



# 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

**Carol S. Comer**  
Commissioner

## NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT

Preliminary Findings Regarding a  
Significant Revision to a  
Federally Enforceable State Operating Permit (FESOP)

for CyberMetrix, Inc. in Bartholomew County

Significant Permit Revision No.: 005-36304-00106

The Indiana Department of Environmental Management (IDEM) has received an application from CyberMetrix, Inc., located at 2860 National Road, Suite A and 635 S. Mapleton Street, in Columbus, Indiana, for a significant revision of its FESOP issued on October 22, 2013. If approved by IDEM's Office of Air Quality (OAQ), this proposed revision would allow CyberMetrix, Inc. to make certain changes at its existing source. CyberMetrix, Inc. has applied to construct and operate a large Engine Simulator consisting of a hot gas generator furnace and a NOx Generator.

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 of any 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 County Public Library  
536 Fifth 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/>.

### How can you participate in this process?

The date that this notice is published in a newspaper marks the beginning of a 30-day public comment period. If the 30<sup>th</sup> 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 005-36304-00106 in all correspondence.

**Comments should be sent to:**

Joshua Levering  
IDEM, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
(800) 451-6027, ask for extension 4-6543  
Or dial directly: (317) 234-6543  
Fax: (317) 232-6749 attn: Joshua Levering  
E-mail: JLeverin@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 Permit Guide on the Internet at: <http://www.in.gov/idem/5881.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, at the IDEM Regional Office indicated above, and the IDEM public file room on the 12<sup>th</sup> floor of the Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, Indiana 46204-2251.

If you have any questions, please contact Joshua Levering or my staff at the above address.



Jenny Acker, Section Chief  
Permits Branch  
Office of Air Quality



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Governor

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**Carol S. Comer**  
Commissioner

Timothy Kirch, P.E.  
CyberMetrix, Inc.  
2860 National Road, Suite A  
Columbus, IN 47201

Re: 005-36304-00106  
Significant Revision to  
F005-33071-00106

Dear Mr. Kirch:

CyberMetrix, Inc. was issued a Federally Enforceable State Operating Permit (FESOP) No. F005-33071-00106 on October 22, 2013 for a stationary engineering services facility located at 2860 National Road, Suite A and 635 S. Mapleton Street, in Columbus, Indiana. On September 23, 2015, the Office of Air Quality (OAQ) received an application from the source requesting to construct and operate a large Engine Simulator consisting of a hot gas generator furnace and a NO<sub>x</sub> Generator. The attached Technical Support Document (TSD) provides additional explanation of the changes to the permit. 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).

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions  
The data and information supplied with the application shall be considered part of this source modification 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.
3. Effective Date of the Permit  
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
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/>. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <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 on this matter, please contact Joshua Levering of my staff at 317-234-6543 or 1-800-451-6027, and ask for extension 4-6543.

Sincerely,

Jenny Acker, Section Chief  
Permits Branch  
Office of Air Quality

Attachments: Technical Support Document and revised permit

JA/jjl

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



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**Federally Enforceable State Operating Permit  
OFFICE OF AIR QUALITY**

**CyberMetrix, Inc.  
2860 National Road, Suite A and 635 S. Mapleton Street,  
Columbus, Indiana 47201**

(herein known as the Permittee) is hereby authorized to construct and 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.: F005-33071-00106	
Issued by/Original Signed: Jenny Acker, Section Chief Permits Branch Office of Air Quality	Issuance Date: October 22, 2013  Expiration Date: October 22, 2018
Administrative Amendment No.: 005-34054-00106 Administrative Amendment No.: 005-34620-00106 Significant Permit Revision No.: 005-34855-00106 Significant Permit Revision No.: 005-36304-00106	
Issued by:  Jenny Acker, Section Chief Permits Branch Office of Air Quality	Issuance Date:  Expiration Date: October 22, 2018

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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)]

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The Permittee owns and operates a stationary engineering services facility.

Source Address:	2860 National Road, Suite A and 635 S. Mapleton Street, Columbus, Indiana 47201
General Source Phone Number:	(812) 378-5903
SIC Code:	8711 (Engineering Services)
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 Source Definition [326 IAC 2-8-1(2)]

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Pursuant to FESOP No.: F005-33071-00106, issued on October 22, 2013, CyberMetrix, Inc. consists of the following:

- (a) An engineering design and engine testing plant at 2860 National Road, Columbus, IN.
- (b) An engineering design and engine testing plant at 635 S. Mapleton Street, Columbus, IN.

Since these two (2) plants are located on contiguous or adjacent properties, belong to the same industrial grouping, and are under common control of the same entity, they are considered one (1) source as defined by 326 IAC 2-8-1-(2).

### A.3 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) Two (2) engine test cells, identified as Engine Test Cells 1 and 2, constructed in 2013, with the capability to test natural gas-fired, gasoline, E85, biodiesel, and diesel fuel-fired Reciprocating Internal Combustion Engines, each consisting of one (1) Dynamometer, each engine has a maximum power output rating of 1,500 horsepower (HP), and will be limited to 1,200 horsepower (HP) by the Dynamometer, each exhausting through two (2) stacks (Stacks 1, 2, 3, and 4).
- (b) One (1) cold chamber engine test cell, capable of being configured as either single or dual chambered, identified as Engine Test Cell 3, constructed in 2013, with the capability to test natural gas, diesel, gasoline, E85, and gasoline-fired engines, exhausting through two (2) stacks (Stacks 5 and 6).
- (c) Two (2) engine test cells, identified as Engine Test Cells 4 and 5, constructed in 2014, with the capability to test natural gas-fired, gasoline, E85, biodiesel, and diesel fuel-fired Reciprocating Internal Combustion Engines, each consisting of one (1) Dynamometer, each engine has a maximum power output rating of 1,500 horsepower (HP), each exhausting through two (2) stacks (Stacks 7, 8, 9, and 10).

- (d) Three (3) engine test cells, identified as Engine Test Cells 6, 7, and 8, constructed in 2014, with the capability to test natural gas-fired, gasoline, E85, biodiesel, and diesel fuel-fired Reciprocating Internal Combustion Engines, each consisting of one (1) Dynamometer, each engine has a maximum power output rating of 4,000 horsepower (HP), each exhausting through two (2) stacks (Stacks 11, 12, 13, and 14).
- (e) One (1) engine simulator, identified as Simulator 1, approved in 2016 for construction, used for the purposes of generating NOx emissions for testing of after-treatment emissions control equipment, equipped with a CEMS, consisting of the following emissions units:
  - (1) One (1) NOx generation system, with a maximum capacity of twenty-one (21) pounds of Ammonia per hour, used for generating NOx emissions.
  - (2) One (1) hot gas generator (furnace), with a maximum capacity of seventy-six (76) gallons of ultra-low sulfur diesel fuel per hour, or 10.26 MMBtu/hour when combusting natural gas.

A.4 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) Two (2) HVAC units, identified as H1 and H2, constructed in 2011, burning natural gas, each with a maximum capacity of 0.875 MMBtu/hr.
- (b) One (1) natural gas-fired boiler, identified as BOIL-1, constructed in 2013, with a maximum rating of 52 horsepower.

A.5 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) for 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, F005-33071-00106, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

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

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

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

### **B.4 Enforceability [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)]**

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- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent 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)]**

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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)]**

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(a) If required by specific condition(s) in Section D of this permit, 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.

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. 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).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

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

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- (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 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.

- (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 F005-33071-00106 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]

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- (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)]**

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- (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:

- (a) 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;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

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

**B.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]**

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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]**

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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]**

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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]**

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- (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]**

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- (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)]**

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- (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)]**

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- (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]**

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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]**

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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.

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- (d) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. 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**

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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) Two (2) engine test cells, identified as Engine Test Cells 1 and 2, constructed in 2013, with the capability to test natural gas-fired, gasoline, E85, biodiesel, and diesel fuel-fired Reciprocating Internal Combustion Engines, each consisting of one (1) Dynamometer, each engine has a maximum power output rating of 1,500 horsepower (HP), and will be limited to 1,200 horsepower (HP) by the Dynamometer, each exhausting through two (2) stacks (Stacks 1, 2, 3, and 4).
- (b) One (1) cold chamber engine test cell, capable of being configured as either single or dual chambered, identified as Engine Test Cell 3, constructed in 2013, with the capability to test natural gas, diesel, gasoline, E85, and gasoline-fired engines, exhausting through two (2) stacks (Stacks 5 and 6).
- (c) Two (2) engine test cells, identified as Engine Test Cells 4 and 5, constructed in 2014, with the capability to test natural gas-fired, gasoline, E85, biodiesel, and diesel fuel-fired Reciprocating Internal Combustion Engines, each consisting of one (1) Dynamometer, each engine has a maximum power output rating of 1,500 horsepower (HP), each exhausting through two (2) stacks (Stacks 7, 8, 9, and 10).
- (d) Three (3) engine test cells, identified as Engine Test Cells 6, 7, and 8, constructed in 2014, with the capability to test natural gas-fired, gasoline, E85, biodiesel, and diesel fuel-fired Reciprocating Internal Combustion Engines, each consisting of one (1) Dynamometer, each engine has a maximum power output rating of 4,000 horsepower (HP), each exhausting through two (2) stacks (Stacks 11, 12, 13, and 14).
- (e) One (1) engine simulator, identified as Simulator 1, approved in 2016 for construction, used for the purposes of generating NO<sub>x</sub> emissions for testing of after-treatment emissions control equipment, equipped with a CEMS, consisting of the following emissions units:
  - (1) One (1) NO<sub>x</sub> generation system, with a maximum capacity of twenty-one (21) pounds of Ammonia per hour, used for generating NO<sub>x</sub> emissions.
  - (2) One (1) hot gas generator (furnace), with a maximum capacity of seventy-six (76) gallons of ultra-low sulfur diesel fuel per hour, or 10.26 MMBtu/hour when combusting natural gas.

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

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

#### D.1.1 FESOP and PSD Minor Limit [326 IAC 2-8-4][326 IAC 2-2][40 CFR 63]

- (a) Pursuant to 326 IAC 2-8-4 (FESOP), the total utilization of all engine test cells, (identified as Engine Test Cells 1, 2, 3, 4, 5, 6, 7, and 8) measured in horsepower-hours, and the operation of Simulator 1, shall be limited such that the SO<sub>2</sub>, NO<sub>x</sub>, VOC and CO emissions shall each not exceed ninety-five (95) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with this limit, in conjunction with the potential to emit SO<sub>2</sub>, CO, VOC and NO<sub>x</sub> from all other emission units, shall limit the SO<sub>2</sub>, CO, VOC, and NO<sub>x</sub> emissions to

less than two-hundred fifty (250) tons per twelve (12) consecutive month period, and render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

Compliance with this limit, in conjunction with the potential to emit SO<sub>2</sub>, NO<sub>x</sub>, VOC and CO from all other emission units, shall limit the SO<sub>2</sub>, NO<sub>x</sub>, VOC and CO emissions from the source to less than one-hundred (100) tons per twelve (12) consecutive month period, each, and renders the requirements of 326 IAC 2-7 (Part 70 Program) not applicable.

- (b) Pursuant to 326 IAC 2-8-4 (FESOP), the source shall comply with the following:
- (1) The total utilization of the eight (8) engine test cells, identified as Engine Test Cells 1, 2, 3, 4, 5, 6, 7, and 8 measured in horsepower-hours, and the operation of Simulator 1, shall be limited such that the total HAPs emissions shall not exceed twenty two (22) tons per twelve (12) consecutive month period, with compliance determined at the end of each month. Limiting the NO<sub>x</sub> to less than 95 tons per year insures compliance with this limit.
  - (2) The total utilization of the eight (8) engine test cells, identified as Engine Test Cells 1, 2, 3, 4, 5, 6, 7, and 8 measured in horsepower-hours, and the operation of Simulator 1, shall be limited such that the Formaldehyde emissions shall not exceed nine and five tenth (9.5) tons per twelve (12) consecutive month period, with compliance determined at the end of each month. Limiting the NO<sub>x</sub> to less than 95 tons per year insures compliance with this limit.

Compliance with these limits, combined with the potential to emit HAP from all other emission units at this source, shall limit the source-wide total potential to emit of any single HAP to less than ten (10) tons per twelve (12) consecutive month period, total HAPs to less than twenty-five (25) tons per twelve (12) consecutive month period shall render the requirements of 326 IAC 2-7 (Part 70 Permits) not applicable and the entire source is rendered an area source of HAP emissions under Section 112 of the Clean Air Act (CAA).

#### D.1.2 BACT Limit[326 IAC 8-1-6]

The total utilization of any individual test cell, measured in horsepower-hours, shall be limited such that the VOC emissions 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 renders the requirements of 326 IAC 8-1-6 (BACT) not applicable to Engine Test Cells 1, 2, 3, 4, 5, 6, 7, and 8.

#### **Compliance Determination Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]**

#### D.1.3 Compliance Determination Requirements SO<sub>2</sub>, NO<sub>x</sub>, VOC, and CO

In order to determine compliance with the emissions limits in Condition D.1.1 (FESOP and PSD Minor Limit) and D.1.2 (BACT Minor Limit), the Permittee shall calculate monthly emissions for SO<sub>2</sub>, NO<sub>x</sub>, VOC, and CO, for each engine test cell, and the NO<sub>x</sub> Generator and furnace associated with Simulator 1, using one of the following equations as appropriate:

- (a) Emissions from noncertified engines shall be calculated using AP-42 emission factors as stated in the following chart:

AP-42 Emission Factors	SO2	NOx	VOC	CO
Diesel and Biodiesel Fuels - Less than or equal to 600 hp (lb/hp-hr)	0.0089 x S%	0.031	2.47E-03	6.68E-03
Diesel and Biodiesel Fuels - Greater than 600 hp (lb/hp-hr)	4.05E-03	2.40E-02	7.05E-04	5.50E-03
Gasoline (lb/hp-hr)	5.91E-04	0.011	0.02	6.96E-03
E85 (lb/hp-hr)*	5.91E-04	0.0088	0.02	6.26E-3
Natural Gas (lb/MMBtu)	5.88E-04	4.08	1.18E-01	3.17E-01

\*E-85 emissions: Nox emissions = 75% Gasoline NOx emissions, CO emissions = 90 % Gasoline CO emissions, all other emissions = Gasoline emissions

Diesel, Biodiesel, E85, and Gasoline:

$$E_{MX} = \left( \sum_{i=1}^N EF_{(AP-42)X} \times (HP - HR)_i \right) \times \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where:

$E_{MX}$  = Monthly Emission for Pollutant X (tons/month)

$i$  = Engine  $i$

$EF_{(AP-42)X}$  = AP-42 Emission Factor for Pollutant X for Fuel X (lb/hp-hr) or the value calculated for SO2 as stated in the above table.

$(HP-HR)_i$  = Maximum horsepower-hour operated during compliance period (hp-hr/month)

Natural Gas

$$E_{MX} = \left( \sum_{i=1}^N EF_{NGX} \times (HP - HR)_i \times BSFC_i \right) \times \frac{1 \text{ MMBtu}}{1,000,000 \text{ Btu}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where:

$E_{MX}$  = Monthly Emission for Pollutant X (tons/month)

$i$  = Engine  $i$

$EF_{NGX}$  = AP-42 Natural Gas Emission Factor for Pollutant X (lb/MMBtu)

$(HP-HR)_i$  = Maximum horsepower-hour operated per month (hp-hr/month)

$BSFC_i$  = Brake-specific fuel consumption (Btu/hp-hr)

When an average brake-specific fuel consumption (BSFC) is not available, the conversion factor of 7,000 Btu/hp-hr shall be used.

- (b) In lieu of calculated emissions as described in paragraph (a) of this condition, for engines certified to Tier 4 standards, the Permittee may use the following:

(1)

Tier 4 Emission Factors	SO2	NOx	VOC	CO
Diesel Fuel and biodiesel (g/kw-hr)	7.38E-03	3.5	0.40	3.5

Diesel and biodiesel: Tier 4

$$E_{MX} = \left( \sum_{i=1}^N EF_{(Tier\ 4)X} \times (HP - HR)_i \right) \times \frac{0.746\ KW}{hp} \times \frac{1\ lb}{453.6\ grams} \times \frac{1\ ton}{2,000\ lb}$$

Where:

- $E_{MX}$  = Monthly Emission for Pollutant X (tons/month)
- $i$  = Engine  $i$
- $EF_{(Tier\ 4)X}$  = Tier 4 Diesel Emission Factor for Pollutant X (g/kw-hr)
- $(HP-HR)_i$  = Maximum horsepower-hour operated per month (hp-hr/month)

(2) The source may use the family specific Tier 4 emission factors from the Engine Family and Models Information, Certification Test and Greenhouse Gas Data tables available online at <http://www.epa.gov/otaq/cert/eng-cert/nrci/nrci-cert-ghg-13.xls>.

(c) SO<sub>2</sub>, VOC, and CO Emissions from the combustion of diesel fuel and natural gas in the Hot Gas Generator (Furnace) shall be calculated using AP-42 emission factors as stated in the following chart:

AP-42 Emission Factors	SO2	VOC	CO
Diesel Fuel (lb/kgal)	0.213	0.34	5.0
Natural Gas (lb/MMCF)	0.6	5.50	84

Diesel:

$$E_{MX} = kgals \times EF_{(AP - 42)X} \times \frac{1\ ton}{2,000\ lb}$$

Where:

- $E_{MX}$  = Monthly Emission for Pollutant X (tons/month)
- kgals = Kilogallons of fuel combusted per month
- $EF_{(AP-42)X}$  = AP-42 Diesel Emission Factor for Pollutant X (lb/kgal)

Natural Gas:

$$E_{MX} = \frac{MMBtu}{hour} \times \frac{8,760\ hours}{1\ year} \times \frac{1\ mmBtu}{1,020\ mmscf} \times EF_{(AP - 42)X} \times \frac{1\ ton}{2,000\ lb}$$

Where:

$E_{MX}$  = Monthly Emission for Pollutant X (tons/month)  
 MMBtu/hour = Heat Input Capacity of Engine  
 $EF_{(AP-42)X}$  = AP-42 Natural Gas Emission Factor for Pollutant X (lb/MMCF)

(d) NOx emissions from the NOx Generator and the Hot Gas Generator (Furnace) associated with Simulator 1 may be recorded using the following equations and emission factors:

(1) NOx Generator:

$$NOx_{MX} = \frac{NH3 \text{ lbs}}{\text{hour}} \times \frac{46 \text{ grams of } NO2}{1 \text{ mol}} \times \frac{1 \text{ mol}}{17 \text{ grams } NH3} \times \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where:

$NOx_{MX}$  = Monthly Emission for NOx (tons/month)  
 NH3 = Ammonia (lbs)

(2) Hot Gas Generator (Furnace):

AP-42 Emission Factors	NOx
Diesel Fuel (lb/kgal)	20.0
Natural Gas (lb/MMCF)	100

Diesel:

$$E_{MX} = kgals \times EF_{(AP-42)X} \times \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where:

$E_{MX}$  = Monthly Emission for Pollutant X (tons/month)  
 kgals = Kilogallons of fuel combusted per month  
 $EF_{(AP-42)X}$  = AP-42 Diesel Emission Factor for Pollutant X (lb/kgal)

Natural Gas:

$$E_{MX} = \frac{MMBtu}{\text{hour}} \times \frac{8,760 \text{ hours}}{1 \text{ year}} \times \frac{1 \text{ mMBtu}}{1,020 \text{ mmscf}} \times EF_{(AP-42)X} \times \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where:

$E_{MX}$  = Monthly Emission for Pollutant X (tons/month)  
 MMBtu/hour = Heat Input Capacity of Engine  
 $EF_{(AP-42)X}$  (lb/MMCF) = AP-42 Natural Gas Emission Factor for Pollutant X

**D.1.4 Compliance Determination Requirements HAPs and Formaldehyde**

In order to determine compliance with the total HAPs and Formaldehyde emissions limits in Condition D.1.1 (FESOP and PSD Minor Limit), when NOx emissions for any compliance period are above the emissions limit of ninety-five (95) tons per twelve (12) consecutive month period, the Permittee shall calculate monthly total HAPs and Formaldehyde emissions for each engine test cell using the following equation as appropriate for each type of engine and fuel:

Diesel, Biodiesel, E85, and Gasoline:

$$E = \left( \sum_{N=1}^i EF_{(AP-42)} \times HP - HR_i \right) \times 1/2,000 \left( \frac{lb}{ton} \right)$$

Where:

- E = Monthly Emission for HAP (tons/month)
- i = Engine i
- EF<sub>(AP-42)</sub> = AP-42 Emission Factor for HAP for each Fuel i (lb/hp-hr)
- HP-HR<sub>i</sub> = Maximum horsepower-hour operated during compliance period (hp-hr/month)

Natural Gas:

$$E_{MX} = \frac{MMBtu}{hour} \times \frac{8,760 \text{ hours}}{1 \text{ year}} \times EF_{(AP-42)X} \times \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where:

- E<sub>MX</sub> = Monthly Emission for Pollutant X (tons/month)
- MMBtu/hour = Heat Input Capacity of Engine
- EF<sub>(AP-42)X</sub> = AP-42 Natural Gas Emission Factor for Pollutant X (lb/MMBtu)

Emissions shall be calculated using the AP-42 emission factors as stated in the following chart:

AP-42 Emission Factors	HAPs (total)	Formaldehyde
Diesel and Biodiesel Fuels - Less than or equal to 600 hp (lb/hp-hr)	2.71E-05	8.26E-06
Diesel and Biodiesel Fuels - Greater than 600 hp (lb/hp-hr)	1.10E-05	5.52E-07
Gasoline and E85 (lb/hp-hr)	1.51	7.67E-04
Natural Gas (lb/MMBtu)	7.86E-02	5.52E-02

Compliance with the NOx emissions limitation of ninety-five (95) tons per twelve (12) consecutive month period, shall limit the potential to emit HAPs to 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.

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

**D.1.5 Record Keeping Requirements**

- (a) To document the compliance status with Condition D.1.1 (FESOP and PSD Minor Limit)

and D.1.2 (BACT Minor Limit), the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the utilization usage limits established in Condition D.1.1 (FESOP and PSD Minor Limit) and D.1.2 (BACT Minor Limit). Records necessary to demonstrate compliance shall be available no later than 30 days after the end of each compliance period.

- (1) A list of engines tested and the type of fuel burned by each engine each month, in the eight (8) engine test cells.
  - (2) The horsepower-hours that each engine ran during testing for each month.
  - (3) Records of the emission factors used for SO<sub>2</sub>, NO<sub>x</sub>, VOC, and CO when combusting diesel, gasoline, and natural gas each month.
  - (4) The weight of SO<sub>2</sub>, NO<sub>x</sub>, VOC, and CO emitted for each compliance period.
  - (5) If the source uses emission factors as allowed under Condition D.1.3(b)(2), then records of the updated emission factors shall be maintained.
- (b) To document the compliance status with Condition D.1.2 (BACT Minor Limit), when NO<sub>x</sub> emissions for any compliance period are above the limit of ninety-five (95) tons per twelve (12) consecutive month period, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the utilization usage limits established in Condition D.1.2 (BACT Minor Limit). Records necessary to demonstrate compliance shall be available no later than 30 days after the end of each compliance period.
- (1) A list of engines tested and the type of fuel burned by each engine each month, in the eight (8) engine test cells.
  - (2) The horsepower-hours that each engine ran during testing for each month.
  - (3) Records of the emission factors used for formaldehyde and total HAPs when combusting diesel, Biodiesel, gasoline, E85, and natural gas each month.
  - (4) The weight of formaldehyde, and total HAPs emitted for each compliance period.
  - (5) If the source uses emission factors as allowed under Condition D.1.4, then records of the updated emission factors shall be maintained.
- (c) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

#### D.1.6 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.1.1 (FESOP and PSD Minor Limit) and D.1.2 (BACT Minor Limit), shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, no later than thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

**SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS**

**Emissions Unit Description:**

- (a) Two (2) HVAC units, identified as H1 and H2, constructed in 2011, burning natural gas, each with a maximum capacity of 0.875 MMBtu/hr.
- (b) One (1) natural gas-fired boiler, identified as BOIL-1, constructed in 2013, with a maximum rating of 52 horsepower.

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

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

**D.2.1 Particulate Emission Limitation for Sources of Indirect Heating [326 IAC 6-2]**

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Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from the emission units listed in the table above, identified as H1, H2, and BOIL-1, shall be limited to 0.6 pounds per MMBtu heat input.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**  
**OFFICE OF AIR QUALITY**  
**COMPLIANCE AND ENFORCEMENT BRANCH**  
**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)**  
**CERTIFICATION**

Source Name: CyberMetrix, Inc.  
Source Address: 2860 National Road, Suite A and 635 S. Mapleton Street, Columbus, Indiana  
47201  
FESOP Permit No.: F005-33071-00106

**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:

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

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
EMERGENCY OCCURRENCE REPORT**

Source Name: CyberMetrix, Inc.  
Source Address: 2860 National Road, Suite A and 635 S. Mapleton Street, Columbus, Indiana  
47201  
FESOP Permit No.: F005-33071-00106

**This form consists of 2 pages**

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- |   |
|---|
| <input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12) <ul style="list-style-type: none"><li>• 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</li><li>• 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</li></ul> |
|---|

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

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

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

Page 2 of 2

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

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

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

**FESOP Quarterly Report**

Source Name: CyberMetrix, Inc.  
Source Address: 2860 National Road, Suite A and 635 S. Mapleton Street, Columbus, Indiana 47201  
FESOP Permit No.: F005-33071-00106  
Facility: Engine Test Cells 1, 2, 3, 4, 5, 6, 7, 8, and, Simulator 1  
Parameter: NOx emissions  
Limit: Ninety-five (95) tons per twelve (12) consecutive month period, combined

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

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

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

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

**FESOP Quarterly Report**

Source Name: CyberMetrix, Inc.  
Source Address: 2860 National Road, Suite A and 635 S. Mapleton Street, Columbus, Indiana 47201  
FESOP Permit No.: F005-33071-00106  
Facility: Engine Test Cells 1, 2, 3, 4, 5, 6, 7, 8, and, Simulator 1  
Parameter: CO emissions  
Limit: Ninety-five (95) tons per twelve (12) consecutive month period, combined

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

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

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

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

**FESOP Quarterly Report**

Source Name: CyberMetrix, Inc.  
Source Address: 2860 National Road, Suite A, Columbus, Indiana 47201  
FESOP Permit No.: F005-33071-00106  
Facility: Engine Test Cells 1, 2, 3, 4, 5, 6, 7, 8, and, Simulator 1  
Parameter: SO2 emissions  
Limit: Ninety-five (95) tons per twelve (12) consecutive month period, combined

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

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

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

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

**FESOP Quarterly Report**

Source Name: CyberMetrix, Inc.  
Source Address: 2860 National Road, Suite A, Columbus, Indiana 47201  
FESOP Permit No.: F005-33071-00106  
Facility: Engine Test Cells 1, 2, 3, 4, 5, 6, 7, 8, and, Simulator 1  
Parameter: VOC emissions  
Limit: Ninety-five (95) tons per twelve (12) consecutive month period, combined

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

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

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

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

**FESOP Quarterly Report**

Source Name: CyberMetrix, Inc.  
Source Address: 2860 National Road, Suite A, Columbus, Indiana 47201  
FESOP Permit No.: F005-33071-00106  
Facility: Engine Test Cells 1, 2, 3, 4, 5, 6, 7, 8, and, Simulator 1  
Parameter: Total HAPs emissions  
Limit: Twenty-two (22) tons per twelve (12) consecutive month period

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

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

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

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

**FESOP Quarterly Report**

Source Name: CyberMetrix, Inc.  
Source Address: 2860 National Road, Suite A, Columbus, Indiana 47201  
FESOP Permit No.: F005-33071-00106  
Facility: Engine Test Cells 1, 2, 3, 4, 5, 6, 7, 8, and, Simulator 1  
Parameter: Formaldehyde emissions  
Limit: Nine and a half (9.5) tons per twelve (12) consecutive month period

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

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

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

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

**FESOP Quarterly Report**

Source Name: CyberMetrix, Inc.  
Source Address: 2860 National Road, Suite A, Columbus, Indiana 47201  
FESOP Permit No.: F005-33071-00106  
Facility: Engine Test Cell 1, 2, 3, 4, 5, 6, 7, and 8  
Parameter: VOC emissions  
Limit: Twenty-five (25) tons per twelve (12) consecutive month period for each test cell

**ENGINE:** \_\_\_\_\_ **QUARTER:** \_\_\_\_\_ **YEAR:** \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

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

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

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH  
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: CyberMetrix, Inc.  
Source Address: 2860 National Road, Suite A and 635 S. Mapleton Street, Columbus, Indiana  
47201  
FESOP Permit No.: F005-33071-00106

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

<p>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".</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

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

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

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

CyberMetrix, Inc.  
2860 National Road, Suite A and 635 S. Mapleton Street  
Columbus, Indiana 47201

**Affidavit of Construction**

I, \_\_\_\_\_, being duly sworn upon my oath, depose and say:  
(Name of the Authorized Representative)

1. I live in \_\_\_\_\_ 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 \_\_\_\_\_ for \_\_\_\_\_  
(Title) (Company Name)
3. By virtue of my position with \_\_\_\_\_, I have personal  
(Company Name)  
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of \_\_\_\_\_  
(Company Name)
4. I hereby certify that CyberMetrix, Inc. 2860 National Road, Suite A and 635 S. Mapleton Street, Columbus, Indiana 47201, completed construction of the engineering services facility on \_\_\_\_\_ in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on April 10, 2013 and as permitted pursuant to New Source Construction Permit and Federally Enforceable State Operating Permit No. F005-33071-00106, Plant ID No. 005-00106 issued on \_\_\_\_\_.
5. **Permittee, please cross out the following statement if it does not apply:** Additional (operations/facilities) were constructed/substituted as described in the attachment to this document and were not made in accordance with the construction permit.

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 \_\_\_\_\_  
Date \_\_\_\_\_

STATE OF INDIANA)  
)SS

COUNTY OF \_\_\_\_\_ )

Subscribed and sworn to me, a notary public in and for \_\_\_\_\_ County and State of Indiana  
on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_. My Commission expires: \_\_\_\_\_.

Signature \_\_\_\_\_  
Name \_\_\_\_\_ (typed or printed)

**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)

<b>Source Description and Location</b>
--

<b>Source Name:</b>	<b>CyberMetrix, Inc.</b>
<b>Source Location:</b>	<b>2860 National Road, Suite A and 635 S. Mapleton Street, Columbus, IN 47201</b>
<b>County:</b>	<b>Bartholomew</b>
<b>SIC Code:</b>	<b>8711 (Engineering Services)</b>
<b>Operation Permit No.:</b>	<b>F 005-36304-00106</b>
<b>Operation Permit Issuance Date:</b>	<b>October 22, 2013</b>
<b>Significant Permit Revision No.:</b>	<b>005-36304-00106</b>
<b>Permit Reviewer:</b>	<b>Joshua Levering</b>

On September 23, 2015, the Office of Air Quality (OAQ) received an application from CyberMetrix, Inc. related to modification to an existing stationary engineering services facility.

<b>Source Definition</b>
--------------------------

The following determination was initially made under FESOP Administrative Amendment No. 005-34054-00106, issued on January 24, 2014. These plants are located on adjacent properties, have the same two-digit SIC codes of 8711, and are under common control; therefore, they have been considered one (1) source, as defined by 326 IAC 2-7-1(22).

CyberMetrix, Inc. operates an engineering design and engine testing plant at 2860 National Road, Columbus. CyberMetrix, Inc. is adding a second plant at 635 S. Mapleton Street, Columbus. The plants will be 2.4 miles apart. IDEM, OAQ has examined whether these plants are part of the same major source. The term "major source" is defined at 326 IAC 2-7-1(22). In order for two plants to be considered one major source, they must meet all three of the following criteria:

- (1) the plants must be under common ownership or common control;
- (2) the plants must have the same two-digit Standard Industrial Classification (SIC) Code or one must serve as a support facility for another; and,
- (3) the plants must be located on contiguous or adjacent properties.

The plants are both owned and operated by CyberMetrix, Inc. Therefore, the plants are under common ownership and common control, meeting the first part of the major source definition.

The SIC Code Manual of 1987 sets out how to determine the proper SIC Code for each type of business. More information about SIC Codes is available at [http://www.osha.gov/pls/imis/sic\\_manual.html](http://www.osha.gov/pls/imis/sic_manual.html) on the Internet. The SIC Code is determined by looking at the principal product or activity of each plant. The principal activity of both plants is to provide engineering services to industry. The plants have the same two-digit SIC Code, 87, for the Major Group Engineering, Accounting, Research Management, and Related Services.

A plant is a support facility to another plant if it dedicates 50% or more of its output to the other plant. The two plants will send testing equipment and engines to each other, depending on the type of services being provided. Though the amount of output will vary, 50% or more of the total output of each plant will go to the other plant. This amount of output will make each plant a support facility to the other. The second part of the major source definition is met.

The last part of the definition is whether the plants are on the same, contiguous or adjacent properties. The plants are not located on the same or contiguous properties. Therefore IDEM must determine if the plants are located on adjacent properties.

The term "adjacent" is not defined in Indiana's rules. IDEM's Nonrule Policy Document Air-005, *Guidance on Definition of "Source" for Collocated Activities* (available at <http://www.in.gov/idem/4694.htm> on IDEM's website) is used to apply the definition of "major source" in 326 IAC 2-1-7(22). NPD Air-005 adds the following guidance regarding adjacent properties:

- properties that actually abut at any point would satisfy the requirement of contiguous or adjacent property.
- properties that are separated by a public road or public property would satisfy this requirement, absent special circumstances.
- other scenarios would be examined on an individual basis with the focus on the distance between the activities and the relationship between the activities.

The U.S. EPA has a similar view on how to interpret the term "adjacent" when defining a source. Two U.S. EPA letters; the May 21, 1988 letter from U.S. EPA Region 8 to the Utah Division of Air Quality, and the U.S. EPA Region 5 letter dated October 18, 2010 to Scott Huber at Summit Petroleum Corporation, discuss the term "adjacent" as it is used in making major source determinations. These letters are not binding on IDEM but they are persuasive for two reasons. The letters follow the guidance in NPD Air-005 that IDEM will examine both the distance between the sources and their relationship and, secondly, they illustrate a longstanding U.S. EPA analysis used to determine if two sources are "adjacent" going back to the preamble to the 1980 NSR program definition of "major source". U.S. EPA's consistent approach is that any evaluation of what is "adjacent" must relate to the guiding principal of a common sense notion of "source".

All IDEM evaluations of adjacency are done on a case-by-case basis looking at the specific factors for the plants involved. In addition to determining the distance between the plant properties, IDEM asks:

- (1) Are materials routinely transferred between the plants?
- (2) Do managers or other workers frequently shuttle back and forth to be involved actively in the plants?
- (3) Is the production process itself split in any way between the plants?

These questions focus on whether the separate plants are so interrelated that they are functioning as one plant, and whether the distance between them is small enough that it enables them to operate as one plant. U.S. EPA Assistant Administrator Gina McCarty issued a memorandum on September 22, 2009 that confirmed U.S. EPA's view that each source determination must be done on a case-by-case basis and stated that after that analysis is completed it may be that physical proximity serves as an overwhelming factor in determining if the plants are adjacent.

The existing plant property is 2.4 miles from the new plant property. There is no dedicated physical connection between the two plants such as a dedicated rail spur, pipeline or private road. The plants will share production workers and managers, who will travel between the plants multiple times per day, as testing work will be done at both locations.

Testing equipment and engines will be transferred between the plants on a routine basis. An engine that is tested at the existing plant may also be tested under other conditions at the new plant. Each plant will send 50% or more of its total output to the other plant. Considering all these factors, IDEM, OAQ finds that the plants are located on adjacent properties and therefore meet the third part of the major source definition.

The plants meet all three elements of the major source definition. Therefore, IDEM, OAQ finds that these two CyberMetrix, Inc. plants are part of the same major source.

### Existing Approvals

The source was issued FESOP No. F005-33071-00106 on October 22, 2013. The source has since received the following approvals:

- (a) Administrative Amendment No. 005-34054-00106, issued on January 24, 2014;
- (b) Administrative Amendment No. 005-34620-00106, issued on July 23, 2014; and
- (c) Significant Permit Revision No. 005-34855-00106, issued on December 22, 2014.

### County Attainment Status

The source is located in Bartholomew County.

Pollutant	Designation
SO <sub>2</sub>	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O <sub>3</sub>	Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard. <sup>1</sup>
PM <sub>10</sub>	Unclassifiable effective November 15, 1990.
PM <sub>2.5</sub>	Unclassifiable or attainment effective April 5, 2005, for the annual PM <sub>2.5</sub> standard.
PM <sub>2.5</sub>	Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM <sub>2.5</sub> standard.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.

<sup>1</sup>Unclassifiable 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 (NO<sub>x</sub>) 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 NO<sub>x</sub> 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 NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) **PM<sub>2.5</sub>**  
Bartholomew County has been classified as attainment for PM<sub>2.5</sub>. Therefore, direct PM<sub>2.5</sub>, SO<sub>2</sub>, and NO<sub>x</sub> 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 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 of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard 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.

**Status of the 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:

This PTE table is from the TSD of Appendix A of 005-34855-00106, issued on December 22, 2014.

Process/ Emission Unit	Potential To Emit of the Entire Source Prior to Revision (tons/year)								
	PM	PM10*	PM2.5**	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Total HAPs	Worst Single HAP
Test Cell 1	4.74	5.59	5.59	< 95	< 95	< 95	< 95	< 22	< 9.5 Formaldehyde
Test Cell 2	4.74	5.59	5.59						
Test Cell 3	4.74	5.59	5.59						
Test Cell 4	12.63	12.63	12.63						
Test Cell 5	12.63	12.63	12.63						
Test Cell 6	12.63	12.63	12.63						
Test Cell 7	4.74	5.59	5.59						
Test Cell 8	4.74	5.59	5.59						
H1 & H2	0.01	0.06	0.06						
BOIL-1	1.10E-03	4.41E-03	4.41E-03						
<b>Total PTE of Entire Source</b>	<b>61.60</b>	<b>65.89</b>	<b>65.89</b>	<b>&lt;100</b>	<b>&lt;100</b>	<b>&lt;100</b>	<b>&lt;100</b>	<b>&lt; 22</b>	<b>&lt; 9.5</b>
Title V Major Source Thresholds	-	100	100	100	100	100	100	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	250	-	-
negl. = negligible * Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a "regulated air pollutant". **PM <sub>2.5</sub> listed is direct PM <sub>2.5</sub> .									

- (a) This existing source is not a major stationary source under PSD (326 IAC 2-2), because no PSD regulated pollutant, excluding GHGs, is emitted at a rate of 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 HAPs, as defined in 40 CFR 63.41, because the unlimited potential to emit HAPs is 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. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

**Description of Proposed Revision**

The Office of Air Quality (OAQ) has reviewed an application, submitted by CyberMetrix, Inc. on September 23, 2015, relating to the construction and operation of a large Engine Simulator consisting of a hot gas generator furnace and a NO<sub>x</sub> Generator. This equipment will simulate the exhaust of a diesel engine for the purposes of final development and testing of after-treatment emissions control equipment.

The following is a list of the new emission units and pollution control device:

- (a) One (1) engine simulator, identified as Simulator 1, approved in 2016 for construction, used for the purposes of generating NO<sub>x</sub> emissions for testing of after-treatment emissions control equipment, equipped with a CEMS, consisting of the following emissions units:
  - (1) One (1) NO<sub>x</sub> generation system, with a maximum capacity of twenty-one (21) pounds of Ammonia per hour, used for generating NO<sub>x</sub> emissions.

- (2) One (1) hot gas generator (furnace), with a maximum capacity of seventy-six (76) gallons of ultra-low sulfur diesel fuel per hour, or 10.26 MMBtu/hour when combusting natural gas.

**Enforcement Issues**

There are no pending enforcement actions related to this revision.

**Emission Calculations**

See Appendix A of this TSD for detailed emission calculations.

**Permit Level Determination – FESOP Revision**

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. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Process/ Emission Unit	PTE of Proposed Revision (tons/year)									
	PM	PM10	PM2.5	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	GHGs as CO <sub>2e</sub>	Total HAPs	Worst Single HAP
NO <sub>x</sub> generation system	--	--	--	--	248.89	--	--	--	--	--
Hot Gas Generator (Diesel Comb.)	0.67	0.79	0.71	0.07	6.66	--	--	--	--	--
Hot Gas Generator (Natural Gas Comb.)	--	--	--	--	--	0.24	3.70	--	0.08	0.08
<b>Total PTE of Proposed Revision</b>	<b>0.67</b>	<b>0.79</b>	<b>0.71</b>	<b>0.07</b>	<b>255.54</b>	<b>0.24</b>	<b>3.70</b>	--	<b>0.08</b>	<b>Hexane 0.08</b>

negl. = negligible

Note: Only potential to emit of worst case pollutant is shown for the Hot Gas Generator depending on which fuel is combusted.

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<sub>x</sub>).

**PTE of the Entire Source After Issuance of the FESOP Revision**

The table below summarizes the potential to emit of the entire source, with updated emissions shown as **bold** values and previous emissions shown as ~~strike through~~ values.

Process/ Emission Unit	Potential To Emit of the Entire Source after the Revision (tons/year)								
	PM	PM10*	PM2.5*	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Total HAPs	Worst Single HAP
Engine Test Cell 1	4.74	5.59	5.59	< 95	< 95	< 95	< 95	< 22	< 9.5 Formaldehyde
Engine Test Cell 2	4.74	5.59	5.59						
Engine Test Cell 3	4.74	5.59	5.59						
Engine Test Cell 4	12.63	12.63	12.63						
Engine Test Cell 5	12.63	12.63	12.63						
Engine Test Cell 6	12.63	12.63	12.63						
Engine Test Cell 7	4.74	5.59	5.59						
Engine Test Cell 8	4.74	5.59	5.59						
<b>NO<sub>x</sub> generation system</b>	--	--	--						
<b>Hot Gas Generator (Diesel Comb.)</b>	<b>0.67</b>	<b>0.79</b>	<b>0.71</b>						
<b>Hot Gas Generator (Natural Gas Comb.)</b>	--	--	--						
H1 & H2	0.01	0.06	0.06	4.60E-03	0.77	0.04	0.64	0.01	5.749E-04 Formaldehyde
BOIL-1	1.10E-03	4.41E-03	4.41E-03	3.48E-04	0.06	3.19E-03	0.05	1.09E-03	4.347E-05 Formaldehyde
Total PTE of Entire Source	<del>64.60</del> <b>62.26</b>	<del>65.89</del> <b>66.68</b>	<del>65.89</del> <b>66.60</b>	<del>95.04</del> <b>95.00</b>	95.82	<del>95.04</del> <b>95.05</b>	95.69	<25	<10 Formaldehyde
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	25	10
PSD Major Source Thresholds**	250	250	250	250	250	250	250	NA	NA
Nonattainment NSR Major Source Thresholds	--	--	--	--	--	--	--	NA	NA
negl. = negligible * Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a "regulated air pollutant". **PM <sub>2.5</sub> listed is direct PM <sub>2.5</sub> .									

The table below summarizes the potential to emit of the entire source after issuance of this revision, reflecting all limits, of the emission units. (Note: the table below was generated from the above table, with bold text un-bolded and strikethrough text deleted).

Process/ Emission Unit	Potential To Emit of the Entire Source after the Revision (tons/year)								
	PM	PM10*	PM2.5*	SO <sub>2</sub>	NOx	VOC	CO	Total HAPs	Worst Single HAP
Engine Test Cell 1	4.74	5.59	5.59	< 95	< 95	< 95	< 95	< 22	< 9.5 Formaldehyde
Engine Test Cell 2	4.74	5.59	5.59						
Engine Test Cell 3	4.74	5.59	5.59						
Engine Test Cell 4	12.63	12.63	12.63						
Engine Test Cell 5	12.63	12.63	12.63						
Engine Test Cell 6	12.63	12.63	12.63						
Engine Test Cell 7	4.74	5.59	5.59						
Engine Test Cell 8	4.74	5.59	5.59						
NOx generation system	--	--	--						
Hot Gas Generator (Diesel Comb.)	0.67	0.79	0.71						
Hot Gas Generator (Natural Gas Comb.)	--	--	--						
H1 & H2	0.01	0.06	0.06	4.60E-03	0.77	0.04	0.64	0.01	5.749E-04 Formaldehyde
BOIL-1	1.10E-03	4.41E-03	4.41E-03	3.48E-04	0.06	3.19E-03	0.05	1.09E-03	4.347E-05 Formaldehyde
Total PTE of Entire Source	62.26	66.68	66.60	95.00	95.82	95.05	95.69	<25	<10 Formaldehyde
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	25	10
PSD Major Source Thresholds**	250	250	250	250	250	250	250	NA	NA
Nonattainment NSR Major Source Thresholds	--	--	--	--	--	--	--	NA	NA
negl. = negligible * Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a "regulated air pollutant". **PM <sub>2.5</sub> listed is direct PM <sub>2.5</sub> .									

- (a) **FESOP Status**  
 This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants and HAPs from the entire source will still be limited

to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP).

(1) Criteria Pollutants

In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), the source shall comply with the following:

- (i) The total utilization of the eight (8) engine test cells, identified as Engine Test Cells 1, 2, 3, 4, 5, 6, 7, and 8 measured in horsepower-hours, and the operation of Simulator 1 shall be limited such that the SO<sub>2</sub>, NO<sub>x</sub>, VOC and CO emissions shall each not exceed ninety-five (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 SO<sub>2</sub>, NO<sub>x</sub>, VOC, and CO from all other emission units at this source, shall limit the source-wide total potential to emit of SO<sub>2</sub>, NO<sub>x</sub>, 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) not applicable.

(2) HAPs

In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), the source shall comply with the following:

- (i) The total utilization of the eight (8) engine test cells, identified as Engine Test Cells 1, 2, 3, 4, 5, 6, 7, and 8 measured in horsepower-hours, and the operation of Simulator 1 shall be limited such that the total HAPs emissions shall not exceed twenty two (22) tons per twelve (12) consecutive month period, with compliance determined at the end of each month. Limiting the NO<sub>x</sub> to less than 95 tons per year insures compliance with this limit.
- (ii) The total utilization of the eight (8) engine test cells, identified as Engine Test Cells 1, 2, 3, 4, 5, 6, 7, and 8 measured in horsepower-hours, and the operation of Simulator 1 shall be limited such that the Formaldehyde emissions shall not exceed nine and half (9.5) tons per twelve (12) consecutive month period, with compliance determined at the end of each month. Limiting the NO<sub>x</sub> to less than 95 tons per year insures compliance with this limit.

Compliance with these limits, combined with the potential to emit HAP from all other emission units at this source, shall limit the source-wide total potential to emit of any single HAP to less than ten (10) tons per twelve (12) consecutive month period, total HAPs to less than twenty-five (25) tons per twelve (12) consecutive month period shall render the requirements of 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP) not applicable.

(b) PSD Minor Source – PM

This modification to an existing PSD minor stationary source will not change the PSD minor status, because the potential to emit PM from the entire source will continue to be less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

### **Federal Rule Applicability Determination**

#### New Source Performance Standards (NSPS)

- (a) There are no 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) There are no new National Emission Standards for Hazardous Air Pollutants (40 CFR Part 63), 326 IAC 14 and 326 IAC 20 included for this proposed revision.

#### Compliance Assurance Monitoring (CAM)

- (a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the 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.

### **State Rule Applicability Determination**

- (a) 326 IAC 2-8-4 (FESOP)  
This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP). See PTE of the Entire Source After Issuance of the FESOP Revision Section above.
- (b) 326 IAC 2-2 (Prevention of Significant Deterioration (PSD))  
This revision to an existing PSD minor stationary source will not change the PSD minor status, because the potential to emit of all attainment regulated pollutants from the entire source will continue to be less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply. See PTE of the Entire Source After Issuance of the FESOP Revision Section above.
- (c) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))  
The proposed revision is not subject to the requirements of 326 IAC 2-4.1, since the unlimited potential to emit of HAPs from the new unit is 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.
- (d) 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, or LaPorte 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.
- (e) 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.

- (f) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)  
 Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source 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.
- (g) 326 IAC 12 (New Source Performance Standards)  
 See Federal Rule Applicability Section of this TSD.
- (h) 326 IAC 20 (Hazardous Air Pollutants)  
 See Federal Rule Applicability Section of this TSD.

Engine Simulator (Simulator 1)

- (a) 326 IAC 6-2-1 (Particulate Emission Limitations for Sources of Indirect Heating)  
 The Hot Gas Generator (Furnace) associated with Simulator 1 is not a source of indirect heating because the hot gas is used to directly heat a stream of NOx gas being used to simulate an exhaust stream.
- (b) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)  
 Pursuant to 326 IAC 1-2-59, the requirements of 326 IAC 6-3-2 are not applicable to the Hot Gas Generator (Furnace), since liquid and gaseous fuels and combustion air are not considered as part of the process weight. In addition, pursuant to 326 IAC 6-3-1(b)(14), the Hot Gas Generator (Furnace) is exempt from the requirements of 326 IAC 6-3, because the potential particulate emissions are less than five hundred fifty-one thousandths (0.551) pound per hour.
- (c) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)  
 The unlimited VOC potential emissions from the NOx Generator and the Hot Gas Generator (Furnace) associated with Simulator 1 are less than twenty-five (25) tons per year. Therefore, the proposed revision is not subject to the requirements of 326 IAC 8-1-6.

<b>Compliance Determination, Monitoring and Testing Requirements</b>
--

- (a) The compliance determination requirements applicable to this proposed revision are as follows:
  - (1) SO2, VOC, and CO Emissions from the combustion of diesel fuel and natural gas in the furnace associated with Simulator 1 shall be calculated using AP-42 emission factors as stated in the following chart:

AP-42 Emission Factors	SO2	VOC	CO
Diesel Fuel (lb/kgal)	0.213	0.34	5.0
Natural Gas (lb/MMCF)	0.6	5.50	84

Diesel:

$$E_{MX} = \text{kgals} \times \text{EF}(\text{AP} - 42) \times \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where:

$E_{MX}$  = Monthly Emission for Pollutant X (tons/month)  
 kgals = Kilogallons of fuel combusted per month  
 $EF_{(AP-42)X}$  = AP-42 Diesel Emission Factor for Pollutant X (lb/kgal)

Natural Gas:

$$E_{MX} = \frac{MMBtu}{hour} \times \frac{8,760 \text{ hours}}{1 \text{ year}} \times \frac{1 \text{ mmBtu}}{1,020 \text{ mmscf}} \times EF_{(AP-42)X} \times \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where:

$E_{MX}$  = Monthly Emission for Pollutant X (tons/month)  
 MMBtu/hour = Heat Input Capacity of Engine  
 $EF_{(AP-42)X}$  = AP-42 Natural Gas Emission Factor for Pollutant X (lb/MMCF)

(2) NOx emissions from the NOx Generator and the Hot Gas Generator (Furnace) associated with Simulator 1 may be recorded using the following equations and emission factors:

(a) NOx Generator:

$$NOx_{MX} = \frac{NH3 \text{ lbs}}{hour} \times \frac{46 \text{ grams of } NO2}{1 \text{ mol}} \times \frac{1 \text{ mol}}{17 \text{ grams } NH3} \times \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where:

$NOx_{MX}$  = Monthly Emission for NOx (tons/month)  
 NH3 = Ammonia (lbs)

(b) Hot Gas Generator (Furnace):

AP-42 Emission Factors	NOx
Diesel Fuel (lb/kgal)	20.0
Natural Gas (lb/MMCF)	100

Diesel:

$$E_{MX} = kgals \times EF_{(AP-42)X} \times \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where:

$E_{MX}$  = Monthly Emission for Pollutant X (tons/month)  
 kgals = Kilogallons of fuel combusted per month  
 $EF_{(AP-42)X}$  = AP-42 Diesel Emission Factor for Pollutant X (lb/kgal)

Natural Gas:

$$E_{MX} = \frac{MMBtu}{hour} \times \frac{8,760 \text{ hours}}{1 \text{ year}} \times \frac{1 \text{ mMBtu}}{1,020 \text{ mmscf}} \times EF_{(AP-42)X} \times \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where:

$E_{MX}$  = Monthly Emission for Pollutant X (tons/month)  
MMBtu/hour = Heat Input Capacity of Engine  
 $EF_{(AP-42)X}$  = AP-42 Natural Gas Emission Factor for Pollutant X (lb/MMCF)

The existing compliance requirements will not change as a result of this revision. The source shall continue to comply with the applicable requirements and permit conditions as contained in FESOP No: F005-33071-00106, issued on October 22, 2013.

### Proposed Changes

The following changes listed below are due to the proposed (*revision or amendment*). Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:

#### A.3 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) Two (2) engine test cells, identified as Engine Test Cells 1 and 2, ~~both approved~~ **constructed** in 2013 ~~for construction~~, with the capability to test natural gas-fired, gasoline, E85, biodiesel, and diesel fuel-fired Reciprocating Internal Combustion Engines, each consisting of one (1) Dynamometer, each engine has a maximum power output rating of 1,500 horsepower (HP), and will be limited to 1,200 horsepower (HP) by the Dynamometer, each exhausting through two (2) stacks (Stacks 1, ~~2, 3, and through~~ **4**).
- (b) One (1) cold chamber engine test cell, capable of being configured as either single or dual chambered, identified as Engine Test Cell 3, ~~approved in~~ **constructed in** 2013 ~~for construction~~, with the capability to test natural gas, diesel, gasoline, E85, and gasoline-fired engines, exhausting through two (2) stacks (Stacks 5 and 6).
- (c) Two (2) engine test cells, identified as Engine Test Cells 4 and 5, ~~both approved~~ **constructed** in 2014 ~~for construction~~, with the capability to test natural gas-fired, gasoline, E85, biodiesel, and diesel fuel-fired Reciprocating Internal Combustion Engines, each consisting of one (1) Dynamometer, each engine has a maximum power output rating of 1,500 horsepower (HP), each exhausting through two (2) stacks (Stacks 7, ~~8, 9, and through~~ **10**).
- (d) Three (3) engine test cells, identified as Engine Test Cells 6, 7, and 8, ~~both approved~~ **constructed** in 2014 ~~for construction~~, with the capability to test natural gas-fired, gasoline, E85, biodiesel, and diesel fuel-fired Reciprocating Internal Combustion Engines, each consisting of one (1) Dynamometer, each engine has a maximum power output rating of 4,000 horsepower (HP), each exhausting through two (2) stacks (Stacks 11, ~~12, 13, and through~~ **14**).
- (e) **One (1) engine simulator, identified as Simulator 1, approved in 2016 for construction, used for the purposes of generating NOx emissions for testing of after-treatment emissions control equipment, equipped with a CEMS, consisting of the following emissions units:**
  - (1) **One (1) NOx generation system, with a maximum capacity of twenty-one (21) pounds of Ammonia per hour, used for generating NOx emissions.**

- (2) **One (1) hot gas generator (furnace), with a maximum capacity of seventy-six (76) gallons of ultra-low sulfur diesel fuel per hour, or 10.26 MMBtu/hour when combusting natural gas.**

A.4 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) Two (2) HVAC units, identified as H1 and H2, constructed in 2011, burning natural gas, each with a maximum capacity of 0.875 MMBtu/hr.
- (b) One (1) natural gas-fired boiler, identified as BOIL-1, ~~approved~~ **constructed** in 2013 ~~for construction~~, with a maximum rating of 52 horsepower.

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SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) Two (2) engine test cells, identified as Engine Test Cells 1 and 2, ~~both approved~~ **constructed** in 2013 ~~for construction~~, with the capability to test natural gas-fired, gasoline, E85, biodiesel, and diesel fuel-fired Reciprocating Internal Combustion Engines, each consisting of one (1) Dynamometer, each engine has a maximum power output rating of 1,500 horsepower (HP), and will be limited to 1,200 horsepower (HP) by the Dynamometer, each exhausting through two (2) stacks (Stacks 1, ~~2, 3, and through 4~~).
- (b) One (1) cold chamber engine test cell, capable of being configured as either single or dual chambered, identified as Engine Test Cell 3, ~~approved in~~ **constructed in** 2013 ~~for construction~~, with the capability to test natural gas, diesel, gasoline, E85, and gasoline-fired engines, exhausting through two (2) stacks (Stacks 5 and 6).
- (c) Two (2) engine test cells, identified as Engine Test Cells 4 and 5, ~~both approved~~ **constructed** in 2014 ~~for construction~~, with the capability to test natural gas-fired, gasoline, E85, biodiesel, and diesel fuel-fired Reciprocating Internal Combustion Engines, each consisting of one (1) Dynamometer, each engine has a maximum power output rating of 1,500 horsepower (HP), each exhausting through two (2) stacks (Stacks 7, ~~8, 9, and through 10~~).
- (d) Three (3) engine test cells, identified as Engine Test Cells 6, 7, and 8, ~~both approved~~ **constructed** in 2014 ~~for construction~~, with the capability to test natural gas-fired, gasoline, E85, biodiesel, and diesel fuel-fired Reciprocating Internal Combustion Engines, each consisting of one (1) Dynamometer, each engine has a maximum power output rating of 4,000 horsepower (HP), each exhausting through two (2) stacks (Stacks 11, ~~12, 13, and through 14~~).
- (e) **One (1) engine simulator, identified as Simulator 1, approved in 2016 for construction, used for the purposes of generating NOx emissions for testing of after-treatment emissions control equipment, equipped with a CEMS, consisting of the following emissions units:**
  - (1) **One (1) NOx generation system, with a maximum capacity of twenty-one (21) pounds of Ammonia per hour, used for generating NOx emissions.**
  - (2) **One (1) hot gas generator (furnace), with a maximum capacity of**

**seventy-six (76) gallons of ultra-low sulfur diesel fuel per hour, or 10.26 MMBtu/hour when combusting natural gas.**

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

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

D.1.1 FESOP and PSD Minor Limit [326 IAC 2-8-4][326 IAC 2-2][40 CFR 63]

(a) Pursuant to 326 IAC 2-8-4 (FESOP), the total utilization of all engine test cells, (identified as Engine Test Cells 1, 2, 3, 4, 5, 6, 7, and 8) measured in horsepower-hours, **and the operation of Simulator 1**, shall be limited such that the SO<sub>2</sub>, NO<sub>x</sub>, VOC and CO emissions shall each not exceed ninety-five (95) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

\*\*\*

(b) Pursuant to 326 IAC 2-8-4 (FESOP), the source shall comply with the following:

(1) The total utilization of the eight (8) engine test cells, identified as Engine Test Cells 1, 2, 3, 4, 5, 6, 7, and 8 measured in horsepower-hours, **and the operation of Simulator 1**, shall be limited such that the total HAPs emissions shall not exceed twenty two (22) tons per twelve (12) consecutive month period, with compliance determined at the end of each month. Limiting the NO<sub>x</sub> to less than 95 tons per year insures compliance with this limit.

(2) The total utilization of the eight (8) engine test cells, identified as Engine Test Cells 1, 2, 3, 4, 5, 6, 7, and 8 measured in horsepower-hours, **and the operation of Simulator 1**, shall be limited such that the Formaldehyde emissions shall not exceed nine and five tenth (9.5) tons per twelve (12) consecutive month period, with compliance determined at the end of each month. Limiting the NO<sub>x</sub> to less than 95 tons per year insures compliance with this limit.

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

D.1.3 Compliance Determination Requirements SO<sub>2</sub>, NO<sub>x</sub>, VOC, and CO

In order to determine compliance with the emissions limits in Condition D.1.1 (FESOP and PSD Minor Limit) and D.1.2 (BACT Minor Limit), the Permittee shall calculate monthly emissions for SO<sub>2</sub>, NO<sub>x</sub>, VOC, and CO for each engine test cell, **and the NO<sub>x</sub> Generator and furnace associated with Simulator 1**, using one of the following equations as appropriate ~~for each type of engine and fuel~~:

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(c) **SO<sub>2</sub>, VOC, and CO Emissions from the combustion of diesel fuel and natural gas in the furnace associated with Simulator 1 shall be calculated using AP-42 emission factors as stated in the following chart:**

AP-42 Emission Factors	SO <sub>2</sub>	VOC	CO
Diesel Fuel (lb/kgal)	0.213	0.34	5.0
Natural Gas (lb/MMCF)	0.6	5.50	84

Diesel:

$$E_{MX} = \text{kgals} \times \text{EF}_{(\text{AP} - 42)\text{X}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where:

$E_{MX}$  = Monthly Emission for Pollutant X (tons/month)  
 kgals = Kilogallons of fuel combusted per month  
 $\text{EF}_{(\text{AP} - 42)\text{X}}$  = AP-42 Diesel Emission Factor for Pollutant X (lb/kgal)

Natural Gas:

$$E_{MX} = \frac{\text{MMBtu}}{\text{hour}} \times \frac{8,760 \text{ hours}}{1 \text{ year}} \times \frac{1 \text{ mmbtu}}{1,020 \text{ mmscf}} \times \text{EF}_{(\text{AP} - 42)\text{X}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where:

$E_{MX}$  = Monthly Emission for Pollutant X (tons/month)  
 MMBtu/hour = Heat Input Capacity of Engine  
 $\text{EF}_{(\text{AP} - 42)\text{X}}$  = AP-42 Natural Gas Emission Factor for Pollutant X (lb/MMCF)

(d) NOx emissions from the NOx Generator and the Hot Gas Generator (Furnace) associated with Simulator 1 may be recorded using the following equations and emission factors:

(1) NOx Generator:

$$\text{NOx}_{MX} = \frac{\text{NH}_3 \text{ lbs}}{\text{hour}} \times \frac{46 \text{ grams of NO}_2}{1 \text{ mol}} \times \frac{1 \text{ mol}}{17 \text{ grams NH}_3} \times \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where:

$\text{NOx}_{MX}$  = Monthly Emission for NOx (tons/month)  
 NH3 = Ammonia (lbs)

(2) Hot Gas Generator (Furnace):

AP-42 Emission Factors	NOx
Diesel Fuel (lb/kgal)	20.0
Natural Gas (lb/MMCF)	100

Diesel:

$$E_{MX} = \text{kgals} \times \text{EF}_{(\text{AP} - 42)\text{X}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where:

$E_{MX}$  = Monthly Emission for Pollutant X (tons/month)  
 kgals = Kilogallons of fuel combusted per month  
 $EF_{(AP-42)X}$  = AP-42 Diesel Emission Factor for Pollutant X (lb/kgal)

**Natural Gas:**

$$E_{MX} = \frac{MMBtu}{hour} \times \frac{8,760 \text{ hours}}{1 \text{ year}} \times \frac{1 \text{ mmBtu}}{1,020 \text{ mmscf}} \times EF_{(AP-42)X} \times \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where:

$E_{MX}$  = Monthly Emission for Pollutant X (tons/month)  
 MMBtu/hour = Heat Input Capacity of Engine  
 $EF_{(AP-42)X}$  = AP-42 Natural Gas Emission Factor for Pollutant X (lb/MMCF)

**D.1.4 Compliance Determination Requirements HAPs and Formaldehyde**

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In order to determine compliance with the total HAPs and Formaldehyde emissions limits in Condition D.1.1 (FESOP and PSD Minor Limit), when NOx emissions for any compliance period are above the emissions limit of ninety-five (95) tons per twelve (12) consecutive month period, the Permittee shall calculate monthly total HAPs and Formaldehyde emissions for each engine test cell using the following equation as appropriate for each type of engine and fuel:

Diesel, Biodiesel, E85, and Gasoline and Natural Gas:

$$E = \left( \sum_{N=1}^i EF_{(AP-42)} \times HP - HR_i \right) \times 1/2,000 \left( \frac{lb}{ton} \right)$$

Where:

E = Monthly Emission for HAP (tons/month)  
 i = Engine i  
 $EF_{(AP-42)}$  = AP-42 Emission Factor for HAP for each Fuel i (lb/hp-hr)  
 HP-HR<sub>i</sub> = Maximum horsepower-hour operated during compliance period (hp-hr/month)

**Natural Gas:**

$$E_{MX} = \frac{MMBtu}{hour} \times \frac{8,760 \text{ hours}}{1 \text{ year}} \times EF_{(AP-42)X} \times \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where:

$E_{MX}$  = Monthly Emission for Pollutant X (tons/month)  
 MMBtu/hour = Heat Input Capacity of Engine  
 $EF_{(AP-42)X}$  = AP-42 Natural Gas Emission Factor for Pollutant X (lb/MMBtu)

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**D.1.5 Record Keeping Requirements**

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

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SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) Two (2) HVAC units, identified as H1 and H2, constructed in 2011, burning natural gas, each with a maximum capacity of 0.875 MMBtu/hr.
- (b) One (1) natural gas-fired boiler, identified as BOIL-1, ~~approved~~ **constructed** in 2013 ~~for construction~~, with a maximum rating of 52 horsepower.

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

\*\*\*

**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 September 23, 2015.

The construction and operation of this proposed revision shall be subject to the conditions of the attached proposed FESOP Significant Permit Revision No. 005-36304-00106. The staff recommends to the Commissioner that this FESOP Significant Permit Revision be approved.

**IDEM Contact**

- (a) Questions regarding this proposed permit can be directed to Joshua Levering at the 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) 234-6543 or toll free at 1-800-451-6027 extension 4-6543.
- (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 Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

## Significant Permit Revision Summary

Company Name: CyberMetrix Inc.  
Address City IN Zip: 2860 National Road, Suite A, Columbus, Indiana 47201  
FESOP No.: 005-33071-00106  
Significant Permit Revision No.: 005-36304-00106  
Reviewer: Joshua Levering  
Date: October 2015

Uncontrolled Potential to Emit (tons/yr)									
Emission Units		PM	PM10	PM2.5 *	SO <sub>2</sub>	NOx	VOC	CO	Total HAPs
Simulator 1	NOx Generation System	--	--	--	--	248.89	--	--	--
	Hot Gas Generator (Diesel Combustion)	0.67	0.79	0.71	0.07	6.66	--	--	--
	Hot Gas Generator (Natural Gas Combustion)	--	--	--	--	--	0.24	3.70	0.08
	<b>Total</b>	<b>0.67</b>	<b>0.79</b>	<b>0.71</b>	<b>0.07</b>	<b>255.54</b>	<b>0.24</b>	<b>3.70</b>	<b>0.08</b>

\* PM2.5 listed is direct PM2.5

Note: Hot Gas Generator (furnace) Combustion potential to emit shows only the worst case when combusting diesel fuel and natural gas.

**Appendix A: Emission Calculations  
NOx Generation System**

**Company Name: CyberMetrix Inc.  
Address City IN Zip: 2860 National Road, Suite A, Columbus, Indiana 47201  
FESOP No.: 005-33071-00106  
Significant Permit Revision No.: 005-36304-00106  
Reviewer: Joshua Levering  
Date: October 2015**

**NOx Emissions:**

All emissions are calculated as mass balance.

On a stoichiometric basis, one (1) pound of ammonia (NH<sub>3</sub>) generates two and seventy-one hundredths (2.71) pounds of NO<sub>2</sub>.

NOx generation system uses ammonia at a rate of 21 pounds per hour. A conservative assumption is made that all the Nox is emitted as NO<sub>2</sub>

$NO_x(\text{ton/yr}) = (21 \text{ lb NH}_3/\text{hour}) * (46 \text{ g-mole Nox} / 17\text{g-mole NJ}_3) * (8760 \text{ hr/yr}) * (\text{ton}/2000 \text{ lb})$

Engine Simulators	Ammonia (NH <sub>3</sub> ) Injection Capacity	NO <sub>2</sub> Mol. Weight	Ammonia (NH <sub>3</sub> ) Mol. Weight	NOx Emissions	
				lb/hr	ton/yr
# of units	lb/hour	g/mol	g/mol	lb/hr	ton/yr
1	21	46	17	56.82	248.89
			After SCR*:	14.21	62.22

\*SCR Reduction at Test Cells provides 75% reduction of NOx emission (conservative estimate)

**Appendix A: Emissions Calculations  
Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)  
#1 and #2 Fuel Oil**

**Company Name: CyberMetrix Inc.  
Address City IN Zip: 2860 National Road, Suite A, Columbus, Indiana 47201  
FESOP No.: 005-33071-00106  
Significant Permit Revision No.: 005-36304-00106  
Reviewer: Joshua Levering  
Date: October 2015**

One (1) furnace, used as a hot gas generator, with a maximum capacity of seventy-six (76) gallons of ultra-low sulfur diesel per hour.

Potential Throughput  
kgals/year S = Weight % Sulfur (Only Ultra-low sulfur diesel will be combusted)  
665.8 0.0015

	Pollutant						
	PM*	PM10	direct PM2.5	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	2.0	2.4	2.1	0.213 (142.0S)	20.0	0.34	5.0
Potential Emission in tons/yr	0.67	0.79	0.71	0.07	6.66	0.11	1.66

**Methodology**

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu  
 Potential Throughput (kgals/year) = Throughput (kgals/year)\*Emission Factor (lb/kgal) / 2,000 lb/ton  
 Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)  
 \*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.  
 Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

**Hazardous Air Pollutants (HAPs)**

	HAPs - Metals				
	Arsenic	Beryllium	Cadmium	Chromium	Lead
Emission Factor in lb/mmBtu	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06
Potential Emission in tons/yr	8.3E-05	6.2E-05	6.2E-05	6.2E-05	1.9E-04

	HAPs - Metals (continued)			
	Mercury	Manganese	Nickel	Selenium
Emission Factor in lb/mmBtu	3.0E-06	6.0E-06	3.0E-06	1.5E-05
Potential Emission in tons/yr	6.2E-05	1.2E-04	6.2E-05	3.1E-04

Total HAPs
1.0E-03

**Methodology**

No data was available in AP-42 for organic HAPs.  
 1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu  
 Potential Emissions (tons/year) = Throughput (kgals/year)/(140,000Btu/1000)\*Emission Factor (lb/mmBtu)\*8,760 hrs/yr / 2,000 lb/ton

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

**Company Name: CyberMetrix Inc.  
Address City IN Zip: 2860 National Road, Suite A, Columbus, Indiana 47201  
FESOP No.: 005-33071-00106  
Significant Permit Revision No.: 005-36304-00106  
Reviewer: Joshua Levering  
Date: October 2015**

One (1) furnace, used as a hot gas generator, with a maximum capacity of 10.26 MMBtu/hour.

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
10.26	1020	88.1

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100	5.5	84
Potential Emission in tons/yr	0.08	0.33	0.33	0.03	**see below	0.24	3.70

\*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

**Hazardous Air Pollutants (HAPs)**

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Total - Organics
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	9.3E-05	5.3E-05	3.3E-03	0.08	1.5E-04	<b>0.08</b>

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	Total - Metals
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	2.2E-05	4.8E-05	6.2E-05	1.7E-05	9.3E-05	<b>2.4E-04</b>
					<b>Total HAPs</b>	<b>0.08</b>
					<b>Worst HAP</b>	<b>0.08</b>

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.

## Source Summary

Company Name: CyberMetrix Inc.  
 Address City IN Zip: 2860 National Road, Suite A, Columbus, Indiana 47201  
 FESOP No.: 005-33071-00106  
 Significant Permit Revision No.: 005-36304-00106  
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Emission Units	Fuel type	Emission Factors	Pollutant (Potential to Emit in tons/year)						
			PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Test Cell 1, 2, 3, 7 and 8 (Each)	N.G. 2-Stroke Lean	AP-42	1.67	2.09	2.09	0.03	137.46	5.20	16.74
	N.G. 4-Stroke Lean	AP-42	4.44	5.59	5.59	0.07	366.55	13.88	44.63
	N.G. 4-Stroke Rich	AP-42	0.41	0.84	0.84	0.03	95.83	1.28	161.31
	Worst Case N.G.		4.44	5.59	5.59	0.07	366.55	13.88	161.31
	Diesel Fuel	AP-42	4.60	2.64	2.64	26.58	157.68	4.63	36.14
	Diesel Fuel	Tier 4	0.43	2.64	2.64	0.08	37.82	4.63	37.82
	Gasoline	AP-42	4.74	4.74	4.74	3.88	72.27	98.55	45.73
	Bio Diesel **	Non Tier 4	4.60	2.64	2.64	26.58	157.68	4.63	36.14
	Bio Diesel ***	Tier 4	0.43	2.64	2.64	0.08	37.82	4.63	37.82
	E-85 ****	Tier 4 & Non Tier 4	4.74	4.74	4.74	3.88	54.20	98.55	41.15
Worst Case PTE (each)		4.74	5.59	5.59	26.58	366.55	98.55	161.31	
Total emissions for TC1, TC2, TC3, T7, and T8	Worst Case PTE		23.68	27.93	27.93	132.88	1832.77	492.75	806.53
Test Cell 4, 5, and 6	N.G. 2-Stroke Lean	AP-42	4.44	5.59	5.59	0.07	366.55	13.88	44.63
	N.G. 4-Stroke Lean	AP-42	0.01	1.15	1.15	0.07	471.78	13.64	36.66
	N.G. 4-Stroke Rich	AP-42	1.10	2.24	2.24	0.07	255.55	3.42	430.15
	Worst Case N.G.		4.44	5.59	5.59	0.07	471.78	13.88	430.15
	Diesel Fuel	AP-42	12.26	7.03	7.03	70.87	420.48	12.35	96.36
	Diesel Fuel	Tier 4	1.15	7.03	7.03	0.21	100.85	12.35	100.85
	Gasoline	AP-42	12.63	12.63	12.63	10.35	192.72	262.80	121.94
	Bio Diesel **	Non Tier 4	12.26	7.03	7.03	70.87	420.48	12.35	96.36
	Bio Diesel ***	Tier 4	1.15	7.03	7.03	0.21	100.85	12.35	100.85
	E-85 ****	Tier 4 & Non Tier 4	12.63	12.63	12.63	10.35	144.54	262.80	109.75
Worst Case PTE (each)		12.63	12.63	12.63	70.87	471.78	262.80	430.15	
Total emissions for TC4, TC5, and TC6	Worst Case PTE		37.90	37.90	37.90	212.61	1415.34	788.40	1290.45
NOx Generation System	Ammonia		--	--	--	--	248.89	--	--
Hot Gas Generator (Diesel Combustion)	Ultra-low sulfur Diesel		0.67	0.79	0.71	0.07	6.66	--	--
Hot Gas Generator (Natural Gas Combustion)	Natural Gas	AP-42	--	--	--	--	--	0.24	3.70
H1 & H2			0.01	0.06	0.06	4.60E-03	0.77	0.04	0.64
BOIL-1			1.10E-03	4.41E-03	4.41E-03	3.48E-04	0.06	3.19E-03	0.05
<b>Total Worst Case PTE</b>			<b>62.26</b>	<b>66.68</b>	<b>66.60</b>	<b>345.56</b>	<b>3504.47</b>	<b>1281.44</b>	<b>2101.38</b>

\*\* Bio Diesel (Non Tier 4) emissions = Diesel emissions based on AP-42 emission factors

\*\* Bio Diesel (Tier 4) emissions = Diesel emissions (Tier 4) emission

\*\*\* E-85 emissions: Nox emissions = 75% Gasoline NOx emissions, CO emissions = 90 % Gasoline CO emissions, all other emissions = Gasoline emissions

Emission Units	Potential to Emit After Issuance (tons/year)						
	PM (tons/yr)	PM <sub>10</sub> (tons/yr)	PM <sub>2.5</sub> (tons/yr)	SO <sub>2</sub> (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)
Test Cell 1	4.74	5.59	5.59	<95	<95	<95	<95
Test Cell 2	4.74	5.59	5.59				
Test Cell 3	4.74	5.59	5.59				
Test Cell 4	12.63	12.63	12.63				
Test Cell 5	12.63	12.63	12.63				
Test Cell 6	12.63	12.63	12.63				
Test Cell 7	4.74	5.59	5.59				
Test Cell 8	4.74	5.59	5.59				
NOx Generation System	--	--	--				
Hot Gas Generator Combustion	0.67	0.79	0.71				
H1 & H2	0.01	0.06	0.06	4.60E-03	0.77	0.04	0.64
BOIL-1	1.10E-03	4.41E-03	4.41E-03	3.48E-04	0.06	3.19E-03	0.05
<b>Total Emissions</b>	<b>62.26</b>	<b>66.68</b>	<b>66.60</b>	<b>95.00</b>	<b>95.82</b>	<b>95.05</b>	<b>95.69</b>

Source Summary (HAPs)

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Emission Units	Fuel type	Emission Factors	Pollutant (Potential to Emit in tons/year)																							
			Acetaldehyde	Acrolein	Benzene	Biphenyl	1,3-Butadiene	Ethylbenzene	Formaldehyde	Methanol	Methylene Chloride	Hexane	Toluene	2,2,4-Trimethylpentane	Xylene	Total PAH	Dichloro benzene	Lead	Cadmium	Chromium	Manganese	Nickel	Total HAPS	Single HAP	Worst HAP	
Test Cell 1, 2, 3, 7 and 8 (Each)	N.G. 2-Stroke Lean	AP-42	0.336	0.337	0.084	-	0.036	0.005	2.394	0.108	0.006	0.019	0.042	0.037	-	-	-	-	-	-	-	-	3.40	2.39	Formaldehyde	
	N.G. 4-Stroke Lean	AP-42	0.363	0.223	0.019	0.009	0.000	-	2.290	0.108	-	0.018	0.018	0.011	0.008	-	-	-	-	-	-	-	3.07	2.29	Formaldehyde	
	N.G. 4-Stroke Rich	AP-42	0.121	0.114	0.069	-	0.029	-	0.889	0.133	-	-	0.024	-	0.008	-	-	-	-	-	-	-	1.39	0.89	Formaldehyde	
	Worst Case N.G.		0.363	0.337	0.084	0.009	0.036	0.005	2.394	0.133	0.006	0.019	0.042	0.037	0.008	-	-	-	-	-	-	-	3.47	2.39	Formaldehyde	
	Diesel Fuel	AP-42	0.001	0.0004	0.036	-	-	-	0.004	-	-	-	0.013	-	0.009	-	-	-	-	-	-	-	0.063	0.036	Benzene	
	Diesel Fuel	Tier 4	0.001	0.000	0.036	-	-	-	0.004	-	-	-	0.013	-	0.009	-	-	-	-	-	-	-	0.06	0.036	Benzene	
	Gasoline	AP-42	0.013	0.002	0.016	-	-	-	0.020	-	-	-	0.007	-	0.005	0.003	-	-	-	-	-	-	0.05	0.02	Formaldehyde	
	Bio Diesel ***	Non Tier 4	0.001	0.0004	0.036	-	-	-	0.004	-	-	-	0.013	-	0.009	-	-	-	-	-	-	-	0.06	0.04	Benzene	
	Bio Diesel ***	Tier 4	0.001	0.000	0.036	-	-	-	0.004	-	-	-	0.013	-	0.009	-	-	-	-	-	-	-	0.06	0.04	Benzene	
	E-85 ****	Tier 4 & Non Tier 4	0.013	0.002	0.016	-	-	0.000	0.020	-	0.000	-	0.007	0.000	0.005	0.003	-	-	-	-	-	-	0.06	0.02	Benzene	
	Worst Case PTE (each)		0.363	0.337	0.084	0.009	0.036	0.005	2.394	0.133	0.006	0.019	0.042	0.037	0.009	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.48	2.39	Formaldehyde
Total emissions for TC1, TC2, TC3, T7, and T8	Worst Case PTE		1.813	1.687	0.421	0.046	0.178	0.023	11.968	0.663	0.032	0.096	0.209	0.183	0.044	0.014	0.000	0.000	0.000	0.000	0.000	0.000	17.38	11.97	Formaldehyde	
Test Cell 4, 5, and 6	N.G. 2-Stroke Lean	AP-42	0.897	0.900	0.224	-	0.095	-	6.383	0.287	0.017	0.051	0.111	0.098	-	-	-	-	-	-	-	9.06	6.38	Formaldehyde		
	N.G. 4-Stroke Lean	AP-42	0.967	0.594	0.051	0.025	0.031	-	6.105	0.289	-	0.127	0.047	0.029	0.021	-	-	-	-	-	-	8.29	6.11	Formaldehyde		
	N.G. 4-Stroke Rich	AP-42	0.323	0.304	0.183	-	0.077	-	2.370	0.354	-	-	0.065	-	0.023	-	-	-	-	-	-	3.70	2.37	Formaldehyde		
	Worst Case N.G.		0.967	0.900	0.224	0.025	0.095	0.000	6.383	0.354	0.017	0.127	0.111	0.098	0.023	-	-	-	-	-	-	9.32	6.38	Formaldehyde		
	Diesel Fuel	AP-42	0.003	0.001	0.095	-	-	-	0.010	-	-	-	0.034	-	0.024	-	-	-	-	-	-	-	0.17	0.10	Benzene	
	Diesel Fuel	Tier 4	0.003	0.001	0.095	-	-	-	0.010	-	-	-	0.034	-	0.024	-	-	-	-	-	-	-	0.17	0.10	Benzene	
	Gasoline	AP-42	0.034	0.004	0.042	-	-	-	0.053	-	-	-	0.018	-	0.013	0.007	-	-	-	-	-	-	0.17	0.05	Formaldehyde	
	Bio Diesel **	Non Tier 4	0.003	0.001	0.095	-	-	-	0.010	-	-	-	0.034	-	0.024	-	-	-	-	-	-	-	0.17	0.10	Benzene	
	Bio Diesel ***	Tier 4	0.003	0.001	0.095	-	-	-	0.010	-	-	-	0.034	-	0.024	-	-	-	-	-	-	-	0.17	0.10	Benzene	
	E-85 ****	Tier 4 & Non Tier 4	0.034	0.004	0.042	-	-	-	0.053	-	-	-	0.018	-	0.013	0.007	-	-	-	-	-	-	0.17	0.05	Benzene	
	Worst Case PTE (each)		0.967	0.900	0.224	0.025	0.095	0.000	6.383	0.354	0.017	0.127	0.111	0.098	0.024	0.007	0.000	0.000	0.000	0.000	0.000	0.000	9.32	6.38	Formaldehyde	
Total emissions for TC4, TC5, and TC6	Worst Case PTE		2.90	2.70	0.67	0.07	0.28	0.00	19.15	1.06	0.05	0.38	0.33	0.29	0.07	0.02	0.00	0.00	0.00	0.00	0.00	27.97	19.15	Formaldehyde		
H1 & H2	NG	AP-42	-	-	1.61E-05	-	-	-	5.75E-04	-	-	0.014	2.61E-05	-	-	-	9.20E-06	3.83E-06	8.43E-06	1.07E-05	2.91E-06	1.61E-05	0.014	0.014	Hexane	
BOIL-1	NG	AP-42	-	-	1.2E-06	-	-	-	4.35E-05	-	-	0.001	1.97E-06	-	-	-	6.96E-07	2.90E-07	6.38E-07	8.12E-07	2.20E-07	1.22E-06	0.001	0.001	Hexane	
<b>Total Worst Case PTE</b>			4.71	4.39	1.09	0.12	0.46	0.02	31.12	1.72	0.08	0.49	0.54	0.48	0.12	0.04	9.89E-06	4.12E-06	9.07E-06	1.15E-05	3.13E-06	1.73E-05	45.36	31.13		

\*\* Bio Diesel (Non Tier 4) emissions = Diesel emissions based on AP-42 emission factors  
 \*\* Bio Diesel (Tier 4) emissions = Diesel emissions (Tier 4) emission  
 \*\*\* E-85 emissions: Nox emissions = 75% Gasoline NOx emissions, CO emissions = 10 % Gasoline CO emissions, all other emissions = Gasoline emissions

## Limited HAPs by limiting NOx to less than 95 tons per year

Company Name: CyberMetrix Inc.  
Address City IN Zip: 2860 National Road, Suite A, Columbus, Indiana 47201  
FESOP No.: 005-33071-00106  
Significant Permit Revision No.: 005-36304-00106  
Reviewer: Joshua Levering  
Date: October 2015

Emission Units	Fuel type	Emission Factors	NOx	HAPs	Formaldehyde	Limited by limiting NOx to 95 tpy	
						HAPs	Formaldehyde
Test Cell 1, 2, 3, 7 and 8 (Each)	N.G. 2-Stroke Lean	AP-42	137.46	3.41	2.39	2.36	1.65
	N.G. 4-Stroke Lean	AP-42	366.55	3.11	2.29	0.81	0.59
	N.G. 4-Stroke Rich	AP-42	95.83	1.39	0.89	1.38	0.88
	Worst Case N.G.		366.55				
	Diesel Fuel	AP-42	157.68	7.24E-02	3.63E-03		
	Diesel Fuel	Tier 4	37.82	7.24E-02	3.63E-03		
	Gasoline	AP-42	72.27	6.41E-02	1.97E-02		
	Bio Diesel **	Non Tier 4	157.68	7.24E-02	3.63E-03		
	Bio Diesel ***	Tier 4	37.82	7.24E-02	3.63E-03		
	E-85 ****	Tier 4 & Non Tier 4	54.20	6.41E-02	1.97E-02		
	Worst Case PTE (each)			366.55			
Total emissions for TC1, TC2, TC3, T7, and T8	Worst Case PTE		1832.77				
Test Cell 4, 5, and 6	N.G. 2-Stroke Lean	AP-42	366.55	15.47	6.38	4.01	1.65
	N.G. 4-Stroke Lean	AP-42	471.78	14.39	6.11	14.27	6.05
	N.G. 4-Stroke Rich	AP-42	255.55	6.08	2.37	1.58	0.61
	Worst Case N.G.		471.78				
	Diesel Fuel	AP-42	420.48	1.93E-01	9.68E-03		
	Diesel Fuel	Tier 4	100.85	1.93E-01	9.68E-03		
	Gasoline	AP-42	192.72	1.71E-01	1.27E-02		
	Bio Diesel **	Non Tier 4	420.48	1.93E-01	9.68E-03		
	Bio Diesel ***	Tier 4	100.85	1.93E-01	9.68E-03		
	E-85 ****	Tier 4 & Non Tier 4	144.54	1.71E-01	1.27E-02		
	Worst Case PTE (each)			471.78			
Total emissions for TC4, TC5, and TC6	Worst Case PTE		1415.34				
H1 & H2			0.77				
BOIL-1			0.06				
<b>Total Worst Case PTE</b>			3248.93				

\*\* Bio Diesel (Non Tier 4) emissions = Diesel emissions based on AP-42 emission factors

\*\* Bio Diesel (Tier 4) emissions = Diesel emissions (Tier 4) emission

\*\*\* E-85 emissions: Nox emissions = 75% Gasoline NOx emissions, CO emissions = 10 % Gasoline CO emissions, all other emissions = Gasoline emissions

**Appendix A: Emission Calculations**  
**Large Reciprocating Internal Combustion Engines - Diesel Fuel**  
**Output Rating (>600 HP)**  
**Maximum Input Rate (>4.2 MMBtu/hr)**  
**Test Cell 1, 2, 3, 7 and 8 (each)**

**Company Name: CyberMetrix Inc.**  
**Address City IN Zip: 2860 National Road, Suite A, Columbus, Indiana 47201**  
**FESOP No.: 005-33071-00106**  
**Significant Permit Revision No.: 005-36304-00106**  
**Reviewer: Joshua Levering**  
**Date: October 2015**

**Emissions calculated based on output rating (hp)**

Output Horsepower Rating (hp)	1500.0
Output Kilowatt Rating (kw)	1119.0
Maximum Hours Operated per Year	8760
Potential Throughput (hp-hr/yr)	13,140,000
Potential Throughput (kw-hr/yr)	9,802,440
Sulfur Content (S) of Fuel (% by weight)	0.500

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	7.00E-04	4.01E-04	4.01E-04	4.05E-03 (.00809S)	2.40E-02 **see below	7.05E-04	5.50E-03
Potential Emission in tons/yr	4.60	2.64	2.64	26.58	157.68	4.63	36.14

\*PM10 emission factor in lb/hp-hr was calculated using the emission factor in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

\*\*NOx emission factor: uncontrolled = 0.024 lb/hp-hr, controlled by ignition timing retard = 0.013 lb/hp-hr

Tier 4 Emission Factors	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in g/kw-hr	0.04			7.38E-03	3.5		3.5
Emission Factor in lb/hp-hr		4.01E-04	4.01E-04	1.21E-05 (.00809S)		7.05E-04	
Potential Emission in tons/yr	0.43	2.64	2.64	0.08	37.82	4.63	37.82

\*PM10 emission factor in lb/hp-hr was calculated using the emission factor in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

\*\*NOx emission factor: uncontrolled = 0.024 lb/hp-hr, controlled by ignition timing retard = 0.013 lb/hp-hr

\*\*\*S for ultra low sulfur = 15ppm or 0.0015 % by wt (40 CFR Part 80 Subpart I)

**Hazardous Air Pollutants (HAPs)**

	Pollutant							Total PAH HAPs***	Total HAPs (lb/hp-hr)
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein			
Emission Factor in lb/hp-hr****	5.43E-06	1.97E-06	1.35E-06	5.52E-07	1.76E-07	5.52E-08	1.48E-06	1.10E-05	
Potential Emission in tons/yr	3.57E-02	1.29E-02	8.88E-03	3.63E-03	1.16E-03	3.62E-04	9.75E-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>7.24E-02</b>
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updated 10/2012

**Appendix A: Emission Calculations**  
**Large Reciprocating Internal Combustion Engines - Diesel Fuel**  
**Output Rating (>600 HP)**  
**Maximum Input Rate (>4.2 MMBtu/hr)**  
**Test Cell 4, 5, and 6 (each)**

**Company Name:** CyberMetrix Inc.  
**Address City IN Zip:** 2860 National Road, Suite A, Columbus, Indiana 47201  
**FESOP No.:** 005-33071-00106  
**Significant Permit Revision No.:** 005-36304-00106  
**Reviewer:** Joshua Levering  
**Date:** October 2015

**Emissions calculated based on output rating (hp)**

Output Horsepower Rating (hp)	4000.0
Output Kilowatt Rating (kw)	2984.0
Maximum Hours Operated per Year	8760
Potential Throughput (hp-hr/yr)	35,040,000
Potential Throughput (kw-hr/yr)	26,139,840
Sulfur Content (S) of Fuel (% by weight)	0.500

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	7.00E-04	4.01E-04	4.01E-04	4.05E-03 (.00809S)	2.40E-02 **see below	7.05E-04	5.50E-03
Potential Emission in tons/yr	12.26	7.03	7.03	70.87	420.48	12.35	96.36

\*PM10 emission factor in lb/hp-hr was calculated using the emission factor in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

\*\*NOx emission factor: uncontrolled = 0.024 lb/hp-hr, controlled by ignition timing retard = 0.013 lb/hp-hr

Tier 4 Emission Factors	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in g/kw-hr	0.04			7.38E-03	3.5		3.5
Emission Factor in lb/hp-hr		4.01E-04	4.01E-04	1.21E-05 (.00809S)		7.05E-04	
Potential Emission in tons/yr	1.15	7.03	7.03	0.21	100.85	12.35	100.85

\*PM10 emission factor in lb/hp-hr was calculated using the emission factor in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

\*\*NOx emission factor: uncontrolled = 0.024 lb/hp-hr, controlled by ignition timing retard = 0.013 lb/hp-hr

\*\*\*S for ultra low sulfur = 15ppm or 0.0015 % by wt (40 CFR Part 80 Subpart I)

**Hazardous Air Pollutants (HAPs)**

	Pollutant						
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/hp-hr****	5.43E-06	1.97E-06	1.35E-06	5.52E-07	1.76E-07	5.52E-08	1.48E-06
Potential Emission in tons/yr	9.52E-02	3.45E-02	2.37E-02	9.68E-03	3.09E-03	9.66E-04	2.60E-02

\*\*\*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>1.93E-01</b>
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**Appendix A: Emission Calculations**  
**Reciprocating Internal Combustion Engines - Natural Gas**  
**2-Stroke Lean-Burn (2SLB) Engines**  
**Test Cell 1, 2, 3, 7, and 8 (each)**

**Company Name:** CyberMetrix Inc.  
**Address City IN Zip:** 2860 National Road, Suite A, Columbus, Indiana 47201  
**FESOP No.:** 005-33071-00106  
**Significant Permit Revision No.:** 005-36304-00106  
**Reviewer:** Joshua Levering  
**Date:** October 2015

Maximum Output Horsepower Rating (hp)	1500
Brake Specific Fuel Consumption (BSFC) (Btu/hp-hr)	6600
Maximum Hours Operated per Year (hr/yr)	8760
Potential Fuel Usage (MMBtu/yr)	86724
High Heat Value (MMBtu/MMscf)	1020
Potential Fuel Usage (MMcf/yr)	85.02

Criteria Pollutants	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Emission Factor (lb/MMBtu)	3.84E-02	4.83E-02	4.83E-02	5.88E-04	3.17E+00	1.20E-01	3.86E-01
Potential Emissions (tons/yr)	1.67	2.09	2.09	0.025	137.46	5.20	16.74

\*PM emission factor is for filterable PM-10. PM10 emission factor is filterable PM10 + condensable PM.

PM2.5 emission factor is filterable PM2.5 + condensable PM.

**Hazardous Air Pollutants (HAPs)**

Pollutant	Emission Factor (lb/MMBtu)	Potential Emissions (tons/yr)
Acetaldehyde	7.76E-03	0.336
Acrolein	7.78E-03	0.337
Benzene	1.94E-03	0.084
1,3-Butadiene	8.20E-04	0.036
Ethylbenzene	1.08E-04	0.005
Formaldehyde	5.52E-02	2.394
Methanol	2.48E-03	0.108
Methylene Chloride	1.47E-04	0.006
Hexane	4.45E-04	0.019
Toluene	9.63E-04	0.042
2,2,4-Trimethylpentane	8.46E-04	0.037
Total PAH**	1.34E-04	0.006
<b>Total</b>	<b>7.86E-02</b>	<b>3.41</b>

HAP pollutants consist of the twelve highest HAPs included in AP-42 Table 3.2-1.

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

**Methodology**

Emission Factors are from AP-42 (Supplement F, July 2000), Table 3.2-1

Potential Fuel Usage (MMBtu/yr) = [Maximum Output Horsepower Rating (hp)] \* [Brake Specific Fuel Consumption (Btu/hp-hr)] \* [Maximum Hours Operated per Year (hr/yr)] / [1000000 Btu/MMBtu]

Potential Emissions (tons/yr) = [Potential Fuel Usage (MMBtu/yr)] \* [Emission Factor (lb/MMBtu)] / [2000 lb/ton]

**Abbreviations**

PM = Particulate Matter  
 PM10 = Particulate Matter (<10 um)  
 SO2 = Sulfur Dioxide

NOx = Nitrous Oxides  
 VOC = Volatile Organic Compounds  
 CO = Carbon Monoxide

updated 10/2012

**Appendix A: Emission Calculations**  
**Reciprocating Internal Combustion Engines - Natural Gas**  
**2-Stroke Lean-Burn (2SLB) Engines**  
**Test Cell 4, 5, and 6 (each)**

**Company Name:** CyberMetrix Inc.  
**Address City IN Zip:** 2860 National Road, Suite A, Columbus, Indiana 47201  
**FESOP No.:** 005-33071-00106  
**Significant Permit Revision No.:** 005-36304-00106  
**Reviewer:** Joshua Levering  
**Date:** October 2015

Maximum Output Horsepower Rating (hp)	4000
Brake Specific Fuel Consumption (BSFC) (Btu/hp-hr)	6600
Maximum Hours Operated per Year (hr/yr)	8760
Potential Fuel Usage (MMBtu/yr)	231264
High Heat Value (MMBtu/MMscf)	1020
Potential Fuel Usage (MMcf/yr)	226.73

Criteria Pollutants	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Emission Factor (lb/MMBtu)	3.84E-02	4.83E-02	4.83E-02	5.88E-04	3.17E+00	1.20E-01	3.86E-01
Potential Emissions (tons/yr)	4.44	5.59	5.59	0.068	366.55	13.88	44.63

\*PM emission factor is for filterable PM-10. PM10 emission factor is filterable PM10 + condensable PM.

PM2.5 emission factor is filterable PM2.5 + condensable PM.

**Hazardous Air Pollutants (HAPs)**

Pollutant	Emission Factor (lb/MMBtu)	Potential Emissions (tons/yr)
Acetaldehyde	7.76E-03	0.897
Acrolein	7.78E-03	0.900
Benzene	1.94E-03	0.224
1,3-Butadiene	8.20E-04	0.095
Ethylbenzene	1.08E-04	0.012
Formaldehyde	5.52E-02	6.383
Methanol	2.48E-03	0.287
Methylene Chloride	1.47E-04	0.017
Hexane	4.45E-04	0.051
Toluene	9.63E-04	0.111
2,2,4-Trimethylpentane	8.46E-04	0.098
Total PAH**	1.34E-04	0.015
Highest Single HAP		6.383
<b>Total</b>	<b>7.86E-02</b>	<b>15.47</b>

HAP pollutants consist of the twelve highest HAPs included in AP-42 Table 3.2-1.

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

**Methodology**

Emission Factors are from AP-42 (Supplement F, July 2000), Table 3.2-1

Potential Fuel Usage (MMBtu/yr) = [Maximum Output Horsepower Rating (hp)] \* [Brake Specific Fuel Consumption (Btu/hp-hr)] \* [Maximum Hours Operated per Year (hr/yr)] / [1000000 Btu/MMBtu]

Potential Emissions (tons/yr) = [Potential Fuel Usage (MMBtu/yr)] \* [Emission Factor (lb/MMBtu)] / [2000 lb/ton]

**Abbreviations**

PM = Particulate Matter  
 PM10 = Particulate Matter (<10 um)  
 SO2 = Sulfur Dioxide

NOx = Nitrous Oxides  
 VOC = Volatile Organic Compounds  
 CO = Carbon Monoxide

updated 10/2012

**Appendix A: Emission Calculations**  
**Reciprocating Internal Combustion Engines - Natural Gas**  
**4-Stroke Lean-Burn (4SLB) Engines**  
**One (1) Test Cell**

**Company Name:** CyberMetrix Inc.  
**Address City IN Zip:** 2860 National Road, Suite A, Columbus, Indiana 47201  
**FESOP No.:** 005-33071-00106  
**Significant Permit Revision No.:** 005-36304-00106  
**Reviewer:** Joshua Levering  
**Date:** October 2015

Maximum Output Horsepower Rating (hp)	1500
Brake Specific Fuel Consumption (BSFC) (Btu/hp-hr)	6600
Maximum Hours Operated per Year (hr/yr)	8760
Potential Fuel Usage (MMBtu/yr)	86724
High Heat Value (MMBtu/MMscf)	1020
Potential Fuel Usage (MMcf/yr)	85.02

Criteria Pollutants	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Emission Factor (lb/MMBtu)	7.71E-05	9.99E-03	9.99E-03	5.88E-04	4.08E+00	1.18E-01	3.17E-01
Potential Emissions (tons/yr)	0.0033	0.43	0.43	0.025	176.92	5.12	13.75

\*PM emission factor is for filterable PM-10. PM10 emission factor is filterable PM10 + condensable PM.

PM2.5 emission factor is filterable PM2.5 + condensable PM.

**Hazardous Air Pollutants (HAPs)**

Pollutant	Emission Factor (lb/MMBtu)	Potential Emissions (tons/yr)
Acetaldehyde	8.36E-03	0.363
Acrolein	5.14E-03	0.223
Benzene	4.40E-04	0.019
Biphenyl	2.12E-04	0.009
1,3-Butadiene	2.67E-04	0.012
Formaldehyde	5.28E-02	2.290
Methanol	2.50E-03	0.108
Hexane	1.10E-03	0.048
Toluene	4.08E-04	0.018
2,2,4-Trimethylpentane	2.50E-04	0.011
Xylene	1.84E-04	0.008
<b>Total</b>	<b>7.17E-02</b>	<b>3.11</b>

HAP pollutants consist of the eleven highest HAPs included in AP-42 Table 3.2-2.

**Methodology**

Emission Factors are from AP-42 (Supplement F, July 2000), Table 3.2-2

Potential Fuel Usage (MMBtu/yr) = [Maximum Output Horsepower Rating (hp)] \* [Brake Specific Fuel Consumption (Btu/hp-hr)] \* [Maximum Hours Operated per Year (hr/yr)] / [1000000 Btu/MMBtu]

Potential Emissions (tons/yr) = [Potential Fuel Usage (MMBtu/yr)] \* [Emission Factor (lb/MMBtu)] / [2000 lb/ton]

**Abbreviations**

PM = Particulate Matter  
 PM10 = Particulate Matter (<10 um)  
 SO2 = Sulfur Dioxide

NOx = Nitrous Oxides  
 VOC = Volatile Organic Compounds  
 CO = Carbon Monoxide

**Appendix A: Emission Calculations**  
**Reciprocating Internal Combustion Engines - Natural Gas**  
**4-Stroke Lean-Burn (4SLB) Engines**  
**Test Cell 4, 5, and 6 (each)**

**Company Name:** CyberMetrix Inc.  
**Address City IN Zip:** 2860 National Road, Suite A, Columbus, Indiana 47201  
**FESOP No.:** 005-33071-00106  
**Significant Permit Revision No.:** 005-36304-00106  
**Reviewer:** Joshua Levering  
**Date:** October 2015

Maximum Output Horsepower Rating (hp)	4000
Brake Specific Fuel Consumption (BSFC) (Btu/hp-hr)	6600
Maximum Hours Operated per Year (hr/yr)	8760
Potential Fuel Usage (MMBtu/yr)	231264
High Heat Value (MMBtu/MMscf)	1020
Potential Fuel Usage (MMcf/yr)	226.73

Criteria Pollutants	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Emission Factor (lb/MMBtu)	7.71E-05	9.99E-03	9.99E-03	5.88E-04	4.08E+00	1.18E-01	3.17E-01
Potential Emissions (tons/yr)	0.0089	1.15	1.15	0.068	471.78	13.64	36.66

\*PM emission factor is for filterable PM-10. PM10 emission factor is filterable PM10 + condensable PM.

PM2.5 emission factor is filterable PM2.5 + condensable PM.

**Hazardous Air Pollutants (HAPs)**

Pollutant	Emission Factor (lb/MMBtu)	Potential Emissions (tons/yr)
Acetaldehyde	8.36E-03	0.967
Acrolein	5.14E-03	0.594
Benzene	4.40E-04	0.051
Biphenyl	2.12E-04	0.025
1,3-Butadiene	2.67E-04	0.031
Formaldehyde	5.28E-02	6.105
Methanol	2.50E-03	0.289
Hexane	1.10E-03	0.127
Toluene	4.08E-04	0.047
2,2,4-Trimethylpentane	2.50E-04	0.029
Xylene	1.84E-04	0.021

Highest Single HAP	6.105
<b>Total</b>	<b>14.39</b>

HAP pollutants consist of the eleven highest HAPs included in AP-42 Table 3.2-2.

**Methodology**

Emission Factors are from AP-42 (Supplement F, July 2000), Table 3.2-2

Potential Fuel Usage (MMBtu/yr) = [Maximum Output Horsepower Rating (hp)] \* [Brake Specific Fuel Consumption (Btu/hp-hr)] \* [Maximum Hours Operated per Year (hr/yr)] / [1000000 Btu/MMBtu]

Potential Emissions (tons/yr) = [Potential Fuel Usage (MMBtu/yr)] \* [Emission Factor (lb/MMBtu)] / [2000 lb/ton]

**Abbreviations**

PM = Particulate Matter  
 PM10 = Particulate Matter (<10 um)  
 SO2 = Sulfur Dioxide

NOx = Nitrous Oxides  
 VOC = Volatile Organic Compounds  
 CO = Carbon Monoxide

**Appendix A: Emission Calculations**  
**Reciprocating Internal Combustion Engines - Natural Gas**  
**4-Stroke Rich-Burn (4SRB) Engines**  
**Test Cell 1, 2, 3, 7, and 8 (each)**

**Company Name:** CyberMetrix Inc.  
**Address City IN Zip:** 2860 National Road, Suite A, Columbus, Indiana 47201  
**FESOP No.:** 005-33071-00106  
**Significant Permit Revision No.:** 005-36304-00106  
**Reviewer:** Joshua Levering  
**Date:** October 2015

Maximum Output Horsepower Rating (hp)	1500
Brake Specific Fuel Consumption (BSFC) (Btu/hp-hr)	6600
Maximum Hours Operated per Year (hr/yr)	8760
Potential Fuel Usage (MMBtu/yr)	86724
High Heat Value (MMBtu/MMscf)	1020
Potential Fuel Usage (MMcf/yr)	85.02

Criteria Pollutants	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Emission Factor (lb/MMBtu)	9.50E-03	1.94E-02	1.94E-02	5.88E-04	2.21E+00	2.96E-02	3.72E+00
Potential Emissions (tons/yr)	0.4119	0.84	0.84	0.025	95.83	1.28	161.31

\*PM emission factor is for filterable PM-10. PM10 emission factor is filterable PM10 + condensable PM.

PM2.5 emission factor is filterable PM2.5 + condensable PM.

**Hazardous Air Pollutants (HAPs)**

Pollutant	Emission Factor (lb/MMBtu)	Potential Emissions (tons/yr)
Acetaldehyde	2.79E-03	0.121
Acrolein	2.63E-03	0.114
Benzene	1.58E-03	0.069
1,3-Butadiene	6.63E-04	0.029
Formaldehyde	2.05E-02	0.889
Methanol	3.06E-03	0.133
Total PAH**	1.41E-04	0.006
Toluene	5.58E-04	0.024
Xylene	1.95E-04	0.008
<b>Total</b>	<b>3.21E-02</b>	<b>1.39</b>

HAP pollutants consist of the nine highest HAPs included in AP-42 Table 3.2-3.

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

**Methodology**

Emission Factors are from AP-42 (Supplement F, July 2000), Table 3.2-3

Potential Fuel Usage (MMBtu/yr) = [Maximum Output Horsepower Rating (hp)] \* [Brake Specific Fuel Consumption (Btu/hp-hr)] \* [Maximum Hours Operated per Year (hr/yr)] / [1000000 Btu/MMBtu]

Potential Emissions (tons/yr) = [Potential Fuel Usage (MMBtu/yr)] \* [Emission Factor (lb/MMBtu)] / [2000 lb/ton]

**Abbreviations**

PM = Particulate Matter  
 PM10 = Particulate Matter (<10 um)  
 SO2 = Sulfur Dioxide

NOx = Nitrous Oxides  
 VOC = Volatile Organic Compounds  
 CO = Carbon Monoxide

updated 10/2012

**Appendix A: Emission Calculations  
Reciprocating Internal Combustion Engines - Natural Gas  
4-Stroke Rich-Burn (4SRB) Engines  
Test Cell 4, 5, and 6 (each)**

**Company Name:** CyberMetrix Inc.  
**Address City IN Zip:** 2860 National Road, Suite A, Columbus, Indiana 47201  
**FESOP No.:** 005-33071-00106  
**Significant Permit Revision No.:** 005-36304-00106  
**Reviewer:** Joshua Levering  
**Date:** October 2015

Maximum Output Horsepower Rating (hp)	4000
Brake Specific Fuel Consumption (BSFC) (Btu/hp-hr)	6600
Maximum Hours Operated per Year (hr/yr)	8760
Potential Fuel Usage (MMBtu/yr)	231264
High Heat Value (MMBtu/MMscf)	1020
Potential Fuel Usage (MMcf/yr)	226.73

Criteria Pollutants	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Emission Factor (lb/MMBtu)	9.50E-03	1.94E-02	1.94E-02	5.88E-04	2.21E+00	2.96E-02	3.72E+00
Potential Emissions (tons/yr)	1.0985	2.24	2.24	0.068	255.55	3.42	430.15

\*PM emission factor is for filterable PM-10. PM10 emission factor is filterable PM10 + condensable PM.  
PM2.5 emission factor is filterable PM2.5 + condensable PM.

**Hazardous Air Pollutants (HAPs)**

Pollutant	Emission Factor (lb/MMBtu)	Potential Emissions (tons/yr)
Acetaldehyde	2.79E-03	0.323
Acrolein	2.63E-03	0.304
Benzene	1.58E-03	0.183
1,3-Butadiene	6.63E-04	0.077
Formaldehyde	2.05E-02	2.370
Methanol	3.06E-03	0.354
Total PAH**	1.41E-04	0.016
Toluene	5.58E-04	0.065
Xylene	1.95E-04	0.023

Highest Single HAP	2.370
<b>Total</b>	<b>6.08</b>

HAP pollutants consist of the nine highest HAPs included in AP-42 Table 3.2-3.

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

**Methodology**

Emission Factors are from AP-42 (Supplement F, July 2000), Table 3.2-3

Potential Fuel Usage (MMBtu/yr) = [Maximum Output Horsepower Rating (hp)] \* [Brake Specific Fuel Consumption (Btu/hp-hr)] \* [Maximum Hours Operated per Year (hr/yr)] / [1000000 Btu/MMBtu]

Potential Emissions (tons/yr) = [Potential Fuel Usage (MMBtu/yr)] \* [Emission Factor (lb/MMBtu)] / [2000 lb/ton]

**Abbreviations**

PM = Particulate Matter	NOx = Nitrous Oxides
PM10 = Particulate Matter (<10 um)	VOC = Volatile Organic Compounds
SO2 = Sulfur Dioxide	CO = Carbon Monoxide

**Appendix A: Emission Calculations  
Large Reciprocating Internal Combustion Engines - Gasoline Fuel  
Test Cell 3**

**Company Name:** CyberMetrix Inc.  
**Address City IN Zip:** 2860 National Road, Suite A, Columbus, Indiana 47201  
**FESOP No.:** 005-33071-00106  
**Significant Permit Revision No.:** 005-36304-00106  
**Reviewer:** Joshua Levering  
**Date:** October 2015

**Emissions calculated based on output rating (hp)**

Output Horsepower Rating (hp)	1500.0
Output Rating (MMBtu) **	3.8
Maximum Hours Operated per Year	8760
Potential Throughput (hp-hr/yr)	13,140,000
Sulfur Content (S) of Fuel (% by weight)	0.500

	Pollutant						
	PM	PM10	direct PM2.5	SO2	Nox	VOC	CO
Emission Factor in lb/hp-hr *	7.21E-04	7.21E-04	7.21E-04	5.91E-04	0.011	0.02	6.96E-03
Potential Emission in tons/yr	4.74	4.74	4.74	3.88	72.27	98.55	45.73

\* AP-42 Table

\*\* MMBtu/hr = hp \* 2,544 Btu/hr \* 1 MMBtu/1000,000 Btu

	Pollutant						Total PAH HAPs***	Total HAPs (lb/MMBtu)	Total HAPs (lb/hp-hr)
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein			
Emission Factor in lb/MMBtu	9.33E-04	4.09E-04	2.85E-04	1.18E-03	7.67E-04	9.25E-05	1.68E-04	3.83E-03	5.48E-01
Potential Emission in tons/yr	1.56E-02	6.84E-03	4.77E-03	1.97E-02	1.28E-02	1.55E-03	2.81E-03		

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

\*\*\*\*AP-42 Table 3.3-2

Formaldehyde EF (lb/hp-hr)	0.17
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<b>Potential Emission of Total HAPs (tons/yr)</b>	<b>6.41E-02</b>
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**Appendix A: Emission Calculations**  
**Large Reciprocating Internal Combustion Engines - Gasoline Fuel**  
**Test Cell 3**

**Company Name:** CyberMetrix Inc.  
**Address City IN Zip:** 2860 National Road, Suite A, Columbus, Indiana 47201  
**FESOP No.:** 005-33071-00106  
**Significant Permit Revision No.:** 005-36304-00106  
**Reviewer:** Joshua Levering  
**Date:** October 2015

**Emissions calculated based on output rating (hp)**

Output Horsepower Rating (hp)	4000.0
Output Rating (MMBtu) **	10.2
Maximum Hours Operated per Year	8760
Potential Throughput (hp-hr/yr)	35,040,000
Sulfur Content (S) of Fuel (% by weight)	0.500

	Pollutant						
	PM	PM10	direct PM2.5	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr *	7.21E-04	7.21E-04	7.21E-04	5.91E-04	0.011	0.02	6.96E-03
Potential Emission in tons/yr	12.63	12.63	12.63	10.35	192.72	262.80	121.94

\* AP-42 Table 3.3-1

\*\* MMBtu/hr = hp \* 2,544 Btu/hr \* 1 MMBtu/1000,000 Btu

	Pollutant						Total PAH HAPs***
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	
Emission Factor in lb/MMBtu ****	9.33E-04	4.09E-04	2.85E-04	1.18E-03	7.67E-04	9.25E-05	1.68E-04
Potential Emission in tons/yr	4.16E-02	1.82E-02	1.27E-02	5.26E-02	3.42E-02	4.12E-03	7.49E-03

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

\*\*\*\*AP-42 Table 3.3-2

Highest Single HAP	0.0526
<b>Potential Emission of Total HAPs (tons/yr)</b>	<b>0.17</b>

**Appendix A: Emissions Calculations  
Natural Gas Combustion Only  
MM BTU/HR <100  
Misc. Combustion**

**Company Name: CyberMetrix Inc.  
Address City IN Zip: 2860 National Road, Suite A, Columbus, Indiana 47201  
FESOP No.: 005-33071-00106  
Significant Permit Revision No.: 005-36304-00106  
Reviewer: Joshua Levering  
Date: October 2015**

Emissions Unit	MMBtu/hr
H1	0.875
H2	0.875
<b>Totals</b>	<b>1.75</b>

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
1.75	1000	15.3

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.01	0.06	0.06	0.00	0.77	0.04	0.64

\*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/1,000 MMBtu

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

See next page for HAPs emissions calculations.

updated 7/11

**Appendix A: Emissions Calculations  
Natural Gas Combustion Only  
MM BTU/HR <100  
HAPs Emissions  
Misc. Combustion**

**Company Name:** CyberMetrix, Inc  
**Address City IN Zip:** 2860 National Road, Suite A, Columbus, IN 47201  
**Permit Number:** 005-34855-00106  
**Plt ID:** 005-00106  
**Reviewer:** Ghassan Shalabi  
**Date:** 10/08/2014

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.610E-05	9.198E-06	5.749E-04	1.380E-02	2.606E-05

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	3.833E-06	8.432E-06	1.073E-05	2.913E-06	1.610E-05

Methodology is the same as page 1.

<b>Total HAPs</b>	<b>1.44E-02</b>
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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  
Misc. Combustion**

**Company Name: CyberMetrix Inc.  
Address City IN Zip: 2860 National Road, Suite A, Columbus, Indiana 47201  
FESOP No.: 005-33071-00106  
Significant Permit Revision No.: 005-36304-00106  
Reviewer: Joshua Levering  
Date: October 2015**

One (1) natural gas-fired boiler, identified as BOIL-1, with a maximum rating of 52 horsepower.

Emissions Unit	hp rating	Btu/hour	MMBtu/hr
BOIL-1	52.00	2,545.00	0.13

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
0.13	1000	1.2

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx 100 **see below	VOC	CO
Potential Emission in tons/yr	1.10E-03	4.41E-03	4.41E-03	3.48E-04	0.06	3.19E-03	0.05

\*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/1,000 MMBtu  
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See next page for HAPs emissions calculations.

**Appendix A: Emissions Calculations  
Natural Gas Combustion Only  
MM BTU/HR <100  
HAPs Emissions  
Misc. Combustion**

**Company Name:** CyberMetrix, Inc  
**Address City IN Zip:** 2860 National Road, Suite A, Columbus, IN 47201  
**Permit Number:** 005-34855-00106  
**Plt ID:** 005-00106  
**Reviewer:** Ghassan Shalabi  
**Date:** 10/08/2014

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.217E-06	6.956E-07	4.347E-05	1.043E-03	1.971E-06

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	2.898E-07	6.376E-07	8.115E-07	2.203E-07	1.217E-06

Methodology is the same as page 1.

<b>Total HAPs</b>	<b>1.09E-03</b>
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The five highest organic and metal HAPs emission factors are provided above.  
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.



# 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

**Carol S. Comer**  
Commissioner

## Notice of Public Comment

**January 25, 2016**  
**CyberMetrix, Inc.**  
**005-36304-00106**

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 been placed in the Legal Advertising section of your local newspaper. 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](mailto: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.dot 8/27/2015



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**Michael R. Pence**  
Governor

**Carol S. Comer**  
Commissioner

January 25, 2016

Mr. Tim Kirch  
CyberMetrix, Inc.  
2860 National Road, Suite A  
Columbus, IN 47201

Re: Public Notice  
CyberMetrix, Inc.  
Permit Level: Significant Permit Revision  
Permit Number: 005-36304-00106

Dear Mr. Kirch:

Enclosed is a copy of your draft Significant Permit Revision, Technical Support Document, emission calculations, and the Public Notice which will be printed in your local newspaper.

The Office of Air Quality (OAQ) has prepared two versions of the Public Notice Document. The abbreviated version will be published in the newspaper, and the more detailed version will be made available on the IDEM's website and provided to interested parties. Both versions are included for your reference. The OAQ has requested that the Republic in Columbus, Indiana publish the abbreviated version of the public notice no later than January 28, 2016. You will not be responsible for collecting any comments, nor are you responsible for having the notice published in the newspaper.

OAQ has submitted the draft permit package to the Bartholomew County Public Library, 536 Fifth 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 Joshua Levering, 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 4-6543 or dial (317) 234-6543.

Sincerely,

*Greg Hotopp*

Greg Hotopp  
Permits Branch  
Office of Air Quality

Enclosures  
PN Applicant Cover letter 8/27/2015



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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**Michael R. Pence**  
*Governor*

**Carol S. Comer**  
*Commissioner*

January 25, 2016

To: Bartholomew County Public Library

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

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

**Applicant Name: CyberMetrix, Inc.**  
**Permit Number: 005-36304-00106**

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
- Request to publish the Notice of 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.

Enclosures  
PN Library.dot 8/27/2015



# 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

**Carol S. Comer**  
Commissioner

## **ATTENTION: PUBLIC NOTICES, LEGAL ADVERTISING**

January 25, 2016

The Republic  
333 Second Street  
PO Box 3001  
Columbus, IN 47201

Enclosed, please find one Indiana Department of Environmental Management Notice of Public Comment for CyberMetrix, Inc., Bartholomew County, Indiana.

Since our agency must comply with requirements which call for a Notice of Public Comment, we request that you print this notice one time, no later than January 28, 2016.

Please send a notarized form, clippings showing the date of publication, and the billing to the Indiana Department of Environmental Management, Accounting, Room N1345, 100 North Senate Avenue, Indianapolis, Indiana, 46204.

**To ensure proper payment, please reference account # 100174737.**

We are required by the Auditor's Office to request that you place the Federal ID Number on all claims. If you have any conflicts, questions, or problems with the publishing of this notice or if you do not receive complete public notice information for this notice, please call Greg Hotopp at 800-451-6027 and ask for extension 4-3493 or dial 317-234-3493.

Sincerely,

*Greg Hotopp*

Greg Hotopp  
Permit Branch  
Office of Air Quality

Permit Level: Significant Permit Revision  
Permit Number: 005-36304-00106

Enclosure

PN Newspaper.dot 8/27/2015

# Mail Code 61-53

IDEM Staff	GHOTOPP 1/25/2016 CyberMetrix Inc 005-36304-00106 Draft		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		Tim Kirch CyberMetrix Inc 2860 National Road Suite A Columbus IN 47201-4746 (Source CAATS)										
2		Columbus City Council and Mayors Office 123 Washington St Columbus IN 47201 (Local Official)										
3		Mr. Elbert Held 734 Hutchins Columbus IN 47201 (Affected Party)										
4		Mr. Lcnfc 1039 Sycamore St Columbus IN 47201 (Affected Party)										
5		Bartholomew Co Public Library 536 Fifth St. Columbus IN 47201-6225 (Library)										
6		Bartholomew County Commissioners 440 Third Street Columbus IN 47202 (Local Official)										
7		Mr. Jean Terpstra 3210 Grove Pkwy Columbus IN 47203 (Affected Party)										
8		Terry Lowe 1079 Spring Meadow Court Franklin IN 46131 (Affected Party)										
9		Mr. Charles Mitch 3210 Grove Parkway Columbus IN 47203 (Affected Party)										
10		Bartholomew County Health Department 440 3rd Street, Suite 303 Columbus IN 47201 (Health Department)										
11		Paul Dubenetzky Quality Environmental Professionals Inc. 1611 S. Franklin Road Indianapolis IN 46239 (Consultant)										
12												
13												
14												
15												

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11			