



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: June 15, 2007
RE: EMCON Technologies / 005-24609-00080
FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this approval is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER-MOD.dot 03/23/06



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100 North Senate Avenue
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June 15, 2007

Mr. Gary Galbraith
EMCON Technologies
950 West 450 South
Walesboro, Indiana 47201

Re: 005-24609-00080
First Minor Source Modification to
Part 70 Permit No.:T005-17570-00080

Dear Mr. Galbraith:

EMCON Technologies was issued Part 70 operating permit No.: T005-17570-00080 on December 6, 2006 for the operation of a stationary engine testing source. An application to modify the source was received on March 8, 2007. A name change request for the source from ArvinMeritor, Inc. Technical Center to EMCON Technologies was received May 29, 2007. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source.

This change consists of modifying existing Test Cells (identified as C-1 through C-10) to allow the use of natural gas-fired and diesel fuel-fired simulators in all Test Cells. The source will install ten (10) diesel fuel-fired simulators, three (3) natural gas-fired engines, and nine (9) natural gas-fired simulators.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this 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 and 326 IAC 2-7-10.5(i), 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.

The source may begin construction and operation when the minor source modification has been issued. Operating conditions shall be incorporated into the Part 70 operating permit as a minor permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12.

All other conditions of the permit shall remain unchanged and in effect. Please find attached a copy of the revised permit.

Pursuant to Contract No. A305-5-65, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Ms. Sanobar Durrani, ERG, Morrisville, North Carolina 27560, or call (919) 468-7810 to speak directly to Ms. Durrani. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, or call (800) 451-6027, and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Original signed by

Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

Attachments

ERG/SD

cc: File – Bartholomew County
U.S. EPA, Region V
Bartholomew County Health Department
Air Compliance Section Inspector - Vaughn Ison
Compliance Data Section
Billing, Licensing, and Training Section - Dan Stamatkin



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MINOR SOURCE MODIFICATION TO A PART 70 OPERATING PERMIT RENEWAL OFFICE OF AIR QUALITY

**EMCON Technologies
950 West 450 South
Walesboro, Indiana 47201**

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

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. 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 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

First Minor Source Modification No.: 005-24609-0080	Affected Pages: all
Issued by: Original signed by Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: June 15, 2007

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 2-7-4(c)][326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary engine testing source.

Source Address:	950 West 450 South, Walesboro, Indiana 47201
Mailing Address:	950 West 450 South, Walesboro, Indiana 47201
General Source Phone Number:	(812) - 341 - 2238
SIC Code:	8734
County Location:	Bartholomew
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Minor Source, Section 112 of the Clean Air Act

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

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

- (a) Six (6) exhaust system test cells with gasoline engines (with or without catalytic converters), and/or natural gas-fired engines, and/or diesel fuel engines, and/or natural gas-fired exhaust simulators, and/or diesel fuel-fired exhaust simulators, identified as C-1 through C-6, installed in August 1978, exhausting to Stacks SC-1 through SC-6, capacity: 84 gallons of gasoline or diesel fuel per hour total, or 1,224 cubic feet of natural gas per hour per engine, or 800 cubic feet of natural gas per hour per simulator.
- (b) Three (3) exhaust system test cells with gasoline engines (with or without catalytic converters), and/or natural gas-fired engines, and/or diesel fuel engines, and/or natural gas-fired exhaust simulator, and/or diesel fuel-fired exhaust simulator, identified as C-7 through C-9, installed in May 1993, exhausting to Stacks SC-7 through SC-9, capacity: 66 gallons of gasoline or diesel fuel per hour total, 1,224 cubic feet of natural gas per hour per engine, or 800 cubic feet of natural gas per hour per simulator.
- (c) One (1) exhaust system test cell with gasoline engine (with or without catalytic converters), or natural gas-fired engine, and/or diesel fuel engine, or natural gas-fired exhaust simulator, or diesel fuel-fired exhaust simulator, identified as C-10, installed in 1998 and modified in 2001, exhausting to Stack SC-10, capacity: 14 gallons of gasoline or diesel fuel per hour, or 1,224 cubic feet of natural gas per hour per engine, or 800 cubic feet of natural gas per hour per simulator.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-2] [326 IAC 8-3-5]
- (b) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour including four (4) natural gas-fired boilers, installed in 1978, rated at 4.0 million British thermal units per hour. [326 IAC 6-2-3]

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION D.1 FACILITY OPERATION CONDITIONS

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

- (a) Six (6) exhaust system test cells with gasoline engines (with or without catalytic converters), and/or natural gas-fired engines, and/or diesel fuel engines, and/or natural gas-fired exhaust simulators, and/or diesel fuel-fired exhaust simulators, identified as C-1 through C-6, installed in August 1978, exhausting to Stacks SC-1 through SC-6, capacity: 84 gallons of gasoline or diesel fuel per hour total, or 1,224 cubic feet of natural gas per hour per engine, or 800 cubic feet of natural gas per hour per simulator.
- (b) Three (3) exhaust system test cells with gasoline engines (with or without catalytic converters), and/or natural gas-fired engines, and/or diesel fuel engines, and/or natural gas-fired exhaust simulators, and/or diesel fuel-fired exhaust simulators, identified as C-7 through C-9, installed in May 1993, exhausting to Stacks SC-7 through SC-9, capacity: 66 gallons of gasoline or diesel fuel per hour total, 1,224 cubic feet of natural gas per hour per engine, or 800 cubic feet of natural gas per hour per simulator.
- (c) One (1) exhaust system test cell with gasoline engine (with or without catalytic converters), or natural gas-fired engine, and/or diesel fuel engine, or natural gas-fired exhaust simulator, or diesel fuel-fired exhaust simulator, identified as C-10, installed in 1998 and modified in 2001, exhausting to Stack SC-10, capacity: 14 gallons of gasoline or diesel fuel per hour, or 1,224 cubic feet of natural gas per hour per engine, or 800 cubic feet of natural gas per hour per simulator.

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

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

D.1.1 Carbon Monoxide Limitations [326 IAC 2-2]

Compliance with the following carbon monoxide (CO) emission limits shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable:

- (a) The total input of gasoline to engine test cells C-1 through C-6 is limited to 119,645 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. This limitation is equivalent to a potential to emit of 235.7 tons of CO per consecutive twelve (12) month period.
- (b) The total input of gasoline to engine test cells C-7 through C-9 is limited to 126,396 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. This limitation is equivalent to a potential to emit of 249.0 tons of CO per consecutive twelve (12) month period.
- (c) The total input of gasoline to engine test cell C-10 is limited to 50,254 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. This limitation is equivalent to a potential to emit of 99.0 tons of CO per consecutive twelve (12) month period.
- (d) The CO emissions from engine test cells, identified as C-1 through C-10, shall not exceed 3.94 pounds per gallon, when using gasoline.
- (e) The CO emissions from engine test cells, identified as C-1 through C-10, shall not exceed 0.102 pounds per gallon, when using diesel.
- (f) The CO emissions from engine test cells, identified as C-1 through C-10, shall not exceed 0.00351 pounds per cubic feet, when using natural gas.
- (g) The CO emissions from the natural gas fired exhaust simulators shall not exceed 84.0 pounds per million cubic feet.

For purposes of determining compliance based on CO emissions each gallon of gasoline burned with a catalytic converter shall be equivalent to 0.100 gallons of gasoline and each gallon of diesel fuel burned shall be equivalent to 0.026 gallons of gasoline. Each million cubic feet of natural gas burned by any natural gas-fired exhaust simulator shall be equivalent to 21.3 gallons of gasoline and each million cubic feet of natural gas burned by any natural gas-fired engine shall be equivalent to 891 gallons of gasoline.

D.1.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

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

D.1.3 Record Keeping Requirements

The Permittee shall maintain monthly records at the source of the following values:

- (a) The volume of gasoline and/or diesel fuel used in each of the ten (10) engine test cells, C-1 through C-10, and
- (b) The volume of gasoline used in each of the ten (10) engine test cells, C-1 through C-10, with catalytic converters in operation.
- (c) Each million cubic feet of natural gas burned in engine test cells C-1 through C-10, and any exhaust simulator used in test cells C-1 through C-10, with and without catalytic converters in operation.

D.1.4 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarterly period being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

Part 70 Quarterly Report

Source Name: EMCON Technologies
 Source Address: 950 West 450 South, Walesboro, Indiana 47201
 Mailing Address: 950 West 450 South, Walesboro, Indiana 47201
 Part 70 Permit No.: T 005-17570-00080
 Facilities: Test Cells C-7 through C-9
 Parameter: Throughput of gasoline or equivalent fuel, equivalent to CO emissions of 249 tons per year.
 Limit: 126,396 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.
 1.0 gallon of gasoline with catalytic converter = 0.100 gallons of gasoline.
 1.0 gallon of diesel fuel = 0.026 gallons of gasoline and each million cubic feet of natural gas burned shall be equivalent to 21.3 gallons of gasoline, when using the exhaust simulator, and 891 gallons of gasoline, when using the natural gas-fired engine.

YEAR: _____

Month	Gallons of Gasoline or Equivalent	Gallons of Gasoline or Equivalent	Gallons of Gasoline or Equivalent
	This Month	Previous 11 Months	12 Month Total

- No deviation occurred in this month.
- Deviation/s occurred in this month.
 Deviation has been reported on: _____

Submitted by: _____
 Title/Position: _____
 Signature: _____
 Date: _____
 Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Minor Source Modification and Minor Permit Modification to a Part 70 Operating Permit

Source Background and Description

Source Name: EMCON Technologies
Source Location: 950 West 450 South, Walesboro, Indiana 47201
County: Bartholomew
SIC Code: 8734
Part 70 Operating Permit No.: T005-17570-00080
Operation Permit Issuance Date: December 6, 2006
Source Modification No.: 005-24609-00080
Permit Modification No.: 005-24414-00080
Permit Reviewer: ERG/SD

The Office of Air Quality (OAQ) has reviewed a modification application from EMCON Technologies relating to the operation of a stationary engine testing source.

History

On March 8, 2007, EMCON Technologies submitted an application to IDEM, OAQ requesting approval for a modification that would allow the Permittee to utilize natural gas-fired and fuel oil-fired simulators in existing Test Cells, identified as C-1 through C-10.

On May 29, 2007, the Permittee indicated an official name change for the company from ArvinMeritor, Inc. Technical Center to EMCON Technologies.

IDEM, OAQ has determined to revise the current Part 70 Permit for EMCON Technologies permit No.: 005-17570-00080, issued December 6, 2006, pursuant to 326 IAC 2-7-10.5(d)(8) - Minor Source Modification, and 326 IAC 2-7-12(d)(1) - Minor Permit Modification (see Justification of Modification section for details).

Existing Approvals

The source was issued a Part 70 Permit No.: 005-17570-00080 on December 6, 2006.

There are no other approvals issued to this source.

County Attainment Status

The source is located in Bartholomew County.

Pollutant	Status
PM10	Attainment
PM2.5	Attainment
SO ₂	Attainment
NO ₂	Attainment
8-hour Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) 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) Bartholomew County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions.
- (c) Bartholomew County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

Source Status

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Pollutant	Emissions (tons/year)
PM	25.9
PM10	26.0
SO ₂	19.3
VOC	25.8
CO	597
NO _x	305

- (a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a regulated pollutant 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(gg)(1).
- (b) These emissions are based upon Part 70 Permit No. T005-17570-00080, issued December 6, 2006.

The table below summarizes the potential to emit HAPs for the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

HAPs	Potential To Emit (tons/year)
Single HAP	Less than 10
Combination of HAPs	Les than 25

This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because HAPs emissions are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

Actual Emissions

There is no data available for actual emissions for this source.

Description of Modification

EMCON Technologies performs research and QA/QC activities on automotive and truck exhaust systems. In order to simulate anticipated operating conditions for the systems being tested, the source utilizes energy sources (gasoline or diesel engines) in the existing Test Cells, identified as C-1 through C-10.

In their application submitted March 8, 2007, the Permittee requested to use alternative energy sources as described below:

1. Addition of natural gas-fired simulators in the Test Cells identified as C-1 through C-9. Currently, only Test Cell, C-10, is permitted to operate a natural gas-fired simulator.
2. Addition of natural gas-fired engines in the Test Cells identified as C-7 through C-10. Currently, only Test Cells, C-1 through C-6, are permitted to operate natural gas-fired engines.
3. Addition of diesel fuel-fired simulators in the Test Cells identified as C-1 through C-10.

Note: The Permittee will continue to comply with the existing fuel throughput limits in the current Part 70 permit (Section D.1) and the fuel equivalency factors for natural gas-fired engines and natural gas-fired simulators. The fuel equivalency factor for diesel fuel in the current Part 70 Permit shall apply to both diesel fuel-fired engines and diesel fuel-fired simulators.

4. Revision of the fuel throughput capacity for the Test Cells identified as C-7 through C-9 from 42 gallons of gasoline or diesel fuel per hour total, to 66 gallons of gasoline or diesel fuel per hour total. The Test Cells identified as C-7 through C-9 are capable of accommodating large engines in comparison to other existing Test Cells. This revision does not result in any change to existing fuel throughput limits. Hence, there is no adjustment to the emission cap for any increase in potential to emit.
5. Correction of a typographical error in the Part 70 Quarterly Report for Test Cells C-7 through C-9 (see Proposed Changes section) to indicate that each million cubic feet of natural gas burned is equivalent to 21.3 gallons of gasoline.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

The Permittee shall continue to comply with the existing fuel throughput limits, as given in Section D.1 of the Part 70 permit. Therefore, there is no increase or decrease in potential to emit after this modification. (See Appendix A).

Permit Level Determination – Part 70

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

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	PTE Before Modification (tons/year)	PTE After Modification (tons/year)	Net Difference (tons/year)
PM	25.9	25.9	0.0
PM10	26.0	26.0	0.0
SO ₂	19.3	19.3	0.0
VOC	25.8	25.8	0.0
CO	597	597	0.0
NO _x	305	305	0.0
HAPs	NA	NA	NA

Justification for the Modification

The Part 70 Operating permit is being modified through a Part 70 Minor Source Modification and Part 70 Minor Permit Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(a)(8) because this modification adds a unit or units of the same type that are already permitted and will comply with the same applicable requirements and permit terms and conditions as the existing units and pursuant to 326 IAC 2-7-12(b) because this modification meets all the requirements under the provisions of this rule.

Permit Level Determination – PSD or Emission Offset

The table below summarizes the potential to emit, reflecting all limits, of the emission units, as determined in the Part 70 Permit No.: 005-17570-00080, issued December 6, 2006.

There are no changes to the potential emissions due to this modification.

Process/Emission Unit	Potential To Emit (tons/yr)						
	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Test Cells / C1 – C6	12.3	11.8	11.5	11.8	235	173	0.296
Test Cells / C7 – C9	6.16	5.89	5.74	9.35	249	86.3	NA
Test Cell / C – 10	2.06	1.99	1.91	3.74	99	29.2	NA
Insignificant Activities	5.32	6.27	0.100	0.915	14	16.6	0.315
Total Emissions	25.9	26.0	19.3	25.8	597	305.1	0.611

Note: Pursuant to Part 70 Permit No.: 005-17570-00080, issued December 6, 2006, the potential to emit for the test cells, identified as C-1 through C-10, is represented by the worst case limited emission total, using gasoline or diesel fuel, or the unlimited potential to emit for each criteria pollutant. Test cells, identified as C-1 through C-6, have limited CO emissions to 235 tons per year. Test cells, identified as C-7 through C-9, have limited CO emissions to 249 tons per year and test cell, identified as C-10, has limited CO emissions to 99 tons per year.

This modification to an existing major stationary source is not major because this modification does not result in an increase in emissions greater than PSD significant levels. Therefore, provisions of 326 IAC 2-2 do not apply.

Federal Rule Applicability Determination

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) applicable to this proposed modification..

State Rule Applicability Determination

There are no changes to the state rule applicability determinations as a result of this modification.

Proposed Changes

The following changes have been made to the permit. The permit is revised as follows with deleted language as ~~strikeouts~~ and new language **bolded**. The Table of Contents has been updated as necessary.

1. On May 29, 2007, the Permittee indicated an official name change for the company from ArvinMeritor, Inc. Technical Center to EMCON Technologies. This change has been made throughout the permit.

~~ArvinMeritor, Inc. Technical Center~~
EMCON Technologies
950 West 450 South
Walesboro, Indiana 47201

2. Due to a recent change, Section A.1 of the permit will not longer reflect the Responsible Official at the facility. However, IDEM, OAQ will continue to gather and retain this information and verify that he/she meets the requirements of a Responsible Official.

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary engine testing source.

~~Responsible Official:~~ _____ ~~Vice President Eng. Tech.~~

3. The Permittee requested to modify the existing Test Cells C-1 through C-10 to use natural gas-fired and diesel fuel-fired simulators in all Test Cells. Additionally, the Permittee will utilize natural gas-fired engines in Test Cells, C-7 through C-10. See Description of Modification section of TSD for detailed description of revisions requested.

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

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

- (a) Six (6) exhaust system test cells with gasoline engines **(with or without catalytic converters)**, and/or natural gas-fired engines, ~~(with or without catalytic converters)~~, and/or diesel fuel engines, **and/or natural gas-fired exhaust simulators, and/or diesel fuel-fired exhaust simulators**, identified as C-1 through C-6, installed in August 1978, exhausting to Stacks SC-1 through SC-6, capacity: 84 gallons of gasoline or diesel fuel per hour, total, or 1,224 cubic feet of natural gas per hour **per engine, or 800 cubic feet of natural gas per hour per simulator.**
- (b) Three (3) exhaust system test cells with gasoline engines (with or without catalytic converters), **and/or natural gas-fired engines, and/or diesel fuel engines, and/or natural gas-fired exhaust simulators, and/or diesel fuel-fired exhaust simulators**, identified as C-7 through C-9, installed in May 1993, exhausting to Stacks SC-7 through SC-9, capacity: ~~42~~ **66** gallons of gasoline or diesel fuel per hour, total, **1,224 cubic feet of natural gas per hour per engine, or 800 cubic feet of natural gas per hour per simulator.**

- (c) One (1) exhaust system test cell with gasoline engines (with or without catalytic converters), **or natural gas-fired engine**, and/or diesel fuel engines, or natural gas-fired exhaust simulator, **or diesel fuel-fired exhaust simulator**, identified as C-10, installed in 1998 and modified in 2001, exhausting to Stack SC-10, capacity: 14 gallons of gasoline or diesel fuel per hour, **or 1,224 cubic feet of natural gas per hour per engine**, or 800 cubic feet of natural gas per hour **per simulator**.

SECTION D.1

FACILITY OPERATION CONDITIONS

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

- (a) Six (6) exhaust system test cells with gasoline engines (**with or without catalytic converters**), and/or natural gas-fired engines, (~~with or without catalytic converters~~), and/or diesel fuel engines, **and/or natural gas-fired exhaust simulators, and/or diesel fuel-fired exhaust simulators**, identified as C-1 through C-6, installed in August 1978, exhausting to Stacks SC-1 through SC-6, capacity: 84 gallons of gasoline or diesel fuel per hour, ~~total~~, or 1,224 cubic feet of natural gas per hour **per engine, or 800 cubic feet of natural gas per hour per simulator**.
- (b) Three (3) exhaust system test cells with gasoline engines (with or without catalytic converters), **and/or natural gas-fired engines**, and/or diesel fuel engines, **and/or natural gas-fired exhaust simulators, and/or diesel fuel-fired exhaust simulators**, identified as C-7 through C-9, installed in May 1993, exhausting to Stacks SC-7 through SC-9, capacity: 42 ~~66~~ gallons of gasoline or diesel fuel per hour, ~~total~~, **1,224 cubic feet of natural gas per hour per engine, or 800 cubic feet of natural gas per hour per simulator**.
- (c) One (1) exhaust system test cell with gasoline engines (with or without catalytic converters), **or natural gas-fired engine**, and/or diesel fuel engines, or natural gas-fired exhaust simulator, **or diesel fuel-fired exhaust simulator**, identified as C-10, installed in 1998 and modified in 2001, exhausting to Stack SC-10, capacity: 14 gallons of gasoline or diesel fuel per hour, **or 1,224 cubic feet of natural gas per hour per engine**, or 800 cubic feet of natural gas per hour **per simulator**.

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

D.1.1 Carbon Monoxide Limitations [326 IAC 2-2]

Compliance with the following ~~The carbon monoxide (CO) emissions limits shall be limited as follows to make~~ **render** the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable::

...

- (d) ~~The potential to emit of~~ **CO emissions** from engine test cells, identified as C-1 through C-10, shall not exceed 3.94 pounds per gallon, when using gasoline.
- (e) ~~The potential to emit of~~ **CO emissions** from engine test cells, identified as C-1 through C-10, shall not exceed 0.102 pounds per gallon, when using diesel.
- (f) ~~The potential to emit of~~ **CO emissions** from engine test cells, identified as C-1 through ~~C-6~~ **C-10**, shall not exceed 0.00351 pounds per cubic feet, when using natural gas.
- (g) ~~The potential to emit of~~ **CO emissions** from the natural gas fired exhaust simulators shall not exceed 84.0 pounds per million cubic feet.

For purposes of determining compliance based on CO emissions, each gallon of gasoline burned with a catalytic converter shall be equivalent to 0.100 gallons of gasoline and each gallon of diesel fuel burned shall be equivalent to 0.026 gallons of gasoline. Each million cubic feet of natural gas burned by ~~the any~~ **any natural gas-fired** exhaust simulator shall be equivalent to 21.3 gallons of gasoline and each million cubic feet of natural gas burned by ~~the any~~ **any natural gas-fired** engine shall be equivalent to 891 gallons of gasoline.

D.1.3 Record Keeping Requirements

The Permittee shall maintain monthly records at the source of the following values:

...

- (c) Each million cubic feet of natural gas burned in engine test cells C-1 through ~~C-6~~ **C-10**, and the **any** exhaust simulator **used in test cells C-1 through C-10**, with and without catalytic converters in operation.

- 4. A typographical error was corrected in the quarterly report:

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

Part 70 Quarterly Report

Source Name: ~~ArvinMeritor, Inc. Technical Center~~ **EMCON Technologies**
Source Address: 950 West 450 South, Walesboro, Indiana 47201
Mailing Address: 950 West 450 South, Walesboro, Indiana 47201
Part 70 Permit No.: T 005-17570-00080
Facilities: Test Cells C-7 through C-9
Parameter: Throughput of gasoline or equivalent fuel, equivalent to CO emissions of 249 tons per year.
Limit: 126,396 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.
1.0 gallon of gasoline with catalytic converter = 0.100 gallons of gasoline.
1.0 gallon of diesel fuel = 0.026 gallons of gasoline and each **million** cubic feet of natural gas burned shall be equivalent to 21.3 gallons of gasoline, when using the exhaust simulator, and 891 gallons of gasoline, when using the natural gas-fired engine.

...

- 5. IDEM, OAQ has decided to add the specific mail codes (MC) for each of the IDEM branches to improve mail delivery as follows:

Permits Branch: **MC 61-53 IGCN 1003**
Compliance Branch: **MC 61-53 IGCN 1003**
Air Compliance Section: **MC 61-53 IGCN 1003**
Compliance Data Section: **MC 61-52 IGCN 1003**
Asbestos Section: **MC 61-52 IGCN 1003**
Technical Support and Modeling: **MC 61-50 IGCN 1003**

- 6. A typographical error was corrected in Condition C.15

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in ~~one hundred and twenty~~ **one hundred twenty** (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

...

Recommendation

The staff recommends to the Commissioner that the Minor Source Modification No. 005-24609-00080 and Minor Permit Modification No. 005-24414-00080 be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on March 8, 2007, with additional information received on May 29, 2007.

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached Proposed Part 70 Minor Source Modification No. 005-24609-000980 and Minor Permit Modification No. 005-24414-00080.

**Appendix A: Emission Calculations
Engine Test Cells**

Company Name: EMCON Technologies
Address: 950 West 450 South, Walesboro, Indiana 47201
Permit Number 005-24609
Plt Id: 005-00080
Reviewer: ERG/SD
Date: June 11, 2007

A. Potential Emissions Calculations Test Cells C1 - C6, constructed in 1978

CO emissions are limited to 235.7 TPY (Plus Space Heater and Boiler Emissions of 13.3 TPY) to make 326 IAC 2-2 not applicable

Gasoline Engines (without Catalytic Converters)

Pollutant	Emission Factor	Fuel Use	Potential Emissions		Limited Emissions
	(lbs/gal)	(gal/hour)	(lbs/hour)	(tons/year)	(tons/year)
VOC	0.148	84	12.4	54.5	8.85
PM	0.00647	84	0.54	2.38	0.39
PM-10	0.0062	84	0.52	2.28	0.37
NOx	0.102	84	8.57	37.5	6.10
CO	3.94	84	331	1450	235.7
SO2	0.00531	84	0.45	1.95	0.32

US EPA AIRS Emission Factors for "Reciprocating Engine Testing - Gasoline", SCC 2-04-004-01

Diesel (Engine or Simulator)

Pollutant	Emission Factor	Fuel Use	Potential Emissions	
	(lbs/gal)	(gal/hour)	(lbs/hour)	(tons/year)
VOC	0.0321	84	2.70	11.8
PM	0.0335	84	2.81	12.3
PM-10	0.032	84	2.69	11.8
NOx	0.469	84	39.4	173
CO	0.102	84	8.57	37.5
SO2	0.0312	84	2.62	11.5

US EPA AIRS Emission Factors for "Reciprocating Engine Testing - Diesel/Kerosene", SCC 2-04-004-02

Natural Gas (Engine)

Natural Gas (Simulator)

Pollutant	Emission Factor	Fuel Use	Potential Emissions		Fuel Use	Potential Emissions	
	(lbs/MMBtu)	(MMBtu/hour)	(lbs/hour)	(tons/year)	(MMBtu/hour)	(lbs/hour)	(tons/year)
VOC	0.12	1.224	0.15	0.64	0.80	0.10	0.42
PM	0.00991	1.224	0.01	0.05	0.80	0.01	0.03
PM-10	0.0384	1.224	0.05	0.21	0.80	0.03	0.13
NOx	1.94	1.224	2.37	10.4	0.80	1.55	6.80
CO	3.51	1.224	4.30	18.8	0.80	2.81	12.30
SO2	0.0312	1.224	0.04	0.17	0.80	0.02	0.11
Formaldehyde	0.0552	1.224	0.07	0.30	0.80	0.04	0.19

AP-42 Chapter 3.2 Natural Gas Fired Reciprocating Engines (Tables 3.2-1, 3.2-2, and 3.2-3)

NOTE: If Gasoline Engines Are Running With Catalytic Converters, the CO Emissions Will be Controlled by 90%

Calculation of Gasoline Fuel Limit Based on CO Emission Limit of 235.7 Tons Per Year:

235.7 TPY * 2000 lbs/ton/3.94 lbs/gal = **119,645 gallons per year**

Fuel equivalency based upon CO limit **1.0 gal gasoline with catalytic converter = 0.100 gal gasoline**
 Fuel equivalency based upon CO limit **1.0 gal diesel fuel = 0.026 gal of gasoline (0.102/3.94)**
 Fuel equivalency based upon CO limit **1.0 million cubic feet of natural gas = 890 gal of gasoline (3,510/3.94)**

B. Potential Emissions Calculations Test Cells C7 - C9, constructed in May 1993

CO emissions are limited to 249.0 TPY to make 326 IAC 2-2 not applicable

Pollutant	Gasoline Engines (without Catalytic Converters)		Potential Emissions		Limited Emissions
	Emission Factor (lbs/gal)	Fuel Use (gal/hour)	(lbs/hour)	(tons/year)	(tons/year)
VOC	0.148	66	9.77	42.8	9.35
PM	0.00647	66	0.43	1.87	0.41
PM-10	0.0062	66	0.41	1.79	0.39
NOx	0.102	66	6.73	29.5	6.45
CO	3.94	66	260	1139	249
SO2	0.00531	66	0.35	1.54	0.34

US EPA AIRS Emission Factors for "Reciprocating Engine Testing - Gasoline", SCC 2-04-004-01

Pollutant	Diesel (Engine or Simulator)		Potential Emissions	
	Emission Factor* (lbs/gal)	Fuel Use (gal/hour)	(lbs/hour)	(tons/year)
VOC	0.0321	66	2.12	9.28
PM	0.0335	66	2.21	9.68
PM-10	0.032	66	2.11	9.25
NOx	0.469	66	31.0	136
CO	0.102	66	6.73	29.5
SO2	0.0312	66	2.06	9.02

US EPA AIRS Emission Factors for "Reciprocating Engine Testing -Diesel/Kerosene", SCC 2-04-004-02

Pollutant	Natural Gas (Engine)				Natural Gas (Simulator)			
	Emission Factor (lbs/MMBtu)	Fuel Use (MMBtu/hour)	Potential Emissions		Fuel Use (MMBtu/hour)	Potential Emissions		
			(lbs/hour)	(tons/year)		(lbs/hour)	(tons/year)	
VOC	0.12	1.224	0.15	0.64	0.80	0.10	0.42	
PM	0.00991	1.224	0.01	0.05	0.80	0.01	0.03	
PM-10	0.0384	1.224	0.05	0.21	0.80	0.03	0.13	
NOx	1.94	1.224	2.37	10.4	0.80	1.55	6.80	
CO	3.51	1.224	4.30	18.8	0.80	2.81	12.30	
SO2	0.0312	1.224	0.04	0.17	0.80	0.02	0.11	
Formaldehyde	0.0552	1.224	0.07	0.30	0.80	0.04	0.19	

AP-42 Chapter 3.2 Natural Gas Fired Reciprocating Engines (Tables 3.2-1, 3.2-2, and 3.2-3)

NOTE: If gasoline engines are running with catalytic converters, the CO emissions will be controlled by 90%

Calculation of gasoline fuel limit based on CO emission limit of 249.0 tons per year:

249 TPY * 2000 lbs/ton/3.94 lbs/gal =

126,396 gallons per year

Fuel equivalency based upon CO limit **1.0 gal gasoline with catalytic converter = 0.100 gal gasoline**

Fuel equivalency based upon CO limit **1.0 gal diesel fuel = 0.026 gal of gasoline (0.102/3.94)**

Fuel equivalency based upon CO limit **1.0 million cubic feet of natural gas = 890 gal of gasoline (3,510/3.94)**

C. Potential Emissions Calculations One (1) Test Cell C-10, constructed in 1998

CO limited to 99.0 TPY to make 326 IAC 2-2 not applicable

Pollutant	Gasoline		Engines (without Catalytic Converters)		Limited Emissions (tons/year)
	Emission Factor (lbs/gal)	Fuel Use (gal/hour)	Potential Emissions (lbs/hour) (tons/year)		
VOC	0.148	14	2.07	9.08	3.72
PM	0.00647	14	0.09	0.40	0.16
PM-10	0.0062	14	0.09	0.38	0.16
NOx	0.102	14	1.43	6.25	2.56
CO	3.94	14	55.2	242	99.0
SO2	0.00531	14	0.07	0.33	0.13

US EPA AIRS Emission Factors for "Reciprocating Engine Testing - Gasoline", SCC 2-04-004-01

Pollutant	Diesel (Engine or Simulator)		Potential Emissions	
	Emission Factor (lbs/gal)	Fuel Use (gal/hour)	(lbs/hour)	(tons/year)
VOC	0.0321	14	0.45	1.97
PM	0.0335	14	0.47	2.05
PM-10	0.032	14	0.45	1.96
NOx	0.469	14	6.57	28.8
CO	0.102	14	1.43	6.25
SO2	0.0312	14	0.44	1.91

US EPA AIRS Emission Factors for "Reciprocating Engine Testing -Diesel/Kerosene", SCC 2-04-004-02

Pollutant	Natural Gas (Engine)		Potential Emissions		Natural Gas (Simulator)		Potential Emissions	
	Emission Factor (lbs/MMBtu)	Fuel Use (MMBtu/hour)	(lbs/hour)	(tons/year)	Fuel Use (MMBtu/hour)	(lbs/hour)	(tons/year)	
VOC	0.12	1.224	0.15	0.64	0.80	0.10	0.42	
PM	0.00991	1.224	0.01	0.05	0.80	0.01	0.03	
PM-10	0.0384	1.224	0.05	0.21	0.80	0.03	0.13	
NOx	1.94	1.224	2.37	10.4	0.80	1.55	6.80	
CO	3.51	1.224	4.30	18.8	0.80	2.81	12.3	
SO2	0.0312	1.224	0.04	0.17	0.80	0.02	0.11	
Formaldehyde	0.0552	1.224	0.07	0.30	0.80	0.04	0.19	

AP-42 Chapter 3.2 Natural Gas Fired Reciprocating Engines (Tables 3.2-1, 3.2-2, and 3.2-3)

NOTE: If gasoline engines are running with catalytic converters, the CO emissions will be controlled by 90%

Calculation of gasoline fuel limit based on CO emission limit of 99.0 tons per year:

99 TPY * 2000 lbs/ton/3.94 lbs/gal = **50,254 gallons per year**

- Fuel equivalency based upon CO limit **1.0 gal gasoline with catalytic converter = 0.100 gal gasoline**
- Fuel equivalency based upon CO limit **1.0 gal diesel fuel = 0.026 gal of gasoline (0.102/3.94)**
- Fuel equivalency based upon CO limit **1.0 million cubic feet of natural gas = 890 gal of gasoline (3,510/3.94)**

The Sum of the Worst Case of Any Fuel for Each Set of Test Cells.

Summary

Pollutant	Potential Emissions (tons/year)	Limited Emissions (tons/year)
VOC	106	24.9
PM	24.1	24.1
PM10	23.0	23.0
NOx	337	337
CO	2830	584
SO2	22.4	22.4
HAPS	0.30	0.30