



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: November 15, 2011

RE: CyberMetrix, Inc. / 005-30932-00106

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

Notice of Decision – Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER-AM.dot12/3/07



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November 15, 2011

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

Re: Exempt Construction and Operation Status,
005-30932-00106

Dear Mr. Kirch:

The application from CyberMetrix Inc., received on September 16, 2011, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following stationary engineering services - data; system development plant located at 2860 National Road, Suite A, Columbus, IN 47201 is classified as exempt from air pollution permit requirements:

- (a) One (1) engine test cell, identified as TC1, approved for construction in 2011, utilizing an engine with a maximum capacity of 471 bhp and 4050 cfm of natural gas and exhausting to stacks S-TC1A, and S-TC1B. This engine test cell will be used to test stationary reciprocating internal combustion engines (RICE).
- (b) One (1) engine test cell, identified as TC2, approved for construction in 2011, utilizing an engine with a maximum capacity of 471 bhp and 4050 cfm of natural gas and exhausting to stacks S-TC2A, and S-TC2B. This engine test cell will be used to test stationary reciprocating internal combustion engines (RICE).
- (c) Two (2) air handling units, identified as AH1 and AH2, approved for construction in 2011, burning natural gas each with a minimum capacity of 1 MMBtu/hr.
- (d) Two (2) HVAC units, identified as H1 and H2, approved for construction in 2011, burning natural gas, each with a maximum capacity of 0.875 MMBtu/hr.

The following conditions shall be applicable:

1. 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.
2. 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.

A copy of the Exemption 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's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source. If you have any questions on this matter, please contact Charles Sullivan, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, at 317-232-8422 or at 1-800-451-6027 (ext 2-8422).

Sincerely,



Iryn Galilung, Section Chief
Permits Branch
Office of Air Quality

IC /cs

cc: File - Bartholomew County
Bartholomew County Health Department
Compliance and Enforcement Branch
Billing, Licensing and Training Section

**Indiana Department of Environmental Management
Office of Air Quality**

Technical Support Document (TSD) for an Exemption

Source Description and Location
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Source Name:	CyberMetrix, Inc.
Source Location:	2860 National Road, Suite A, Columbus, IN 47201
County:	Bartholomew
SIC Code:	8711 (Engineering Services)
Exemption No.:	005-30932-00106
Permit Reviewer:	Charles Sullivan

On September 16, 2011, the Office of Air Quality (OAQ) received an application from CyberMetrix, Inc. related to the construction and operation of a new engineering services - data; system development plant.

Existing Approvals

There have been no previous approvals issued to this source.

County Attainment Status

The source is located in Bartholomew County.

Sec. 4. The following attainment status designations are applicable to Bartholomew County:

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM2.5.	

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

- (b) **PM2.5**
 Bartholomew County has been classified as attainment for PM_{2.5}. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM_{2.5} emissions. These rules became effective on July 15, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM10 emissions as a surrogate for PM_{2.5} emissions until 326 IAC 2-2 is revised.

- (c) Other Criteria Pollutants
 Bartholomew County has been classified as attainment or unclassifiable in Indiana for Particulate Matter less than 10 micrometers (PM10), Carbon monoxide (CO) and 8-hr Ozone (O₃). Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

The fugitive emissions of criteria pollutants, hazardous air pollutants, and greenhouse gases are counted toward the determination of 326 IAC 2-1.1-3 (Exemptions) applicability.

Background and Description of Emission Units and Pollution Control Equipment

The Office of Air Quality (OAQ) has reviewed an application, submitted by CyberMetrix Inc. on September 16, 2011, relating to the construction and operation of new engineering services - data; system development plant.

The following is a list of the new emission units:

- (a) One (1) engine test cell, identified as TC1, approved for construction in 2011, utilizing an engine with a maximum capacity of 471 bhp and 4050 cfm of natural gas and exhausting to stacks S-TC1A, and S-TC1B. This engine test cell will be used to test stationary reciprocating internal combustion engines (RICE).
- (b) One (1) engine test cell, identified as TC2, approved for construction in 2011, utilizing an engine with a maximum capacity of 471 bhp and 4050 cfm of natural gas and exhausting to stacks S-TC2A, and S-TC2B. This engine test cell will be used to test stationary reciprocating internal combustion engines (RICE).
- (c) Two (2) air handling units, identified as AH1 and AH2, approved for construction in 2011, burning natural gas each with a minimum capacity of 1 MMBtu/hr.
- (d) Two (2) HVAC units, identified as H1 and H2, approved for construction in 2011, burning natural gas, each with a maximum capacity of 0.875 MMBtu/hr.

Enforcement Issues

There are no pending enforcement actions related to this source.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – Exemption

The following table reflects the unlimited potential to emit (PTE) of the entire source before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Process/ Emission Unit	Potential To Emit of the Entire Source (tons/year)									
	PM	PM10*	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e**	Total HAPs	Worst Single HAP
Engine Test Cell 1 (TC1)	0.03	0.14	0.14	0.01	4.14	0.10	9.56	2,184	0.034	0.03 (Hexane)
Engine Test Cell 2 (TC2)	0.03	0.14	0.14	0.01	4.14	0.10	9.56	2,184	0.034	0.03 (Hexane)

Process/ Emission Unit	Potential To Emit of the Entire Source (tons/year)									
	PM	PM10*	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e**	Total HAPs	Worst Single HAP
Misc. Natural Gas Combustion	0.03	0.12	0.12	0.01	1.64	0.09	1.38	1,983	0.031	0.029 (Hexane)
Total PTE of Entire Source	0.10	0.40	0.40	0.03	9.93	0.29	20.49	6,351	0.099	0.089 (Hexane)
Exemptions Levels**	5	5	5	10	10	5	25	100,000	25	10
Registration Levels**	25	25	25	25	25	25	100	100,000	25	10

negl. = negligible
 *Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
 **The 100,000 CO₂e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

Criteria Pollutants (PM10, PM2.5, SO₂, NO_x, VOC, and CO)

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of all regulated criteria pollutants are less than the levels listed in 326 IAC 2-1.1-3(e)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3 (Exemptions).

Hazardous Air Pollutants

- (b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.

Greenhouse Gases (GHGs) as CO₂e

- (c) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) greenhouse gases (GHGs) is less than the Title V subject to regulation threshold of one hundred thousand (100,000) tons of CO₂ equivalent emissions (CO₂e) per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

- (a) The requirements of the New Source Performance Standard for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60, Subpart JJJJ, are not included in the permit since provisions of this subpart are not applicable to stationary SI ICE being tested at an engine test cell/stand.
- (b) The requirements of the New Source Performance Standard for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60, IIII, are not included in the permit since provisions of this subpart are not applicable to stationary SI ICE being tested at an engine test cell/stand.
- (c) The requirements of the New Source Performance Standard for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc (60.40c through 60.48c) (326 IAC 12), are not included in this permit, because none of the units are steam generating units.

- (d) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (e) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD (326 IAC 20-95), are not included in this permit for the natural gas-fired units, because this source is not a major source of HAPs;
- (f) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63, Subpart JJJJJJ, are not included in the permit for the natural gas-fired units, because each unit is not a steam generating (boiler) unit;
- (g) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Engine Test Cells/Stands, 40 CFR 63, Subpart PTTTTT, are not included in the permit for the natural gas-fired engine test cell/stands, because this source is not a major source of HAPs;
- (h) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63 Subpart ZZZZ (326 IAC 20-82), are not included in the permit, since provisions of this subpart are not applicable to stationary RICE being tested at an engine test cell/stand.
- (i) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

Compliance Assurance Monitoring (CAM)

- (j) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is 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

The following state rules are applicable to the source:

- (a) 326 IAC 2-1.1-3 (Exemptions)
Exemption applicability is discussed under the Permit Level Determination – Exemption section above.
- (b) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.
- (c) 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.
- (d) 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.
- (e) 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.
- (f) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
The source is not subject to the requirements of 326 IAC 6-5, because the source does not have potential fugitive particulate emissions greater than 25 tons per year. Therefore, 326 IAC 6-5 does not apply.
- (h) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
Each of the emission units at this source is not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions from each emission unit is less than twenty-five (25) tons per year.

Test Cells, Air Handling Units and HVAC Combustion Units

- (i) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
326 IAC 6-3 applies only to activities that are used to produce intermediate or final products. Therefore, the two (2) Test Cells, Air Handling Units and HVAC Units (TC1, TC2, AH1, AH2, H1 and H2) are considered non-manufacturing sources of particulate emissions and not subject to 326 IAC 6-3.

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 16, 2011.

The construction and operation of this source shall be subject to the conditions of the attached proposed Exemption No. 005-30932-00106. The staff recommends to the Commissioner that this Exemption be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Charles Sullivan 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) 232-8422 or toll free at 1-800-451-6027 extension 2-8422.
- (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's Guide for Citizen Participation and Permit Guide on the Internet at: www.in.gov/idem

**Appendix A: Emissions Calculations
Emissions Summary**

Company Name: CyberMetrix, Inc
Address City IN Zip: 2860 National Road, Suite A, Columbus, IN 47201
Permit Number: E005-30932-00106
PIt ID: 005-00106
Reviewer: Charles Sullivan
Date: 9/26/2011

Emissions Unit	MMBtu/hr
TC 1	4.13
TC 2	4.13
AH 1	1.00
AH 2	1.00
H1 & H2	1.75
Totals	12.01

Emission Units	Uncontrolled Emissions									Worst Case HAPs (tons/yr)
	PM (tons/yr)	PM ₁₀ (tons/yr)	PM _{2.5} (tons/yr)	SO ₂ (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOx (tons/yr)	GHGs (tons/yr)	HAPs (tons/yr)	
Test Cell 1	0.03	0.14	0.14	0.01	0.10	9.56	4.14	2184	0.034	0.03 (Hexane)
Test Cell 2	0.03	0.14	0.14	0.01	0.10	9.56	4.14	2184	0.034	0.03 (Hexane)
Misc Combustion	0.03	0.12	0.12	0.01	0.09	1.38	1.64	1983	0.031	0.029 (hexane)
Total	0.10	0.40	0.40	0.03	0.29	20.49	9.93	6351	0.099	0.089 (Hexane)

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Test Cell 1**

Company Name: CyberMetrix, Inc
Address City IN Zip: 2860 National Road, Suite A, Columbus, IN 47201
Permit Number: E005-30932-00106
Pit ID: 005-00106
Reviewer: Charles Sullivan
Date: 9/26/2011

Emissions Unit	MMBtu/hr
TC 1	4.13
Totals	4.13

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr	Capacity bhp
4.1	1000	36.2	471.0

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	0.91	5.5	2.10
Emission Factor in g/hp-hr					**see below		** see below
Potential Emission in tons/yr	0.034	0.137	0.14	0.011	4.14	0.10	9.56

*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.

** NOx and CO emission factors based on published Engine Emissions Data sheets, NOx worst case at 75% load, CO worst case at continuous power. The Cummins published emission factors used are more conservative than comparable EPA published AP-42 emission factors for NOx and CO.

1 gram per hour = 0.00966265457 short tons per year (1 year = 8760 hours)

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors (except NOx and CO) 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-

Potential Emissions for NOx and CO = Capacity (bhp) x Emission Factor in g/hp-hr * 0.0096626 (tons per year)

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 page 3 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions
Test Cell 1

Company Name: CyberMetrix, Inc
Address City IN Zip: 2860 National Road, Suite A, Columbus, IN 47201
Permit Number: E005-30932-00106
Pit ID: 005-00106
Reviewer: Charles Sullivan
Date: 9/26/2011

HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	3.799E-05	2.171E-05	1.357E-03	3.256E-02	6.150E-05

HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	9.045E-06	1.990E-05	2.533E-05	6.874E-06	3.799E-05

Methodology is the same as page 1.

Total HAPs	3.41E-02
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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.
See Page 4 for Greenhouse Gas calculations.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Greenhouse Gas Emissions
Test Cell 1**

Company Name: CyberMetrix, Inc
Address City IN Zip: 2860 National Road, Suite A, Columbus, IN 47201
Permit Number: E005-30932-00106
Plt ID: 005-00106
Reviewer: Charles Sullivan
Date: 9/26/2011

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	2,171	0.0	0.0
Summed Potential Emissions in tons/yr	2,171		
CO2e Total in tons/yr	2,184		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Test Cell 2**

Company Name: CyberMetrix, Inc
Address City IN Zip: 2860 National Road, Suite A, Columbus, IN 47201
Permit Number: E005-30932-00106
Pit ID: 005-00106
Reviewer: Charles Sullivan
Date: 9/26/2011

Emissions Unit	MMBtu/hr
TC 2	4.13
Totals	4.13

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr	Capacity bhp
4.1	1000	36.2	471.0

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6		5.5	
Emission Factor in g/hp-hr					0.91 **see below		2.10 ** see below
Potential Emission in tons/yr	0.034	0.137	0.14	0.011	4.14	0.10	9.56

*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.

** NOx and CO emission factors based on published Engine Emissions Data sheets, NOx worst case at 75% load, CO worst case at continuous power. The Cummins published emission factors used are more conservative than comparable EPA published AP-42 emission factors for NOx and CO.

1 gram per hour = 0.00966265457 short tons per year

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors (except NOx and CO) 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-

Potential Emissions for NOx and CO = Capacity (bhp) x Emission Factor in g/hp-hr * 0.0096626 (tons per year)

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 page 6 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 HAPs Emissions
 Test Cell 2**

Company Name: CyberMetrix, Inc
Address City IN Zip: 2860 National Road, Suite A, Columbus, IN 47201
Permit Number: E005-30932-00106
Plt ID: 005-00106
Reviewer: Charles Sullivan
Date: 9/26/2011

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	3.799E-05	2.171E-05	1.357E-03	3.256E-02	6.150E-05

HAPs - Metals					
Emission Factor in lb/MMcf	Lead	Cadmium	Chromium	Manganese	Nickel
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	9.045E-06	1.990E-05	2.533E-05	6.874E-06	3.799E-05

Methodology is the same as page 1.

Total HAPs	3.41E-02
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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.
 See Page 7 for Greenhouse Gas calculations.

**Appendix A: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 Greenhouse Gas Emissions
 Test Cell 2**

Company Name: CyberMetrix, Inc
Address City IN Zip: 2860 National Road, Suite A, Columbus, IN 47201
Permit Number: E005-30932-00106
Plt ID: 005-00106
Reviewer: Charles Sullivan
Date: 9/26/2011

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	2,171	0.0	0.0
Summed Potential Emissions in tons/yr	2,171		
CO2e Total in tons/yr	2,184		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
 Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
 Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
 $\text{Emission (tons/yr)} = \text{Throughput (MMCF/yr)} \times \text{Emission Factor (lb/MMCF)} / 2,000 \text{ lb/ton}$
 $\text{CO2e (tons/yr)} = \text{CO2 Potential Emission ton/yr} \times \text{CO2 GWP (1)} + \text{CH4 Potential Emission ton/yr} \times \text{CH4 GWP (21)} + \text{N2O Potential Emission ton/yr} \times \text{N2O GWP (310)}.$

**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, IN 47201
Permit Number: E005-30932-00106
Pit ID: 005-00106
Reviewer: Charles Sullivan
Date: 9/26/2011

Emissions Unit	MMBtu/hr
AH 1	1.00
AH 2	1.00
H1 & H2	1.75
Totals	3.75

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
3.75	1000	32.9

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx 100 **see below	VOC	CO
Potential Emission in tons/yr	0.03	0.12	0.12	0.01	1.64	0.09	1.38

*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 page 9 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: E005-30932-00106
Plt ID: 005-00106
Reviewer: Charles Sullivan
Date: 9/26/2011

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	3.449E-05	1.971E-05	1.232E-03	2.957E-02	5.585E-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	8.213E-06	1.807E-05	2.300E-05	6.242E-06	3.449E-05

Methodology is the same as page 1.

Total HAPs	3.09E-02
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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.
 See Page 10 for Greenhouse Gas calculations.

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

Company Name: CyberMetrix, Inc
Address City IN Zip: 2860 National Road, Suite A, Columbus, IN 47201
Permit Number: E005-30932-00106
Plt ID: 005-00106
Reviewer: Charles Sullivan
Date: 9/26/2011

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	1,971	0.0	0.0
Summed Potential Emissions in tons/yr	1,971		
CO2e Total in tons/yr	1,983		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

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

TO: Timothy Kirch
CyberMetrix, Inc.
2860 National Road, Ste. A
Columbus, IN 46201

DATE: November 15, 2011

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

SUBJECT: Final Decision
Exemption
005-30932-00106

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

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

A copy of the final decision and supporting materials has also been sent via standard mail to:
Amanda Hennessy – Keramida Environmental, Inc.
Paul Dubenetzkyy – Keramida Environmental, Inc.
OAQ Permits Branch Interested Parties List

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

Final Applicant Cover letter.dot 11/30/07

Mail Code 61-53

IDEM Staff	GHOTOPP 11/15/2011 CyberMetrix Inc 005-30932-00106 Final		Type of Mail: CERTIFICATE OF MAILING ONLY	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		Timothy Kirch CyberMetrix Inc 2860 National Rd, Ste A Columbus IN 46201-4746 (Source CAATS) via confirmed delivery										
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. Boris Ladwig 333 2nd St Columbus IN 47201 (Affected Party)										
5		Eileen Booher 1316 Chestnut St. Columbus IN 47201 (Affected Party)										
6		Mr. Lcnfc 1039 Sycamore St Columbus IN 47201 (Affected Party)										
7		Bartholomew County Commissioners 440 Third Street Columbus IN 47202 (Local Official)										
8		Mr. Jean Terpstra 3210 Grove Pkwy Columbus IN 47203 (Affected Party)										
9		August Tindell 31 Reo Street Columbus IN 47201 (Affected Party)										
10		Terry Lowe 1039 W Jeffersons St Apt 3 Franklin IN 46131 (Affected Party)										
11		Mr. Charles Mitch 3210 Grove Parkway Columbus IN 47203 (Affected Party)										
12		Bartholomew County Health Department 440 3rd Street, Suite 303 Columbus IN 47201 (Health Department)										
13		Mr. Paul Dubenetzky Keramida Environmental, Inc. 401 N College Avenue Indianapolis IN 46202 (Consultant)										
14		Ms. Amanda Hennessy Keramida Environmental, Inc. 401 N College Ave Indianapolis IN 46202 (Consultant)										
15		Hoosier Tool & Die 2860 National Road, Sutie B Columbus IN 47201 (Affected Party)										

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See Domestic Mail Manual R900, S913, and S921 for limitations of coverage on inured and COD mail. See International Mail Manual for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
14			

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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		Agnew Investments, LLC 961 25th Street Columbus IN 47201 (Affected Party)										
2		Elwwod 25th Street, LLC PO Box 1024 Columbus IN 47201 (Affected Party)										
3		Toms Commercials LLC 2300 Washington Street Columbus IN 47201 (Affected Party)										
4		Lyle & Mary Powell PO Box 411 Bloomington IN 47201 (Affected Party)										
5		R & C Automotive, LLC PO Box 545 Greensburg IN 47240 (Affected Party)										
6		TT Commercial, LLC PO Box 167928 Irving TX 75016 (Affected Party)										
7		Steak & Shake Operations PO Box 260888 Plano TX 75026 (Affected Party)										
8		Fair Oaks Mall Acquisitions PO Box 167928 Irving TX 75016 (Affected Party)										
9		Agnew Investments 26220 Enterprise Court Lake Forest CA 92030 (Affected Party)										
10		First Interstate Investors 927 LLC PO Box 961025 Fort Worth TX 76161 (Affected Party)										
11		Texas Road House 2508 25th Street Columbus IN 47201 (Affected Party)										
12		ACRA Motors 2820 National Road Columbus IN 46201 (Affected Party)										
13		Sherwin-Williams 2920 National Road Columbus IN 47201 (Affected Party)										
14		Fair Oaks Mall 2210 2th Street Columbus IN 47201 (Affected Party)										
15		Kentucky Fried Chicken 2915 National Road Columbus IN 47201 (Affected Party)										

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See Domestic Mail Manual R900, S913, and S921 for limitations of coverage on inured and COD mail. See International Mail Manual for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
15			

Mail Code 61-53

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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		Indiana Bank & Trust 2751 Brentwood Drive Columbus IN 47201 (Affected Party)										
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See Domestic Mail Manual R900, S913, and S921 for limitations of coverage on inured and COD mail. See International Mail Manual for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
1			