

#### Test Cell 14 Space Heater

<table>
<thead>
<tr>
<th>Company Name:</th>
<th>Cummins, Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address City IN Zip:</td>
<td>3540 W 450 S, Columbus, IN 47201</td>
</tr>
<tr>
<td>FESOP SPR No.:</td>
<td>005-41661-00063</td>
</tr>
<tr>
<td>Reviewer:</td>
<td>Michaela Hecox</td>
</tr>
<tr>
<td>Date:</td>
<td>7/31/2019</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Heat Input Capacity</th>
<th>HHV</th>
<th>Potential Throughput</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMBtu/hr</td>
<td>mmBTU/hr</td>
<td>MMCF/yr</td>
</tr>
<tr>
<td>0.8</td>
<td>1020</td>
<td>6.9</td>
</tr>
</tbody>
</table>

#### Emission Factor in lb/MMCF

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PM</th>
<th>PM10</th>
<th>direct PM2.5</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMCF</td>
<td>1.9</td>
<td>7.6</td>
<td>7.6</td>
<td>0.6</td>
<td>100</td>
<td>5.5</td>
<td>84</td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>6.53E-03</td>
<td>2.61E-02</td>
<td>2.61E-02</td>
<td>2.06E-03</td>
<td>0.34</td>
<td>1.89E-02</td>
<td>0.29</td>
</tr>
</tbody>
</table>

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined. PM2.5 emission factor is filterable and condensable PM2.5 combined.

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

#### Methodology

All emission factors are based on normal firing.

- MMBtu = 1,000,000 Btu
- MMCF = 1,000,000 Cubic Feet of Gas
- Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
- Potential Throughput (MMCF) = Heat Input Capacity (MMBu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
- Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF) x 2,000 lb/ton

### HAPS Calculations

#### HAPs - Organics

<table>
<thead>
<tr>
<th>Emission Factor in lb/MMcf</th>
<th>Benzene</th>
<th>Dichlorobenzene</th>
<th>Formaldehyde</th>
<th>Hexane</th>
<th>Toluene</th>
<th>Total - Organics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMcf</td>
<td>2.1E-03</td>
<td>1.2E-03</td>
<td>7.5E-02</td>
<td>1.8E+00</td>
<td>3.4E-03</td>
<td>6.46E-03</td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>7.21E-06</td>
<td>4.12E-06</td>
<td>2.58E-04</td>
<td>6.18E-03</td>
<td>1.17E-05</td>
<td>6.46E-03</td>
</tr>
</tbody>
</table>

#### HAPs - Metals

<table>
<thead>
<tr>
<th>Emission Factor in lb/MMcf</th>
<th>Lead</th>
<th>Cadmium</th>
<th>Chromium</th>
<th>Manganese</th>
<th>Nickel</th>
<th>Total - Metals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMcf</td>
<td>5.0E-04</td>
<td>1.1E-03</td>
<td>1.4E-03</td>
<td>3.8E-04</td>
<td>2.1E-03</td>
<td>1.88E-05</td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>1.72E-06</td>
<td>3.78E-06</td>
<td>4.81E-06</td>
<td>1.31E-06</td>
<td>7.21E-06</td>
<td>1.88E-05</td>
</tr>
</tbody>
</table>

Methodology is the same as above.

The five highest organic and metal HAPs emission factors are provided above.

- Additional HAPs emission factors are available in AP-42, Chapter 1.4.
- Additional HAPs emission factors are available in AP-42, Chapter 1.4.
# Appendix A: Emission Calculations
## Storage Tanks
### Volatile Organic Compound (VOC)

**Company Name:** Cummins, Inc.  
**Address City IN Zip:** 3540 W 450 S, Columbus, IN 47201  
**FESOP SPR No.:** 005-41661-00063  
**Reviewer:** Michaela Hecox  
**Date:** 7/31/2019

### Potential Throughput (gallons/year)

<table>
<thead>
<tr>
<th>Unit</th>
<th>Maximum Heat Input Capacity (MMBtu/hr)*</th>
<th>High Heat Value (MMBtu/kgal)</th>
<th>Maximum Annual Operating Hours (hour/year)</th>
<th>Potential Throughput (gallons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Test Cells</td>
<td>45.43</td>
<td>140</td>
<td>8760</td>
<td>2,842,620</td>
</tr>
<tr>
<td>Boiler B-1</td>
<td>7.40</td>
<td>140</td>
<td>8760</td>
<td>463,029</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>3,305,649</strong></td>
</tr>
</tbody>
</table>

### Volatile Organic Compound (VOC) Emissions From Storage Tanks (Working and Breathing Losses)
Using US EPA TANKS Version 4.09 program

<table>
<thead>
<tr>
<th>Storage Tank ID</th>
<th>Product Stored</th>
<th>Maximum Liquid Volume (gallons)</th>
<th>Product Throughput (gallons/yr)</th>
<th>Turnovers per year</th>
<th>VOC Working Losses (lbs/yr)</th>
<th>VOC Breathing Losses (lbs/yr)</th>
<th>VOC Working Losses (tons/yr)</th>
<th>VOC Breathing Losses (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tank 1</td>
<td>Diesel (No. 2 Fuel Oil)</td>
<td>10,000</td>
<td>1,469,177</td>
<td>146.92</td>
<td>11.38</td>
<td>2.67</td>
<td>5.69E-03</td>
<td>1.34E-03</td>
</tr>
<tr>
<td>Tank 2</td>
<td>Diesel (No. 2 Fuel Oil)</td>
<td>10,000</td>
<td>1,469,177</td>
<td>146.92</td>
<td>11.38</td>
<td>2.67</td>
<td>5.69E-03</td>
<td>1.34E-03</td>
</tr>
<tr>
<td>Tank 3</td>
<td>Diesel (No. 2 Fuel Oil)</td>
<td>1,000</td>
<td>146,918</td>
<td>146.92</td>
<td>1.13</td>
<td>2.67</td>
<td>5.65E-04</td>
<td>1.34E-03</td>
</tr>
<tr>
<td>Tank 4</td>
<td>Diesel (No. 2 Fuel Oil)</td>
<td>500</td>
<td>73,459</td>
<td>146.92</td>
<td>0.56</td>
<td>2.67</td>
<td>2.80E-04</td>
<td>1.34E-03</td>
</tr>
<tr>
<td>Tank 5</td>
<td>Diesel (No. 2 Fuel Oil)</td>
<td>1,000</td>
<td>146,918</td>
<td>146.92</td>
<td>1.13</td>
<td>2.67</td>
<td>5.65E-04</td>
<td>1.34E-03</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>25.58</strong></td>
<td><strong>13.35</strong></td>
<td><strong>1.28E-02</strong></td>
<td><strong>6.68E-03</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Total Potential to Emit VOC (lbs/yr)</th>
<th>Total Potential to Emit VOC (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>38.93</strong></td>
<td><strong>1.95E-02</strong></td>
</tr>
</tbody>
</table>

**Methodology**

*Maximum Heat Input Capacity (MMBtu/hr) for emergency generators calculated assuming that the brake specific fuel consumption (BSFC) of each generator is 7,000 Btu/ hp-hr.*

Turnovers per year = [Maximum Annual Cleaning Liquid Throughput Rate (gallons/year)] / [Maximum Liquid Volume (gallons)]

**Acronyms**

VOC = Volatile Organic Compound
Appendix A: Emission Calculations
Welding and Thermal Cutting

**WELDING**

<table>
<thead>
<tr>
<th>PROCESS</th>
<th>Number of Stations</th>
<th>Max. electrode consumption per station (lbs/hr)</th>
<th>Max. electrode consumption lbs per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submerged Arc</td>
<td>2</td>
<td>0.5</td>
<td>8,760 3.60E-03 0.00E+00 9.00E-03 0.00E+00 1.80E-03 7.56E-03 0.00E+00</td>
</tr>
<tr>
<td>Metal Inert Gas (MIG)(carbon steel)</td>
<td>1</td>
<td>0.5</td>
<td>4,380 1.80E-03 0.00E+00 4.50E-04 4.50E-04 9.00E-05 3.78E-04 0.00E+00</td>
</tr>
<tr>
<td>Stick (E7018 electrode)</td>
<td>0</td>
<td>0</td>
<td>0.17E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00</td>
</tr>
<tr>
<td>Tungsten Inert Gas (TIG)(carbon steel)</td>
<td>0</td>
<td>0</td>
<td>0.00E+00</td>
</tr>
<tr>
<td>Oxyacetylene(carbon steel)</td>
<td>1</td>
<td>0.5</td>
<td>4,380 5.00E-03 0.00E+00 1.38E-03 1.38E-03 2.75E-04 1.18E-03 0.00E+00</td>
</tr>
</tbody>
</table>

**METAL CUTTING**

<table>
<thead>
<tr>
<th>PROCESS</th>
<th>Number of Stations</th>
<th>Max. Metal Thickness Cut (in.)</th>
<th>Max. Cutting Rate (in./minute)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxyacetylene</td>
<td>0</td>
<td>0.25</td>
<td>0.25</td>
</tr>
<tr>
<td>Oxyacetylene</td>
<td>0</td>
<td>0.25</td>
<td>0.25</td>
</tr>
<tr>
<td>Plasma (existing)**</td>
<td>0</td>
<td>0.25</td>
<td>0.25</td>
</tr>
<tr>
<td>Plasma (planned)**</td>
<td>0</td>
<td>0.25</td>
<td>0.25</td>
</tr>
</tbody>
</table>

**METHODOLOGY**

MIG Emission Factors are worst case for two types of rods/wires: AWS ER70S & Jetweld LH-3800.

**Emission Factors** are default values for carbon steel unless a specific electrode type is noted in the Process column.

**Submerged Arc**

<table>
<thead>
<tr>
<th>PM = PM10 = PM2.5</th>
<th>Co</th>
<th>Cr</th>
<th>Mn</th>
<th>Ni</th>
<th>Pb</th>
</tr>
</thead>
<tbody>
<tr>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
</tr>
<tr>
<td>0.012</td>
<td>0.002</td>
<td>0.008</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Metal Inert Gas (MIG)(carbon steel)**

<table>
<thead>
<tr>
<th>PM = PM10 = PM2.5</th>
<th>Co</th>
<th>Cr</th>
<th>Mn</th>
<th>Ni</th>
<th>Pb</th>
</tr>
</thead>
<tbody>
<tr>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
</tr>
<tr>
<td>0.001</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

**Stick (E7018 electrode)**

<table>
<thead>
<tr>
<th>PM = PM10 = PM2.5</th>
<th>Co</th>
<th>Cr</th>
<th>Mn</th>
<th>Ni</th>
<th>Pb</th>
</tr>
</thead>
<tbody>
<tr>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
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<td>0.000</td>
<td>0.000</td>
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</tbody>
</table>

**Tungsten Inert Gas (TIG)(carbon steel)**

<table>
<thead>
<tr>
<th>PM = PM10 = PM2.5</th>
<th>Co</th>
<th>Cr</th>
<th>Mn</th>
<th>Ni</th>
<th>Pb</th>
</tr>
</thead>
<tbody>
<tr>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
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<td>0.000</td>
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</tbody>
</table>

**Oxyacetylene(carbon steel)**

<table>
<thead>
<tr>
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<th>Co</th>
<th>Cr</th>
<th>Mn</th>
<th>Ni</th>
<th>Pb</th>
</tr>
</thead>
<tbody>
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<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
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<td>0.003</td>
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</table>

**Oxymethane**

<table>
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<tr>
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<th>Co</th>
<th>Cr</th>
<th>Mn</th>
<th>Ni</th>
<th>Pb</th>
</tr>
</thead>
<tbody>
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<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
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<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

**Plasma (existing)**

<table>
<thead>
<tr>
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<th>Co</th>
<th>Cr</th>
<th>Mn</th>
<th>Ni</th>
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<td>0.000</td>
<td>0.000</td>
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</table>

**Plasma (planned)**

<table>
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<th>Co</th>
<th>Cr</th>
<th>Mn</th>
<th>Ni</th>
<th>Pb</th>
</tr>
</thead>
<tbody>
<tr>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
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<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
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</tbody>
</table>

**TOTAL combined emissions**

<table>
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<tr>
<th>PM = PM10 = PM2.5</th>
<th>Co</th>
<th>Cr</th>
<th>Mn</th>
<th>Ni</th>
<th>Pb</th>
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<tbody>
<tr>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
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<td>(lbs/hr)</td>
<td>(lbs/hr)</td>
</tr>
<tr>
<td>0.040</td>
<td>0.000</td>
<td>0.001</td>
<td>0.001</td>
<td>0.002</td>
<td>0.008</td>
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<tr>
<td>(lbs/day)</td>
<td>(lbs/day)</td>
<td>(lbs/day)</td>
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<tr>
<td>0.95</td>
<td>0.00</td>
<td>0.02</td>
<td>0.02</td>
<td>0.05</td>
<td>0.20</td>
</tr>
<tr>
<td>(tons/yr)</td>
<td>(tons/yr)</td>
<td>(tons/yr)</td>
<td>(tons/yr)</td>
<td>(tons/yr)</td>
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<td>0.00</td>
<td>0.00</td>
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**Highest Single HAP**

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<th>Cr</th>
<th>Mn</th>
<th>Ni</th>
<th>Pb</th>
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<td>(tons/yr)</td>
<td>(tons/yr)</td>
<td>(tons/yr)</td>
<td>(tons/yr)</td>
<td>(tons/yr)</td>
<td>(tons/yr)</td>
</tr>
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<td>0.17</td>
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<td>0.00</td>
<td>0.00</td>
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Appendix A: Emission Calculations
Abrasive Blasting - Confined

Company Name: Cummins, Inc.
Address City IN Zip: 3540 W 450 S, Columbus, IN 47201
FESOP SPR No.: 005-41661-00063
Reviewer: Michaela Hecox
Date: 7/31/2019

Table 1 - Emission Factors for Abrasives

<table>
<thead>
<tr>
<th>Abrasive</th>
<th>EF PM / lb abrasive</th>
<th>EF PM10* / lb PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>0.041</td>
<td>0.70</td>
</tr>
<tr>
<td>Grit</td>
<td>0.010</td>
<td>0.70</td>
</tr>
<tr>
<td>Steel Shot</td>
<td>0.004</td>
<td>0.86</td>
</tr>
<tr>
<td>Other</td>
<td>0.010</td>
<td></td>
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* Assume PM10 = PM2.5

Table 2 - Density of Abrasives (lb/ft3)

<table>
<thead>
<tr>
<th>Abrasive</th>
<th>Density (lb/ft3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Al oxides</td>
<td>160</td>
</tr>
<tr>
<td>Sand</td>
<td>99</td>
</tr>
<tr>
<td>Steel</td>
<td>487</td>
</tr>
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</table>

Table 3 - Sand Flow Rate (FR1) Through Nozzle (lb/hr)

<table>
<thead>
<tr>
<th>Nozzle Pressure (psig)</th>
<th>Nozzle Type (diameter)</th>
<th>Internal diameter, in</th>
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<tbody>
<tr>
<td>30</td>
<td>No. 2 (1/8 inch)</td>
<td>0.125</td>
</tr>
<tr>
<td></td>
<td>No. 3 (3/16 inch)</td>
<td>0.1875</td>
</tr>
<tr>
<td></td>
<td>No. 4 (1/4 inch)</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td>No. 5 (5/16 inch)</td>
<td>0.3125</td>
</tr>
<tr>
<td></td>
<td>No. 6 (3/8 inch)</td>
<td>0.375</td>
</tr>
<tr>
<td></td>
<td>No. 7 (7/16 inch)</td>
<td>0.4375</td>
</tr>
<tr>
<td></td>
<td>No. 8 (1/2 inch)</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>No. 10 (5/8 inch)</td>
<td>0.625</td>
</tr>
<tr>
<td></td>
<td>No. 12 (3/4 inch)</td>
<td>0.75</td>
</tr>
<tr>
<td></td>
<td>No. 16 (1 inch)</td>
<td>1</td>
</tr>
</tbody>
</table>

CALCULATIONS

Adjusting Flow Rates for Different Abrasives and Nozzle Diameters
Flow Rate (FR) = Abrasive flow rate (lb/hr) of abrasive at nozzle pressure and internal nozzle diameter (ID)

Potential to Emit Before Control

| EF = PM emission factor for actual abrasive from Table 1 |
| PM10 emission factor ratio for actual abrasive from Table 1 |

Potential to Emit After Control

| PM = Potential to Emit (before control) |
| PM10* = Potential to Emit (after control) |

METHODOLOGY


Flow rate of actual abrasive (FR) (lb/hr) = FR1 x (ID/ID1)^2 x (D/D1)

Potential to Emit (before control) = [Potential to Emit (before control)] x [1 - control efficiency]

Potential to Emit (tons/year) = [Potential to Emit (lb/hour)] x [8760 hours/year] x [ton/2000 lbs]

For 326 IAC 6-3-2, the heaviest Part is about 15 lbs and takes about 10 min to clean. 15lb/10min = 90 lb/hr
### Insignificant Activity: Parts Cleaners

**Worst Case Emissions**

**Company Name:** Cummins, Inc.

**Address City IN Zip:** 3540 W 450 S, Columbus, IN 47201

**FESOP SPR No.:** 005-41661-00063

**Reviewer:** Michaela Hecox

**Date:** 7/31/2019

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

<table>
<thead>
<tr>
<th>Unit</th>
<th>Material</th>
<th>Material Density (lbs/gallon)</th>
<th>Weight % Volatile (H2O &amp; Organics)</th>
<th>Weight % Water</th>
<th>Weight % Organics</th>
<th>Maximum Material Usage (gallons/year)</th>
<th>PTE of VOC (lbs/day)</th>
<th>PTE of VOC (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Parts Cleaners</td>
<td>Solvent</td>
<td>6.8</td>
<td>100.00%</td>
<td>0.0%</td>
<td>100.0%</td>
<td>145.0</td>
<td>2.70</td>
<td>0.49</td>
</tr>
</tbody>
</table>

**METHODOLOGY**

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

PTE of VOC (tons/year) = [PTE of VOC (lbs/day)] * [365 days/year] * [ton/2000 lbs]
### Appendix A: Emission Calculations

**Company Name:** Cummins, Inc.  
**Address City IN Zip:** 3540 W 450 S, Columbus, IN 47201  
**FESOP SPR No.:** 005-41661-00063  
**Reviewer:** Michaela Hecox  
**Date:** 7/31/2019

**EPA SPECIATE PROFILE 4557**  
**Gasoline Exhaust - Noncatalyst - HAPS**

<table>
<thead>
<tr>
<th>Profile Name</th>
<th>Pollutant Name</th>
<th>Weight %</th>
<th>HAPS</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Toluene</td>
<td>9.376563609</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>o,m,&amp;p xylene</td>
<td>9.066660236</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Methyl t-butyl ether</td>
<td>6.436454681</td>
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<tr>
<td></td>
<td>2,2,4-trimethylpentane</td>
<td>4.290969787</td>
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<tr>
<td></td>
<td>Formaldehyde</td>
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<td></td>
<td>Benzene</td>
<td>1.879285842</td>
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<td>Ethylbenzene</td>
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<td>n-hexane</td>
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<td></td>
<td>Acetaldehyde</td>
<td>1.195909172</td>
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<td>Propionaldehyde</td>
<td>0.23838721</td>
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<td></td>
<td>2-methylnaphthalene</td>
<td>0.198656009</td>
<td>Yes</td>
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<td>Naphthalene</td>
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<tr>
<td></td>
<td>1-Methylnaphthalene</td>
<td>0.119193605</td>
<td>Yes</td>
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<td></td>
<td>1&amp;2-ethylnaphthalene</td>
<td>0.113233925</td>
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<td>Acrolein</td>
<td>0.015097857</td>
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<tr>
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<td>Fluorene</td>
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<td>Fluoranthene</td>
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<td></td>
<td>Pyrene</td>
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<td>Anthracene</td>
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<td>Dibenzofuran</td>
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<td>Benzo[ghi]fluoranthene</td>
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<td>Benz(a)anthracene</td>
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<td>Other PAH Compounds</td>
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**Totals**  
40.011644
October 10, 2019

Mr. Dan Myers  
Cummins, Inc.  
3540 West 450 South MC 71500  
Columbus, Indiana  47201

Re: Public Notice  
Cummins, Inc.  
Permit Level: FESOP SPR (Minor PSD)  
Permit Number: 005-41661-00063

Dear Mr. Myers:

Enclosed is a copy of your draft FESOP Significant Permit Revision (Minor PSD), Technical Support Document, emission calculations, and the Public Notice.

The Public Notice period will begin the date the Notice is published on the IDEM Official Public Notice website. Publication has been requested and is expected within 2-3 business days. You may check the exact Public Notice begins and ends date here: https://www.in.gov/idem/5474.htm

Please note that as of April 17, 2019, IDEM is no longer required to publish the notice in a newspaper.

OAQ has submitted the draft permit package to the Bartholomew Public Library, 536 5th Street in Columbus, Indiana. As a reminder, you are obligated by 326 IAC 2-1.1-6(c) to place a copy of the complete permit application at this library no later than ten (10) days after submittal of the application or additional information to our department. We highly recommend that even if you have already placed these materials at the library, that you confirm with the library that these materials are available for review and request that the library keep the materials available for review during the entire permitting process.

Please review the enclosed documents carefully. This is your opportunity to comment on the draft permit and notify the OAQ of any corrections that are needed before the final decision. Questions or comments about the enclosed documents should be directed to Michaela Hecox, Indiana Department of Environmental Management, Office of Air Quality, 100 N. Senate Avenue, Indianapolis, Indiana, 46204 or call (800) 451-6027, and ask for extension 3-3-031 or dial (317) 233-3031.

Sincerely,

John F. Jackson

John F. Jackson  
Permits Branch  
Office of Air Quality

Enclosures  
PN Applicant Cover Letter 4/12/19
October 10, 2019

To: Bartholomew Public Library

From: Jenny Acker, Branch Chief
Permits Branch
Office of Air Quality

Subject: Important Information to Display Regarding a Public Notice for an Air Permit

Applicant Name: Cummins, Inc.
Permit Number: 005-41661-00063

Enclosed is a copy of important information to make available to the public. This proposed project is regarding a source that may have the potential to significantly impact air quality. Librarians are encouraged to educate the public to make them aware of the availability of this information. The following information is enclosed for public reference at your library:

- Notice of a 30-day Period for Public Comment
- Draft Permit and Technical Support Document

You will not be responsible for collecting any comments from the citizens. Please refer all questions and request for the copies of any pertinent information to the person named below.

Members of your community could be very concerned in how these projects might affect them and their families. Please make this information readily available until you receive a copy of the final package.

If you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185. Questions pertaining to the permit itself should be directed to the contact listed on the notice.
Notice of Public Comment

October 10, 2019
Cummins, Inc.
005-41661-00063

Dear Concerned Citizen(s):

You have been identified as someone who could potentially be affected by this proposed air permit. The Indiana Department of Environmental Management, in our ongoing efforts to better communicate with concerned citizens, invites your comment on the draft permit.

Enclosed is a Notice of Public Comment, which has posted on IDEM’s Public Notice website at https://www.in.gov/idem/5474.htm.

The application and supporting documentation for this proposed permit have been placed at the library indicated in the Notice. These documents more fully describe the project, the applicable air pollution control requirements and how the applicant will comply with these requirements.

If you would like to comment on this draft permit, please contact the person named in the enclosed Public Notice. Thank you for your interest in the Indiana’s Air Permitting Program.

Please Note: If you feel you have received this Notice in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at PPEAR@IDEM.IN.GOV. If you have recently moved and this Notice has been forwarded to you, please notify us of your new address and if you wish to remain on the mailing list. Mail that is returned to IDEM by the Post Office with a forwarding address in a different county will be removed from our list unless otherwise requested.

Enclosure
PN AAA Cover Letter 4/12/2019
AFFECTED STATE NOTIFICATION OF PUBLIC COMMENT PERIOD
DRAFT INDIANA AIR PERMIT

October 10, 2019

A 30-day public comment period has been initiated for:

Permit Number: 005-41661-00063
Applicant Name: Cummins, Inc.
Location: Columbus, Bartholomew County, Indiana

The public notice, draft permit and technical support documents can be accessed via the IDEM Air Permits Online site at:
http://www.in.gov/ai/appfiles/idem-caats/

Questions or comments on this draft permit should be directed to the person identified in the public notice by telephone or in writing to:

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

Questions or comments regarding this email notification or access to this information from the EPA Internet site can be directed to Chris Hammack at chammack@idem.IN.gov or (317) 233-2414.
**Mail Code 61-53**

**Name and address of Sender**

<table>
<thead>
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<th>Postage</th>
<th>Handling Charges</th>
<th>Act. Value (If Registered)</th>
<th>Insured Value</th>
<th>Due Send if COD</th>
<th>R.R. Fee</th>
<th>S.D. Fee</th>
<th>S.H. Fee</th>
<th>Rest. Del. Fee</th>
<th>Remarks</th>
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<tbody>
<tr>
<td>Dan Myers CUMMINS INC 3540 W 450 S MC 71500 Columbus IN 47201 (Source CAATS)</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Columbus City Council and Mayors Office 123 Washington St Columbus IN 47201 (Local Official)</td>
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<tr>
<td>Mr. Lcnfc 1039 Sycamore St Columbus IN 47201 (Affected Party)</td>
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<td>Bartholomew County Public Library 536 Fifth St. Columbus IN 47201-6225 (Library)</td>
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<tr>
<td>Bartholomew County Commissioners 440 Third Street Columbus IN 47202 (Local Official)</td>
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<td>Mr. Jean Terpstra 30225 Adams Ln Westlake OH 44145 (Affected Party)</td>
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<td>Terry Lowe 450 Hurricane St Franklin IN 46131 (Affected Party)</td>
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<td>Mr. Charles Mitch 30225 Adams Ln Westlake OH 44145 (Affected Party)</td>
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<td>Mr. John Kilmer BCA Environmental Consultants, LLC 7202 E. 87th Street, #110 Indianapolis IN 46256 (Consultant)</td>
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<td>Bartholomew County Health Department 440 3rd Street, Suite 303 Columbus IN 47201 (Health Department)</td>
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<td>Kenneth K Arnholt TrustBerneice M Arnholt 2850 N Indianapolis Rd Columbus IN 47201 (Affected Party)</td>
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<td>Kevin Green Greensburg Daily News 135 S Franklin St Greensburg IN 47240 (Affected Party)</td>
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**Total number of Pieces Received at Post Office**

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