



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

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

**Michael R. Pence**  
Governor

**Thomas W. Easterly**  
Commissioner

TO: Interested Parties / Applicant

DATE: January 7, 2014

RE: Eaton Corp - R & D Lab/033-339471-00079

FROM: Matthew Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

## Notice of Decision: Approval - Effective Immediately

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

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures  
FNPER.dot 6/13/13



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • [www.idem.IN.gov](http://www.idem.IN.gov)

Michael R. Pence  
Governor

Thomas W. Easterly  
Commissioner

Chad Davis  
Eaton Corp. - R & D Lab  
518 Michigan Ave.  
Auburn, IN 46706

January 7, 2014

Re: Interim Significant Permit Revision Petition Approval  
033-339471-00079

Dear Mr. Davis:

On December 3, 2013, the Office of Air Quality (OAQ) received an interim Significant Permit Revision petition from Eaton Corp. - R & D Lab, located at 518 Michigan Ave., in Auburn, Indiana for construction of a 600 hp diesel engine at test cell TC-1.

A public notice of the interim Significant Permit Revision petition was published in the The Star on December 19, 2013. The public comment period ended on January 2, 2013.

Since there are no comments received during the public comment period, pursuant to 326 IAC 2-13-1(i), the interim Significant Permit Revision petition is in effect upon issuance and will expire on the effective date of the final Significant Permit Revision permit.

The interim Significant Permit Revision petition may be revoked after its effective date upon a written finding by the Indiana Department of Environmental Management (IDEM) that any of the reasons for denial in 326 IAC 2-13-1(h) exist or if the final Significant Permit Revision permit is denied. The IDEM has reviewed this interim Significant Permit Revision petition and has not found any such reason. The facilities specified in the interim Significant Permit Revision petition may not operate until the final Significant Permit Revision permit is issued by OAQ.

The interim Significant Permit Revision petition is federally enforceable. Detailed construction and operation conditions will be specified in the final Significant Permit Revision permit 033-33947-00079.

If you have any questions regarding this interim Significant Permit Revision petition, please contact Heath Hartley, OAQ, 100 North Senate Avenue, MC 61-53, Room 1003, Indianapolis, Indiana, 46204-2251, or call at (800) 451-6027, and ask for Heath Hartley or extension 2-8217, or dial (317) 232-8217.

Sincerely,

Matt Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

Enclosure: Interim Permit Evaluation (3 pages)

hh

cc: File – DeKalb County  
DeKalb County Health Department  
U.S. EPA, Region V  
Compliance and Enforcement Branch

## Indiana Department of Environmental Management Office of Air Management

### Interim Significant Permit Revision Evaluation Sheet

<b>Company Name:</b> Eaton Corp. - R & D Lab	
<b>Location:</b> 518 Michigan Ave.	<b>Permit No:</b> 033-339471-00079
<b>Permit Reviewer:</b> Heath Hartley	<b>Date Receipt of Application:</b> 12/3/2013
<b>Description of the interim construction:</b> construction of a 600 hp diesel engine at test cell TC-1	
<b>Public Notice Period</b> = 12/19/2013 to 1/2/2013	
<b>Public Notice Date + 3 days = 17 days</b> = 1/5/2014 (Sunday) + 1 day = 1/6/2014 (Monday)	

Interim Petition Applicability: 326 IAC 2-13-1

- (a) Existing Source with valid permit;
- (b) Exemptions:
  - (1) construction of a PSD source or PSD modification;
  - (2) construction or modification in nonattainment area that would emit those pollutants for which the nonattainment designation is based.
  - (3) any modification subject to 326 IAC 2-4.1.
- (c) Public notice comment period is 14 calendar days.

**Instructions: Check (✓) appropriate answers and make a recommendation.**

1. Did the applicant submit a written petition for an interim significant permit revision or significant source modification?

- Yes Go to question 2.  
 No Ignore verbal request.

2. Did the applicant pay the applicable interim permit fee? \$625 for TV, FESOP, and SSOA. \$500 for MSOP.

- Yes Go to question 3.  
 No Deny the application, pursuant to 326 IAC 2-13-1(c)(1).

Comments: \_\_\_\_\_

3. Did the applicant state acceptance of federal enforceability of an interim significant permit revision or significant source modification?

- Yes Go to question 4.  
 No Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(D).

4. Did the applicant or its authorized agent sign the application?

- Yes Go to question 5.  
 No Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(E).

5. Did the applicant submit a notarized affidavit stating that the applicant will proceed at its own risk (if the interim significant permit revision or significant source modification is issued), including, but not limited to:

- (a) Financial risk,

- (b) Risk that additional emission controls may be required,
- (c) Risk that the final significant permit revision or significant source modification may be denied.
- Yes Go to question 6.
- No Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(F).
6. Did the applicant begin construction prior to submitting the interim significant permit revision or significant source modification application?
- Yes Deny the application, pursuant to 326 IAC 2-13-1(h)(6).
- No Go to question 7.
7. What is the type of the interim construction?
- New Source Deny the application, pursuant to 326 IAC 2-13-1(a)
- Modification to an existing source Go to question 8.
8. Did the applicant present data in the interim significant permit revision or significant source modification that is sufficient to determine PSD, NSPS, NESHAP, and state rule compliance?
- Yes Go to question 9.
- No Deny the application pursuant to:  
326 IAC 2-13-1(c)(2)(B), for PSD;  
326 IAC 2-13-1(c)(2)(C), for NSPS or NESHAP;  
326 IAC 2-13-1(c)(2)(C), for state rules.
9. Is the proposed modification to be located in a nonattainment area?
- Yes Go to question 10.
- No Go to question 11.
- County: DeKalb County
- Comments: \_\_\_\_\_
10. Will the proposed modification emit the pollutant for which the area is nonattainment in quantities greater than the significant levels?
- Yes Deny the application, pursuant to 326 IAC 2-13-1(a)(2).
- No Go to question 11.
11. Did the petition include a complete description of the process?
- Yes Go to question 12.
- No Deny the petition, pursuant to 326 IAC 2-13-1(c)(2).
12. Did the interim significant permit revision or significant source modification petition contain conditions accepting either emission controls (baghouse, afterburners, scrubbers, etc.) or enforceable limits or other suitable restriction to avoid PSD applicability; as well as control parameters (incinerator operating temperature, baghouse pressure drop, etc.)? The specific limits must be explicitly spelled out (i.e.: The gas consumption of the boiler shall not exceed 29 million cubic feet per month.) A statement such as that the company agrees to conditions such that PSD rules are not applicable is not acceptable.
- Yes Go to question 13.
- No Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(B).
13. Do the emission controls and/or throughput limits prevent PSD applicability?
- Yes Go to question 14.
- No Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(B).

14. Will the modification, after application of all emission controls and/or throughput limitations comply with all applicable New Source Performance Standards (NSPS) (40 CFR 60)?
- Yes Go to question 15.  
 No Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(C).
15. Will the modification, after application of all emission controls and/or throughput limitations comply with all applicable National Emission Standards for Hazardous Air Pollutants (NESHAP)?
- Yes Go to question 16.  
 No Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(C).
16. Will the modification, after application of all emission controls and/or throughput limitations, comply with all applicable state rules?
- Yes Go to question 17.  
 No Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(C).
17. Does the applicant dispute applicability of any applicable state or federal rule?
- Yes Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(C).  
 No Go to question 18.
18. Is there good reason to believe that the applicant does not intend to construct in accordance with the interim significant permit revision or significant source modification petition?
- Yes Deny the application, pursuant to 326 IAC 2-13-1(h)(1).  
 No Go to question 19.
19. Is there good reason to believe that information in the petition has been falsified?
- Yes Deny the application, pursuant to 326 IAC 2-13-1(h)(7).  
 No Approve the interim significant permit revision or significant source modification petition.
20. Has the petition been adequately public noticed? A proof of publication copy is necessary.
- Yes Go to question 21.  
 No Deny the application, pursuant to 326 IAC 2-13-1(e).

Newspaper: The Star

Date of publication: December 19, 2013

21. Were comments received within seventeen (17) days after the public notice of the interim significant permit revision or significant source modification?

(14 calendar days for comment period + 3 working days for mailing)

- Yes Evaluate the comments received, and make a recommendation.  
 No Issue the final interim significant permit revision or significant source modification approval.

Comments: \_\_\_\_\_  
\_\_\_\_\_

Recommendation: Issue Interim

Method of informing the applicant: Mail Permit

## Indiana Department of Environmental Management Office of Air Quality

<b>Interim Petition Checklist</b>	
<b>Instructions:</b> (a) Please answer yes or no. (b) Enclosed this checklist with the completed interim petition package.	
<b>Company Name:</b> Eaton Corp. - R & D Lab	
<b>Location:</b> 518 Michigan Ave., Auburn, IN 46706	
Yes	1. Is the written interim petition prepared?
Yes	2. Is the written petition signed and dated?
Yes	3. Is the public notice drafted?
Yes	4. Is the filing and review fee enclosed? \$625 for TV, FESOP, and SSOA. \$500 for MSOP.
Yes	5. Is the account number written on the check or money order?
Yes	6. Is the Affidavit of Construction signed, dated, and notarized?
Yes	7. Is the proposed modification/revision described in detail?
Yes	8. Is the proposed modification/revision a modification or addition to an existing source?
Yes	9. Is the proposed modification/revision located in an attainment area for all the criteria pollutants?
No	10. Is the proposed modification/revision located in a nonattainment area? If yes, answer No. 11.
	11. Is the pollutant, which the nonattainment designation is based on, going to be emitted in this proposed modification/revision?
Yes	12. Are potential emissions calculated?
Yes	13. Is federal enforceability consent specifically indicated?
Yes	14. Are specific conditions, limitations, and/or restrictions included that preclude applicability of PSD?
No	15. Are specific conditions, limitations, and/or restrictions included that preclude applicability of NSPS?
No	16. Are specific conditions, limitations, and/or restrictions included that preclude applicability of NESHAP?
Yes	17. Are specific conditions, limitations, and/or restrictions included that assure compliance with all applicable state air pollution rules?
Yes	18. Has a regular modification/revision permit application been submitted to OAQ?
No	19. Has the proposed modification/revision commenced prior to the submission of the interim permit petition?
	20. The interim petition comment period has been decided to be: 14 calendar days
<b>Additional Comments:</b>  	

### Affidavit of Construction

I, Ralph Beam, being duly sworn upon my oath, depose and say:

(Name of the Authorized Representative)

1. I live in Allen County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.

2. I hold the position of Plant Manager for Eaton Corporation  
(Title) (Company Name)

3. By virtue of my position with Eaton Corporation, I have personal  
(Company Name)

knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of Eaton Corporation  
(Company Name)

4. I, the undersigned, have submitted an interim significant permit revision petition to the Office of Air Quality for the construction of a diesel engine test cell change by removing a 2001 Cummins ISX 550 hp test engine and replacing it with a 2011 Cummins ISX 600 hp test engine.

5. Eaton Corporation recognizes the following risks:  
(Company Name)

- (a) own financial risk, (b) that IDEM may require additional or different control technology for the final approval, (c) that IDEM may deny issuance of the final approval, and
- (d) any additional air permitting requirements.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Signature: Ralph Beam

Printed Name: Ralph L. Beam

Phone No.: 269-929-7864

Date: 25 Nov 2013



STATE OF INDIANA)

COUNTY OF Dekalb

Subscribed and sworn to me, a notary public in and for Dekalb

County and State of Indiana on this 25<sup>th</sup> day of November

, 20 13  
My Commission expires: December 13, 2014



Signature: Gloria L. Hansen

Printed Name: Gloria L. Hansen

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

**PETITION FOR INTERIM SIGNIFICANT PERMIT REVISION, SIGNIFICANT SOURCE  
MODIFICATION, MINOR PERMIT REVISION, OR MINOR SOURCE MODIFICATION**

Source Name: Eaton Corp - R&D Lab  
Source Address: 518 Michigan Avenue, Auburn, IN 46706  
Mailing Address: 518 Michigan Avenue, Auburn, IN 46706  
SIC/NAICS Code: 3714, 3465/336350, 336370

**Description of the Operation or Equipment:**

Eaton Corporation is planning to install a 600 hp diesel-fired engine at Test Cell TC-1. The stationary diesel test engine cells are used at Eaton Corporation for purposes of research and development of commercial vehicle launching devices

**Potential to Emit:**

Based on 8,760 hours per year of operation, the PM, PM10, PM2.5, SO2, NOx, VOC, CO and HAPs emissions are 5.78, 5.78, 5.78, 5.39, 81.47, 6.61, 17.56 and 0.068 tons per year, respectively. Methodology and calculations of the potential to emit are attached in detail as Appendix A.

**PSD Requirements:**

Eaton will limit fuel usage to 150,869 gallons per year for engine test cells TC-1 through TC-5. Therefore, the requirements of Prevention of Significant Deterioration (PSD) are not applicable to this revision.

**NSPS Requirements:**

Engine test cell TC-1 is subject to the requirements of 40 CFR Part 60, Subpart IIII, Stationary Compression Ignition Internal Combustion Engines.

**NESHAP Requirements:**

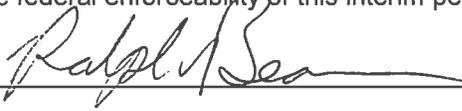
Engine test cell TC-1 is subject to the requirements of 40 CFR Part 63, Subpart ZZZZ, Reciprocating Internal Combustion Engines (RICE).

**State Rules & Requirements:**

326 IAC 2-8 – FESOP Limit  
326 IAC 2-8 – Overall Source Limit  
326 IAC 5-1 – Opacity

Federal Enforceability:

The company consents to the federal enforceability of this interim petition.

Signature: 

Printed Name: Ralph Beam

Title or Position: Plant Manager

Phone Number: 260-925-7529

Date: 18 Dec 2013

**NOTICE OF 14-DAY PERIOD  
FOR PUBLIC COMMENT**

Proposed Approval of Interim Significant Permit Revision  
for **Eaton Corporation**  
in **Dekalb County**

Notice is hereby given that the above company located at 518 Michigan Avenue, Auburn, Indiana, has made application to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for an interim permit to construct a diesel engine test cell used for testing commercial vehicle launching devices with diesel oxidation catalyst or emissions controls as specified by the engine manufacturer as air pollution control. Based on 8,760 hours per year of operation, the PM, PM10, PM2.5, SO2, NOx, VOC, CO and Total HAPs emissions are 5.78, 5.78, 5.78, 5.39, 81.47, 6.61, 17.56 and 0.068 tons per year, respectively. Easton Corporation will limit fuel usage so that this existing source will continue to operate under a Federally Enforceable State Operating Permit (FESOP) and will continue to be a minor source under Prevention of Significant Deterioration (PSD).

The company has submitted an application for a significant permit revision. The OAQ shall review the application in accordance with the Permit Review Rules. Operation of the source cannot commence until a valid operating permit is issued. The construction of the proposed project is entirely at the applicant's own risk.

Notice is hereby given that there will be a period of 14 days from the date of publication of this notice during which any interested person may comment on why this interim permit should or should not be issued. Appropriate comments should be related to air quality issues, interpretation of the applicable state and federal rules, calculations made, technical issues, or the effect that the operation of this facility would have on any aggrieved individuals. A copy of the application and staff review is available for examination at the **Eckart Library, 603 S. Jackson St., Auburn, Indiana, 46706**. All comments, along with supporting documentation, should be submitted in writing to the IDEM, OAQ, 100 North Senate Avenue, MC 61-53, Room 1003, Indianapolis, Indiana, 46204-2251.

Persons not wishing to comment at this time, but wishing to receive notice of future proceedings conducted related to this action, must submit a written request to the Office of Air Quality (OAQ), at the above address. All interested parties of record will receive a notice of the decision on this matter and will then have 15 days after receipt of the Notice of Decision to file a petition for administrative review. Procedures for filing such a petition will be enclosed with the Notice.

Questions should be directed to OAQ, 100 North Senate Avenue, MC 61-53, Room 1003, Indianapolis, Indiana, 46204-2251, or call (800) 451-6027 or (317) 233-0178.

Company Official's Signature:



Company Official's Printed Name:

Ralph Beam

Company Name:

Eaton Corporation

P.O. Box 39, KENDALLVILLE, IN 46755

PUBLISHERS OF THE STAR

Private Legal Advertising  
(Payment not from public treasury)

Advertiser: EATON CORPORATION CLUTCH PUBLISHER'S CLAIM

COMPUTATION OF CHARGE

453 words, at 0.3000 cents per word (\$6.60 minimum charge).

(This charge is applied at the discretion of the publisher to all legal advertising copy which does not conform to the usual standards of size and space.) \$ 135.90

Charge for extra proofs of publication (\$1.00 for each proof in excess of 2) \$ 0.00

Data for computing cost:

Width of sigle column - 10.5 ems

Number of insertions - 1

1 insertion \$.30 per word, 2 insertions \$.40, 3 insertions \$.50

Total Amount of Claim \$ 135.90

"Pursuant to the provisions and penalties of Chapter 155, Act 1953, (s)he further says that the foregoing account is just and correct, that the amount claimed is legally due, after allowing all just credits, and that no part of the same has been paid"

Date: 12/19/13

Kelly Crager

Ad #: 00363737

Legal Clerk

EATON CORPORATION CLUTCH DIV

PUBLISHER'S AFFIDAVIT

Noble County) SS:  
State of Indiana)

Personally appeared before me, a notary public in and for said county and state, the undersigned Kelly Crager who being duly sworn said that (s)he is of competent age and is Legal Clerk of KPC Media Group Inc, publisher of a daily newspaper in Kendallville, county of Noble, State of Indiana, a weekly newspaper in Ligonier, county of Noble, State of Indiana, a daily newspaper in Auburn, county of DeKalb, State of Indiana, a daily newspaper in Angola, county of Steuben, State of Indiana, a weekly newspaper in Garrett, county of DeKalb, State of Indiana, Butler a weekly newspaper in Butler, county of DeKalb, State of Indiana, and which during that time have been newspapers of general circulation, having bona fide paid circulations, printed in the English language and entered, authorized and accepted by the post office department of the United States of America as mailable matter of the second-class as defined by the Act of Congress of the United States on March 3, 1879, and that the printed matter attached is a true copy, which was duly published in said newspaper 1 times, the dates of publication being as follows : 12/19/2013

Affiant Kelly Crager  
Subscribed and sworn before me on this 19th day of December, 2013  
Notary Public Mary Lou Moresmith  
My commission expires May 21, 2018



NOTICE OF 14-DAY PERIOD FOR PUBLIC COMMENT  
Proposed Approval of Interim Significant Permit Revision for Eaton Corporation in Dekalb County  
Notice is hereby given that the above company located at 518 Michigan Avenue, Auburn, Indiana, has made application to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for an Interim permit to construct a diesel engine test cell used for testing commercial vehicle launching devices with diesel oxidation catalyst or emissions controls as specified by the engine manufacturer as air pollution control. Based on 8,760 hours per year of operation, the PM, PM10, PM2.5, SO2, NOx, VOC, CO and Total HAPs emissions are 5.78, 5.78, 5.78, 5.39, 81.47, 6.61, 17.56 and 0.088 tons per year, respectively. Easton Corporation will limit fuel usage so that this existing source will continue to operate under a Federally Enforceable State Operating Permit (FESOP) and will continue to be a minor source under Prevention of Significant Deterioration (PSD).  
The company has submitted an application for a significant permit revision. The OAQ shall review the application in accordance with the Permit Review Rules. Operation of the source cannot commence until a valid operating permit is issued. The construction of the proposed project is entirely at the applicant's own risk.  
Notice is hereby given that there will be a period of 14 days from the date of publication of this notice during which any interested person may comment on why this Interim permit should or should not be issued. Appropriate comments should be related to air quality issues, interpretation of the applicable state and federal rules, calculations made, technical issues, or the effect that the operation of this facility would have on any aggrieved individuals. A copy of the application and staff review is available for examination at the Eckart Library, 603 S. Jackson St., Auburn, Indiana, 46706. All comments, along with supporting documentation, should be submitted in writing to the IDEM, OAQ, 100 North Senate Avenue, MC 61-53, Room 1003, Indianapolis, Indiana, 46204-2251.  
Persons not wishing to comment at this time, but wishing to receive notice of future proceedings conducted related to this action, must submit a written request to the Office of Air Quality (OAQ), at the above address. All interested parties of record will receive a notice of the decision on this matter and will then have 15 days after receipt of the Notice of Decision to file a petition for administrative review. Procedures for filing such a petition will be enclosed with the Notice.  
Questions should be directed to OAQ, 100 North Senate Avenue, MC 61-53, Room 1003, Indianapolis, Indiana, 46204-2251, or call (800) 451-6027 or (317) 233-0178.  
Company Official's Signature:  
Company Official's Printed Name:

**Appendix A: Emission Calculations**  
**Reciprocating Internal Combustion Engines - Diesel Fuel**  
**Output Rating (<=600 HP)**  
**Maximum Input Rate (<=4.2 MMBtu/hr)**

**Company Name:** Eaton Corp. - R & D Lab  
**Address City IN Zip:** 518 Michigan Ave., Auburn, Indiana 46706  
**Permit Number:** 033-33947i-00079  
**Reviewer:** Heath Hartley  
**Date:** 12/3/13

Output Horsepower Rating (hp)	600.0
Maximum Hours Operated per Year	8760
Potential Throughput (hp-hr/yr)	5,256,000

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Potential Emission in tons/yr	5.78	5.78	5.78	5.39	81.47	6.61	17.56

\*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)**

	Pollutant							
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/hp-hr****	6.53E-06	2.86E-06	2.00E-06	2.74E-07	8.26E-06	5.37E-06	6.48E-07	1.18E-06
Potential Emission in tons/yr	0.017	7.5E-03	5.2E-03	7.19E-04	0.022	0.014	1.7E-03	3.1E-03

\*\*\*PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

\*\*\*\*Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

<b>Potential Emission of Total HAPs (tons/yr)</b>	<b>0.07</b>
---	-------------

**Green House Gas Emissions (GHG)**

	Pollutant		
	CO2	CH4	N2O
Emission Factor in lb/hp-hr	1.15E+00	4.63E-05	9.26E-06
Potential Emission in tons/yr	3.022	1.2E-01	2.4E-02

<b>Summed Potential Emissions in tons/yr</b>	<b>3.022</b>
<b>CO2e Total in tons/yr</b>	<b>3.032</b>

**Methodology**

Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2

CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] \* [Maximum Hours Operated per Year]

Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] \* [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O

Potential Emission ton/yr x N2O GWP (310).

**Appendix A: Emission Calculations  
Reciprocating Internal Combustion Engines - Diesel Fuel**

**Company Name:** Eaton Corp. - R & D Lab  
**Address City IN Zip:** 518 Michigan Ave., Auburn, Indiana 46706  
**Permit Number:** 033-33947i-00079  
**Reviewer:** Heath Hartley  
**Date:** 12/3/13

Fuel Usage Limit (Gal/yr)**	Heat Value Btu/lb	Density lb/gal
150,869	19300	7.0

	PTE of the Entire Source After Issuance (tons/yr)						
	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.0022	0.0022	0.0021	0.0680	0.0025	0.0067
Limited Emission in tons/yr	3.20	3.20	3.20	2.98	99.00	3.66	9.73

\*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.  
 \*\* Limited Fuel Usage is chosen by the source.

	PTE of HAPs for the Entire Source After Issuance (tons/yr)							
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/hp-hr****	6.53E-06	2.86E-06	2.00E-06	2.74E-07	8.26E-06	5.37E-06	6.48E-07	1.18E-06
Limited Emission in tons/yr	0.010	4.2E-03	2.9E-03	4.0E-04	0.012	7.8E-03	9.4E-04	1.7E-03

\*\*\*PAH = Polycyclic Aromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

\*\*\*\*Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr

**Total HAPs** **0.04**

**Methodology**

Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2

Limited Emission (tons/yr) = Limited Fuel Usage (gal/yr) x Heat Value (Btu/lb) x Density (lb/gal)x 1 hp-hr / 7000 Btu x Emission Factor (lb/hp-hr) / 2,000 lb/ton

**Green House Gas Emissions (GHG)**

	Pollutant		
	CO2	CH4	N2O
Emission Factor in lb/hp-hr	1.15E+00	4.64E-05	9.28E-06
Potential Emission in tons/yr	1,674	0.0675	0.0135

<b>Summed Potential Emissions in tons/yr</b>	<b>1,674</b>
<b>CO2e Total in tons/yr</b>	<b>1,680</b>

**Methodology**

CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.

Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Limited Emission (tons/yr) = Limited Fuel Usage (gal/yr) x Heat Value (Btu/lb) x Density (lb/gal)x 1 hp-hr / 7000 Btu x Emission Factor (lb/hp-hr) / 2,000 lb/ton

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

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

**Michael R. Pence**  
*Governor*

**Thomas W. Easterly**  
*Commissioner*

## SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Chad Davis  
Eaton Corp - R & D Lab  
518 Michigan Street  
Auburn, IN 46706

DATE: January 7, 2014

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

SUBJECT: Final Decision  
Interim Significant Permit Revision Petition Approval  
033-339471-00079

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

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

A copy of the final decision and supporting materials has also been sent via standard mail to:  
Ralph Beam, Responsible Official  
OAQ Permits Branch Interested Parties List

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

Final Applicant Cover letter.dot 6/13/2013

# Mail Code 61-53

IDEM Staff	PWAY 1/7/2014 Eaton Corp - R & D Lab 033-339471-00079 (final)		Type of Mail:  <b>CERTIFICATE OF MAILING ONLY</b>	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Chad Davis Eaton Corp - R & D Lab 518 Michigan St Auburn IN 46706 (Source CAATS)										
2		Ralph Beam Plant Mgr Eaton Corp - R & D Lab 201 Brandon St Auburn IN 46706 (RO CAATS)										
3		Mr. Steve Christman NISWMD 2320 W 800 S, P.O. Box 370 Ashley IN 46705 (Affected Party)										
4		DeKalb County Commissioners 100 South Main Street Auburn IN 46706 (Local Official)										
5		Ms. Diane Leroy 303 N. Jackson St. Auburn IN 46706 (Affected Party)										
6		Mr. Barry Fordanish R#3 1480 CR 66 Auburn IN 46706 (Affected Party)										
7		Auburn City Council and Mayors Office P.O. Box 506 Auburn IN 46706-0506 (Local Official)										
8		DeKalb County Health Department 220 E 7th St #110 Auburn IN 46706 (Health Department)										
9		Daniel & Sandy Trimmer 15021 Yellow River Road Columbia City IN 46725 (Affected Party)										
10		Brown & Sons Fuel Co. P.O. Box 665 Kendallville IN 46755 (Affected Party)										
11		Mr. Marty K. McCurdy 2550 County Road 27 Waterloo IN 46793 (Affected Party)										
12		YMCA of DeKalb County 533 North Street Auburn IN 46706 (Affected Party)										
13		Donela Sue Fritz 1417 Urban Ave Auburn IN 46706 (Affected Party)										
14		Grambling Construction Co. 500 Brandon St. Suite B Auburn IN 46706 (Affected Party)										
15		DeKalb Farm Mutual Insurance 525 W Michigan Ave Auburn IN 46706 (Affected Party)										

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See <b>Domestic Mail Manual R900, S913, and S921</b> for limitations of coverage on inured and COD mail. See <b>International Mail Manual</b> for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
---	--	--	--

# Mail Code 61-53

IDEM Staff	PWAY 1/7/2014 Eaton Corp - R & D Lab 033-339471-00079 (final)		Type of Mail:  <b>CERTIFICATE OF MAILING ONLY</b>	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Frederick 1633 Holliston Tr Fort Wayne IN 46825 (Affected Party)										
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See <b>Domestic Mail Manual R900, S913, and S921</b> for limitations of coverage on inured and COD mail. See <b>International Mail Manual</b> for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
---	--	--	--