INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
*We make Indiana a cleaner, healthier place to live.*

*Mitchell E. Daniels, Jr.*
Governor

*Thomas W. Easterly*
Commissioner

100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(317) 232-8603
(800) 451-6027
www.in.gov/idem

Chris Hauke
ArvinMeritor
849 Whitaker Road
Plainfield, Indiana 46168

November 27, 2007

Re: F063-25043-00046
Second Significant Permit Revision to
FESOP No. F063-21574-00046

Dear Mr. Hauke:

On July 20, 2007, the Office of Air Quality (OAQ) received an application from the source relating to the construction and operation of one (1) stationary surface coating booth, the installation of one (1) natural gas-fired, oscillating cold solvent parts washer, and a change in the operation of existing Spray Booth 2, identified as PB-2, to increase the maximum application rate from 0.102 gallons per unit to 0.117 gallons per unit. The new surface coating booth and parts washer will not cause the source's potential to emit to be greater than the threshold levels specified in 326 IAC 2-2 or 326 IAC 2-7, since the entire source (including the surface coating booths and parts washer) will continue to be limited to less than the Part 70 and/or PSD major source threshold levels, respectively. These changes to the permit, F063-21574-00046, issued on November 10, 2005, are considered a change by Significant Permit Revision (SPR) pursuant to 326 IAC 2-8-11.1(f)(1)(E) and is hereby approved as described in the attached Technical Support Document (TSD).

The following 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 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. Attached is a copy of the revised permit.

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 Hannah L. Desrosiers, of my staff, at 317-234-5374 or 1-800-451-6027, and ask for extension 4-5374.

Sincerely,

*Original signed by Matt Stuckey for*
Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

Attachments
NS/hld

cc: File – Hendricks County
Hendricks County Health Department
Air Compliance Section Inspector – Vaughn Ison
Compliance Data Section
Permits Administrative and Development
Technical Support and Modeling
Billing, Licensing, and Training Section - Dan Stamatkin
US EPA Region 5

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
*We make Indiana a cleaner, healthier place to live.*

*Mitchell E. Daniels, Jr.*
Governor

*Thomas W. Easterly*
Commissioner

100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(317) 232-8603
(800) 451-6027
www.in.gov/idem

# NEW SOURCE CONSTRUCTION AND FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) and NEW SOURCE REVIEW OFFICE OF AIR QUALITY

## ArvinMeritor
## 849 Whitaker Road
## Plainfield, Indiana 46168

(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 provision of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; and 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. This permit also addresses new source review requirements and is intended to fulfill the new source review procedures and permit revision requirements pursuant to 326 IAC 2-8-11.1, applicable to those conditions.

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.: F 063-21574-00046 | |
|---|---|
| Original issued by:<br>Paul Dubenetzky, Branch Chief<br>Office of Air Quality | Issuance Date: November 10, 2005<br><br>Expiration Date: November 10, 2010 |

First Significant Permit Revision No. 063-24572-00046, Issued on June 27, 2007.

First Administrative Amendment, No. 063-25205-00046, Issued on October 9, 2007.

| Second Significant Permit Revision No. 063-25043-00046 | Affected Pages: Entire permit. |
|---|---|
| Issued by:<br><br>*Original signed by Matt Stuckey for*<br>Nisha Sizemore, Chief<br>Permits Branch<br>Office of Air Quality | Issuance Date: November 27, 2007<br><br>Expiration Date: November 10, 2010 |

## TABLE OF CONTENTS

## SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a stationary transmission and brake rebuilding source.

| | |
|---|---|
| Source Address: | 849 Whitaker Road, Plainfield, Indiana 46168 |
| Mailing Address: | 849 Whitaker Road, Plainfield, Indiana 46168 |
| General Source Phone: | 317 - 839 - 9525 |
| SIC Code: | 3714 |
| County Location: | Hendricks |
| Source Location Status: | Nonattainment area for 8-hour ozone and $PM_{2.5}$<br>Attainment area for all other criteria pollutants |
| Source Status: | Federally Enforceable State Operating Permit (FESOP)<br>Minor Source, under PSD and Emission Offset Rules<br>Minor Source Section 112 of the Clean Air Act<br>Not 1 in 28 Source Categories |

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

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

(a) One (1) tumblast wheelabrator, identified as PL-100, installed after 1990, using a baghouse (DC-1) for particulate control, exhausting inside the building, capacity: 660 pounds of transmission and brake parts per hour, utilizing 12,000 pounds of steel shot per hour.

(b) One (1) spinblast wheelabrator, identified as PL-101, installed after 1990, using a mpf cartridge collector (DC-2) for particulate control, exhausting inside the building, capacity: 2,100 pounds of transmission and brake parts per hour, utilizing 27,000 pounds of steel shot per hour.

(c) One (1) sandblast wheelabrator, identified as PL-104, installed after 1990, using a baghouse (DC-3) for particulate control, exhausting inside the building, capacity: 100 pounds of transmission and brake parts per hour, utilizing 570 pounds of sand per hour.

(d) One (1) tumblast wheelabrator, identified as PL-118, installed after 1990, using a baghouse (DC-4) for particulate control, exhausting inside the building, capacity: 660 pounds of transmission and brake parts per hour, utilizing 12,000 pounds of steel shot per hour.

(e) One (1) tumblast finishing unit, identified as PL-123, installed after 1990, equipped with a baghouse (DC-5) for particulate control, exhausting inside the building, capacity: 1,980 pounds of transmission and brake parts per hour, utilizing 16,800 pounds of steel shot per hour.

(f) One (1) twelve (12) cubic feet pangborn rotoblast barrel abrasive blasting unit #4, identified as PL-126, installed after 1990, equipped with a baghouse (DC-6) for particulate control, exhausting inside the building, capacity: 4,680 pounds of transmission and brake parts per hour, utilizing 33,600 pounds of steel shot per hour.

(g) Two (2) tumblast finishing units, identified as PL-124 and PL-125, installed after 1990, each unit equipped with a baghouse (DC-7 and DC-6, respectively) for particulate control, exhausting inside the building, capacity: 1,980 pounds of transmission and brake parts per hour, each, utilizing 16,800 pounds of steel shot per hour, each.

(h) One (1) twelve (12) cubic feet abrasive tumble blaster, identified PL-127, installed after 1990, equipped with a baghouse (DC-6) for particulate control, exhausting inside the building, capacity: 4,680 pounds of transmission and brake parts per hour, utilizing 33,600 pounds of steel shot per hour.

(i) Degreasing operations consisting of:

(1) Handwipe operations, installed after 1990, using a maximum of 1,080 gallons of degreasing solvent per year.

(2) Eight (8) cold cleaner degreaser dip tanks identified as PL-103, PL-111, PL-112, PL-113, PL-114, PL-115, PL-116, PL-117 and two (2) vibratory degreaser tanks identified as, PL-102 and PL-120, installed after 1990, capacity: 1500 gallons per year, total.

(3) One (1) Cold Cleaner degreaser dip tank, identified as CC11, approved for construction in 2007, uncontrolled and using a maximum of 365 gallons of degreasing solvent per year.

(j) One (1) dip coating booth, identified as PL-121A, installed after 1990, exhausting to stack PL-121A, capacity: 750 metal brake shoes per hour.

(k) One (1) spray paint booth, identified as PB-1, installed after 1990, equipped with two (2) HVLP spray guns, equipped with dry filters for particulate control, exhausting to stack S-13, capacity: 40 transmission units per hour.

(l) Three (3) abrasive tumble blast units, identified as PL-128, PL-129, and PL-130, to be installed in 2005, each unit equipped with a cartridge dust collector (DC-8 and DC-9, and DC-10, respectively) for particulate control, exhausting inside the building, capacity: 1980 pounds of transmission and brake parts per hour, each, utilizing 15,300 pounds of steel shot per hour, each.

(m) One (1) abrasive blasting unit, identified as PL-131, approved for construction in 2007, with a capacity of 2,025 pounds of parts processed per hour, using 54,275 pounds of steel shot per hour and a six (6) cartridge dust collection system, identified as DC-11 for particulate control, and exhausting inside the building.

(n) One (1) Falcon Graphite cutting/weld removal operation, identified as WRB1, approved for construction in 2007, with a maximum capacity of nine (9) axles per hour and no control, exhausting through stack WRB-1. [326 IAC 6-3-2]

(o) One (1) axle spray coating operation, approved for construction in 2007, applying either a water-based primer or a zinc primer/urethane based topcoat, with a maximum capacity of 9 units per hour due to an operational bottleneck at the one (1) abrasive blasting unit, identified as PL-131, consisting of:

(1) One (1) spray paint booth, identified as PB-2, approved for construction in 2007, equipped with two (2) HVLP spray guns with a maximum application rate of 0.117 gallons per unit, using dry filters for particulate control and exhausting to stack SVPB-2.

(2) One (1) spray paint booth, identified as PB-3, approved for construction in 2007, equipped with two (2) HVLP spray guns with a maximum application rate of 0.266 gallons per unit, utilizing a zinc primer and urethane based top coat, using dry filters for particulate control and exhausting to stack SVPB-3.

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

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

(a) One (1) MIG welding station, identified as PL-119, installed after 1990, with a maximum wire consumption of 0.02 pounds per day.

(b) One (1) bake-off oven, identified as PL-110, installed after 1990, equipped with an integral secondary combustion chamber, exhausting to Stack S-9, capacity: 0.5 million British thermal units per hour.[326 IAC 4-2]

(c) One (1) natural gas-fired Proceco brake parts washer, identified as PL-122, installed after 1990, using only water and detergents and employing two (2) natural gas-fired tube heaters, exhausting to stack PL-122, capacity: 1.90 million British thermal units per hour, combined.

(d) One (1) natural gas-fired Proceco aqueous core washer, identified as PL-106, installed after 1990, using only water and detergents, exhausting to stack PL-106, capacity: 0.90 million British thermal units per hour.

(e) One (1) natural gas-fired Mart aqueous parts washer, identified as PL-105, installed after 1990, using only water and detergents, exhausting to stack PL-105, capacity: 0.5 million British thermal units per hour.

(f) One (1) natural gas-fired Mart aqueous tornado parts washer, identified as PL-107, installed after 1990, using only water and detergents, exhausting to stack PL-107, capacity: 0.5 million British thermal units per hour.

(g) One (1) natural gas-fired Mart aqueous clutch washer, identified as PL-109, installed after 1990, using only water and detergents, exhausting to stack PL- 109, capacity: 0.5 million British thermal units per hour.

(h) One (1) natural gas-fired, aqueous parts washer, identified as PW1A, installed in 2007, using only water, exhausting to stack SVPW1A, capacity: 1.5 million British thermal units per hour.

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

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) 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]

(a) This permit F063-21574-00046 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]

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. The submittal by the Permittee does require the certification by an “authorized individual” as defined by 326 IAC 2-1.1-1(1). 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 Compliance Order Issuance [326 IAC 2-8-5(b)]

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

B.9 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, 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.10 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. 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 in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance 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, IDEM, OAQ, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.11 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, 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 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 the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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 or potential to emit. The PMPs do not require the certification 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]

(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 Indianapolis Offices, 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 No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section) or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967
Indianapolis Offices: 317-232-8603

(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 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 the certification 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.

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to 181-24072-00046 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 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision); the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

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

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. 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.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit (FESOP) 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 the certification 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.17 Permit Renewal [326 IAC 2-8-3(h)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification 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
Permits Branch, 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 in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 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
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application shall be certified 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)]

(d) No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.

B.19 Operational Flexibility [326 IAC 2-8-15] [326 IAC 2-8-11.1]

(a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d) 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
Permits Branch, 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) through (d). 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)(2), (c)(1), and (d).

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

(c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
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.20 Source Modification Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 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.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10] [IC 13-17-3-2]

(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
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification 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.23 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, within 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.24 Advanced Source Modification Approval [326 IAC 2-8-4(11)] [326 IAC 2-1.1-9]

(a) The requirements to obtain a permit revision under 326 IAC 2-8-11.1 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2 and A.3.

(b) Pursuant to 326 IAC 2-1.1-9 any permit authorizing construction may be revoked if construction of the emission unit has not commenced within eighteen (18) months from the date of issuance of the permit, or if during the construction work is suspended for a continuous period of one (1) year or more.

B.25 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

**Emissions 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), and which has a maximum process weight rate less than one hundred (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] [326 IAC 2-2] [326 IAC 2 -3]

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. This limitation shall also satisfy the requirements of 326 IAC 2-3 (Emission Offset);

(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 (Prevention of Significant Deterioration (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 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 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

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

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

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

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

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

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

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

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

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

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

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

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

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

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

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

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 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 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 Accredited 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 Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

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

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

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, 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 certification 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 certification 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)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, 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 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 inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

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

(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.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) These ERPs shall be submitted for approval to:

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

within 180 days from the date on which this source commences operation.

The ERP does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.

(d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.

(e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.

(f) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.14 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

If a regulated substance as defined in 40 CFR 68 is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.15 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) Upon detecting an excursion or exceedance, the Permittee shall 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 emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned 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 within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(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;

(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 maintain the following records:

(1) monitoring data;

(2) monitor performance data, if applicable; and

(3) corrective actions taken.

C.16 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 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 twenty (120) 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 the certification 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.17 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. 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, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.18 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. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

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

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) The first report covered the period commencing on the date of issuance of the original FESOP and ended on the last day of the reporting period. All subsequent reporting periods shall be based on calendar years.

**Stratospheric Ozone Protection**

C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156

(b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

**SECTION D.1 FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-8-4(10)]: Abrasive Blasting Operations**

(a) One (1) tumblast wheelabrator, identified as PL-100, installed after 1990, using a baghouse (DC-1) for particulate control, exhausting inside the building, capacity: 660 pounds of transmission and brake parts per hour, utilizing 12,000 pounds of steel shot per hour.

(b) One (1) spinblast wheelabrator, identified as PL-101, installed after 1990, using a mpf cartridge collector (DC-2) for particulate control, exhausting inside the building, capacity: 2,100 pounds of transmission and brake parts per hour, utilizing 27,000 pounds of steel shot per hour.

(c) One (1) sandblast wheelabrator, identified as PL-104, installed after 1990, using a baghouse (DC-3) for particulate control, exhausting inside the building, capacity: 100 pounds of transmission and brake parts per hour, utilizing 570 pounds of sand per hour.

(d) One (1) tumblast wheelabrator, identified as PL-118, installed after 1990, using a baghouse (DC-4) for particulate control, exhausting inside the building, capacity: 660 pounds of transmission and brake parts per hour, utilizing 12,000 pounds of steel shot per hour.

(e) One (1) tumblast finishing unit, identified as PL-123, installed after 1990, equipped with a baghouse (DC-5) for particulate control, exhausting inside the building, capacity: 1,980 pounds of transmission and brake parts per hour, utilizing 16,800 pounds of steel shot per hour.

(f) One (1) twelve (12) cubic feet pangborn rotoblast barrel abrasive blasting unit #4, identified PL-126, installed after 1990, equipped with a baghouse (DC-6) for particulate control, exhausting inside the building, capacity: 4,680 pounds of transmission and brake parts per hour, utilizing 33,600 pounds of steel shot per hour.

(g) Two (2) tumblast finishing units, identified as PL-124 and PL-125, installed after 1990, each unit equipped with a baghouse (DC-7 and DC-6, respectively) for particulate control, exhausting inside the building, capacity: 1,980 pounds of transmission and brake parts per hour, each, utilizing 16,800 pounds of steel shot per hour, each.

(h) One (1) twelve (12) cubic feet abrasive tumble blaster, identified as PL-127, installed after 1990, equipped with a baghouse (DC-6) for particulate control, exhausting inside the building, capacity: 4,680 pounds of transmission and brake parts per hour, utilizing 33,600 pounds of steel shot per hour.

(l) Three (3) abrasive tumble blast units, identified as PL-128, PL-129, and PL-130, to be installed in 2005, each unit equipped with a cartridge dust collector (DC-8 and DC-9, and DC-10, respectively) for particulate control, exhausting inside the building, capacity: 1980 pounds of transmission and brake parts per hour, each, utilizing 15,300 pounds of steel shot per hour, each.

(m) One (1) abrasive blasting unit, identified as PL-131, approved for construction in 2007, with a capacity of 2,025 pounds of parts processed per hour, using 54,275 pounds of steel shot per hour and a six (6) cartridge dust collection system, identified as DC-11 for particulate control, and exhausting inside the building.

(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 2-8-4(1)]**

D.1.1 FESOP [326 IAC 2-8-4] [326 IAC 2-2]

(a) Pursuant to 326 IAC 2-8-4, each of the abrasive blasting units equipped with baghouses/ cartridges, shall not exceed the following hourly $PM_{10}$ emission limits:

| Unit ID / Control Device | $PM_{10}$ Emission Limits (pounds / hour) |
|---|---|
| PL-100 / DC-1 | 0.41 |
| PL-101 / DC-2 | 0.93 |
| PL-104 / DC-3 | 0.16 |
| PL-118 / DC-4 | 0.41 |
| PL-123 / DC-5 | 0.58 |
| PL-125, PL-126, and PL-127 / DC-6 | 2.90 |
| PL-124 / DC-7 | 0.58 |
| PL-128 / DC-8 | 0.53 |
| PL-129 / DC-9 | 0.53 |
| PL-130 / DC-10 | 0.53 |
| PL-131 / DC-11 | 0.19 |

Compliance with these limits, combined with the $PM_{10}$ from other emission units, shall limit emissions from the entire source to less than one hundred (100) tons per year for $PM_{10}$ and render the requirements of 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (PSD) not applicable.

D.1.2 Particulate [326 IAC 6-3-2] [326 IAC 2-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rates from the abrasive blasting operations shall be limited as follows:

| Unit ID / Control Device | Process Weight Rate (ton / hour) | Particulate Emission Limits (pound / hour) |
|---|---|---|
| PL-100 / DC-1 | 0.33 | 1.95 |
| PL-101 / DC-2 | 1.05 | 4.24 |
| PL-104 / DC-3 | 0.05 | 0.551 |
| PL-118 / DC-4 | 0.33 | 1.95 |
| PL-123 / DC-5 | 0.99 | 4.07 |
| PL-125, PL-126, and PL-127 / DC-6 | 5.67 | 13.1 |
| PL-124 / DC-7 | 0.99 | 4.07 |
| PL-128 | 0.99 | 4.07 |
| PL-129 | 0.99 | 4.07 |
| PL-130 | 0.99 | 4.07 |
| PL-131 / DC-11 | 1.01 | 4.13 |

The pounds per hour limitations were calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Compliance with these limits combined with the PM from other emission units shall limit emissions from the entire source to less than two hundred fifty (250) tons per year for PM and render the requirements of 326 IAC 2-2 (PSD) not applicable.

D.1.3 Preventive Maintenance Plan [326 IAC 1-6-3]

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

**Compliance Determination Requirements**

D.1.4 Particulate Control

In order to comply with Conditions D.1.1, and D.1.2, the baghouses/cartridges, identified as DC-1 through DC-11, for particulate control shall be in operation and control emissions from the abrasive blasting operations at all times that the abrasive blasting operations are in operation.

**Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]**

D.1.5 Broken or Failed Bag/Cartridge Detection

(a) For a single compartment baghouse, controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material being subject to abrasive blasting. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse=s pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

D.1.6 Baghouse Parametric Monitoring

(a) The Permittee shall record the pressure drop across the baghouses when used in conjunction with the abrasive blasting at least once per day when the process is in operation. When for any one reading, the pressure drop across the baghouses is outside the normal range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(b) The Permittee shall record the pressure drop across the cartridge dust collectors when used in conjunction with the abrasive blasting at least once per day when the process is in operation. When for any one reading, the pressure drop across the cartridge dust collectors is outside the normal range of 1.0 and 7.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(c) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

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

D.1.7 Record Keeping Requirements

(a) To document compliance with Condition D.1.6, the Permittee shall maintain records once per day of the pressure drop during normal operation. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the process did not operate that day).

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**SECTION D.2 FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-8-4(10)]: Surface Coating Operations**

(j) One (1) dip coating booth, identified as PL-121A, installed after 1990, exhausting to stack PL-121A, capacity: 750 metal brake shoes per hour.

(k) One (1) spray paint booth, identified as PB-1, installed after 1990, equipped with two (2) HVLP spray guns, equipped with dry filters for particulate control, exhausting to stack S-13, capacity: 40 transmission units per hour.

(o) One (1) axle spray coating operation, approved for construction in 2007, applying either a water-based primer or a zinc primer/urethane based topcoat, with a maximum capacity of 9 units per hour due to an operational bottleneck at the one (1) abrasive blasting unit, identified as PL-131, consisting of:

(1) One (1) spray paint booth, identified as PB-2, approved for construction in 2007, equipped with two (2) HVLP spray guns with a maximum application rate of 0.117 gallons per unit, using dry filters for particulate control and exhausting to stack SVPB-2.

(2) One (1) spray paint booth, identified as PB-3, approved for construction in 2007, equipped with two (2) HVLP spray guns with a maximum application rate of 0.266 gallons per unit, utilizing a zinc primer and urethane based top coat, using dry filters for particulate control and exhausting to stack SVPB-3

(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 2-8-4(1)]**

D.2.1 Volatile Organic Compound (VOC) [326 IAC 8-2-9]

(a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to PL-121A, PB-1, PB-2 and PB-3 shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm air (less than 90°C or 194°F) dried coatings.

(b) Solvent sprayed from HVLP application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

D.2.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(d) (Particulate Emission Limitations for Manufacturing Processes), particulate from each of the paint booths PB-1, PB-2, and PB-3 shall be controlled by a dry particulate filter, waterwash, or an equivalent control device, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

D.2.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for spray paint booths PB-1, PB-2 and PB-3, and associated control devices.

**Compliance Determination Requirements**

D.2.4 Volatile Organic Compounds (VOC)

Compliance with the VOC content limitation contained in Condition D.2.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the

manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.2.5 Particulate Control

In order to comply with Condition D.2.2, the dry filters for particulate control shall be in operation and control emissions from the paint booths PB-1, PB-2, and PB-3 at all times that the paint booths PB-1, PB-2, and PB-3 are in operation.

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

D.2.6 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the dry particulate filters controlling each of the paint booths PB-1, PB-2, and PB-3. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks S-13, SVPB-2 and SVPB-3, while one or more of the booths are in operation. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the rooftops and the nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

**Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

D.2.7 Record Keeping Requirements

(a) To document compliance with Condition D.2.1, the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC content limit established in Condition D.2.1.

(1) The VOC content (both as packaged and less water and exempt solvent) of each coating material and solvent used.

(2) The amount of each coating material and solvent used on monthly basis.

(A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.

(C) In the event only a single coating is used, MSDS sheets or manufacturer's information would suffice to demonstrate compliance with D.2.1 in lieu of tracking the amount of coating material.

(b) To document compliance with Condition D.2.3, the Permittee shall maintain a log of weekly overspray observations, and daily and monthly inspections

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**SECTION D.3 FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-8-4(10)]: Degreasing Operations**

(i) Degreasing operations consisting of:

(1) Handwipe operations, installed after 1990, using a maximum of 1,080 gallons of degreasing solvent per year.

(2) Eight (8) cold cleaner degreaser dip tanks identified as PL-103, PL-111, PL-112, PL-113, PL-114, PL-115, PL-116, PL-117and two (2) vibratory degreaser tanks identified as, PL-102 and PL-120, installed after 1990, capacity: 1500 gallons per year, total.

(3) One (1) Cold Cleaner degreaser dip tank, identified as CC11, approved for construction in 2007, uncontrolled, and using a maximum of 365 gallons of degreasing solvent per year.

(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 2-8-4(1)]**

D.3.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the Permittee shall:

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with a facility for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements;

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.3.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the Permittee of a cold cleaner degreaser facility construction of which commenced after July 1, 1990, shall ensure that the following control equipment requirements are met:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));

(B) The solvent is agitated; or

(C) The solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)) then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nineteenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent is used is insoluble in, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the Permittee of a cold cleaning facility construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

## SECTION D.4 FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-8-4(10)]:**

(n) One (1) Falcon Graphite cutting/weld removal operation, identified as WRB1, approved for construction in 2007, with a maximum capacity of nine (9) axles per hour and no control, exhausting through stack WRB-1. [326 IAC 6-3-2]

**Insignificant Activities**

(b) One (1) bake-off oven, identified as PL-110, installed after 1990, equipped with an integral secondary combustion chamber, exhausting to Stack S-9, capacity: 0.5 million British thermal units per hour.[326 IAC 4-2]

(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 2-8-4(1)]**

D.4.1 Incinerator Requirements [326 IAC 4-2]

Pursuant to 326 IAC 4-2, the bake-off oven shall:

(a) Consist of primary and secondary chambers or the equivalent;

(b) Be equipped with a primary burner unless burning wood products;

(c) Comply with 326 IAC 5-1 and 326 IAC 2;

(d) Be maintained properly as specified by the manufacturer and approved by the commissioner;

(e) Be operated according to the manufacturer's recommendations and only burn waste approved by the commissioner;

(f) Comply with other state and/or local rules or ordinances regarding installation and operation of incinerators;

(g) Be operated so that emissions of hazardous material including but not limited to viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented;

(h) Not emit particulate matter in excess of five-tenths (0.5) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard condition corrected to fifty percent (50%) excess air; and

(i) Not create a nuisance or fire hazard.

If any of the above result, the burning shall be terminated immediately.

D.4.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rates from the Falcon Graphite cutting/weld removal operation, identified as WRB1 shall each not exceed 4.13 pounds per hour when operating at a process weight rate of 1.01 tons per hour. The pound per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
# OFFICE OF AIR QUALITY

## FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: ArvinMeritor
Source Address: 849 Whitaker Road, Plainfield, Indiana 46168
Mailing Address: 849 Whitaker Road, Plainfield, Indiana 46168
FESOP No.: F 063-21574-00046

**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 BRANCH**
**100 North Senate Avenue**
**MC 61-53 IGCN 1003**
**Indianapolis, Indiana 46204-2251**
**Phone: 317-233-5674**
**Fax: 317-233-5967**

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

Source Name: ArvinMeritor
Source Address: 849 Whitaker Road, Plainfield, Indiana 46168
Mailing Address: 849 Whitaker Road, Plainfield, Indiana 46168
FESOP No.: F 063-21574-00046

**This form consists of 2 pages** **Page 1 of 2**

☐ This is an emergency as defined in 326 IAC 2-7-1(12)

- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

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<br>Describe: |
| Type of Pollutants Emitted: TSP, PM-10, $SO_2$, VOC, $NO_X$, 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: _____

A certification is not required for this report.

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

### FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
### QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: ArvinMeritor
Source Address: 849 Whitaker Road, Plainfield, Indiana 46168
Mailing Address: 849 Whitaker Road, Plainfield, Indiana 46168
FESOP No.: F 063-21574-00046

**Months:** _____ **to** _____ **Year:** _____



This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, 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.

☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

| | |
|---|---|
| **Permit Requirement** (specify permit condition #) | |
| **Date of Deviation:** | **Duration of Deviation:** |
| **Number of Deviations:** | |
| **Probable Cause of Deviation:** | |
| **Response Steps Taken:** | |

| | |
|---|---|
| **Permit Requirement** (specify permit condition #) | |
| **Date of Deviation:** | **Duration of Deviation:** |
| **Number of Deviations:** | |
| **Probable Cause of Deviation:** | |
| **Response Steps Taken:** | |

| | |
|---|---|
| **Permit Requirement** (specify permit condition #) | |
| **Date of Deviation:** | **Duration of Deviation:** |
| **Number of Deviations:** | |
| **Probable Cause of Deviation:** | |
| **Response Steps Taken:** | |
| **Permit Requirement** (specify permit condition #) | |
| **Date of Deviation:** | **Duration of Deviation:** |
| **Number of Deviations:** | |
| **Probable Cause of Deviation:** | |
| **Response Steps Taken:** | |
| **Permit Requirement** (specify permit condition #) | |
| **Date of Deviation:** | **Duration of Deviation:** |
| **Number of Deviations:** | |
| **Probable Cause of Deviation:** | |
| **Response Steps Taken:** | |

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Attach a certification to complete this report.

# Indiana Department of Environmental Management
# Office of Air Quality

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

**Source Background and Description**

| | |
|---|---|
| Source Name: | ArvinMeritor |
| Source Location: | 849 Whitaker Road, Plainfield, Indiana 46168 |
| County: | Hendricks |
| SIC Code: | 3714 |
| Operation Permit No.: | F063-21574-00046 |
| Operation Permit Issuance Date: | November 10, 2005 |
| Significant Permit Revision No.: | 063-25043-00046 |
| Permit Reviewer: | Hannah L. Desrosiers |

On October 20, 2007, the Office of Air Quality (OAQ) had a notice published in the Hendricks County Flyer, Indiana stating that ArvinMeritor had applied for a Significant Permit Revision to their Federally Enforceable State Operating Permit (FESOP) relating to the construction of new spray paint booth, identified as PB-3; addition of a natural gas fired, oscillating cold solvent parts washer; and a revision to the maximum application rate of existing spray paint booth, identified as PB-2, from 0.102 gallons per unit to 0.117 gallons per unit. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments on the draft permit were submitted by the source (ArvinMeritor). Changes made as a result of these comments are shown throughout this addendum. New language is in **bold** while deleted language is in ~~strikeout~~. The Table of Contents has been updated as necessary. The summary of the comments is as follows:

**Comment 1:**

The source requests that permit Condition D.2.7(a) be revised to clarify that when a single coating is used in the surface coating dip tank and spray booths PB-1, PB-2 and PB-3, that MSDS sheets or manufacturer's information would be sufficient to demonstrate compliance with D.2.1 in lieu of tracking the amount of coating material used because the source routinely operates using a single coating with no additional solvents added. Under this scenario it seems unnecessary to track total coating usage to demonstrate compliance with the VOC content limit in D.2.1. Therefore, the source proposes the following revision to D.2.6(a) to allow for an alternative to maintaining records of total usage, which we believe will still ensure compliance with the applicable requirements of 326 IAC 8-2-9 and D.2.1.

**Response to Comment 1:**

IDEM, OAQ agrees with the recommended change to Section D.2.7. No change has been made to the TSD because the OAQ prefers that the Technical Support Document reflect the permit that was on public notice. The following changes were made to the permit as a result of this comment:

D.2.7 Record Keeping Requirements

(a) To document compliance with Condition D.2.1, the Permittee shall maintain records in

accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC content limit established in Condition D.2.1.

**…**

**(C) In the event only a single coating is used, MSDS sheets or manufacturer's information would suffice to demonstrate compliance with D.2.1 in lieu of tracking the amount of coating material.**

**…**

**Comment 2:**

The source requests that the Facility Description for the emission unit listed in Section A.2(i)(3) & D.3.(i)(3) be revised to reflect actual conditions at the facility.

**Response to Comment 2:**

IDEM, OAQ agrees that the Facility Description for the emission unit listed in Section A.2(i)(3) & D.3(i)(3), should be revised to correct this error. The revised facility description submitted by the source intends to correct information submitted at the time of application. No change has been made to the TSD because the OAQ prefers that the Technical Support Document reflect the permit that was on public notice. The following changes were made to the permit as a result of this comment:

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

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

**…**

(i) Degreasing operations consisting of:

**…**

~~**(3)** One (1) natural gas-fired, oscillating cold solvent washer, identified as PW1A, approved for construction in 2007, with a maximum heat input rate of 1.5 million British thermal units per hour, uncontrolled and exhausting through stack SVPW1A~~

**(3) One (1) Cold Cleaner degreaser dip tank, identified as CC11, approved for construction in 2007, uncontrolled, and using a maximum of 365 gallons of degreasing solvent per year.**

**Comment 3:**

The source requests that the Facility Description for the emission unit listed in Section A.2(i)(3) be moved to Section A.3 to reflect actual conditions at the facility and to reclassify the unit as insignificant.

**Response to Comment 3:**

IDEM, OAQ agrees that the Facility Description for the emission unit listed in Section A.2(i)(3), should be moved to Section A.3, and listed as item A.3(h), and the unit reclassified to correct this error. The revised facility description and emission unit information submitted by the source intends to correct information submitted at the time of application. No change has been made to the TSD because the OAQ prefers that the Technical Support Document reflect the permit that was on public notice. The following changes were made to the permit as a result of this comment:

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

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

**…**

**(h) One (1) natural gas-fired, aqueous parts washer, identified as PW1A, installed in 2007, using only water, exhausting to stack SVPW1A, capacity: 1.5 million British thermal units per hour.**

**Comment 4:**

The source requests that the words "axles" in the facility description of Section D.2(k) be changed to " transmission units " in order to accurately reflect the correct facility description of Section A.2(k).

**Response to Comment 4:**

IDEM, OAQ agrees that the Facility Description for Section D.2(k) should be revised to correct this error. No change has been made to the TSD because the OAQ prefers that the Technical Support Document reflect the permit that was on public notice. The following changes were made to the permit as a result of this comment:

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Surface Coating Operations

**…**

(k) One (1) spray paint booth, identified as PB-1, installed after 1990, equipped with two (2) HVLP spray guns, equipped with dry filters for particulate control, exhausting to stack S-13, capacity: 40 ~~axles~~ **transmission units** per hour.

**…**

**Comment 5:**

The source requests that pages 1, 2, 6, & 7 of 7 of the calculations contained in Appendix A of the TSD be revised to reflect the descriptions changes requested in comments 1 through 4.

**Response to Comment 5:**

IDEM, OAQ agrees that the Facility Descriptions in the corresponding calculations contained in Appendix A of the TSD should be revised to correct this error. However, no change has been made to the original Appendix A of the TSD because the OAQ prefers the Technical Support Document and supporting calculations to reflect the permit that was on public notice. An addendum to Appendix A of the TSD has been developed. See Attached.

## Addendum to Appendix A: Emissions Calculations
## Emission Summary

**Company Name:** ArvinMeritor
**Address City IN Zip:** 849 Whitaker Road, Plainfield, Indiana 46168
**Operation Permit No.:** 063-21574-00046
**Significant Permit Revision No.:** F 063-25043
**Plt ID:** 063-00046
**Reviewer:** Hannah L. Desrosiers
**Date:** 7/26/2007

**Uncontrolled Potential Emissions (tons/year)**

| | | Emissions Generating Activity | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Existing Emission Units | | | | | | | | | | |
| Category | Pollutant | Abrasive/ Mechanical Blasting (PL-131) | Cutting/Weld Removal Operation (WRB1) | Degreasing Operations | Dip Coating Operations | *Insignificant Activities MIG Welding (PL-119) | Natural Gas Combustion | Surface Coating Paint Booth 1 (PB-1) | Axle Spray Coating Operation (PB-2&3) | Natural Gas Combustion Used in Parts Washer (PW1A) | Degreaser Dip Tank (CC11) | TOTAL |
| Criteria Pollutants | PM | 4857.01 | 11.86 | 0.00 | 0.01 | 4.91 | 0.06 | 5.53 | 51.06 | 0.01 | 0.00 | **4930.45** |
| | PM10 | 4121.35 | 11.86 | 0.00 | 0.01 | 5.05 | 0.06 | 5.53 | 51.06 | 0.05 | 0.00 | **4194.97** |
| | SO2 | 0 | 0 | 0 | 0 | 0.004 | 0.02 | 0 | 0 | 0.004 | 0 | **0.023** |
| | NOx | 0 | 0 | 0 | 0 | 0.66 | 2.54 | 0 | 0 | 0.66 | 0 | **3.85** |
| | VOC | 0 | 0 | 8.66 | 27.10 | 0.04 | 0.23 | 8.98 | 25.34 | 0.04 | 1.22 | **71.60** |
| | CO | 0 | 0 | 0 | 0 | 0.55 | 2.13 | 0 | 0 | 0.55 | 0 | **3.24** |
| Hazardous Air Pollutants | Benzene | 0 | 0 | 0 | 0 | 0 | 5.33E-05 | 0 | 0 | 1.38E-05 | 0 | **6.71E-05** |
| | Dichlorobenzene | 0 | 0 | 0 | 0 | 0 | 3.05E-05 | 0 | 0 | 7.88E-06 | 0 | **3.84E-05** |
| | Formaldehyde | 0 | 0 | 0 | 0 | 0 | 1.91E-03 | 0 | 0 | 4.93E-04 | 0 | **2.40E-03** |
| | Hexane | 0 | 0 | 0 | 0 | 0 | 4.57E-02 | 0 | 0 | 0.01 | 0 | **0.06** |
| | Methyl isobutyl ketone | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.82 | 0 | 0 | **0.82** |
| | Perchlorethylene | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.45E-03 | **2.45E-03** |
| | Toluene | 0 | 0 | 0 | 0 | 0 | 8.64E-05 | 0 | 0 | 2.23E-05 | 1.22E-03 | **1.33E-03** |
| | Cadmium | 0 | 0 | 0 | 0 | 0 | 2.79E-05 | 0 | 0 | 7.23E-06 | 0 | **3.52E-05** |
| | Chromium | 0 | 1.28E-12 | 0 | 0 | 0 | 3.56E-05 | 0 | 0 | 9.20E-06 | 0 | **4.48E-05** |
| | Cobalt | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** |
| | Lead | 0 | 0 | 0 | 0 | 0 | 1.27E-05 | 0 | 0 | 3.29E-06 | 0 | **1.60E-05** |
| | Manganese | 0 | 2.10E-05 | 0 | 0 | 0 | 9.65E-06 | 0 | 0 | 2.50E-06 | 0 | **3.32E-05** |
| | Nickel | 0 | 1.92E-09 | 0 | 0 | 0 | 5.33E-05 | 0 | 0 | 1.38E-05 | 0 | **6.71E-05** |
| | **Totals** | **0** | **2.10E-05** | **0** | **0** | **0** | **0.05** | **0** | **0.82** | **0.01** | **3.67E-03** | **0.88** |
| | | | | | | | | | | | **Worse Case HAP** | **0.82** |

Total emissions based on rated capacity at 8,760 hours/year.

* emissions for PL-119 were extrapolated from data obtained from 24572's TSD and the [21574. NG Combust] worksheet as any original calculations were not available.

**Controlled Potential Emissions (tons/year)**

| | | Emissions Generating Activity | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Existing Emission Units | | | | | | | | | | |
| Category | Pollutant | Abrasive/ Mechanical Blasting (PL-131) | Cutting/Weld Removal Operation (WRB1) | Degreasing Operations | Dip Coating Operations | *Insignificant Activities MIG Welding (PL-119) | Natural Gas Combustion | Surface Coating Paint Booth 1 (PB-1) | Axle Spray Coating Operation (PB-2&3) | Natural Gas Combustion Used in Parts Washer (PW1A) | Degreaser Dip Tank (CC11) | TOTAL |
| Criteria Pollutants | PM | 41.84 | 11.86 | 0.00 | 0.01 | 4.91 | 0.06 | 0.55 | 2.55 | 0.01 | 0.00 | **61.80** |
| | PM10 | 33.85 | 11.86 | 0.00 | 0.01 | 5.05 | 0.06 | 0.55 | 2.55 | 0.05 | 0.00 | **53.99** |
| | SO2 | 0 | 0 | 0 | 0 | 0.004 | 0.02 | 0 | 0 | 0.004 | 0 | **0.023** |
| | NOx | 0 | 0 | 0 | 0 | 0.66 | 2.54 | 0 | 0 | 0.66 | 0 | **3.85** |
| | VOC | 0 | 0 | 8.66 | 27.10 | 0.04 | 0.23 | 8.98 | 25.34 | 0.04 | 1.22 | **71.60** |
| | CO | 0 | 0 | 0 | 0 | 0.55 | 2.13 | 0 | 0 | 0.55 | 0 | **3.24** |
| Hazardous Air Pollutants | Benzene | 0 | 0 | 0 | 0 | 0 | 5.33E-05 | 0 | 0 | 1.38E-05 | 0 | **6.71E-05** |
| | Dichlorobenzene | 0 | 0 | 0 | 0 | 0 | 3.05E-05 | 0 | 0 | 7.88E-06 | 0 | **3.84E-05** |
| | Formaldehyde | 0 | 0 | 0 | 0 | 0 | 1.91E-03 | 0 | 0 | 4.93E-04 | 0 | **2.40E-03** |
| | Hexane | 0 | 0 | 0 | 0 | 0 | 0.05 | 0 | 0 | 0.01 | 0 | **0.06** |
| | Methyl isobutyl ketone | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.82 | 0 | 0 | **0.82** |
| | Perchlorethylene | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.45E-03 | **2.45E-03** |
| | Toluene | 0 | 0 | 0 | 0 | 0 | 8.64E-05 | 0 | 0 | 2.23E-05 | 1.22E-03 | **1.33E-03** |
| | Cadmium | 0 | 0 | 0 | 0 | 0 | 2.79E-05 | 0 | 0 | 7.23E-06 | 0 | **3.52E-05** |
| | Chromium | 0 | 1.28E-12 | 0 | 0 | 0 | 3.56E-05 | 0 | 0 | 9.20E-06 | 0 | **4.48E-05** |
| | Cobalt | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** |
| | Lead | 0 | 0 | 0 | 0 | 0 | 1.27E-05 | 0 | 0 | 3.29E-06 | 0 | **1.60E-05** |
| | Manganese | 0 | 2.10E-05 | 0 | 0 | 0 | 9.65E-06 | 0 | 0 | 2.50E-06 | 0 | **3.32E-05** |
| | Nickel | 0 | 1.92E-09 | 0 | 0 | 0 | 5.33E-05 | 0 | 0 | 1.38E-05 | 0 | **6.71E-05** |
| | **Totals** | **0** | **2.10E-05** | **0** | **0** | **0** | **0.05** | **0** | **0.82** | **0.01** | **3.67E-03** | **0.88** |
| | | | | | | | | | | | **Worse Case HAP** | **0.82** |

Total emissions based on rated capacity at 8,760 hours/year.

* emissions for PL-119 were extrapolated from data obtained from 24572's TSD and the [21574. NG Combust] worksheet as any original calculations were not available.

**Addendum to Appendix A: Emissions Calculations**
**Revision Emission Summary**

**Company Name:** ArvinMeritor
**Address City IN Zip:** 849 Whitaker Road, Plainfield, Indiana 46168
**Operation Permit No.:** 063-21574-00046
**Significant Permit Revision No.:** F 063-25043
**Plt ID:** 063-00046
**Reviewer:** Hannah L. Desrosiers
**Date:** 7/26/2007

| | | Uncontrolled Potential Emissions (tons/year) | | | |
|---|---|---|---|---|---|
| | | Emissions Generating Activity | | | |
| Category | Pollutant | Axle Spray Coating Operation (PB-2&3) | Natural Gas Combustion Used in Parts Washer (PW1A) | Degreaser Dip Tank (CC11) | TOTAL |
| Criteria Pollutants | PM | 51.06 | 0.01 | 0.00 | **51.07** |
| | PM10 | 51.06 | 0.05 | 0.00 | **51.11** |
| | SO2 | 0 | 0.00 | 0 | **3.94E-03** |
| | NOx | 0 | 0.66 | 0 | **0.66** |
| | VOC | 25.34 | 0.04 | 1.22 | **26.60** |
| | CO | 0 | 0.55 | 0 | **0.55** |
| Hazardous Air Pollutants | Benzene | 0 | 1.38E-05 | 0 | **1.38E-05** |
| | Dichlorobenzene | 0 | 7.88E-06 | 0 | **7.88E-06** |
| | Formaldehyde | 0 | 4.93E-04 | 0 | **4.93E-04** |
| | Hexane | 0 | 0.01 | 0 | **0.01** |
| | Methyl isobutyl ketone | 0.82 | 0 | 0 | **0.82** |
| | Perchlorethylene | 0 | 0 | 2.45E-03 | **2.45E-03** |
| | Toluene | 0 | 2.23E-05 | 1.22E-03 | **1.25E-03** |
| | Cadmium | 0 | 7.23E-06 | 0 | **7.23E-06** |
| | Chromium | 0 | 9.20E-06 | 0 | **9.20E-06** |
| | Cobalt | 0 | 0 | 0 | **0.00** |
| | Lead | 0 | 3.29E-06 | 0 | **3.29E-06** |
| | Manganese | 0 | 2.50E-06 | 0 | **2.50E-06** |
| | Nickel | 0 | 1.38E-05 | 0 | **1.38E-05** |
| | **Totals** | **0.82** | **0.01** | **3.67E-03** | **0.83** |
| | | | | **Worse Case HAP** | **0.82** |

Total emissions based on rated capacity at 8,760 hours/year.

| | | Controlled Potential Emissions (tons/year) | | | |
|---|---|---|---|---|---|
| | | Emissions Generating Activity | | | |
| Category | Pollutant | Axle Spray Coating Operation (PB-2&3) | Natural Gas Combustion Used in Parts Washer (PW1A) | Degreaser Dip Tank (CC11) | TOTAL |
| Criteria Pollutants | PM | 2.55 | 0.01 | 0.00 | **2.57** |
| | PM10 | 2.55 | 0.05 | 0.00 | **2.60** |
| | SO2 | 0 | 0.00 | 0 | **3.94E-03** |
| | NOx | 0 | 0.66 | 0 | **0.66** |
| | VOC | 25.34 | 0.04 | 1.22 | **26.60** |
| | CO | 0 | 0.55 | 0 | **0.55** |
| Hazardous Air Pollutants | Benzene | 0 | 1.38E-05 | 0 | **1.38E-05** |
| | Dichlorobenzene | 0 | 7.88E-06 | 0 | **7.88E-06** |
| | Formaldehyde | 0 | 4.93E-04 | 0 | **4.93E-04** |
| | Hexane | 0 | 0.01 | 0 | **0.01** |
| | Methyl isobutyl ketone | 0.82 | 0 | 0 | **0.82** |
| | Perchlorethylene | 0 | 0 | 2.45E-03 | **2.45E-03** |
| | Toluene | 0 | 2.23E-05 | 1.22E-03 | **1.25E-03** |
| | Cadmium | 0 | 7.23E-06 | 0 | **7.23E-06** |
| | Chromium | 0 | 9.20E-06 | 0 | **9.20E-06** |
| | Cobalt | 0 | 0 | 0 | **0.00E+00** |
| | Lead | 0 | 3.29E-06 | 0 | **3.29E-06** |
| | Manganese | 0 | 2.50E-06 | 0 | **2.50E-06** |
| | Nickel | 0 | 1.38E-05 | 0 | **1.38E-05** |
| | **Totals** | **0.82** | **0.01** | **3.67E-03** | **0.83** |
| | | | | **Worse Case HAP** | **0.82** |

Total emissions based on rated capacity at 8,760 hours/year.

## Addendum to Appendix A: Emissions Calculations
## Existing Unit Emission Summary

**Company Name:** ArvinMeritor
**Address City IN Zip:** 849 Whitaker Road, Plainfield, Indiana 46168
**Operation Permit No.:** 063-21574-00046
**Significant Permit Revision No.:** F 063-25043
**Plt ID:** 063-00046
**Reviewer:** Hannah L. Desrosiers
**Date:** 7/26/2007

**Uncontrolled Potential Emissions (tons/year)**

| Category | Pollutant | Abrasive/ Mechanical Blasting (PL-131) | Cutting/Weld Removal Operation (WRB1) | Degreasing Operations | Dip Coating Operations | *Insignificant Activities MIG Welding (PL-119) | Natural Gas Combustion | Surface Coating Paint Booth 1 (PB-1) | **Surface Coating Paint Booth 2 (PB-2) | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Emissions Generating Activity | | | | | | | | |
| | | Existing Emission Units | | | | | | | | |
| Criteria Pollutants | PM | 4857.01 | 11.86 | 0 | 0.01 | 4.91 | 0.06 | 5.53 | 13.23 | **4892.61** |
| | PM10 | 4121.35 | 11.86 | 0 | 0.01 | 5.05 | 0.06 | 5.53 | 13.23 | **4157.09** |
| | SO2 | 0 | 0 | 0 | 0 | 0.004 | 0.02 | 0 | 0 | **0.02** |
| | NOx | 0 | 0 | 0 | 0 | 0.66 | 2.54 | 0 | 0 | **3.20** |
| | VOC | 0 | 0 | 8.66 | 27.10 | 0.04 | 0.23 | 8.98 | 3.54 | **48.54** |
| | CO | 0 | 0 | 0 | 0 | 0.55 | 2.13 | 0 | 0 | **2.69** |
| Hazardous Air Pollutants | Benzene | 0 | 0 | 0 | 0 | 0 | 5.33E-05 | 0 | 0 | **5.33E-05** |
| | Dichlorobenzene | 0 | 0 | 0 | 0 | 0 | 3.05E-05 | 0 | 0 | **3.05E-05** |
| | Formaldehyde | 0 | 0 | 0 | 0 | 0 | 1.91E-03 | 0 | 0 | **1.91E-03** |
| | ***2-Butoxyethanol | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ***N/A | ***N/A** |
| | Hexane | 0 | 0 | 0 | 0 | 0 | 0.05 | 0 | 0 | **0.05** |
| | Methyl isobutyl ketone | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** |
| | Perchlorethylene | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** |
| | Toluene | 0 | 0 | 0 | 0 | 0 | 8.64E-05 | 0 | 0 | **8.64E-05** |
| | Cadmium | 0 | 0 | 0 | 0 | 0 | 2.79E-05 | 0 | 0 | **2.79E-05** |
| | Chromium | 0 | 1.28E-12 | 0 | 0 | 0 | 3.56E-05 | 0 | 0 | **3.56E-05** |
| | Cobalt | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ***N/A | ***N/A** |
| | Lead | 0 | 0 | 0 | 0 | 0 | 1.27E-05 | 0 | 0 | **1.27E-05** |
| | Manganese | 0 | 2.10E-05 | 0 | 0 | 0 | 9.65E-06 | 0 | 0 | **3.07E-05** |
| | Nickel | 0 | 1.92E-09 | 0 | 0 | 0 | 5.33E-05 | 0 | 0 | **5.34E-05** |
| | **Totals** | **0** | **2.10E-05** | **0** | **0** | **0** | **0.05** | **0** | **0.00** | **0.05** |
| | | | | | | | | | | **0.05** |

Total emissions based on rated capacity at 8,760 hours/year.

* Emissions for PL-119 were extrapolated from data obtained from 24572's TSD and the [21574. NG Combust] worksheet as any original calculations were not available.

**Calculations included here for Paint Booth 2 are merely for historical documentation purposes and not incorporated into final summary calcs because the booth has been incorporated into the Axle Spray Coating Operation.

*** Ethylene glycol monobutyl ether (EGBE, 2-Butoxyethanol) -CAS Number 111–76–2 was delisted as a Hazardous Air Pollutant by both the US EPA., on November 29, 2004, and the Indiana Department of Environmental Management, on November 20, 2005. Therefore, EGBE has been removed from consideration when calculating and evaluating the source's unlimited potential to emit (PTE).

**Controlled Potential Emissions (tons/year)**

| Category | Pollutant | Abrasive/ Mechanical Blasting (PL-131) | Cutting/Weld Removal Operation (WRB1) | Degreasing Operations | Dip Coating Operations | *Insignificant Activities MIG Welding (PL-119) | Natural Gas Combustion | Surface Coating Paint Booth 1 (PB-1) | **Surface Coating Paint Booth 2 (PB-2) | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Emissions Generating Activity | | | | | | | | |
| | | Existing Emission Units | | | | | | | | |
| Criteria Pollutants | PM | 41.84 | 11.86 | 0 | 0.01 | 4.91 | 0.06 | 0.55 | 0.66 | **59.90** |
| | PM10 | 33.85 | 11.86 | 0 | 0.01 | 5.05 | 0.06 | 0.55 | 0.66 | **52.05** |
| | SO2 | 0 | 0 | 0 | 0 | 0.004 | 0.015 | 0 | 0 | **0.02** |
| | NOx | 0 | 0 | 0 | 0 | 0.66 | 2.54 | 0 | 0 | **3.20** |
| | VOC | 0 | 0 | 8.66 | 27.10 | 0.04 | 0.23 | 8.98 | 3.54 | **48.54** |
| | CO | 0 | 0 | 0 | 0 | 0.55 | 2.13 | 0 | 0 | **2.69** |
| Hazardous Air Pollutants | Benzene | 0 | 0 | 0 | 0 | 0 | 5.33E-05 | 0 | 0 | **5.33E-05** |
| | Dichlorobenzene | 0 | 0 | 0 | 0 | 0 | 3.05E-05 | 0 | 0 | **3.05E-05** |
| | Formaldehyde | 0 | 0 | 0 | 0 | 0 | 1.91E-03 | 0 | 0 | **1.91E-03** |
| | ***2-Butoxyethanol | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ***N/A | ***N/A** |
| | Hexane | 0 | 0 | 0 | 0 | 0 | 0.05 | 0 | 0 | **0.05** |
| | Methyl isobutyl ketone | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** |
| | Perchlorethylene | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** |
| | Toluene | 0 | 0 | 0 | 0 | 0 | 8.64E-05 | 0 | 0 | **8.64E-05** |
| | Cadmium | 0 | 0 | 0 | 0 | 0 | 2.79E-05 | 0 | 0 | **2.79E-05** |
| | Chromium | 0 | 1.28E-12 | 0 | 0 | 0 | 3.56E-05 | 0 | 0 | **3.56E-05** |
| | Cobalt | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ***N/A | ***N/A** |
| | Lead | 0 | 0 | 0 | 0 | 0 | 1.27E-05 | 0 | 0 | **1.27E-05** |
| | Manganese | 0 | 2.10E-05 | 0 | 0 | 0 | 9.65E-06 | 0 | 0 | **3.07E-05** |
| | Nickel | 0 | 1.92E-09 | 0 | 0 | 0 | 5.33E-05 | 0 | 0 | **5.34E-05** |
| | **Totals** | **0** | **2.10E-05** | **0** | **0** | **0** | **4.79E-02** | **0** | **0.00E+00** | **0.0480** |
| | | | | | | | | | | **0.0457** |

Total emissions based on rated capacity at 8,760 hours/year.

* emissions for PL-119 were extrapolated from data obtained from 24572's TSD and the [21574. NG Combust] worksheet as any original calculations were not available.

**Calculations included here for Paint Booth 2 are merely for historical documentation purposes and not incorporated into final summary calcs because the booth has been incorporated into the Axle Spray Coating Operation.

*** Ethylene glycol monobutyl ether (EGBE, 2-Butoxyethanol) -CAS Number 111–76–2 was delisted as a Hazardous Air Pollutant by both the US EPA., on November 29, 2004, and the Indiana Department of Environmental Management, on November 20, 2005. Therefore, EGBE has been removed from consideration when calculating and evaluating the source's unlimited potential to emit (PTE).

**Addendum to Appendix A: Emissions Calculations**
**From Surface Coating Operations**

**Company Name:** ArvinMeritor
**Address City IN Zip:** 849 Whitaker Road,
Plainfield, Indiana 46168
**Operation Permit No.:** 063-21574-00046
**Significant Permit Revision No.:** F 063-25043
**Plt ID:** 063-00046
**Reviewer:** Hannah L. Desrosiers
**Date:** 7/26/2007

## Sourcewide VOC and Particulate Summary

| Material | Unit ID | Density (Lb/Gal) | Weight % Volatile (H20 & Organics) | Weight % Water | Weight % Organics | Volume % Water | Volume % Non-Volatiles (solids) | Maximum Application (gal/unit) | Maximum Throughput (unit/hour) | Maximum Usage (gal/day) | Maximum Usage (lb/hr) | Pounds VOC per gallon of coating less water | Pounds VOC per gallon of coating | Potential VOC pounds per hour | Potential VOC pounds per day | **Actual VOC (lb/day) | Potential VOC tons per year | ***Actual VOC (ton/yr) | Potential Particulate (ton/yr) | lb VOC/gal solids | Transfer Efficiency |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line 1 - Dip Coating | | | | | | | | | | | | | | | | | | | | | |
| Y-M Black WR Dip Enamel | PL-121A | 9.1 | 65.5% | 49.4% | 16.1% | 54.4% | 26.40% | 0.006 | 750 | 101.34 | 38.42 | 3.21 | 1.47 | 6.19 | 148.47 | 49.5 | 27.10 | 9.03 | 0.00 | 5.55 | 100% |
| Line 2 - Spray Coating | | | | | | | | | | | | | | | | | | | | | |
| Y-M WP-2618 Spray Primer | PB-1 | 10.1 | 50.0% | 29.7% | 20.3% | 35.8% | 36.00% | 0.025 | 40.0 | 24.00 | 10.10 | 3.19 | 2.05 | 2.05 | 49.21 | 16.4 | 8.98 | 2.99 | 5.53 | 5.70 | 75% |
| Line 3 - Axle Spray Coating Operation * | | | | | | | | | | | | | | | | | | | | | |
| Valgard 120 | PB-2&3 | 17.70 | 15.44% | 0.00% | 15.4% | 0.00% | 59.80% | 0.12 | 9.00 | 25.31 | 18.668 | 2.73 | 2.73 | 2.88 | 69.18 | 23.1 | 12.62 | 4.21 | 34.57 | 4.57 | 50% |
| R-Cure 800 2.8 | PB-2&3 | 9.28 | 39.27% | 15.85% | 23.4% | 0.00% | 47.95% | 0.15 | 9.00 | 32.06 | 12.398 | 2.17 | 2.17 | 2.90 | 69.68 | 23.2 | 12.72 | 4.24 | 16.49 | 4.53 | 50% |
| * The maximum capacity of the Axle Spray Coating Operation is limited by an operational bottleneck to 9 units per hour. | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | **Uncontrolled** | **61.42** | **20.47** | **56.59** | | |
| | | | | | | | | | | | | | **State Potential Emissions** | | | | | **PM Control Efficiency:** | **95.0%** | | |
| | | | | | | | | | | | | | | | | **Controlled** | **61.42** | **20.47** | **2.83** | | |

METHODOLOGY

Note: Actual usage based on 8hrs per day and 365 days per year.

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

**Total Gal of Mat. Used /yr = 66,690.98**

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Potential Particulate (tons per year) = Maximum Throughput (units/hour) * Maximum Application (gal/unit) * Maximum Usage (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

**Actual VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) *8hrs

***Actual VOC tons per year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (2920 hr/yr) * (1 ton/2000 lbs)

**Addendum to Appendix A: Emissions Calculations**
**From Surface Coating Operations**

**Company Name:** ArvinMeritor
**Address City IN Zip:** 849 Whitaker Road, Plainfield, Indiana 46168
**Operation Permit No.:** 063-21574-00046
**Significant Permit Revision No.:** F 063-25043
**Plt ID:** 063-00046
**Reviewer:** Hannah L. Desrosiers
**Date:** 7/26/2007

## VOC and Particulate

| Material | Unit ID | Density (Lb/Gal) | Weight % Volatile (H20 & Organics) | Weight % Water | Weight % Organics | Volume % Water | Volume % Non-Volatiles (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Maximum Usage (gal/day) | Maximum Usage (lb/hr) | Pounds VOC per gallon of coating less water | Pounds VOC per gallon of coating | Potential VOC pounds per hour | Potential VOC pounds per day | **Actual VOC (lb/day) | Potential VOC tons per year | ***Actual VOC (ton/yr) | Particulate Potential (ton/yr) | lb VOC/gal solids | Transfer Efficiency |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line 3 - Axle Spray Coating Operation * | | | | | | | | | | | | | | | | | | | | | |
| Valgard 120 | PB-2&3 | 17.70 | 15.44% | 0.00% | 15.4% | 0.00% | 59.80% | 0.12 | 9.00 | 25.31 | 18.668 | 2.73 | 2.73 | 2.88 | 69.18 | 23.1 | 12.62 | 4.21 | 34.57 | 4.57 | 50% |
| R-Cure 800 2.8 | PB-2&3 | 9.28 | 39.27% | 15.85% | 23.4% | 0.00% | 47.95% | 0.15 | 9.00 | 32.06 | 12.398 | 2.17 | 2.17 | 2.90 | 69.68 | 23.2 | 12.72 | 4.24 | 16.49 | 4.53 | 50% |
| | | | | | | | | | | | | | | | | **Uncontrolled** | **25.34** | **8.45** | **51.06** | | |
| **State Potential Emissions** | | | | | | | | | | | | | | | | | **PM Control Efficiency:** | | **95.0%** | | |
| | | | | | | | | | | | | | | | | **Controlled** | **25.34** | **8.45** | **2.55** | | |

* The maximum capacity of the Axle Spray Coating Operation is limited by an operational bottleneck to 9 units per hour.

METHODOLOGY
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential (tons per year) = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used
**Actual VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) *8hrs
***Actual VOC tons per year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (2920 hr/yr) * (1 ton/2000 lbs)
Note: Actual usage based on 8hrs per day and 365 days per year.

**Total Gal of Mat. Used /yr = 20,941.88**

## HAP Emission Calculations

| Material | Unit ID | Density (Lb/Gal) | Gallons of Material (gal/unit) | Maximum Usage (unit/hour) | Weight % Cobalt Compounds | Weight % Methyl Isobutyl Ketone** | Weight % Toluene | ***Cobalt Compound Emissions (ton/yr) | Methyl Isobutyl Ketone Emissions (ton/yr) | Toluene Emissions (ton/yr) |
|---|---|---|---|---|---|---|---|---|---|---|
| Line 3 - Axle Spray Coating Operation * | | | | | | | | | | |
| Valgard 120 | PB-2&3 | 17.70 | 0.12 | 9.000 | 0.00% | 1.00% | 0.00% | 0.0000 | 0.8177 | 0.0000 |
| R-Cure 800 2.8 | PB-2&3 | 9.28 | 0.15 | 9.000 | 0.00% | 0.00% | 0.00% | 0.0000 | 0.0000 | 0.0000 |
| | | | | | | **Uncontrolled** | | **0.0000** | **0.8177** | **0.0000** |
| | | | | | | **PM Control Efficiency:** | | **95.0%** | | |
| | | | | | | **Controlled** | | **0.0000** | **0.8177** | **0.0000** |
| | | | | | | **Total HAPs =** | | **0.8177** | | |

* The maximum capacity of the Axke Spray Coating Operation is limited by an operational bottleneck to 9 units per hour.

**METHODOLOGY**
HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs
** Weight % of MIBK comes from component of final product.
***Cobalt Compound Emissions relating to Surface Coating Operations are particulate in nature and are controlled in the same manner as PM emissions.

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

**Company Name:** ArvinMeritor
**Address City IN Zip:** 849 Whitaker Road, Plainfield, Indiana 46168
**Operation Permit No.:** 063-21574-00046
**Significant Permit Revision No.:** F 063-25043
**Plt ID:** 063-00046
**Reviewer:** Hannah L. Desrosiers
**Date:** 7/26/2007

**Emission Unit:**
**One (1) natural gas-fired, aqueous parts washer, identified as PW1A, installed in 2007, using only water, exhausting to stack SVPW1A, capacity: 1.5 million British thermal units per hour.**

## Particulate Emissions

| Heat Input Capacity MMBtu/hr | Potential Throughput MMCF/yr |
|---|---|
| 1.50 | 13.14 |

| | Pollutant | | | | | |
|---|---|---|---|---|---|---|
| | PM* | PM10* | SO2 | NOx | VOC | CO |
| Emission Factor in lb/MMCF | 1.9 | 7.6 | 0.6 | 100.0 **see below | 5.5 | 84.0 |
| Potential Emission in tons/yr | 0.0125 | 0.0499 | 0.0039 | 0.6570 | 0.0361 | 0.5519 |

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

**Methodology**

| | |
|---|---|
| **Total PM =** | **0.01** |
| **Total PM10 =** | **0.05** |

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

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
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 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

## HAPs Emissions

| | HAPs - Organics | | | | |
|---|---|---|---|---|---|
| | Benzene | Dichlorobenzene | Formaldehyde | Hexane | Toluene |
| Emission Factor in lb/MMcf | 0.002100 | 0.001200 | 0.075000 | 1.800000 | 0.003400 |
| Potential Emission in tons/yr | 1.38E-05 | 7.88E-06 | 4.93E-04 | 1.18E-02 | 2.23E-05 |

| | HAPs - Metals | | | | |
|---|---|---|---|---|---|
| | Lead | Cadmium | Chromium | Manganese | Nickel |
| Emission Factor in lb/MMcf | 0.000500 | 0.001100 | 0.001400 | 0.000380 | 0.002100 |
| Potential Emission in tons/yr | 3.29E-06 | 7.23E-06 | 9.20E-06 | 2.50E-06 | 1.38E-05 |

| | |
|---|---|
| **Total HAPs =** | **0.01** |

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Addendum to Appendix A: Emissions Calculations**
**From Solvent/Cleaning Operations**

**Company Name:** ArvinMeritor
**Address City IN Zip:** 849 Whitaker Road, Plainfield, Indiana 46168
**Operation Permit No.:** 063-21574-00046
**Significant Permit Revision No.:** F 063-25043
**Plt ID:** 063-00046
**Reviewer:** Hannah L. Desrosiers
**Date:** 7/26/2007

**Emission Unit:**
**One (1) Cold Cleaner degreaser dip tank, identified as CC11, approved for construction in 2007, uncontrolled and using a maximum of 365 gallons of degreasing solvent per year.**

**VOC and Particulate**

| Material | Unit ID | Density (Lb/Gal) | Weight % Volatile (H20 & Organics) | Weight % Water | Weight % Organics | Volume % Water | Volume % Non-Volatiles (solids) | Maximum Usage (daily replacement volume) (gal/day) | Maximum Usage (lb/hr) | Pounds VOC per gallon of cleaner less water | Pounds VOC per gallon of cleaner | Potential VOC pounds per hour | Potential VOC pounds per day | *Actual PTE VOC (lb/day) | Potential VOC tons per year | *Actual VOC (ton/yr) | Particulate Potential (ton/yr) | lb VOC/ gal solids | Transfer Efficiency |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Safety Kleen Premium Solvent | CC11 | 6.70 | 100.00% | 0.00% | 100.0% | 0.00% | 0.00% | 1.00 | 0.279 | 6.70 | 6.70 | 0.28 | 6.70 | 2.2 | 1.22 | 0.41 | 0.00E+00 | 0.00 | 100% |
| | | | | | | | | | | | **State Potential Emissions** | | | **Uncontrolled** | **1.22** | **0.00** | | | |
| | | | | | | | | | | | | | | | **PM Control Efficiency:** | **95.0%** | | | |
| | | | | | | | | | | | | | | **Controlled** | **1.22** | **0.00** | | | |

METHODOLOGY
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used
*Actual VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) *8hrs

**HAP Emissions**

| Material | Unit ID | Density (Lb/Gal) | Maximum Usage (daily replacement volume) (gal/day) | Maximum Usage (lb/hr) | Weight % PCE | PCE Emissions (ton/yr) | Weight % Toluene | Toluene Emissions (ton/yr) |
|---|---|---|---|---|---|---|---|---|
| Safety Kleen Premium Solvent | CC!! | 6.70 | 1.00 | 0.279 | 0.20% | **0.0024** | 0.10% | **0.0012** |

PCE = Perchlorethylene

**Total HAPs =** **4.67E-03**

**METHODOLOGY**
HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

# Indiana Department of Environmental Management
# Office of Air Quality

## Technical Support Document (TSD) for a Significant Permit Revision (SPR) to a Federal Enforceable State Operating Permit (FESOP).

### Source Description and Location

| | |
|---|---|
| Source Name: | ArvinMeritor |
| Source Location: | 849 Whitaker Road, Plainfield, Indiana 46168 |
| County: | Hendricks |
| SIC Code: | 3714 |
| Operation Permit No.: | F063-21574-00046 |
| Operation Permit Issuance Date: | November 10, 2005 |
| Significant Permit Revision No.: | F063-25043-00046 |
| Permit Reviewer: | Hannah L. Desrosiers |

The Office of Air Quality (OAQ) has received a Significant Permit Revision (SPR) application from ArvinMeritor related to the construction of a new surface coating facility and revision to the existing surface coating facility.

### Existing Approvals

The source was issued FESOP No. 063-21574-00046, issued on November 10, 2005. The source has since received the following approvals:

(a) First Significant Permit Revision, No. 063-24572-00046, issued on June 27, 2007; and

(b) First Administrative Amendment, No. 063-25205-00046, Issued on October 9, 2007.

### County Attainment Status

The source is located in Hendricks County.

| Pollutant | Status |
|---|---|
| PM10 | unclassifiable/attainment |
| PM2.5 | nonattainment |
| $SO_2$ | attainment |
| $NO_2$ | unclassifiable/attainment |
| 8-hour Ozone | basic nonattainment |
| CO | unclassifiable/attainment |
| Lead | unclassifiable/attainment |

On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

(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 emissions and NOx emissions are considered when evaluating the rule applicability relating to ozone standards. Hendricks County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the

requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability – Entire Source section.

(b) Hendricks County has been classified as nonattainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 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 surrogate for PM2.5 emissions. See the State Rule Applicability – Entire Source section.

(c) Hendricks 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. See the State Rule Applicability – Entire Source section.

(d) Fugitive emissions are not counted toward determination of PSD or Emission Offset applicability 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, and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980.

## 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 | 212.1 |
| PM10 | 57.2 |
| $SO_2$ | 0.014 |
| VOC | 48.4 |
| CO | 1.95 |
| $NO_x$ | 2.32 |

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

(b) This existing source is not a major stationary source under Emission Offset (326 IAC 2-3) because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or more.

(c) 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) |
|---|---|
| Cobalt Compounds | 0.10 |
| Hexane | 0.05 |
| TOTAL | 0.16 |

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).

(d) These emissions are based upon FESOP SPR No. 063-24572-00046, issued on June 27, 2007.

## Description of New Source Construction and Proposed Revision

The Office of Air Quality (OAQ) has reviewed a Significant Permit Revision (SPR) application, submitted by ArvinMeritor on July 20, 2007, relating to the construction of a new spray paint booth, identified as PB-3; addition of a natural gas fired, oscillating cold solvent parts washer, identified as PW1A; and a revision to the maximum application rate of existing spray paint booth, identified as PB-2, from 0.102 gallons per unit to 0.117 gallons per unit.

For this revision, the emission units and pollution control devices for the source have been modified as follows with new equipment shown in **bold** and modifications to existing equipment shown in bold and strikethrough:

**(a) One (1) axle spray coating operation, approved for construction in 2007, applying either a water-based primer or a zinc primer/urethane based topcoat, with a maximum capacity of 9 units per hour due to an operational bottleneck at the one (1) abrasive blasting unit, identified as PL-131, consisting of:**

(1) One (1) spray paint booth, identified as PB-2, approved for construction in 2007, equipped with two (2) HVLP spray guns with a ~~combined maximum capacity of nine (9) axles per hour~~ **maximum application rate of 0.117 gallons per unit**, using dry filters for particulate control~~,~~ **and** exhausting to stack SVPB-2.

**(2) One (1) spray paint booth, identified as PB-3, approved for construction in 2007, equipped with two (2) HVLP spray guns with a maximum application rate of 0.266 gallons per unit, utilizing a zinc primer and urethane based top coat, using dry filters for particulate control and exhausting to stack SVPB-3.**

**(b) One (1) natural gas-fired, oscillating cold solvent washer, identified as PW1A, approved for construction in 2007, with a maximum heat input rate of 1.5 million British thermal units per hour, uncontrolled and exhausting through stack SVPW1A.**

## Enforcement Issues

There are no pending enforcement actions.

## Unpermitted Emissions Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

## Stack Summary

| Stack ID | Operation | Height (feet) | Diameter (feet) | Flow Rate (acfm) | Temperature (°F) |
|---|---|---|---|---|---|
| SVPB-2 | Paint Booth PB-2 | 25.0 | 3.0 | 15,000 | 70 |
| SVPB-3 | Paint Booth PB-3 | 25.0 | 3.0 | 15,000 | 70 |
| SVPW1A | Parts Washer PW1A | 25.0 | 0.33 | 1,000 | 100 |

## Emission Calculations

See Appendix A of this document for detailed emission calculations.

## Permit Level Determination – FESOP Revision

Pursuant to 326 IAC 2-7-1(29), Potential to Emit is defined as "the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency."

The following table is used to determine the appropriate permit level under 326 IAC 2-8-11.1. This table summarizes the potential to emit (PTE), reflecting all limits, of the emission units, before controls. Any control equipment is considered enforceable only after issuance of this FESOP permit revision, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

| Process Description | Potential to Emit (PTE) (tons/year) | | | | | | |
|---|---|---|---|---|---|---|---|
| | PM | PM10 | $SO_2$ | $NO_X$ | VOC | CO | Total HAPs |
| Limited PTE of Existing Units (Before Modification) | 212.1 | 57.2 | 0.014 | 2.32 | 48.4 | 1.95 | 0.16 |
| Limited PTE of Existing Units (After Modification) | 215.93 | 61.03 | 0.014 | 2.32 | 48.4 | 1.95 | 0.16 |
| Change in Limited PTE of Existing Units (Modification)(1) | 3.83 | 3.83 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | | | | | |
| Unlimited PTE of New Units (Modification) | 51.07 | 51.11 | 0.004 | 0.66 | 26.60 | 0.55 | 0.83 |
| | | | | | | | |
| Total PTE of Modification(2) | 54.90 | 54.94 | 0.004 | 0.66 | 26.60 | 0.55 | 0.83 |

(1) Change in Limited PTE of Existing Units = Limited PTE after Modification - Limited PTE Before Modification. For permit level determination, any decrease in limited PTE is indicated as zero.

(2) Total PTE of Modification = Change in Limited PTE of Existing Units + Unlimited PTE of New Units

### Justification for Revision

Pursuant to 326 IAC 2-8-11.1(f)(1)(E), the FESOP is being modified through a Significant Permit Revision, since this modification has the potential to emit greater than or equal to twenty-five (25) tons per year of PM and PM10.

## Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the entire source. Any control equipment is considered federally enforceable only after issuance of this FESOP permit revision, and only to the extent that the effect of the control equipment is made practically enforceable in the permit. Values shown as strikethrough represent the PTE before revision and valves shown in bold represent the PTE after revision.

| Process/emission unit | Potential To Emit (tons/year) | | | | | | |
|---|---|---|---|---|---|---|---|
| | PM | $PM_{10}$ | $SO_2$ | VOC | $NO_X$ | CO | HAPs |
| Abrasive/Mechanical Blasting | Less than 189 | Less than 33.9 | - | - | - | - | - |
| Falcon Graphite cutting/weld removal | 11.86 | 11.86 | **-** | **-** | **-** | **-** | negligible |
| Degreasing Operations | - | - | - | ~~8.66~~ **9.88** | - | - | negligible |
| Dip Coating Operations | 0.01 | 0.01 | - | 27.10 | - | - | negligible |
| Natural Gas Combustion | ~~0.06~~ **0.07** | ~~0.06~~ **0.11** | ~~0.02~~ **0.023** | ~~0.23~~ **0.27** | **3.20** | ~~2.13~~ **2.68** | ~~0.05~~ **0.06** |
| Surface Coating Operations | ~~6.19~~ **3.10(1)** | ~~6.19~~ **3.10(1)** | - | ~~39.6~~ **34.32** | - | - | ~~3.11~~ **0.82** |
| Insignificant Activities (MIG Welding Station) | 4.91 | 5.05 | 0.004 | 0.04 | 0.66 | 0.55 | negligible |
| Total Emissions | ~~212.1~~ Less than **208.95** | ~~57.2~~ Less than **54.03** | ~~0.014~~ **0.027** | ~~48.4~~ **71.61** | ~~2.32~~ **3.85** | ~~1.95~~ **3.24** | ~~3.11~~ **0.88** |

**(1)Potential to emit after controls.**

(a) This revision to the existing minor stationary source is not major because the emissions increase is less than the PSD major source thresholds. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

(b) This revision to the existing minor stationary source is not major because the emissions increase is less than the Emission Offset major source thresholds. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

(c) Hendricks County has been designated as nonattainment for PM 2.5 in 70 FR 943 dated January 5, 2005. According to the April 5, 2005 EPA memo titled "Implementation of New Source Review Requirements in PM2.5 Nonattainment Areas" authored by Steve Page, Director of OAQPS, until EPA promulgates the PM2.5 major NSR regulations, states should assume that a major stationary source's PM10 emissions represent PM2.5 emissions. IDEM will use the PM10 nonattainment major NSR program as a surrogate to address the requirements of nonattainment major NSR for the PM2.5 NAAQS. A major source in a nonattainment area is a source that emits or has the potential to emit one hundred (100) tons per year of any nonattainment regulated pollutant. ArvinMeritor has a limited potential to emit of PM10 below one hundred (100) tons per year. Therefore, assuming that PM10 emissions represent PM2.5 emissions, 326 IAC 2-1.1-5 (Nonattainment NSR) does not apply for PM2.5.

(d) After this revision, this source is still a minor source under 326 IAC 2-2 (PSD), 326 IAC 2-1.1-5 (Nonattainment New Source Review) and 326 IAC 2-7 (Part 70 Permit). Since the unrestricted potential to emit of this source is greater than 250 tons of PM per year and 100 tons of $PM_{10}$ per year, the Permittee shall continue to limit the existing abrasive blasting operations, as per SPR, No. F063-24572-00046, issued on June 27, 2007, in order to limit the source-wide potential to emit of PM and PM10 to less than 250 and 100 tons of per year.

(e) The unrestricted potential VOC and $NO_X$ emissions are each less than one hundred (100) tons per year. Therefore, this source is a minor source pursuant to 326 IAC 2-3, Emission Offset.

**Federal Rule Applicability Determination**

(a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included for this proposed revision.

(b) The requirements of 40 CFR 63, Subpart T (63.460 through 63.470), the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Halogenated Solvent Cleaning and 326 IAC 20-6, are not included in this revision because this operation does not use a degreasing solvent that contains any of the halogenated compounds listed in 40 CFR 63.460(a).

(c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Automobile & Light Duty Truck Surface Coating, 40 CFR 63.2 Subpart IIII, are not included in this revision, because this source is not a major source of HAP emissions.

(d) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Miscellaneous Metal Parts and Products Surface Coating, 40 CFR 63.2 Subpart MMMM, are not included in this revision, because this source is not a major source of HAP emissions.

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

**State Rule Applicability Determination - Revision**

The following state rules are applicable to the source due to the modification:

**State Rule Applicability – Entire Source**

326 IAC 2-2 (Prevention of Significant Deterioration), 326 IAC 2-8 (FESOP) and 326 IAC 2-1.1-5 (Nonattainment New Source Review)

The requirements of 326 IAC 2-2 (PSD) are not applicable to this source, since this source was initially constructed before the applicability date of August 7, 1977, it is not one of the 28 listed source categories defined in 326 IAC 2-2-1(y)(1), no major modifications were done to this source, and the potential to emit of all attainment regulated pollutants is less than, or limited to less than, 250 tons per year.

After this revision, this source is still a minor source under 326 IAC 2-2 (PSD), 326 IAC 2-1.1-5 (Nonattainment New Source Review) and 326 IAC 2-7 (Part 70 Permit). Since the unrestricted potential to emit of this source is greater than 250 tons of PM per year and 100 tons of $PM_{10}$ per year, the Permittee shall continue to limit the existing abrasive blasting operations, as per SPR, No. F063-24572-00046, issued on June 27, 2007, in order to limit the source-wide potential to emit of PM and PM10 to less than 250 and 100 tons of per year.

326 IAC 2-3 (Emission Offset)

This existing source is not a major stationary source under Emission Offset (326 IAC 2-3) because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or more.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
This existing source will emit less than 10 tons per year of a single HAP and less than 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)
This existing source is not subject to 326 IAC 2-6 (Emission Reporting), because it is located in Hendricks County, it is not required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, and it does not emit lead into the ambient air at levels equal to or greater than five (5) tons per year. Therefore, pursuant to 326 IAC 2-6-1(b), the source is only subject to additional information requests as provided in 436 IAC 2-6-5.

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 the 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.

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.

**State Rule Applicability - Surface Coating Operations**

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2(d), particulate from the spray paint booths PB-2 and PB-3, each shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

Spray paint booths PB-2 and PB-3, each use dry filters to control particulate overspray, and are each able to comply with 326 IAC 6-3-2.

326 IAC 8-1-6 (VOC rules: General Reduction Requirements for New Facilities)
The requirements of 326 IAC 8-1-6 are not applicable to cleanup solvent usage in the spray paint booths PB-1, PB-2 and PB-3, since it does not have the potential to emit greater than twenty-five (25) tons of VOCs per year.

326 IAC 8-2-9 (Miscellaneous Metal Coating)
(a) The spray paint booth PB-2, which was constructed after 1990, previously had VOC emissions greater than fifteen (15) pounds per day. Pursuant to 326 IAC 8-1-1(a), even though the source has now switched to coatings which reduce the VOC emissions to below fifteen (15) pounds per day, the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating) are still applicable to the spray paint booth PB-2. Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of the coating delivered to PB-2 shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm air dried coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Based on the MSDSs submitted by the source for the surface coatings proposed to be used in spray paint booth PB-2 and the dip coating booth, and calculations made, the permittee is able to comply with this requirement.

(b) Pursuant to 326 IAC 8-2-1(a)(4), the spray paint booth, identified as PB-3, will be constructed after 1990 and the actual VOC emissions are greater than 15 pounds per day; therefore, PB-3 is subject to the requirements of 326 IAC 8-2-9. Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of the coating delivered to PB-3 shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm air dried coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Based on the MSDSs submitted by the source for the surface coatings proposed to be used in spray paint booth PB-3, and calculations made, the permittee is able to comply with this requirement.

326 IAC 8-3 (Organic Solvent Degreasing Operations)

Pursuant to 326 IAC 8-3-1 (Organic Solvent Degreasing Operations), the natural gas-fired, oscillating cold solvent washer (PW1A) is subject to the requirements of 326 IAC 8-3-2 (Cold Cleaner Operations) and 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control), since it meets the definition of a cold cleaner degreaser under 326 IAC 1-2-18.5, utilizing an organic solvent containing volatile organic compounds (VOCs) (as defined by 326 IAC 1-2-90), was constructed after the July 1, 1990, and does not have a remove solvent reservoir.

326 IAC 8-3-2 (Cold Cleaner Operation)

Pursuant to 326 IAC 8-3-2, the owner or operator shall:

(a) equip the cleaner with a cover;

(b) equip the cleaner with a facility for draining cleaned parts;

(c) close the degreaser cover whenever parts are not being handled in the cleaner;

(d) drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) provide a permanent, conspicuous label summarizing the operating requirements;

(f) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

Pursuant to 326 IAC 8-3-5, the owner or operator shall:

(a) ensure that the following control equipment requirements are met:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));

(B) The solvent is agitated; or

(C) The solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in 326 IAC 8-3-5(b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent is used is insoluble in, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) ensure that the following operating requirements are met:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or unit dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

**State Rule Applicability - Natural Gas Combustion**

326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)
The natural gas-fired, oscillating cold solvent washer, identified as PW1A, is not subject to 326 IAC 6-2 as it is not a source of indirect heating.

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
The natural gas-fired, oscillating cold solvent washer, identified as PW1A, is not subject to the requirements of 326 IAC 6-3, since it is not a "manufacturing process" as defined by 326 IAC 6-3-1.5.

326 IAC 7-1 (Sulfur dioxide emission limitations: applicability)
The natural gas-fired, oscillating cold solvent washer, identified as PW1A, is not subject to the requirements of 326 IAC 7-1, because the potential and the actual emissions are less than twenty-five (25) tons per year and ten (10) pounds per hour respectively.

**Compliance Determination and Monitoring Requirements**

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

(a) The compliance monitoring requirements applicable to spray paint booth PB-3, are as follows:

| Control | Parameter | Frequency | Range | Excursions and Exceedances |
|---|---|---|---|---|
| Spray paint booths PB-2 and PB-3 - dry filters | Inspections | Daily | Normal-Abnormal | Response Steps |
| The coating emissions from the stack SVPB-3 and the presence of overspray on the rooftops and the nearby ground | Inspections | Weekly and Monthly | Normal-Abnormal | Response Steps |

These monitoring conditions for the filters for the two (2) spray paint booths, PB-2 and PB-3, must operate properly to ensure compliance with 326 IAC 6-3-2(d) (Particulate emission limitations, work practices, and control technologies) and to render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD), 326 IAC 2-1.1-5 (Nonattainment New Source Review) and 326 IAC 2-7 (Part 70 Permits) not applicable.

**Proposed Changes**

The changes listed below have been made to the Federally Enforceable State Operating Permit, No. F063-21574-00046. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

(a) Sections A.2, D.2 and D.3 have been updated to include the equipment description and requirements for the proposed spray paint booth, identified as PB-3, the proposed natural gas-fired oscillating cold solvent washer, identified as PW1A, and the modified spray paint booth, identified as PB-2, as follows:

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

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

**...**

(i) Degreasing operations consisting of:

**...**

**(3) One (1) natural gas-fired, oscillating cold solvent washer, identified as PW1A, approved for construction in 2007, with a maximum heat input rate of 1.5 million British thermal units per hour, uncontrolled and exhausting through stack SVPW1A**

**...**

~~(n) One (1) spray paint booth, identified as PB-2, approved for construction in 2007, equipped with two (2) HVLP spray guns with a combined maximum capacity of nine (9) axles per hour, using dry filters for particulate control, exhausting to stack SVPB-2.\~~

(n~~e~~) One (1) Falcon Graphite cutting/weld removal operation, identified as WRB1, approved for construction in 2007, with a maximum capacity of nine (9) axles per hour and no control, exhausting through stack WRB-1. [326 IAC 6-3-2]

**...**

**(o) One (1) axle spray coating operation, approved for construction in 2007, applying either a water-based primer or a zinc primer/urethane based topcoat, with a maximum capacity of 9 units per hour due to an operational bottleneck at the one (1) abrasive blasting unit, identified as PL-131, consisting of:**

**(1) One (1) spray paint booth, identified as PB-2, approved for construction in 2007, equipped with two (2) HVLP spray guns with a maximum application rate of 0.117 gallons per unit, using dry filters for particulate control and exhausting to stack SVPB-2.**

**(2) One (1) spray paint booth, identified as PB-3, approved for construction in 2007, equipped with two (2) HVLP spray guns with a maximum application rate of 0.266 gallons per unit, utilizing a zinc primer and urethane based top coat, using dry filters for particulate control and exhausting to stack SVPB-3.**

**...**

## SECTION D.2 FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-8-4(10)]: Surface Coating Operations**

(j) One (1) dip coating booth, identified as PL-121A, installed after 1990, exhausting to stack PL-121A, capacity: 750 metal brake shoes per hour.

(k) One (1) spray paint booth, identified as PB-1, installed after 1990, equipped with two (2) HVLP spray guns, equipped with dry filters for particulate control, exhausting to stack S-13, capacity: 40 transmission units per hour.

~~(n) One (1) spray paint booth, identified as PB-2, approved for construction in 2007, equipped with two (2) HVLP spray guns with a combined maximum capacity of nine (9) axles per hour, using dry filters for particulate control, exhausting to stack SVPB-2.\~~

**(o) One (1) axle spray coating operation, approved for construction in 2007, applying either a water-based primer or a zinc primer/urethane based topcoat, with a maximum capacity of 9 units per hour due to an operational bottleneck at the one (1) abrasive blasting unit, identified as PL-131, consisting of:**

**(1) One (1) spray paint booth, identified as PB-2, approved for construction in 2007, equipped with two (2) HVLP spray guns with a maximum application rate of 0.117 gallons per unit, using dry filters for particulate control and exhausting to stack SVPB-2.**

**(2) One (1) spray paint booth, identified as PB-3, approved for construction in 2007, equipped with two (2) HVLP spray guns with a maximum application rate of 0.266 gallons per unit, utilizing a zinc primer and urethane based top coat, using dry filters for particulate control and exhausting to stack SVPB-3.**

(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 2-8-4(1)]**

D.2.1 Volatile Organic Compound (VOC) [326 IAC 8-2-9]

(a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to PL-121A, PB-1, ~~and~~ PB-2 **and PB-3** shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm air (less than 90°C or 194°F) dried coatings.

(b) Solvent sprayed from HVLP application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

D.2.2 Particulate [326 IAC 6-3-2]

~~Pursuant to 326 IAC 6-3-2(d), the dry particulate filter for particulate control shall be in operation in accordance with manufacturer's specifications and control emissions from the two (2) spray paint booths, identified as PB-1, and PB-2 at all times when the paint booths are in operation.~~

**Pursuant to 326 IAC 6-3-2(d) (Particulate Emission Limitations for Manufacturing Processes), particulate from each of the paint booths PB-1, PB-2, and PB-3 shall be controlled by a dry particulate filter, waterwash, or an equivalent control device, and the Permittee shall operate the control device in accordance with manufacturer's specifications.**

D.2.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for ~~the two (2)~~ spray paint booths~~, identified as~~ PB-1, ~~and~~ PB-2 **and PB-3**, and associated control devices.

**Compliance Determination Requirements**

**...**

**D.2.5 Particulate Control**

**In order to comply with Condition D.2.2, the dry filters for particulate control shall be in operation and control emissions from the paint booths PB-1, PB-2, and PB-3 at all times that the paint booths PB-1, PB-2, and PB-3 are in operation.**

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

D.2.5~~5~~**6** Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the dry **particulate** filters **controlling each of the paint booths PB-1, PB-2, and PB-3**. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks S-13**,** ~~and~~ SVPB-2 **and SVPB-3**, while one or more of the booths are in operation. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the rooftops and the nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

**Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

D.2.~~6~~**7** Record Keeping Requirements

(a) To document compliance with Condition D.2.1, the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC content limit established in Condition D.2.1.

(1) The VOC content (both as packaged and less water and exempt solvent) of each coating material and solvent used.

(2) The amount of each coating material and solvent used on monthly basis.

(A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.

(b) To document compliance with Condition D.2.3, the Permittee shall maintain a log of **weekly** overspray observations, and daily and monthly inspections

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**...**

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Degreasing Operations

(i) Degreasing operations consisting of:

**...**

**(3) One (1) natural gas-fired, oscillating cold solvent washer, identified as PW1A, approved for construction in 2007, with a maximum heat input rate of 1.5 million British thermal units per hour, uncontrolled and exhausting through stack SVPW1A**

**...**

**...**

**SECTION D.4 FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-8-4(10)]:**

(**n**~~o~~) One (1) Falcon Graphite cutting/weld removal operation, identified as WRB1, approved for construction in 2007, with a maximum capacity of nine (9) axles per hour and no control, exhausting through stack WRB-1. [326 IAC 6-3-2]

**…**

**...**

## Conclusion and Recommendation

The construction of this proposed modification and the operation of the entire source shall be subject to the conditions of the attached proposed FESOP Significant Permit Revision No. 063-25043-00046. The staff recommends to the Commissioner that the Significant Permit Revision be approved.

Unless otherwise stated, information used in this review was derived from the application and received by the Office of Air Quality (OAQ) on July 20, 2007. Additional information was received on July 30, 2007, August 30, 2007 and September 6, 2007.

Copies of the preliminary findings have been provided to the Plainfield Public Library.

## IDEM Contact

Questions regarding this proposed permit can be directed to Ms. Hannah Desrosiers at the Indiana Department Environmental Management, Office of Air Quality, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5374 or toll free at 1-800-451-6027 extension 4-5374.

## Appendix A: Emissions Calculations
## Emission Summary

**Company Name:** ArvinMeritor
**Address City IN Zip:** 849 Whitaker Road, Plainfield, Indiana 46168
**Operation Permit No.:** 063-21574-00046
**Significant Permit Revision No.:** F 063-25043
**Plt ID:** 063-00046
**Reviewer:** Hannah L. Desrosiers
**Date:** 7/26/2007

**Uncontrolled Potential Emissions (tons/year)**

| | | Emissions Generating Activity | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Existing Emission Units | | | | | | | | | | |
| Category | Pollutant | Abrasive/ Mechanical Blasting (PL-131) | Cutting/Weld Removal Operation (WRB1) | Degreasing Operations | Dip Coating Operations | *Insignificant Activities MIG Welding (PL-119) | Natural Gas Combustion | Surface Coating Paint Booth 1 (PB-1) | Axle Spray Coating Operation (PB-2&3) | Natural Gas Combustion Used in Parts Washer (PW1A) | Parts Washer (PW1A) | **TOTAL** |
| Criteria Pollutants | PM | 4857.01 | 11.86 | 0.00 | 0.01 | 4.91 | 0.06 | 5.53 | 51.06 | 0.01 | 0.00 | **4930.45** |
| | PM10 | 4121.35 | 11.86 | 0.00 | 0.01 | 5.05 | 0.06 | 5.53 | 51.06 | 0.05 | 0.00 | **4194.97** |
| | SO2 | 0 | 0 | 0 | 0 | 0.004 | 0.02 | 0 | 0 | 0.004 | 0 | **0.023** |
| | NOx | 0 | 0 | 0 | 0 | 0.66 | 2.54 | 0 | 0 | 0.66 | 0 | **3.85** |
| | VOC | 0 | 0 | 8.66 | 27.10 | 0.04 | 0.23 | 8.98 | 25.34 | 0.04 | 1.22 | **71.60** |
| | CO | 0 | 0 | 0 | 0 | 0.55 | 2.13 | 0 | 0 | 0.55 | 0 | **3.24** |
| Hazardous Air Pollutants | Benzene | 0 | 0 | 0 | 0 | 0 | 5.33E-05 | 0 | 0 | 1.38E-05 | 0 | **6.71E-05** |
| | Dichlorobenzene | 0 | 0 | 0 | 0 | 0 | 3.05E-05 | 0 | 0 | 7.88E-06 | 0 | **3.84E-05** |
| | Formaldehyde | 0 | 0 | 0 | 0 | 0 | 1.91E-03 | 0 | 0 | 4.93E-04 | 0 | **2.40E-03** |
| | Hexane | 0 | 0 | 0 | 0 | 0 | 4.57E-02 | 0 | 0 | 0.01 | 0 | **0.06** |
| | Methyl isobutyl ketone | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.82 | 0 | 0 | **0.82** |
| | Perchlorethylene | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.45E-03 | **2.45E-03** |
| | Toluene | 0 | 0 | 0 | 0 | 0 | 8.64E-05 | 0 | 0 | 2.23E-05 | 1.22E-03 | **1.33E-03** |
| | Cadmium | 0 | 0 | 0 | 0 | 0 | 2.79E-05 | 0 | 0 | 7.23E-06 | 0 | **3.52E-05** |
| | Chromium | 0 | 1.28E-12 | 0 | 0 | 0 | 3.56E-05 | 0 | 0 | 9.20E-06 | 0 | **4.48E-05** |
| | Cobalt | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** |
| | Lead | 0 | 0 | 0 | 0 | 0 | 1.27E-05 | 0 | 0 | 3.29E-06 | 0 | **1.60E-05** |
| | Manganese | 0 | 2.10E-05 | 0 | 0 | 0 | 9.65E-06 | 0 | 0 | 2.50E-06 | 0 | **3.32E-05** |
| | Nickel | 0 | 1.92E-09 | 0 | 0 | 0 | 5.33E-05 | 0 | 0 | 1.38E-05 | 0 | **6.71E-05** |
| | **Totals** | **0** | **2.10E-05** | **0** | **0** | **0** | **0.05** | **0** | **0.82** | **0.01** | **3.67E-03** | **0.88** |
| | | | | | | | | | | | **Worse Case HAP** | **0.82** |

Total emissions based on rated capacity at 8,760 hours/year.
* emissions for PL-119 were extrapolated from data obtained from 24572's TSD and the [21574. NG Combust] worksheet as any original calculations were not available.

**Controlled Potential Emissions (tons/year)**

| | | Emissions Generating Activity | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Existing Emission Units | | | | | | | | | | |
| Category | Pollutant | Abrasive/ Mechanical Blasting (PL-131) | Cutting/Weld Removal Operation (WRB1) | Degreasing Operations | Dip Coating Operations | *Insignificant Activities MIG Welding (PL-119) | Natural Gas Combustion | Surface Coating Paint Booth 1 (PB-1) | Axle Spray Coating Operation (PB-2&3) | Natural Gas Combustion Used in Parts Washer (PW1A) | Parts Washer (PW1A) | **TOTAL** |
| Criteria Pollutants | PM | 41.84 | 11.86 | 0.00 | 0.01 | 4.91 | 0.06 | 0.55 | 2.55 | 0.01 | 0.00 | **61.80** |
| | PM10 | 33.85 | 11.86 | 0.00 | 0.01 | 5.05 | 0.06 | 0.55 | 2.55 | 0.05 | 0.00 | **53.99** |
| | SO2 | 0 | 0 | 0 | 0 | 0.004 | 0.02 | 0 | 0 | 0.004 | 0 | **0.023** |
| | NOx | 0 | 0 | 0 | 0 | 0.66 | 2.54 | 0 | 0 | 0.66 | 0 | **3.85** |
| | VOC | 0 | 0 | 8.66 | 27.10 | 0.04 | 0.23 | 8.98 | 25.34 | 0.04 | 1.22 | **71.60** |
| | CO | 0 | 0 | 0 | 0 | 0.55 | 2.13 | 0 | 0 | 0.55 | 0 | **3.24** |
| Hazardous Air Pollutants | Benzene | 0 | 0 | 0 | 0 | 0 | 5.33E-05 | 0 | 0 | 1.38E-05 | 0 | **6.71E-05** |
| | Dichlorobenzene | 0 | 0 | 0 | 0 | 0 | 3.05E-05 | 0 | 0 | 7.88E-06 | 0 | **3.84E-05** |
| | Formaldehyde | 0 | 0 | 0 | 0 | 0 | 1.91E-03 | 0 | 0 | 4.93E-04 | 0 | **2.40E-03** |
| | Hexane | 0 | 0 | 0 | 0 | 0 | 0.05 | 0 | 0 | 0.01 | 0 | **0.06** |
| | Methyl isobutyl ketone | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.82 | 0 | 0 | **0.82** |
| | Perchlorethylene | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.45E-03 | **2.45E-03** |
| | Toluene | 0 | 0 | 0 | 0 | 0 | 8.64E-05 | 0 | 0 | 2.23E-05 | 1.22E-03 | **1.33E-03** |
| | Cadmium | 0 | 0 | 0 | 0 | 0 | 2.79E-05 | 0 | 0 | 7.23E-06 | 0 | **3.52E-05** |
| | Chromium | 0 | 1.28E-12 | 0 | 0 | 0 | 3.56E-05 | 0 | 0 | 9.20E-06 | 0 | **4.48E-05** |
| | Cobalt | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** |
| | Lead | 0 | 0 | 0 | 0 | 0 | 1.27E-05 | 0 | 0 | 3.29E-06 | 0 | **1.60E-05** |
| | Manganese | 0 | 2.10E-05 | 0 | 0 | 0 | 9.65E-06 | 0 | 0 | 2.50E-06 | 0 | **3.32E-05** |
| | Nickel | 0 | 1.92E-09 | 0 | 0 | 0 | 5.33E-05 | 0 | 0 | 1.38E-05 | 0 | **6.71E-05** |
| | **Totals** | **0** | **2.10E-05** | **0** | **0** | **0** | **0.05** | **0** | **0.82** | **0.01** | **3.67E-03** | **0.88** |
| | | | | | | | | | | | **Worse Case HAP** | **0.82** |

Total emissions based on rated capacity at 8,760 hours/year.
* emissions for PL-119 were extrapolated from data obtained from 24572's TSD and the [21574. NG Combust] worksheet as any original calculations were not available.

## Appendix A: Emissions Calculations
## Revision Emission Summary

**Company Name:** ArvinMeritor
**Address City IN Zip:** 849 Whitaker Road, Plainfield, Indiana 46168
**Operation Permit No.:** 063-21574-00046
**Significant Permit Revision No.:** F 063-25043
**Plt ID:** 063-00046
**Reviewer:** Hannah L. Desrosiers
**Date:** 7/26/2007

| | | Uncontrolled Potential Emissions (tons/year) | | | |
|---|---|---|---|---|---|
| | | Emissions Generating Activity | | | |
| Category | Pollutant | Axle Spray Coating Operation (PB-2&3) | Natural Gas Combustion Used in Parts Washer (PW1A) | Parts Washer (PW1A) | TOTAL |
| Criteria Pollutants | PM | 51.06 | 0.01 | 0.00 | **51.07** |
| | PM10 | 51.06 | 0.05 | 0.00 | **51.11** |
| | SO2 | 0 | 0.00 | 0 | **3.94E-03** |
| | NOx | 0 | 0.66 | 0 | **0.66** |
| | VOC | 25.34 | 0.04 | 1.22 | **26.60** |
| | CO | 0 | 0.55 | 0 | **0.55** |
| Hazardous Air Pollutants | Benzene | 0 | 1.38E-05 | 0 | **1.38E-05** |
| | Dichlorobenzene | 0 | 7.88E-06 | 0 | **7.88E-06** |
| | Formaldehyde | 0 | 4.93E-04 | 0 | **4.93E-04** |
| | Hexane | 0 | 0.01 | 0 | **0.01** |
| | Methyl isobutyl ketone | 0.82 | 0 | 0 | **0.82** |
| | Perchlorethylene | 0 | 0 | 2.45E-03 | **2.45E-03** |
| | Toluene | 0 | 2.23E-05 | 1.22E-03 | **1.25E-03** |
| | Cadmium | 0 | 7.23E-06 | 0 | **7.23E-06** |
| | Chromium | 0 | 9.20E-06 | 0 | **9.20E-06** |
| | Cobalt | 0 | 0 | 0 | **0.00** |
| | Lead | 0 | 3.29E-06 | 0 | **3.29E-06** |
| | Manganese | 0 | 2.50E-06 | 0 | **2.50E-06** |
| | Nickel | 0 | 1.38E-05 | 0 | **1.38E-05** |
| | **Totals** | **0.82** | **0.01** | **3.67E-03** | **0.83** |
| | | | | **Worse Case HAP** | **0.82** |

Total emissions based on rated capacity at 8,760 hours/year.

| | | Controlled Potential Emissions (tons/year) | | | |
|---|---|---|---|---|---|
| | | Emissions Generating Activity | | | |
| Category | Pollutant | Axle Spray Coating Operation (PB-2&3) | Natural Gas Combustion Used in Parts Washer (PW1A) | Parts Washer (PW1A) | TOTAL |
| Criteria Pollutants | PM | 2.55 | 0.01 | 0.00 | **2.57** |
| | PM10 | 2.55 | 0.05 | 0.00 | **2.60** |
| | SO2 | 0 | 0.00 | 0 | **3.94E-03** |
| | NOx | 0 | 0.66 | 0 | **0.66** |
| | VOC | 25.34 | 0.04 | 1.22 | **26.60** |
| | CO | 0 | 0.55 | 0 | **0.55** |
| Hazardous Air Pollutants | Benzene | 0 | 1.38E-05 | 0 | **1.38E-05** |
| | Dichlorobenzene | 0 | 7.88E-06 | 0 | **7.88E-06** |
| | Formaldehyde | 0 | 4.93E-04 | 0 | **4.93E-04** |
| | Hexane | 0 | 0.01 | 0 | **0.01** |
| | Methyl isobutyl ketone | 0.82 | 0 | 0 | **0.82** |
| | Perchlorethylene | 0 | 0 | 2.45E-03 | **2.45E-03** |
| | Toluene | 0 | 2.23E-05 | 1.22E-03 | **1.25E-03** |
| | Cadmium | 0 | 7.23E-06 | 0 | **7.23E-06** |
| | Chromium | 0 | 9.20E-06 | 0 | **9.20E-06** |
| | Cobalt | 0 | 0 | 0 | **0.00E+00** |
| | Lead | 0 | 3.29E-06 | 0 | **3.29E-06** |
| | Manganese | 0 | 2.50E-06 | 0 | **2.50E-06** |
| | Nickel | 0 | 1.38E-05 | 0 | **1.38E-05** |
| | **Totals** | **0.82** | **0.01** | **3.67E-03** | **0.83** |
| | | | | **Worse Case HAP** | **0.82** |

Total emissions based on rated capacity at 8,760 hours/year.

## Appendix A: Emissions Calculations
## Existing Unit Emission Summary

**Company Name:** ArvinMeritor
**Address City IN Zip:** 849 Whitaker Road, Plainfield, Indiana 46168
**Operation Permit No.:** 063-21574-00046
**Significant Permit Revision No.:** F 063-25043
**Plt ID:** 063-00046
**Reviewer:** Hannah L. Desrosiers
**Date:** 7/26/2007

**Uncontrolled Potential Emissions (tons/year)**

Emissions Generating Activity

Existing Emission Units

| Category | Pollutant | Abrasive/ Mechanical Blasting (PL-131) | Cutting/Weld Removal Operation (WRB1) | Degreasing Operations | Dip Coating Operations | *Insignificant Activities MIG Welding (PL-119) | Natural Gas Combustion | Surface Coating Paint Booth 1 (PB-1) | **Surface Coating Paint Booth 2 (PB-2) | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| Criteria Pollutants | PM | 4857.01 | 11.86 | 0 | 0.01 | 4.91 | 0.06 | 5.53 | 13.23 | **4892.61** |
| | PM10 | 4121.35 | 11.86 | 0 | 0.01 | 5.05 | 0.06 | 5.53 | 13.23 | **4157.09** |
| | SO2 | 0 | 0 | 0 | 0 | 0.004 | 0.02 | 0 | 0 | **0.02** |
| | NOx | 0 | 0 | 0 | 0 | 0.66 | 2.54 | 0 | 0 | **3.20** |
| | VOC | 0 | 0 | 8.66 | 27.10 | 0.04 | 0.23 | 8.98 | 3.54 | **48.54** |
| | CO | 0 | 0 | 0 | 0 | 0.55 | 2.13 | 0 | 0 | **2.69** |
| Hazardous Air Pollutants | Benzene | 0 | 0 | 0 | 0 | 0 | 5.33E-05 | 0 | 0 | **5.33E-05** |
| | Dichlorobenzene | 0 | 0 | 0 | 0 | 0 | 3.05E-05 | 0 | 0 | **3.05E-05** |
| | Formaldehyde | 0 | 0 | 0 | 0 | 0 | 1.91E-03 | 0 | 0 | **1.91E-03** |
| | ***2-Butoxyethanol | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ***N/A | ***N/A** |
| | Hexane | 0 | 0 | 0 | 0 | 0 | 0.05 | 0 | 0 | **0.05** |
| | Methyl isobutyl ketone | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** |
| | Perchlorethylene | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** |
| | Toluene | 0 | 0 | 0 | 0 | 0 | 8.64E-05 | 0 | 0 | **8.64E-05** |
| | Cadmium | 0 | 0 | 0 | 0 | 0 | 2.79E-05 | 0 | 0 | **2.79E-05** |
| | Chromium | 0 | 1.28E-12 | 0 | 0 | 0 | 3.56E-05 | 0 | 0 | **3.56E-05** |
| | Cobalt | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ***N/A | ***N/A** |
| | Lead | 0 | 0 | 0 | 0 | 0 | 1.27E-05 | 0 | 0 | **1.27E-05** |
| | Manganese | 0 | 2.10E-05 | 0 | 0 | 0 | 9.65E-06 | 0 | 0 | **3.07E-05** |
| | Nickel | 0 | 1.92E-09 | 0 | 0 | 0 | 5.33E-05 | 0 | 0 | **5.34E-05** |
| | **Totals** | **0** | **2.10E-05** | **0** | **0** | **0** | **0.05** | **0** | **0.00** | **0.05** |
| | | | | | | | | | | **0.05** |

Total emissions based on rated capacity at 8,760 hours/year.

* Emissions for PL-119 were extrapolated from data obtained from 24572's TSD and the [21574. NG Combust] worksheet as any original calculations were not available.

**Calculations included here for Paint Booth 2 are merely for historical documentation purposes and not incorporated into final summary calcs because the booth has been incorporated into the Axle Spray Coating Operation.

*** Ethylene glycol monobutyl ether (EGBE, 2-Butoxyethanol) -CAS Number 111–76–2 was delisted as a Hazardous Air Pollutant by both the US EPA., on November 29, 2004, and the Indiana Department of Environmental Management, on November 20, 2005. Therefore, EGBE has been removed from consideration when calculating and evaluating the source's unlimited potential to emit (PTE).

**Controlled Potential Emissions (tons/year)**

Emissions Generating Activity

Existing Emission Units

| Category | Pollutant | Abrasive/ Mechanical Blasting (PL-131) | Cutting/Weld Removal Operation (WRB1) | Degreasing Operations | Dip Coating Operations | *Insignificant Activities MIG Welding (PL-119) | Natural Gas Combustion | Surface Coating Paint Booth 1 (PB-1) | **Surface Coating Paint Booth 2 (PB-2) | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| Criteria Pollutants | PM | 41.84 | 11.86 | 0 | 0.01 | 4.91 | 0.06 | 0.55 | 0.66 | **59.90** |
| | PM10 | 33.85 | 11.86 | 0 | 0.01 | 5.05 | 0.06 | 0.55 | 0.66 | **52.05** |
| | SO2 | 0 | 0 | 0 | 0 | 0.004 | 0.015 | 0 | 0 | **0.02** |
| | NOx | 0 | 0 | 0 | 0 | 0.66 | 2.54 | 0 | 0 | **3.20** |
| | VOC | 0 | 0 | 8.66 | 27.10 | 0.04 | 0.23 | 8.98 | 3.54 | **48.54** |
| | CO | 0 | 0 | 0 | 0 | 0.55 | 2.13 | 0 | 0 | **2.69** |
| Hazardous Air Pollutants | Benzene | 0 | 0 | 0 | 0 | 0 | 5.33E-05 | 0 | 0 | **5.33E-05** |
| | Dichlorobenzene | 0 | 0 | 0 | 0 | 0 | 3.05E-05 | 0 | 0 | **3.05E-05** |
| | Formaldehyde | 0 | 0 | 0 | 0 | 0 | 1.91E-03 | 0 | 0 | **1.91E-03** |
| | ***2-Butoxyethanol | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ***N/A | ***N/A** |
| | Hexane | 0 | 0 | 0 | 0 | 0 | 0.05 | 0 | 0 | **0.05** |
| | Methyl isobutyl ketone | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** |
| | Perchlorethylene | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** |
| | Toluene | 0 | 0 | 0 | 0 | 0 | 8.64E-05 | 0 | 0 | **8.64E-05** |
| | Cadmium | 0 | 0 | 0 | 0 | 0 | 2.79E-05 | 0 | 0 | **2.79E-05** |
| | Chromium | 0 | 1.28E-12 | 0 | 0 | 0 | 3.56E-05 | 0 | 0 | **3.56E-05** |
| | Cobalt | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ***N/A | ***N/A** |
| | Lead | 0 | 0 | 0 | 0 | 0 | 1.27E-05 | 0 | 0 | **1.27E-05** |
| | Manganese | 0 | 2.10E-05 | 0 | 0 | 0 | 9.65E-06 | 0 | 0 | **3.07E-05** |
| | Nickel | 0 | 1.92E-09 | 0 | 0 | 0 | 5.33E-05 | 0 | 0 | **5.34E-05** |
| | **Totals** | **0** | **2.10E-05** | **0** | **0** | **0** | **4.79E-02** | **0** | **0.00E+00** | **0.0480** |
| | | | | | | | | | | **0.0457** |

Total emissions based on rated capacity at 8,760 hours/year.

* emissions for PL-119 were extrapolated from data obtained from 24572's TSD and the [21574. NG Combust] worksheet as any original calculations were not available.

**Calculations included here for Paint Booth 2 are merely for historical documentation purposes and not incorporated into final summary calcs because the booth has been incorporated into the Axle Spray Coating Operation.

*** Ethylene glycol monobutyl ether (EGBE, 2-Butoxyethanol) -CAS Number 111–76–2 was delisted as a Hazardous Air Pollutant by both the US EPA., on November 29, 2004, and the Indiana Department of Environmental Management, on November 20, 2005. Therefore, EGBE has been removed from consideration when calculating and evaluating the source's unlimited potential to emit (PTE).

**Appendix A: Emissions Calculations**
**From Surface Coating Operations**

**Company Name:** ArvinMeritor
**Address City IN Zip:** 849 Whitaker Road,
Plainfield, Indiana 46168
**Operation Permit No.:** 063-21574-00046
**Significant Permit Revision No.:** F 063-25043
**Plt ID:** 063-00046
**Reviewer:** Hannah L. Desrosiers
**Date:** 7/26/2007

## Sourcewide VOC and Particulate Summary

| Material | Unit ID | Density (Lb/Gal) | Weight % Volatile (H20 & Organics) | Weight % Water | Weight % Organics | Volume % Water | Volume % Non-Volatiles (solids) | Maximum Application (gal/unit) | Maximum Throughput (unit/hour) | Maximum Usage (gal/day) | Maximum Usage (lb/hr) | Pounds VOC per gallon of coating less water | Pounds VOC per gallon of coating | Potential VOC pounds per hour | Potential VOC pounds per day | **Actual VOC (lb/day) | Potential VOC tons per year | ***Actual VOC (ton/yr) | Potential Particulate (ton/yr) | lb VOC/gal solids | Transfer Efficiency |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line 1 - Dip Coating | | | | | | | | | | | | | | | | | | | | | |
| Y-M Black WR Dip Enamel | PL-121A | 9.1 | 65.5% | 49.4% | 16.1% | 54.4% | 26.40% | 0.006 | 750 | 101.34 | 38.42 | 3.21 | 1.47 | 6.19 | 148.47 | 49.5 | 27.10 | 9.03 | 0.00 | 5.55 | 100% |
| Line 2 - Spray Coating | | | | | | | | | | | | | | | | | | | | | |
| Y-M WP-2618 Spray Primer | PB-1 | 10.1 | 50.0% | 29.7% | 20.3% | 35.8% | 36.00% | 0.025 | 40.0 | 24.00 | 10.10 | 3.19 | 2.05 | 2.05 | 49.21 | 16.4 | 8.98 | 2.99 | 5.53 | 5.70 | 75% |
| Line 3 - Axle Spray Coating Operation * | | | | | | | | | | | | | | | | | | | | | |
| Valgard 120 | PB-2&3 | 17.70 | 15.44% | 0.00% | 15.4% | 0.00% | 59.80% | 0.12 | 9.00 | 25.31 | 18.668 | 2.73 | 2.73 | 2.88 | 69.18 | 23.1 | 12.62 | 4.21 | 34.57 | 4.57 | 50% |
| R-Cure 800 2.8 | PB-2&3 | 9.28 | 39.27% | 15.85% | 23.4% | 0.00% | 47.95% | 0.15 | 9.00 | 32.06 | 12.398 | 2.17 | 2.17 | 2.90 | 69.68 | 23.2 | 12.72 | 4.24 | 16.49 | 4.53 | 50% |
| * The maximum capacity of the Axle Spray Coating Operation is limited by an operational bottleneck to 9 units per hour. | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | **Uncontrolled** | **61.42** | **20.47** | **56.59** | | |
| | | | | | | | | | | | | | **State Potential Emissions** | | | | | **PM Control Efficiency:** | **95.0%** | | |
| | | | | | | | | | | | | | | | | **Controlled** | **61.42** | **20.47** | **2.83** | | |

METHODOLOGY

Note: Actual usage based on 8hrs per day and 365 days per year.

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

**Total Gal of Mat. Used /yr = 66,690.98**

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Potential Particulate (tons per year) = Maximum Throughput (units/hour) * Maximum Application (gal/unit) * Maximum Usage (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

**Actual VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) *8hrs

***Actual VOC tons per year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (2920 hr/yr) * (1 ton/2000 lbs)

**Appendix A: Emissions Calculations**
**From Surface Coating Operations**

**Company Name:** ArvinMeritor
**Address City IN Zip:** 849 Whitaker Road, Plainfield, Indiana 46168
**Operation Permit No.:** 063-21574-00046
**Significant Permit Revision No.:** F 063-25043
**Plt ID:** 063-00046
**Reviewer:** Hannah L. Desrosiers
**Date:** 7/26/2007

## VOC and Particulate

| Material | Unit ID | Density (Lb/Gal) | Weight % Volatile (H20 & Organics) | Weight % Water | Weight % Organics | Volume % Water | Volume % Non-Volatiles (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Maximum Usage (gal/day) | Maximum Usage (lb/hr) | Pounds VOC per gallon of coating less water | Pounds VOC per gallon of coating | Potential VOC pounds per hour | Potential VOC pounds per day | **Actual VOC (lb/day) | Potential VOC tons per year | ***Actual VOC (ton/yr) | Particulate Potential (ton/yr) | lb VOC/gal solids | Transfer Efficiency |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line 3 - Axle Spray Coating Operation * | | | | | | | | | | | | | | | | | | | | | |
| Valgard 120 | PB-2&3 | 17.70 | 15.44% | 0.00% | 15.4% | 0.00% | 59.80% | 0.12 | 9.00 | 25.31 | 18.668 | 2.73 | 2.73 | 2.88 | 69.18 | 23.1 | 12.62 | 4.21 | 34.57 | 4.57 | 50% |
| R-Cure 800 2.8 | PB-2&3 | 9.28 | 39.27% | 15.85% | 23.4% | 0.00% | 47.95% | 0.15 | 9.00 | 32.06 | 12.398 | 2.17 | 2.17 | 2.90 | 69.68 | 23.2 | 12.72 | 4.24 | 16.49 | 4.53 | 50% |
| | | | | | | | | | | | | | | | | **Uncontrolled** | **25.34** | **8.45** | **51.06** | | |
| **State Potential Emissions** | | | | | | | | | | | | | | | | | **PM Control Efficiency:** | | **95.0%** | | |
| | | | | | | | | | | | | | | | | **Controlled** | **25.34** | **8.45** | **2.55** | | |

* The maximum capacity of the Axle Spray Coating Operation is limited by an operational bottleneck to 9 units per hour.

METHODOLOGY
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential (tons per year) = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used
**Actual VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) *8hrs
***Actual VOC tons per year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (2920 hr/yr) * (1 ton/2000 lbs)
Note: Actual usage based on 8hrs per day and 365 days per year.

**Total Gal of Mat. Used /yr = 20,941.88**

## HAP Emission Calculations

| Material | Unit ID | Density (Lb/Gal) | Gallons of Material (gal/unit) | Maximum Usage (unit/hour) | Weight % Cobalt Compounds | Weight % Methyl Isobutyl Ketone** | Weight % Toluene | ***Cobalt Compound Emissions (ton/yr) | Methyl Isobutyl Ketone Emissions (ton/yr) | Toluene Emissions (ton/yr) |
|---|---|---|---|---|---|---|---|---|---|---|
| Line 3 - Axle Spray Coating Operation * | | | | | | | | | | |
| Valgard 120 | PB-2&3 | 17.70 | 0.12 | 9.000 | 0.00% | 1.00% | 0.00% | 0.0000 | 0.8177 | 0.0000 |
| R-Cure 800 2.8 | PB-2&3 | 9.28 | 0.15 | 9.000 | 0.00% | 0.00% | 0.00% | 0.0000 | 0.0000 | 0.0000 |
| | | | | | | | **Uncontrolled** | **0.0000** | **0.8177** | **0.0000** |
| | | | | | | | **PM Control Efficiency:** | **95.0%** | | |
| | | | | | | | **Controlled** | **0.0000** | **0.8177** | **0.0000** |

**Total HAPs = 0.8177**

* The maximum capacity of the Axke Spray Coating Operation is limited by an operational bottleneck to 9 units per hour.

**METHODOLOGY**
HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs
** Weight % of MIBK comes from component of final product.
***Cobalt Compound Emissions relating to Surface Coating Operations are particulate in nature and are controlled in the same manner as PM emissions.

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

**Company Name:** ArvinMeritor
**Address City IN Zip:** 849 Whitaker Road, Plainfield, Indiana 46168
**Operation Permit No.:** 063-21574-00046
**Significant Permit Revision No.:** F 063-25043
**Plt ID:** 063-00046
**Reviewer:** Hannah L. Desrosiers
**Date:** 7/26/2007

## Particulate Emissions

| Heat Input Capacity MMBtu/hr | Potential Throughput MMCF/yr |
|---|---|
| 1.50 | 13.14 |

| | Pollutant | | | | | |
|---|---|---|---|---|---|---|
| | PM* | PM10* | SO2 | NOx | VOC | CO |
| Emission Factor in lb/MMCF | 1.9 | 7.6 | 0.6 | 100.0 **see below | 5.5 | 84.0 |
| Potential Emission in tons/yr | 0.0125 | 0.0499 | 0.0039 | 0.6570 | 0.0361 | 0.5519 |

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

**Methodology**

| | |
|---|---|
| **Total PM =** | **0.01** |
| **Total PM10 =** | **0.05** |

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

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
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 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

## HAPs Emissions

| | HAPs - Organics | | | | |
|---|---|---|---|---|---|
| | Benzene | Dichlorobenzene | Formaldehyde | Hexane | Toluene |
| Emission Factor in lb/MMcf | 0.002100 | 0.001200 | 0.075000 | 1.800000 | 0.003400 |
| Potential Emission in tons/yr | 1.38E-05 | 7.88E-06 | 4.93E-04 | 1.18E-02 | 2.23E-05 |

| | HAPs - Metals | | | | |
|---|---|---|---|---|---|
| | Lead | Cadmium | Chromium | Manganese | Nickel |
| Emission Factor in lb/MMcf | 0.000500 | 0.001100 | 0.001400 | 0.000380 | 0.002100 |
| Potential Emission in tons/yr | 3.29E-06 | 7.23E-06 | 9.20E-06 | 2.50E-06 | 1.38E-05 |

| | |
|---|---|
| **Total HAPs =** | **0.01** |

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**
**From Solvent/Cleaning Operations**

**Company Name:** ArvinMeritor
**Address City IN Zip:** 849 Whitaker Road, Plainfield, Indiana 46168
**Operation Permit No.:** 063-21574-00046
**Significant Permit Revision No.:** F 063-25043
**Plt ID:** 063-00046
**Reviewer:** Hannah L. Desrosiers
**Date:** 7/26/2007

## VOC and Particulate

| Material | Unit ID | Density (Lb/Gal) | Weight % Volatile (H20 & Organics) | Weight % Water | Weight % Organics | Volume % Water | Volume % Non-Volatiles (solids) | Maximum Usage (daily replacement volume) (gal/day) | Maximum Usage (lb/hr) | Pounds VOC per gallon of coating less water | Pounds VOC per gallon of coating | Potential VOC pounds per hour | Potential VOC pounds per day | *Actual PTE VOC (lb/day) | Potential VOC tons per year | *Actual VOC (ton/yr) | Particulate Potential (ton/yr) | lb VOC/ gal solids | Transfer Efficiency |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Safety Kleen Premium Solvent | PW1A | 6.70 | 100.00% | 0.00% | 100.0% | 0.00% | 0.00% | 1.00 | 0.279 | 6.70 | 6.70 | 0.28 | 6.70 | 2.2 | 1.22 | 0.41 | 0.00E+00 | 0.00 | 50% |
| | | | | | | | | | | | **State Potential Emissions** | | | **Uncontrolled** | **1.22** | **0.00** | | | |
| | | | | | | | | | | | | | | | **PM Control Efficiency:** | **95.0%** | | | |
| | | | | | | | | | | | | | | **Controlled** | **1.22** | **0.00** | | | |

METHODOLOGY
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used
*Actual VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) *8hrs

## HAP Emissions

| Material | Unit ID | Density (Lb/Gal) | Maximum Usage (daily replacement volume) (gal/day) | Maximum Usage (lb/hr) | Weight % PCE | PCE Emissions (ton/yr) | Weight % Toluene | Toluene Emissions (ton/yr) |
|---|---|---|---|---|---|---|---|---|
| Safety Kleen Premium Solvent | PW1A | 6.70 | 1.00 | 0.279 | 0.20% | **0.0024** | 0.10% | **0.0012** |

PCE = Perchlorethylene

**Total HAPs =** **4.67E-03**

**METHODOLOGY**
HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs