



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: September 29, 2011

RE: Meritor Heavy Vehicle Systems, LLC / 063-30665-00046

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

Notice of Decision: Approval - Effective Immediately

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

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

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

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

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

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

Enclosures
FNPER.dot12/03/07



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Gary Gillen
Meritor Heavy Vehicle Systems, LLC
849 Whitaker Road
Plainfield, Indiana 46168

September 29, 2011

Re: 063-30665-00046
First Significant Revision to
F063-28866-00046

Dear Gary Gillen:

Meritor Heavy Vehicle Systems, LLC was issued a Federally Enforceable State Operating Permit (FESOP) Renewal No. F063-28866-00046 on August 18, 2010 date for a stationary transmission and brake rebuilding source located at 849 Whitaker Road, Plainfield, Indiana 46168. On June 27, 2011, the Office of Air Quality (OAQ) received an application from the source requesting to add new emission units including two (2) conveyorized burn-off ovens, two (2) drum blast units and one (1) paint hook burn-off oven. In addition the source requested that emission units which are no longer at the source be removed from their permit. Pursuant to the provisions of 326 IAC 2-8-11.1, these changes to the permit are required to be reviewed in accordance with the Significant Permit Revision (SPR) procedures of 326 IAC 2-8-11.1(f). Pursuant to the provisions of 326 IAC 2-8-11.1, a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document (TSD).

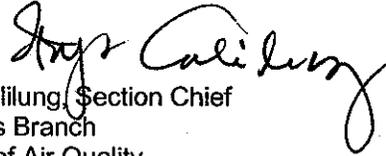
The following construction conditions are applicable to the proposed project:

1. General Construction Conditions
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the significant permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Attached please find the entire 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 Sarah Conner, Ph. D., of my staff, at 317-234-6555 or 1-800-451-6027, and ask for extension 4-6555.

Sincerely,



Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

Attachments: Technical Support Document and revised permit

IC/stc

cc: File - Hendricks County
Hendricks County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch
Billing, Licensing and Training Section



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Federally Enforceable State Operating Permit Renewal OFFICE OF AIR QUALITY

Meritor Heavy Vehicle Systems, LLC
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 provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

Operation Permit No.: F063-28866-00046	
Original signed by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: August 18, 2010 Expiration Date: August 18, 2020

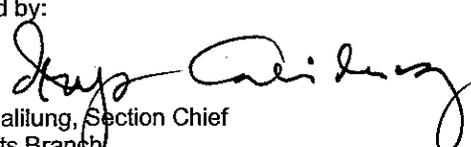
First Significant Permit Revision No.: 063-30665-00046	
Issued by:  Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: September 29, 2011 Expiration Date: August 18, 2020

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SECTION A

SOURCE SUMMARY

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

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

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

Source Address:	849 Whitaker Road, Plainfield, Indiana 46168
General Source Phone Number:	317-839-9525
SIC Code:	3714 (Motor Vehicle Parts and Accessories)
County Location:	Hendricks
Source Location Status:	Nonattainment for PM2.5 standard Attainment for all other criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 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) twelve (12) cubic feet pangborn rotoblast barrel abrasive blasting unit #4, identified as PL-126, installed after 1990, with a maximum capacity of 4,680 pounds of transmission and brake parts per hour, using a maximum capacity of 33,600 pounds of steel shot per hour, equipped with a baghouse (DC-6) for particulate control, and exhausting inside the building.
- (b) One (1) twelve (12) cubic feet abrasive tumble blaster, identified PL-127, installed after 1990, with a maximum capacity of 4,680 pounds of transmission and brake parts per hour, using a maximum capacity of 33,600 pounds of steel shot per hour, equipped with a baghouse (DC-6) for particulate control, and exhausting inside the building.
- (c) One (1) abrasive tumble blast unit, identified as PL-128, installed in 2005, with a maximum capacity of 1,980 pounds of transmission and brake parts per hour, using a maximum capacity of 15,300 pounds of steel shot per hour, equipped with a cartridge dust collector (DC-8) for particulate control, and exhausting inside the building. -
- (d) One (1) abrasive tumble blast unit, identified as PL-129, installed in 2005, with a maximum capacity of 1,980 pounds of transmission and brake parts per hour, using a maximum capacity of 15,300 pounds of steel shot per hour, equipped with a cartridge dust collector (DC-9) for particulate control, and exhausting inside the building.
- (e) One (1) abrasive tumble blast unit, identified as PL-130, installed in 2005, with a maximum capacity of 1,980 pounds of transmission and brake parts per hour, using a maximum capacity of 15,300 pounds of steel shot per hour, equipped with a cartridge dust collector (DC-10) for particulate control, and exhausting inside the building.

- (f) One (1) abrasive blasting unit, identified as PL-131, constructed in 2007, with a maximum capacity of 2,025 pounds of parts processed per hour, using a maximum capacity of 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.
- (g) One (1) steel blaster, identified PL-132, constructed in 2009, with a maximum capacity of 4,680 pounds of transmission and brake parts per hour, using a maximum capacity of 33,600 pounds of steel shot per hour, equipped with baghouse (DC-12) for particulate control, and exhausting inside the building.
- (h) One (1) steel blaster, identified PL-133, constructed in 2009, with a maximum capacity of 4,680 pounds of transmission and brake parts per hour, using a maximum capacity of 33,600 pounds of steel shot per hour, equipped with baghouse (DC-13) for particulate control, and exhausting inside the building.
- (i) One (1) drumblast abrasive blasting unit, identified as DB-1, approved in 2011 for construction, with a maximum capacity of 11,220 pounds of parts processed per hour, using a maximum capacity of 84,000 pounds of steel shot per hour, using a common dust collector for particulate control, identified as (DBDC-1) for particulate control, and exhausting to stack DBDC-1S1.
- (j) One (1) drumblast abrasive blasting unit, identified as DB-2, approved in 2011 for construction, with a maximum capacity of 11,220 pounds of parts processed per hour, using a maximum capacity of 84,000 pounds of steel shot per hour, using a common dust collector for particulate control, identified as (DBDC-1) for particulate control, and exhausting to stack DBDC-1S1.
- (k) One (1) common dust collector, identified as (DBDC-1), with a maximum gas stream flow rate of 7,000 ACFM, controlling PM, PM10 and PM2.5 from DB-1 and DB-2, and exhausting to stack DBDC-1S1.
- (l) One (1) natural gas-fired conveyORIZED burn-off oven, identified as CBO-1, approved in 2011 for construction, equipped with a burner which has a maximum heat input capacity of 3.5 million British thermal units per hour (MMBtu/hr) and 170 pounds of residue combusted per hour, using a common thermal oxidizer (TO-1) as control, and exhausting to stacks CBO-2S1 and CBO-2S2.
- (m) One (1) natural gas-fired conveyORIZED burn-off oven, identified as CBO-2, approved in 2011 for construction, equipped with a burner which has a maximum heat input capacity of 3.5 million British thermal units per hour (MMBtu/hr) and 170 pounds of residue combusted per hour, using a common thermal oxidizer (TO-1) as control, and exhausting to stacks CBO-2S1 and CBO-2S2.
- (n) One (1) natural gas-fired thermal oxidizer, identified as TO-1, approved in 2011 for construction, with a maximum heat input capacity of 5.0 million British thermal units per hour (MMBtu/hr), and exhausting to stack TO-1S1.
- (o) One (1) dip coating booth, identified as PL-121A, installed after 1990, with a maximum capacity of 750 metal brake shoes per hour, and exhausting to stack PL-121A.
- (p) One (1) spray paint booth, identified as PB-1, installed after 1990, equipped with two (2) HVLP spray guns, with a maximum capacity of 40 transmission units per hour, equipped with dry filters for particulate control, and exhausting to stack S-13.

- (q) One (1) axle spray coating operation, constructed 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, constructed in 2007, equipped with two (2) HVLP spray guns with a maximum application rate of 0.266 gallons per unit, using dry filters for particulate control and exhausting to stack SVPB-2.
- (r) One (1) enclosed powder coating booth, identified as PC1, utilizing electrostatic airless gun, constructed in 2008, with a maximum capacity of 0.087 pounds of powder per unit and 960 brake shoes per hour, with a maximum process throughput of 4.36 tons per hour, equipped with integral cartridge filters for particulate control, and venting inside.
- (s) 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, with a maximum capacity of 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.
 - (4) One (1) Cold Cleaner degreaser dip tank, identified as CC12, approved for construction in 2008, uncontrolled and using a maximum of 365 gallons of degreasing solvent per year.
- (t) 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]

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:

- (a) One (1) natural gas-fired fluidized bed paint book burn-off oven, identified as PHBO-1, approved in 2011 for construction, with a capacity of 650 pounds of parts per hour, equipped with a burner which has a maximum heat input capacity of 1.6 million British thermal units per hour (MMBtu/hr), using a fume incineration thermal oxidizer (TO-2) as control, and exhausting indoors. [326 IAC 4-2]
- (b) One (1) natural gas-fired thermal oxidizer, identified as TO-2, approved in 2011 for construction, with a maximum heat input capacity of 0.4 million British thermal units per hour (MMBtu/hr), and exhausting to stack TO-2S1.
- (c) One (1) MIG welding station, identified as PL-119, installed after 1990, with a maximum wire consumption of 0.02 pounds per day.

- (d) One (1) natural gas-fired Proceco aqueous core washer, identified as PL-106, installed after 1990, using only water and detergents, with a maximum heat input capacity of 0.90 million British thermal units per hour, and exhausting to stack PL-106.
- (e) One (1) natural gas-fired, aqueous parts washer, identified as PW2, approved for construction in 2008 using alkaline (non-VOC) detergents, with a maximum heat input capacity of 0.5 million British thermal units per hour, and exhausting to stack SVPW2.
- (f) Natural Gas-fired combustion units:
 - (1) One (1) natural gas-fired process water heater, identified as PCS1, approved for construction in 2008, with a maximum heat input capacity of 2.0 million British thermal units per hour, and exhausting to stack SVPW2.
 - (2) One (1) natural gas-fired process water heater, identified as PCS3, approved for construction in 2008, with a maximum heat input capacity of 1.5 million British thermal units per hour, and exhausting to stack SVPW2.
 - (3) One (1) natural gas-fired powder coat drying oven, identified as PCD1, approved for construction in 2008, with a maximum heat input capacity of 1.5 million British thermal units per hour, and exhausting to stack SVPW2.
 - (4) One (1) natural gas-fired Powder coat curing oven, identified as PCC1, approved or construction in 2008, with a maximum heat input capacity of 2.5 million British thermal units per hour, and exhausting to stack SVPW2.
- (g) One (1) MIG and stick welding station, identified as WLD2, approved for construction in 2009, with a maximum wire consumption of 5.40 pounds per hour combined, and exhausting inside.
- (h) Miscellaneous hand held equipment usage for paint application containing VOC, approved for construction in 2009, utilizing spray cans, roll coat method, with combined VOC emissions less than three (3) pounds per day.
- (i) Platinum Line Touch Up Painting Operation, approved for construction in 2010, identified as PL-134, using spray/aerosol can, with a maximum capacity is 3.37 gallons per day, with no control, and exhausting inside the building

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) to renew a Federally Enforceable State Operating Permit (FESOP).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

- (a) This permit, F063-28866-00046, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

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

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

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

B.4 Enforceability [326 IAC 2-8-6] [IC 13-17-12]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

- (a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:

- (i) it contains a certification by an "authorized individual", as defined by 326 IAC 2-1.1-1(1), and
- (ii) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (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. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]

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

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

- (a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:
- (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.

The Permittee shall implement the PMPs.

- (b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

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

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

The Permittee shall implement the PMPs.

- (c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (d) 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, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

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

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
- (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
- (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
- (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
- (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

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

- (a) All terms and conditions of permits established prior to F063-28866-00046 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 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 modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
- (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.16 Permit Renewal [326 IAC 2-8-3(h)]

- (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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

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

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b) 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.19 Source Modification Requirement [326 IAC 2-8-11.1]

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

B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.22 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ no later than thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.23 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (Applicability) and 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A,

Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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

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]

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

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

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

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

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

- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

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

C.10 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or of initial start-up, whichever is later, to begin such monitoring. If due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance or the date of initial startup, whichever is later, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

C.11 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.12 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 maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.

- (b) 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.13 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.14 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

- (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records; and/or
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall record the reasonable response steps taken.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline

- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.16 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, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.17 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 except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.
- (b) The address for report submittal is:
- Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

C.18 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 applicable standards for recycling and emissions reduction.

SECTION D.1

FACILITY OPERATION CONDITIONS

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

- (a) One (1) twelve (12) cubic feet pangborn rotoblast barrel abrasive blasting unit #4, identified as PL-126, installed after 1990, with a maximum capacity of 4,680 pounds of transmission and brake parts per hour, using a maximum capacity of 33,600 pounds of steel shot per hour, equipped with a baghouse (DC-6) for particulate control, and exhausting inside the building.
- (b) One (1) twelve (12) cubic feet abrasive tumble blaster, identified PL-127, installed after 1990, with a maximum capacity of 4,680 pounds of transmission and brake parts per hour, using a maximum capacity of 33,600 pounds of steel shot per hour, equipped with a baghouse (DC-6) for particulate control, and exhausting inside the building.
- (c) One (1) abrasive tumble blast unit, identified as PL-128, installed in 2005, with a maximum capacity of 1,980 pounds of transmission and brake parts per hour, using a maximum capacity of 15,300 pounds of steel shot per hour, equipped with a cartridge dust collector (DC-8) for particulate control, and exhausting inside the building. .
- (d) One (1) abrasive tumble blast unit, identified as PL-129, installed in 2005, with a maximum capacity of 1,980 pounds of transmission and brake parts per hour, using a maximum capacity of 15,300 pounds of steel shot per hour, equipped with a cartridge dust collector (DC-9) for particulate control, and exhausting inside the building.
- (e) One (1) abrasive tumble blast unit, identified as PL-130, installed in 2005, with a maximum capacity of 1,980 pounds of transmission and brake parts per hour, using a maximum capacity of 15,300 pounds of steel shot per hour, equipped with a cartridge dust collector (DC-10) for particulate control, and exhausting inside the building.
- (f) One (1) abrasive blasting unit, identified as PL-131, constructed in 2007, with a maximum capacity of 2,025 pounds of parts processed per hour, using a maximum capacity of 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.
- (g) One (1) steel blaster, identified PL-132, constructed in 2009, with a maximum capacity of 4,680 pounds of transmission and brake parts per hour, using a maximum capacity of 33,600 pounds of steel shot per hour, equipped with baghouse (DC-12) for particulate control, and exhausting inside the building.
- (h) One (1) steel blaster, identified PL-133, constructed in 2009, with a maximum capacity of 4,680 pounds of transmission and brake parts per hour, using a maximum capacity of 33,600 pounds of steel shot per hour, equipped with baghouse (DC-13) for particulate control, and exhausting inside the building.
- (i) One (1) drumblast abrasive blasting unit, identified as DB-1, approved in 2011 for construction, with a maximum capacity of 11,220 pounds of parts processed per hour, using a maximum capacity of 84,000 pounds of steel shot per hour, using a common dust collector for particulate control, identified as (DBDC-1) for particulate control, and exhausting to stack DBDC-1S1.
- (j) One (1) drumblast abrasive blasting unit, identified as DB-2, approved in 2011 for construction, with a maximum capacity of 11,220 pounds of parts processed per hour, using a maximum capacity of 84,000 pounds of steel shot per hour, using a common dust collector for particulate control, identified as (DBDC-1) for particulate control, and exhausting to stack DBDC-1S1.

(k) One (1) common dust collector, identified as (DBDC-1), with a maximum gas stream flow rate of 7,000 ACFM, controlling PM, PM10 and PM2.5 from DB-1 and DB-2, and exhausting to stack DBDC-1S1.

(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] [326 IAC 2-1.1-5]

Pursuant to 326 IAC 2-8-4 and in order to render the requirements of 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable, each of the abrasive blasting units equipped with baghouses/ cartridges, shall not exceed the following hourly PM₁₀ and PM_{2.5} emission limits:

Unit ID/Control Device	PM ₁₀ Emission Limits (pounds/hour)	PM _{2.5} Emission Limits (pounds/hour)
PL-126, and PL-127 / DC-6	2.69	2.69
PL-128 / DC-8	0.61	0.61
PL-129 / DC-9	0.61	0.61
PL-130 / DC-10	0.61	0.61
PL-131 / DC-11	1.09	1.09
PL-132 / DC-12	1.34	1.34
PL-133 / DC-13	1.34	1.34
DB-1/ DBDC-1	3.36	3.36
DB-2/ DBDC-1		

Compliance with these limits, combined with the potential to emit PM10 and PM2.5 from all other emission units at this source, shall limit the source-wide total potential to emit of PM10 and PM2.5 to less than 100 tons per 12 consecutive month period, each, and shall render 326 IAC 2-7 (Part 70 Permits), 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), and 326 IAC 2-1.1-5 (Nonattainment New Source Review not applicable).

D.1.2 PSD Limits [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, each of the abrasive blasting operations shall not exceed the following hourly PM limits:

Unit ID / Control Device	Particulate Emission Limits (pounds / hour)
PL-126, and PL-127 / DC-6	5.38
PL-128 / DC-8	4.07
PL-129 / DC-9	4.07
PL-130 / DC-10	4.07
PL-131 / DC-11	2.17
PL-132 / DC-12	7.24
PL-133 / DC-13	7.24
DB-1/ DBDC-1	6.72
DB-2/ DBDC-1	

Compliance with these limits, combined with the PM emissions from other emission units at this source, shall limit the source-wide PM emissions to less than two hundred fifty (250) tons per 12 consecutive month period, and render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.1.3 Particulate Emissions Limitations [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2, the particulate emissions from each of the following processes shall not exceed the pound per hour limitations specified in the following table:

Emission unit ID	Baghouse ID	Maximum Process Weight (tons/hour) for each unit *	326 IAC 6-3 Limit (lbs/hr) for each unit
PL-126	DC-6	19.14	29.63
PL-127	DC-6	19.14	29.63
PL-128	DC-8	8.64	17.39
PL-129	DC-9	8.64	17.39
PL-130	DC-10	8.64	17.39
PL-131	DC-11	28.15	38.36
PL-132	DC-12	19.14	29.63
PL-133	DC-13	19.14	29.63

*The process weight consists of the weight of the parts being processed and the amount of steel shot used.

The particulate emissions limitations from the above table shall be calculated using 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:

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

(b) Pursuant to 326 IAC 6-3-2, the particulate emissions from each of the following processes shall not exceed the pound per hour limitations specified in the following table:

Emission unit ID	Baghouse ID	Maximum Process Weight (tons/hour) for each unit *	326 IAC 6-3 Limit (lbs/hr) for each unit
DB-1	DBDC-1	47.61	44.12
DB-2	DBDC-1	47.61	44.12

*The process weight consists of the weight of the parts being processed and the amount of steel shot used.

The particulate emissions limitations from the above table shall be calculated using the following equation:

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

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.1.4 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for these facilities and their control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventative maintenance plan required by this condition.

Compliance Determination Requirements

D.1.5 Particulate Control

In order to comply with Conditions D.1.1, D.1.2, and D.1.3, the baghouses/cartridges, identified as DC-6, DC-8 through DC-13, and DBDC-1, 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.

D.1.6 Testing Requirements [326 IAC 2-1.1-11]

- (a) No later than 180 days after the issuance date of this Significant Permit Revision No. 063-30665-00046, the Permittee shall conduct PM, PM₁₀, PM_{2.5} testing on the dust collection system, identified as DC-11, controlling the abrasive blasting unit, identified as PL-131, in order to verify the compliance status with Conditions D.1.1 and D.1.2.
- (b) No later than 180 days after initial startup of the two (2) drumblast abrasive blasting units, identified as DB-1 and DB-2, the Permittee shall conduct PM, PM₁₀, and PM_{2.5} testing on the common dust collector DBDC-1 controlling emissions from two (2) drumblast abrasive blasting units, identified as DB-1 and DB-2, in order to verify the compliance status with Conditions D.1.1 and D.1.2. Note: DB-1 and DB-2 shall both be operating during testing.

These tests shall be conducted utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of the prior valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). PM₁₀ and PM_{2.5} include filterable and condensable PM. Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

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

D.1.7 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.1.8 Visible Emissions Notations

- (a) Visible emission notations of the stack exhaust (DBDC-1S1) shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.1.9 Baghouse Parametric Monitoring

- (a) The Permittee shall record the pressure drop across each baghouse 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 each baghouse 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. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.
- (b) The Permittee shall record the pressure drop across each cartridge dust collector 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 each cartridge dust collector 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 or replaced at least once every six (6) months.

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

D.1.10 Record Keeping Requirements

- (a) To document the compliance status with Condition D.1.8, the Permittee shall maintain records of visible emission notations of the stack exhaust (DBDC-1S1) once per day. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (i.e., the process did not operate that day).
- (b) To document the compliance status with Condition D.1.9, 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).
- (c) Section C - General Record Keeping Requirements, of this permit contains the Permittee's obligation with regard to the reports required by this condition.

SECTION D.2

FACILITY OPERATION CONDITIONS

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

- (o) One (1) dip coating booth, identified as PL-121A, installed after 1990, with a maximum capacity of 750 metal brake shoes per hour, and exhausting to stack PL-121A.
- (p) One (1) spray paint booth, identified as PB-1, installed after 1990, equipped with two (2) HVLP spray guns, with a maximum capacity of 40 transmission units per hour, equipped with dry filters for particulate control, and exhausting to stack S-13.
- (q) One (1) axle spray coating operation, constructed 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, constructed in 2007, equipped with two (2) HVLP spray guns with a maximum application rate of 0.266 gallons per unit, using dry filters for particulate control and exhausting to stack SVPB-2.
- (r) One (1) enclosed powder coating booth, identified as PC1, utilizing electrostatic airless gun, constructed in 2008, with a maximum capacity of 0.087 pounds of powder per unit and 960 brake shoes per hour, with a maximum process throughput of 4.36 tons per hour, equipped with integral cartridge filters for particulate control, and venting inside.

(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 PC1 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]

- (a) Pursuant to 326 IAC 6-3-2(d) (Particulate Emission Limitations for Manufacturing Processes), particulate from each of the paint booths PL-121A, PB-1, PB-2, and powder coating booth, PC1 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.
- (b) Pursuant to 326 IAC 6-3-2 (e) (Particulate Emission Limitations for Manufacturing Processes) particulate matter (PM) from the powder coating booth, identified as PC1 shall not exceed 11.0 pounds per hour, when operating at a process weight rate of 4.36 tons per hour.

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

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

A Preventive Maintenance Plan is required for spray paint booths PB-1, PB-2, and powder coating booth PC1, associated control devices and powder cartridge filtration system which is considered integral to the system. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventative maintenance plan required by this condition.

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(a), the dry filters for particulate control shall be in operation and control emissions from the paint booths PL-121A, PB-1, and PB-2 at all times that the paint booths are in operation. In order to comply with Condition D.2.2(b), the cartridge filtration system integral to the powder coating booth, shall be in operation at all times when powder coating booth, identified as PC1, is in operation.

D.2.6 Manufacturer's Specifications [326 IAC 2-8-4(3)]

The powder coating booth, identified as PC1 and its cartridge filtration integral to the system shall operate per manufacturer's specifications.

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

D.2.7 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 PL-121A, PB-1, and PB-2. 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 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.2.8 Record Keeping Requirements

- (a) To document the compliance status 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 the compliance status with Condition D.2.3, the Permittee shall maintain a log of weekly overspray observations, and daily and monthly inspections
- (c) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligation with regard to the records required by this condition.

SECTION D.3

FACILITY OPERATION CONDITIONS

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

- (s) 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, with a maximum capacity of 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.
 - (4) One (1) Cold Cleaner degreaser dip tank, identified as CC12, approved for construction in 2008, 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 nineteenth 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 or 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)]:

- (l) One (1) natural gas-fired conveyORIZED burn-off oven, identified as CBO-1, approved in 2011 for construction, equipped with a burner which has a maximum heat input capacity of 3.5 million British thermal units per hour (MMBtu/hr) and 170 pounds of residue combusted per hour, using a common thermal oxidizer (TO-1) as control, and exhausting to stacks CBO-2S1 and CBO-2S2.
- (m) One (1) natural gas-fired conveyORIZED burn-off oven, identified as CBO-2, approved in 2011 for construction, equipped with a burner which has a maximum heat input capacity of 3.5 million British thermal units per hour (MMBtu/hr) and 170 pounds of residue combusted per hour, using a common thermal oxidizer (TO-1) as control, and exhausting to stacks CBO-2S1 and CBO-2S2.
- (n) One (1) natural gas-fired thermal oxidizer, identified as TO-1, approved in 2011 for construction, with a maximum heat input capacity of 5.0 million British thermal units per hour (MMBtu/hr), and exhausting to stack TO-1S1.
- (t) 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

- (a) One (1) natural gas-fired fluidized bed paint book burn-off oven, identified as PHBO-1, approved in 2011 for construction, with a capacity of 650 pounds of parts per hour, equipped with a burner which has a maximum heat input capacity of 1.6 million British thermal units per hour (MMBtu/hr), using a fume incineration thermal oxidizer (TO-2) as control, and exhausting indoors. [326 IAC 4-2]
- (b) One (1) natural gas-fired thermal oxidizer, identified as TO-2, approved in 2011 for construction, with a maximum heat input capacity of 0.4 million British thermal units per hour (MMBtu/hr), and exhausting to stack TO-2S1.

(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 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Falcon Graphite cutting/weld removal operation, identified as WRB1, shall 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:

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

D.4.2 Incinerator Requirements [326 IAC 4-2]

Pursuant to 326 IAC 4-2, the burn-off ovens 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.4.3 Carbon Monoxide Emission Limits [326 IAC 9-1-2]

Pursuant to 326 IAC 9-1-2(a)(3), the Permittee shall not operate burn-off ovens, unless the waste gas stream is burned in one (1) of the following:

- (a) Direct-flame afterburner.
- (b) Secondary chamber.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Meritor Heavy Vehicle Systems, LLC
Source Address: 849 Whitaker Road, Plainfield, Indiana 46168
FESOP Permit No.: F063-28866-00046

**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 AND ENFORCEMENT BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: (317) 233-0178
Fax: (317) 233-6865**

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

Source Name: Meritor Heavy Vehicle Systems, LLC
Source Address: 849 Whitaker Road, Plainfield, Indiana 46168
FESOP Permit No.: F063-28866-00046

This form consists of 2 pages

Page 1 of 2

- | |
|--|
| <p><input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12)</p> <ul style="list-style-type: none">• The Permittee must notify the Office of Air Quality (OAQ), within four (4) daytime business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and• The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16 |
|--|

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

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

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

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO 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: _____

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

Source Name: Meritor Heavy Vehicle Systems, LLC
Source Address: 849 Whitaker Road, Plainfield, Indiana 46168
FESOP Permit No.: F063-28866-00046

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

Page 1 of 2

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<p><input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.</p>	
<p><input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD</p>	
<p>Permit Requirement (specify permit condition #)</p>	
<p>Date of Deviation:</p>	<p>Duration of Deviation:</p>
<p>Number of Deviations:</p>	
<p>Probable Cause of Deviation:</p>	
<p>Response Steps Taken:</p>	
<p>Permit Requirement (specify permit condition #)</p>	
<p>Date of Deviation:</p>	<p>Duration of Deviation:</p>
<p>Number of Deviations:</p>	
<p>Probable Cause of Deviation:</p>	
<p>Response Steps Taken:</p>	

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: _____

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

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

Source Description and Location

Source Name: Meritor Heavy Vehicle Systems, LLC
Source Location: 849 Whitaker Road, Plainfield, Indiana 46168
County: Hendricks
SIC Code: 3714 (Motor Vehicle Parts and Accessories)
Operation Permit No.: F063-28866-00046
Operation Permit Issuance Date: August 18, 2010
Significant Permit Revision No.: 063-30665-00046
Permit Reviewer: Sarah Conner, Ph. D.

On June 27, 2011, the Office of Air Quality (OAQ) received an application from Meritor Heavy Vehicle Systems, LLC related to a modification to an existing stationary transmission and brake rebuilding source. The source requested to add new emission units including two (2) conveyorized burn-off ovens, two (2) drum blast units and one (1) paint hook burn-off oven. In addition the source requested that emission units which are no longer at the source be removed from their permit.

Existing Approvals

The source was issued FESOP Renewal No. F063-28866-00046 on August 18, 2010.

County Attainment Status

The source is located in Hendricks County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Attainment effective October 19, 2007, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.	
Basic nonattainment designation effective federally April 5, 2005, for PM2.5.	

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

- (b) **PM_{2.5}**
 U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Hendricks County as nonattainment for PM_{2.5}. On March 7, 2005 the Indiana Attorney General's Office, on behalf of IDEM, filed a lawsuit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's New Source Review Rule for PM_{2.5} promulgated on May 8, 2008. These rules became effective on July 15, 2008. Therefore, direct PM_{2.5} and SO₂ emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5. See the State Rule Applicability – Entire Source section.
- (c) **Other Criteria Pollutants**
 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.

Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Status of the Existing Source

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

Process/ Emission Unit	Potential To Emit of the Entire Source Prior to Revision (tons/year)								
	PM	PM10*	PM2.5	SO ₂	NOx	VOC	CO	GHGs as CO ₂ e**	Total HAPs
Abrasive/Mechanical Blasting, consisting of units:									
PL-100	8.54	1.80	1.80	-	-	-	-	-	-
PL-101	18.57	4.07	4.07	-	-	-	-	-	-
PL-104	2.41	0.70	0.70	-	-	-	-	-	-
PL-118	8.54	1.79	1.79	-	-	-	-	-	-
PL-123	17.83	2.54	2.54	-	-	-	-	-	-
PL-124	17.83	2.54	2.54	-	-	-	-	-	-
PL-125	25.19	12.70	12.70	-	-	-	-	-	-
PL-126				-	-	-	-	-	-
PL-127				-	-	-	-	-	-
PL-128				-	-	-	-	-	-
PL-129	17.83	2.32	2.32	-	-	-	-	-	-
PL-130	17.83	2.32	2.32	-	-	-	-	-	-
PL-131	18.09	0.83	0.83	-	-	-	-	-	-
PL-132	31.71	5.06	5.06	-	-	-	-	-	-
PL-133	31.71	2.53	2.53	-	-	-	-	-	-
Dip coating Booth, PL-121A - Line 1	0.01	0.01	0.01	-	-	27.10	-	-	-
Spray Paint Booth, PB-1, Line 2	0.55	0.55	0.55	-	-	8.98	-	-	-
Axle spray coating operation PL-131, Line 3, consisting of Spray Paint Booth PB-2	2.55	2.55	2.55	-	-	25.34	-	-	0.82

Process/ Emission Unit	Potential To Emit of the Entire Source Prior to Revision (tons/year)								
	PM	PM10*	PM2.5	SO ₂	NOx	VOC	CO	GHGs as CO ₂ e**	Total HAPs
Spray Paint Booth, PB-4	0.15	0.15	0.15	-	-	0.78	-	-	1.34
Powder coating booth, PC1	0.01	0.01	0.01	-	-	3.66	-	-	-
Degreasing operations consisting of:									
Handwipe Operations	-	-	-	-	-	3.78	-	-	-
Cold Cleaner Degreaser Dip tanks, units - PL- 103, PL-111, PL- 112, PL-113, PL- 114, PL-115, PL- 116, PL-117 and PL-102 and PL- 120	-	-	-	-	-	4.88	-	-	-
Cold Cleaner Degreaser dip tank, unit CC11	-	-	-	-	-	1.22	-	-	-
Cold Cleaner Degreaser dip tank, unit CC12	-	-	-	-	-	1.22	-	-	-
Insignificant Activities - Bake- off Oven, PL-110 and Natural Gas Combustion Parts/aqueous Washers (Units - PL-106, PL-122, PL-105, PL-107, PL-109, PW1A and PW2	0.06	0.23	0.23	0.02	2.98	0.16	2.50	3,595.83	0.056
Insignificant Activities - Natural Gas Combustion Units - Process water heaters and ovens, Units PCS1, PCS3, PCD1 and PCC1	0.06	0.25	0.25	0.02	3.29	0.18	2.76	3,965.99	-
Falcon Graphite cutting/weld removal operation, (WRB1)	11.86	11.86	11.86	-	-	-	-	-	-
MIG and Stick Welding Station, WLD2	0.41	0.41	0.41	-	-	-	-	-	0.01
MIG Welding Station, PL-119	-	-	-	-	-	-	-	-	-
Misc. VOC usage plant wide	0.41	0.41	0.41	-	-	3.56	-	-	0.96
Platinum Line Touch Up Painting Operation, PL-134	0.25	0.25	0.25	-	-	2.69	-	-	-
Total PTE of Entire Source	249.82	57.79	57.79	0.04	6.93	83.59	5.81	7,561.82	3.19

Process/ Emission Unit	Potential To Emit of the Entire Source Prior to Revision (tons/year)								
	PM	PM10*	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e**	Total HAPs
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	10
PSD Major Source Thresholds**	250	250	NA	250	250	250	250	100,000	NA
Emission Offset/ Nonattainment NSR Major Source Thresholds	NA	NA	100	NA	NA	NA	NA	NA	NA

- = negligible
 These emissions are based upon FESOP Renewal No. F063-28866-00046, issued on August 18, 2010.
 * Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
 **The 100,000 CO₂e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

- (a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).
- (b) 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 and this existing source is not a major stationary source, under nonattainment new source review rules (326 IAC 2-1.1-5) since direct PM_{2.5} is emitted at a rate of less than 100 tons per year.
- (c) This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because the unlimited potential to emit HAPs 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).

Description of Proposed Revision

The Office of Air Quality (OAQ) has reviewed an application, submitted by from Meritor Heavy Vehicle Systems, LLC on June 27, 2011, relating to a modification to an existing stationary transmission and brake rebuilding source. The source requested to add new emission units including two (2) conveyORIZED burn-off ovens, two (2) drum blast units and one (1) paint hook burn-off oven. In addition the source requested that emission units which are no longer at the source be removed from their permit.

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

- (1) One (1) drumblast abrasive blasting unit, identified as DB-1, approved in 2011 for construction, with a maximum capacity of 11,220 pounds of parts processed per hour, using a maximum capacity of 84,000 pounds of steel shot per hour, using a common dust collector for particulate control, identified as (DBDC-1) for particulate control, and exhausting to stack DBDC-1S1.
- (2) One (1) drumblast abrasive blasting unit, identified as DB-2, approved in 2011 for construction, with a maximum capacity of 11,220 pounds of parts processed per hour, using a maximum capacity of 84,000 pounds of steel shot per hour, using a common dust collector for particulate control, identified as (DBDC-1) for particulate control, and exhausting to stack DBDC-1S1.

- (3) One (1) common dust collector, identified as (DBDC-1), with a maximum gas stream flow rate of 7,000 ACFM, controlling PM, PM10 and PM2.5 from DB-1 and DB-2, and exhausting to stack DBDC-1S1.
- (4) One (1) natural gas-fired conveyORIZED burn-off oven, identified as CBO-1, approved in 2011 for construction, equipped with a burner which has a maximum heat input capacity of 3.5 million British thermal units per hour (MMBtu/hr) and 170 pounds of residue combusted per hour, using a common thermal oxidizer (TO-1) as control, and exhausting to stacks CBO-2S1 and CBO-2S2.
- (5) One (1) natural gas-fired conveyORIZED burn-off oven, identified as CBO-2, approved in 2011 for construction, equipped with a burner which has a maximum heat input capacity of 3.5 million British thermal units per hour (MMBtu/hr) and 170 pounds of residue combusted per hour, using a common thermal oxidizer (TO-1) as control, and exhausting to stacks CBO-2S1 and CBO-2S2.
- (6) One (1) natural gas-fired thermal oxidizer, identified as TO-1, approved in 2011 for construction, with a maximum heat input capacity of 5.0 million British thermal units per hour (MMBtu/hr), and exhausting to stack TO-1S1.
- (7) One (1) natural gas-fired fluidized bed paint book burn-off oven, identified as PHBO-1, approved in 2011 for construction, with a capacity of 650 pounds of parts per hour, equipped with a burner which has a maximum heat input capacity of 1.6 million British thermal units per hour (MMBtu/hr), using a fume incineration thermal oxidizer (TO-2) as control, and exhausting indoors. [326 IAC 4-2]
- (8) One (1) natural gas-fired thermal oxidizer, identified as TO-2, approved in 2011 for construction, with a maximum heat input capacity of 0.4 million British thermal units per hour (MMBtu/hr), and exhausting to stack TO-2S1.

Enforcement Issues

There are no pending enforcement actions related to this revision.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – FESOP Revision

The following table is used to determine the appropriate permit level under 326 IAC 2-8.11.1. This table reflects the PTE before controls of the proposed revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Process/ Emission Unit	PTE of Proposed Revision (tons/year)								
	PM	PM10	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e	Total HAP s
Drum Blaster DB-1	1,471.68	1,265.64	1,265.64	-	-	-	-	-	-
Drum Blaster DB-2	1,471.68	1,265.64	1,265.64	-	-	-	-	-	-

Process/ Emission Unit	PTE of Proposed Revision (tons/year)								
	PM	PM10	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e	Total HAP s
Conveyorized Burn-Off Ovens CBO-1, CBO-2 and Paint Hook Burn-Off Oven PHBO-1 from Incineration	12.81	12.81	12.81	2.14	1.71	12.81	17.08	6,263.40	-
Conveyorized Burn-Off Ovens CBO-1, CBO-2 and Paint Hook Burn-Off Oven PHBO-1 from Natural Gas usage	0.07	0.28	0.28	0.02	3.70	0.20	3.11	4,463.68	0.07
TO-1 and TO-2 from Natural Gas usage	0.04	0.18	0.18	0.01	2.32	0.13	1.95	2,799.52	0.04
Total PTE of Proposed Revision	2,956.24	2,544.38	2,544.38	2.16	5.41	13.01	20.19	10,727.08	0.07

This FESOP is being revised through a FESOP Significant Permit Revision pursuant to 326 IAC 2-8-11.1(f)(1)(E)(i), because the revision involves the construction of two (2) drum blasters with potential to emit (PTE) greater than 25 tons per year. In addition, this FESOP is being revised through a FESOP Significant Permit Revision pursuant to 326 IAC 2-8-11.1(g)(2) because it involves adjustment to the existing source-wide emissions limitations to maintain the FESOP status of the source (see PTE of the Entire Source After The Issuance of the FESOP Revision Section).

PTE of the Entire Source After Issuance of the FESOP Revision

The table below summarizes the potential to emit of the entire source (reflecting adjustment of existing limits), with updated emissions shown as **bold** values and previous emissions shown as ~~strikethrough~~ values.

Process/ Emission Unit	Potential To Emit of the Entire Source to accommodate the Proposed Revision (tons/year)								
	PM	PM10*	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e**	Total HAPs
Abrasive/Mechanical Blasting, consisting of units:									
PL-100	8.54	1.80	1.80	-	-	-	-	-	-
PL-101	18.57	4.07	4.07	-	-	-	-	-	-
PL-104	2.44	0.70	0.70	-	-	-	-	-	-
PL-118	8.54	1.79	1.79	-	-	-	-	-	-
PL-123	17.83	2.54	2.54	-	-	-	-	-	-
PL-124	17.83	2.54	2.54	-	-	-	-	-	-
PL-125	25.19	12.70	12.70	-	-	-	-	-	-
***PL-126	23.55	11.77	11.77	-	-	-	-	-	-
***PL-127	23.55	11.77	11.77	-	-	-	-	-	-
***PL-128	17.83	2.32	2.32	-	-	-	-	-	-
***PL-129	17.83	2.32	2.32	-	-	-	-	-	-
		2.68	2.68						

Process/ Emission Unit	Potential To Emit of the Entire Source to accommodate the Proposed Revision (tons/year)								
	PM	PM10*	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e**	Total HAPs
***PL-130	17.83	2.32 2.68	2.32 2.68	-	-	-	-	-	-
***PL-131	18.09 9.51	0.83 4.75	0.83 4.75	-	-	-	-	-	-
***PL -132	31.71	5.06 5.89	5.06 5.89	-	-	-	-	-	-
***PL-133	31.71	2.53 5.89	2.53 5.89	-	-	-	-	-	-
Drum Blaster DB-1	29.43	14.72	14.72	-	-	-	-	-	-
Drum Blaster DB-2				-	-	-	-	-	-
Dip coating Booth, PL-121A - Line 1	0.04 0.00	0.04 0.00	0.04 0.00	-	-	27.10	-	-	-
Spray Paint Booth, PB-1, Line 2	0.55 0.28	0.55 0.28	0.55 0.28	-	-	8.98	-	-	-
Axle spray coating operation PL-131, Line 3, consisting of Spray Paint Booth PB-2	2.55	2.55	2.55	-	-	25.34	-	-	0.82
Spray Paint Booth, PB-4	0.15	0.15	0.15	-	-	0.78	-	-	1.34
Powder coating booth, PC1	0.04 0.09	0.04 0.09	0.04 0.09	-	-	3.66	-	-	-
Powder coating booth, PC1	0.01	0.01	0.01	-	-	3.66	-	-	-
Degreasing operations consisting of:									
Handwipe Operations	-	-	-	-	-	3.78	-	-	-
Cold Cleaner Degreaser Dip tanks, units - PL- 103, PL-111, PL- 112, PL-113, PL- 114, PL-115, PL- 116, PL-117 and PL-102 and PL- 120	-	-	-	-	-	4.88	-	-	-
Cold Cleaner Degreaser dip tank, unit CC11	-	-	-	-	-	1.22	-	-	-
Cold Cleaner Degreaser dip tank, unit CC12	-	-	-	-	-	1.22	-	-	-

Process/ Emission Unit	Potential To Emit of the Entire Source to accommodate the Proposed Revision (tons/year)								
	PM	PM10*	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e**	Total HAPs
Insignificant Activities - Bake-off Oven, PL-110 and Natural Gas Combustion Parts/aqueous Washers (Units - PL-106, PL-122, PL-105, PL-107, PL-109, PW1A and PW2)	0.06	0.23	0.23	0.02	2.98	0.16	2.50	3,595.83	0.056
Insignificant Activities - Natural Gas Combustion Units - Process water heaters and ovens, Units PCS1, PCS3, PCD1 and PCC1	0.06	0.25	0.25	0.02	3.29	0.18	2.76	3,965.99	-
Insignificant Activities - Natural Gas Combustion Parts/aqueous Washers (Units - PL-106, and PW2) and Process water heaters and ovens, Units PCS1, PCS3, PCD1 and PCC1	0.07	0.29	0.29	0.02	3.82	0.21	3.21	4,614.03	0.07
Falcon Graphite cutting/weld removal operation, (WRB1)	11.86	11.86	11.86	-	-	-	-	-	-
MIG and Stick Welding Station, WLD2	0.41	0.41	0.41	-	-	-	-	-	0.01
MIG Welding Station, PL-119	-	-	-	-	-	-	-	-	-
Misc. VOC usage plant wide	0.41	0.41	0.41	-	-	3.56	-	-	0.96
Platinum Line Touch Up Painting Operation, PL-134	0.25	0.25	0.25	-	-	2.69	-	-	-

Process/ Emission Unit	Potential To Emit of the Entire Source to accommodate the Proposed Revision (tons/year)								
	PM	PM10*	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e**	Total HAPs
Conveyorized Burn-Off Ovens CBO-1, CBO-2 and Paint Hook Burn-Off Oven PHBO-1 from Incineration	12.81	12.81	12.81	2.14	1.71	12.81	17.08	6,263.40	-
Conveyorized Burn-Off Ovens CBO-1, CBO-2 and Paint Hook Burn-Off Oven PHBO-1 from Natural Gas usage	0.07	0.28	0.28	0.02	3.70	0.20	3.11	4,463.68	0.07
TO-1 and TO-2 from Natural Gas usage	0.04	0.18	0.18	0.01	2.32	0.13	1.95	2,799.52	0.04
Total PTE of Entire Source	249.82 208.85	57.79 81.08	57.79 81.08	0.04 2.19	6.93 11.55	82.59 95.78	5.81 25.35	7,561.82 18,140.63	3.19 1.98
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	10
PSD Major Source Thresholds**	250	250	NA	250	250	250	250	100,000	NA
Emission Offset/ Nonattainment NSR Major Source Thresholds	NA	NA	100	NA	NA	NA	NA	NA	NA
<p>- = negligible See Appendix A of this tsd for detailed calculations. The source requested that emission units which are no longer at the source be removed from their permit; therefore, those emission units have been removed from the table above. * Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". **The 100,000 CO₂e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD. ***The existing PM, PM10 and PM2.5 limits have been revised in order to allow for emissions from the new Abrasive Blasting equipment at the source in order for the source to comply with 326 IAC 2-8 (FESOP) and in order for the source to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable.</p>									

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

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Revision (tons/year)								
	PM	PM10*	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e**	Total HAPs
Abrasive/Mechanical Blasting, consisting of units:									
***PL-126				-	-	-	-	-	-
***PL-127	23.55	11.77	11.77	-	-	-	-	-	-
***PL-128	17.83	2.68	2.68	-	-	-	-	-	-
***PL-129	17.83	2.68	2.68	-	-	-	-	-	-
***PL-130	17.83	2.68	2.68	-	-	-	-	-	-
***PL-131	9.51	4.75	4.75	-	-	-	-	-	-
***PL -132	31.71	5.89	5.89	-	-	-	-	-	-
***PL-133	31.71	5.89	5.89	-	-	-	-	-	-
Drum Blaster DB-1				-	-	-	-	-	-
Drum Blaster DB-2	29.43	14.72	14.72	-	-	-	-	-	-
Dip coating Booth, PL-121A - Line 1	0.00	0.00	0.00	-	-	27.10	-	-	-
Spray Paint Booth, PB-1, Line 2	0.28	0.28	0.28	-	-	8.98	-	-	-
Axle spray coating operation PL-131, Line 3, consisting of Spray Paint Booth PB-2	2.55	2.55	2.55	-	-	25.34	-	-	0.82
Powder coating booth, PC1	0.09	0.09	0.09	-	-	3.66	-	-	-
Powder coating booth, PC1	0.01	0.01	0.01	-	-	3.66	-	-	-
Degreasing operations consisting of:									
Handwipe Operations	-	-	-	-	-	3.78	-	-	-
Cold Cleaner Degreaser Dip tanks, units - PL-103, PL-111, PL-112, PL-113, PL-114, PL-115, PL-116, PL-117 and PL-102 and PL-120	-	-	-	-	-	4.88	-	-	-
Cold Cleaner Degreaser dip tank, unit CC11	-	-	-	-	-	1.22	-	-	-
Cold Cleaner Degreaser dip tank, unit CC12	-	-	-	-	-	1.22	-	-	-

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Revision (tons/year)								
	PM	PM10*	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e**	Total HAPs
Insignificant Activities - Natural Gas Combustion Parts/aqueous Washers (Units - PL-106, and PW2) and Process water heaters and ovens, Units PCS1, PCS3, PCD1 and PCC1	0.07	0.29	0.29	0.02	3.82	0.21	3.21	4,614.03	0.07
Falcon Graphite cutting/weld removal operation, (WRB1)	11.86	11.86	11.86	-	-	-	-	-	-
MIG and Stick Welding Station, WLD2	0.41	0.41	0.41	-	-	-	-	-	0.01
MIG Welding Station, PL-119	-	-	-	-	-	-	-	-	-
Misc. VOC usage plant wide	0.41	0.41	0.41	-	-	3.56	-	-	0.96
Platinum Line Touch Up Painting Operation, PL-134	0.25	0.25	0.25	-	-	2.69	-	-	-
Conveyorized Burn-Off Ovens CBO-1, CBO-2 and Paint Hook Burn-Off Oven PHBO-1 from Incineration	12.81	12.81	12.81	2.14	1.71	12.81	17.08	6,263.40	-
Conveyorized Burn-Off Ovens CBO-1, CBO-2 and Paint Hook Burn-Off Oven PHBO-1 from Natural Gas usage	0.07	0.28	0.28	0.02	3.70	0.20	3.11	4,463.68	0.07
TO-1 and TO-2 from Natural Gas usage	0.04	0.18	0.18	0.01	2.32	0.13	1.95	2,799.52	0.04
Total PTE of Entire Source	208.85	81.08	81.08	2.19	11.55	95.78	25.35	18,140.63	1.98
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	10
PSD Major Source Thresholds**	250	250	NA	250	250	250	250	100,000	NA

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Revision (tons/year)								
	PM	PM10*	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e**	Total HAPs
Emission Offset/ Nonattainment NSR Major Source Thresholds	NA	NA	100	NA	NA	NA	NA	NA	NA
- = negligible See Appendix A of this tsd for detailed calculations. The source requested that emission units which are no longer at the source be removed from their permit; therefore, those emission units have been removed from the table above. * Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". **The 100,000 CO ₂ e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD. ***The existing PM, PM10 and PM2.5 limits have been revised in order to allow for emissions from the new Abrasive Blasting equipment at the source in order for the source to comply with 326 IAC 2-8 (FESOP) and in order for the source to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable.									

(a) FESOP Status and Nonattainment NSR

This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP).

In order to comply with the requirements of 326 IAC 2-8-4 (FESOP) and in order to render the requirements of 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable, each of the abrasive blasting units equipped with baghouses/ cartridges, shall not exceed the following hourly PM₁₀ and PM_{2.5} emission limits:

Unit ID/Control Device	PM ₁₀ Emission Limits (pounds/hour)	PM _{2.5} Emission Limits (pounds/hour)
PL-126, and PL-127 / DC-6*	2.69	2.69
PL-128 / DC-8*	0.61	0.61
PL-129 / DC-9*	0.61	0.61
PL-130 / DC-10*	0.61	0.61
PL-131 / DC-11*	1.09	1.09
PL-132 / DC-12*	1.34	1.34
PL-133 / DC-13*	1.34	1.34
DB-1/ DBDC-1	3.36	3.36
DB-2/ DBDC-1		

*The existing PM10 and PM2.5 limits have been revised in order to allow for emissions from the new Abrasive Blasting equipment at the source in order for the source to comply with 326 IAC 2-8 (FESOP) and in order for the source to render the requirements of 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable.

Compliance with these limits, combined with the potential to emit PM10 and PM2.5 from all other emission units at this source, shall limit the source-wide total potential to emit of PM10 and PM2.5 to less than 100 tons per 12 consecutive month period, each, and shall render 326 IAC 2-7 (Part

70 Permits), 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), and 326 IAC 2-1.1-5 (Nonattainment New Source Review not applicable).

- (b) PSD Minor Source
 In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, each of the abrasive blasting operations shall not exceed the following hourly PM limits:

Unit ID / Control Device	Particulate Emission Limits (pounds / hour)
PL-126, and PL-127 / DC-6*	5.38
PL-128 / DC-8*	4.07
PL-129 / DC-9*	4.07
PL-130 / DC-10*	4.07
PL-131 / DC-11*	2.17
PL-132 / DC-12*	7.24
PL-133/ DC-13*	7.24
DB-1/ DBDC-1	6.72
DB-2/ DBDC-1	

*The existing PM limits have been revised in order to allow for emissions from the new Abrasive Blasting equipment at the source in order for the source to comply with 326 IAC 2-8 (FESOP) and in order for the source to render the requirements of 326 IAC 2-2 (PSD) not applicable.

Compliance with these limits, combined with the PM emissions from other emission units at this source, shall limit the source-wide PM emissions to less than two hundred fifty (250) tons per 12 consecutive month period, and render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

- (c) This revision will not change the minor status of the source, because the uncontrolled/unlimited potential to emit of any single HAP will still be less than ten (10) tons per year and the PTE of a combination of HAPs will still be less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.
- (d) This revision will not change the minor status of the source, because the uncontrolled/unlimited potential to emit greenhouse gases (GHGs) will still be less than the Title V subject to regulation threshold of one hundred thousand (100,000) tons of CO₂ equivalent emissions (CO₂e) per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

- (a) The requirements of the New Source Performance Standard for Incinerators, 40 CFR 60, Subpart E (326 IAC 12), are not included in the permit, since each of the burn-off ovens do not burn solid waste refuse consisting of more than 50% municipal type waste as defined in 40 CFR 60.51.
- (b) The requirements of the New Source Performance Standard for Large Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994 (40 CFR 60, Subpart Eb) are not included in this permit, because each of the burn-off ovens are not municipal waste combustors and do not combust municipal solid waste as defined in 40 CFR 60.51b.

- (c) The requirements of the New Source Performance Standard for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After January 20, 1996 (40 CFR 60, Subpart Ec) are not included in this permit, because each of the burn-off ovens are not hospital/medical/infectious waste incinerators as defined in 40 CFR 60.51c.
- (d) The requirements of the New Source Performance Standard for Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001 (40 CFR 60, Subpart AAAA) are not included in this permit, because each of the burn-off ovens are not Municipal waste combustion units as defined in 40 CFR 60.1465
- (e) The requirements of the New Source Performance Standard for Commercial and Industrial Solid Waste Incineration Units for Which Construction is Commenced After November 30, 1999 or for Which Modification or Reconstruction is Commenced on or After June 1, 2001 (40 CFR 60, Subpart CCCC) are not included in this permit, because each of the burn-off ovens unit are defined as a Part reclamation unit in 40 CFR 60.2265, which are exempt under 60.2020(k).
- (f) The requirements of the New Source Performance Standard for Other Solid Waste Incineration Units (40 CFR 60, Subpart EEEE) are not included in this permit, because each of the burn-off ovens do not meet the definition of a small municipal waste combustion unit or an institutional waste incineration unit provided in 40 CFR 60.2977.
- (g) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included for this proposed revision.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (h) The requirements of the National Emissions Standards for Hazardous Air Pollutants (NESHAPs) for Hazardous Waste Combustors (40 CFR 63, Subpart EEE, 326 IAC 20-28) are not included in this permit, because each of the burn-off ovens are not considered a hazardous waste incinerator as defined in 40 CFR 63.1201.
- (i) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources (40 CFR 63, Subpart JJJJJ (6J)), are not included in the permit for Meritor Heavy Vehicle Systems LLC because there are no boilers as defined in 40 CFR 63.11237 at this source.
- (j) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) Area Source Standards for Nine Metal Fabrication and Finishing Source Categories, Subpart XXXXXX are not included in the permit because this source is not primarily engaged in the operations in one of the nine source categories listed in paragraphs (a)(1) through (9) of 40 CFR 63.11514. In addition, Meritor Heavy Vehicle Systems, LLC actually operates under SIC code 3714 (Motor Vehicle Parts and Accessories), which is not identified in the list of Standard Industrial Classification (SIC) codes included in Table 1 of the Federal Register (FR) publication of the final rule; therefore, the requirements of NESHAP Subpart XXXXXX are not applicable to the source.
- (k) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included for this proposed revision.

Compliance Assurance Monitoring (CAM)

- (l) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the potential to emit of the source is limited to less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

State Rule Applicability Determination

State Rule Applicability - Entire Source

The following state rules are applicable to the proposed revision:

- (a) 326 IAC 2-8-4 (FESOP)
This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP). See PTE of the Entire Source After Issuance of the FESOP Revision Section above.
- (b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))
This modification to an existing PSD minor stationary source will not change the PSD minor status, because the potential to emit of all attainment regulated pollutants from the entire source will continue to be limited to less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply. See PTE of the Entire Source After Issuance of the FESOP Revision Section above.
- (c) 326 IAC 2-1.1-5 (Nonattainment New Source Review)
This modification to an existing minor stationary source under 326 IAC 2-1.1-5 (Nonattainment New Source Review) will not change the minor status, because the potential to emit of PM_{2.5} from the entire source will continue to be limited to less than 100 tons per year. Therefore, pursuant to 326 IAC 2-1.1-5, the Nonattainment New Source Review requirements do not apply. See PTE of the Entire Source After Issuance of the FESOP Revision Section above.
- (d) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The proposed revision is not subject to the requirements of 326 IAC 2-4.1, since the unlimited potential to emit of HAPs from the entire source is still 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.
- (e) 326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (f) 326 IAC 5-1 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
 - (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (g) 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.

Abrasive Blasting Operations

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

- (a) Pursuant to 326 IAC 6-3-2, the particulate emissions from each of the following processes shall not exceed the pound per hour limitations specified in the following table:

Emission unit ID	Baghouse ID	Maximum Process Weight (tons/hour) for each unit	326 IAC 6-3 Limit (lbs/hr) for each unit*
PL-126	DC-6	19.14	29.63
PL-127	DC-6	19.14	29.63
PL-128	DC-8	8.64	17.39
PL-129	DC-9	8.64	17.39
PL-130	DC-10	8.64	17.39
PL-131	DC-11	28.15	38.36
PL-132	DC-12	19.14	29.63
PL-133	DC-13	19.14	29.63

*The limits have been revised because the maximum process weight for each unit has been updated to include both the pounds of parts per hour plus the pounds of steel shot per hour.

The particulate emissions limitations from the above table shall be calculated using 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:

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

- (b) Pursuant to 326 IAC 6-3-2, the particulate emissions from each of the following processes shall not exceed the pound per hour limitations specified in the following table:

Emission unit ID	Baghouse ID	Maximum Process Weight (tons/hour) for each unit	326 IAC 6-3 Limit (lbs/hr) for each unit
DB-1	DBDC-1	47.61	44.12
DB-2	DBDC-1	47.61	44.12

The particulate emissions limitations from the above table shall be calculated using the following equation:

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

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

The control devices, identified as DC-6, DC-8 through DC-13 and DBDC-1 shall be in operation at all times the abrasive blasting operations are in operation, in order to comply with these limits.

Burn-Off Ovens and thermal oxidizers

326 IAC 4-2-2 (Incinerators)

Pursuant to 326 IAC 4-2-2 (Incinerators), the natural gas fired burn-off ovens, CBO-1, CBO-2, and PHBO-1, shall comply with the following:

- (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.

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)

326 IAC 6-2 applies to sources of indirect heating. The burn-off ovens and thermal oxidizers are not considered sources of indirect heating. Therefore, 326 IAC 6-2 does not apply.

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)

- (a) Pursuant to 326 IAC 6-3-1(b)(2), incineration is exempt. Therefore, 326 IAC 6-3 does not apply to the burn-off ovens.
- (b) The thermal oxidizers, identified as TO-1 and TO-2 are each exempt from the requirements of 326 IAC 6-3, because, pursuant to 326 IAC 1-2-59, liquid and gaseous fuels and combustion air are not considered as part of the process weight.

326 IAC 7-1.1-1 (Sulfur Dioxide Emissions Limitations)

The requirements of 326 IAC 7-1.1 are not applicable to any units at the source because the potential to emit sulfur dioxide (SO₂) from the source is less than ten (10) pounds per hour and twenty-five (25) tons per year.

326 IAC 9-1-2 (Carbon monoxide Emission Limits)

Pursuant to 326 IAC 9-1-2(a)(3), the Permittee shall not operate burn-off ovens, CBO-1, CBO-2, and PHBO-1, unless the waste gas stream is burned in one (1) of the following:

- (a) Direct-flame afterburner.

- (b) Secondary chamber.

The burn-off ovens, CBO-1, CBO-2, and PHBO-1, are each equipped with a thermal oxidizer afterburners. Therefore, they will comply with the rule requirements.

Compliance Determination, Monitoring and Testing Requirements

- (a) The compliance determination and monitoring requirements applicable to this proposed revision are as follows:

Emission Unit/Control	Operating Parameters	Frequency
cartridge dust collector DBDC-1	Pressure Drop 1.0 to 7.0 inches	Once per day

- (b) The testing requirements applicable to this proposed revision are as follows:

Testing Requirements				
Emission Unit	Control Device	Pollutant	Timeframe for Testing	Frequency of Testing
¹ PL-131	DC-11	PM, PM10 and PM2.5	No later than 180 days after the issuance date of this Significant Permit Revision No. 063-30665-00046.	once every five (5) years from the date of the prior valid compliance demonstration.
² DB-1	DBDC-1	PM, PM10 and PM2.5	No later than 180 days after initial startup of the two (2) drumblast abrasive blasting units, identified as DB-1 and DB-2	once every five (5) years from the date of the prior valid compliance demonstration.
² DB-2				

Note 1: PL-131 is the largest existing abrasive blasting unit.
 Note 2: DB-1 and DB-2 shall both be operating during testing.

Pursuant to 326 IAC 2-8-4 and in order to render the requirements of 326 IAC 2-1.1-5 (Nonattainment NSR) and 326 IAC 2-2 (PSD) not applicable, PL-131, DB-1 and DB-2 are limited. See PTE of the Entire Source After Issuance of the FESOP Revision Section above for details on the limits. Testing is required for the control devices for PL-131, DB-1 and DB-2 because these control devices must achieve a high level of control efficiency (greater than 75%) in order to comply with any applicable requirements and because the uncontrolled emissions from each unit exceed Title V major source threshold levels and Prevention of Significant Deterioration (PSD) threshold levels.

Proposed Changes

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

- The source name has changed. The permit has been revised as follows:*

~~ArvinMeritor~~ **Meritor Heavy Vehicle Systems, LLC**

2. *The source is adding new emission units including two (2) conveyORIZED burn-off ovens, two (2) drum blast units and one (1) paint hook burn-off oven. In addition the source requested that emission units which are no longer at the source be removed from their permit. IDEM, OAQ has updated the descriptive information in the permit as follows: Note: the numbering of the units corresponds to the numbering in the permit.*

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) tumblast finishing unit, identified as PL-124, installed after 1990, equipped with a baghouse (DC-7) 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.~~
- (g) ~~One (1) tumblast finishing unit, identified as PL-125, installed after 1990, equipped with a baghouse (DC-6) 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.~~
- (ha) One (1) twelve (12) cubic feet pangborn rotoblast barrel abrasive blasting unit #4, identified as PL-126, installed after 1990, **with a maximum capacity of 4,680 pounds of transmission and brake parts per hour, using a maximum capacity of 33,600 pounds of steel shot per hour**, equipped with a baghouse (DC-6) for particulate control, **and** exhausting inside the building, ~~capacity: 4,680 pounds of transmission and brake parts per hour, utilizing 33,600 pounds of steel shot per hour.~~
- (ib) One (1) twelve (12) cubic feet abrasive tumble blaster, identified PL-127, installed after 1990, **with a maximum capacity of 4,680 pounds of transmission and brake parts per hour, using a maximum capacity of 33,600 pounds of steel shot per hour**, equipped with a baghouse (DC-6) for particulate control, **and** exhausting inside the building, ~~capacity: 4,680 pounds of transmission and brake parts per hour, utilizing 33,600 pounds of steel shot per hour.~~

- (jc) One (1) abrasive tumble blast unit, identified as PL-128, installed in 2005, **with a maximum capacity of 1,980 pounds of transmission and brake parts per hour, using a maximum capacity of 15,300 pounds of steel shot per hour**, equipped with a cartridge dust collector (DC-8) for particulate control, **and** exhausting inside the building, ~~capacity: 1980 pounds of transmission and brake parts per hour, utilizing 15,300 pounds of steel shot per hour.~~
- (kd) One (1) abrasive tumble blast unit, identified as PL-129, installed in 2005, **with a maximum capacity of 1,980 pounds of transmission and brake parts per hour, using a maximum capacity of 15,300 pounds of steel shot per hour**, equipped with a cartridge dust collector (DC-9) for particulate control, **and** exhausting inside the building, ~~capacity: 1980 pounds of transmission and brake parts per hour, utilizing 15,300 pounds of steel shot per hour.~~
- (le) One (1) abrasive tumble blast unit, identified as PL-130, installed in 2005, **with a maximum capacity of 1,980 pounds of transmission and brake parts per hour, using a maximum capacity of 15,300 pounds of steel shot per hour**, equipped with a cartridge dust collector (DC-10) for particulate control, **and** exhausting inside the building, ~~capacity: 1980 pounds of transmission and brake parts per hour, utilizing 15,300 pounds of steel shot per hour.~~
- (mf) One (1) abrasive blasting unit, identified as PL-131, constructed in 2007, with a **maximum** capacity of 2,025 pounds of parts processed per hour, using a **maximum capacity of 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.
- (ng) One (1) steel blaster, identified PL-132, constructed in 2009, **with a maximum capacity of 4,680 pounds of transmission and brake parts per hour, using a maximum capacity of 33,600 pounds of steel shot per hour**, equipped with baghouse (DC-12) for particulate control, **and** exhausting inside the building, ~~capacity: 4,680 pounds of transmission and brake parts per hour, utilizing 33,600 pounds of steel shots per hour.~~
- (eh) One (1) steel blaster, identified PL-133, constructed in 2009, **with a maximum capacity of 4,680 pounds of transmission and brake parts per hour, using a maximum capacity of 33,600 pounds of steel shot per hour**, equipped with baghouse (DC-13) for particulate control, **and** exhausting inside the building, ~~capacity: 4,680 pounds of transmission and brake parts per hour, utilizing 33,600 pounds of steel shots per hour.~~
- (i) **One (1) drumblast abrasive blasting unit, identified as DB-1, approved in 2011 for construction, with a maximum capacity of 11,220 pounds of parts processed per hour, using a maximum capacity of 84,000 pounds of steel shot per hour, using a common dust collector for particulate control, identified as (DBDC-1) for particulate control, and exhausting to stack DBDC-1S1.**
- (j) **One (1) drumblast abrasive blasting unit, identified as DB-2, approved in 2011 for construction, with a maximum capacity of 11,220 pounds of parts processed per hour, using a maximum capacity of 84,000 pounds of steel shot per hour, using a common dust collector for particulate control, identified as (DBDC-1) for particulate control, and exhausting to stack DBDC-1S1.**
- (k) **One (1) common dust collector, identified as (DBDC-1), with a maximum gas stream flow rate of 7,000 ACFM, controlling PM, PM10 and PM2.5 from DB-1 and DB-2, and exhausting to stack DBDC-1S1.**

- (l) **One (1) natural gas-fired conveyORIZED burn-off oven, identified as CBO-1, approved in 2011 for construction, equipped with a burner which has a maximum heat input capacity of 3.5 million British thermal units per hour (MMBtu/hr) and 170 pounds of residue combusted per hour, using a common thermal oxidizer (TO-1) as control, and exhausting to stacks CBO-2S1 and CBO-2S2.**
- (m) **One (1) natural gas-fired conveyORIZED burn-off oven, identified as CBO-2, approved in 2011 for construction, equipped with a burner which has a maximum heat input capacity of 3.5 million British thermal units per hour (MMBtu/hr) and 170 pounds of residue combusted per hour, using a common thermal oxidizer (TO-1) as control, and exhausting to stacks CBO-2S1 and CBO-2S2.**
- (n) **One (1) natural gas-fired thermal oxidizer, identified as TO-1, approved in 2011 for construction, with a maximum heat input capacity of 5.0 million British thermal units per hour (MMBtu/hr), and exhausting to stack TO-1S1.**
- (po) One (1) dip coating booth, identified as PL-121A, installed after 1990, **with a maximum capacity of 750 metal brake shoes per hour, and** exhausting to stack PL-121A.,
~~capacity: 750 metal brake shoes per hour.~~
- (qp) One (1) spray paint booth, identified as PB-1, installed after 1990, equipped with two (2) HVLP spray guns, **with a maximum capacity of 40 transmission units per hour,** equipped with dry filters for particulate control, **and** exhausting to stack S-13.,
~~capacity: 40 transmission units per hour.~~
- (rq) One (1) axle spray coating operation, constructed 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, constructed in 2007, equipped with two (2) HVLP spray guns with a maximum application rate of 0.266 gallons per unit, using dry filters for particulate control and exhausting to stack SVPB-2.
- ~~(s) One (1) spray paint booth, identified as PB-4, constructed in 2008, equipped with two (2) HVLP spray guns with a maximum application rate of 0.20 gallons per hour, seven (7) pieces per hour, utilizing water based primer and black water reducible coat, using panel dry filters for particulate control and exhausting to stack SVPB-4.~~
- (tr) One (1) enclosed powder coating booth, identified as PC1, utilizing electrostatic airless gun, constructed in 2008, **with a maximum capacity of 0.087 pounds of powder per unit and 960 brake shoes per hour, with a maximum process throughput of 4.36 tons per hour,** equipped with integral cartridge filters for particulate control, ~~capacity: 0.087 pounds of powder per unit and 960 brake shoes per hour, with a maximum process throughput of 4.36 tons per hour and venting inside.~~
- (us) 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, **with a maximum capacity: of 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.
- (4) One (1) Cold Cleaner degreaser dip tank, identified as CC12, approved for construction in 2008, uncontrolled and using a maximum of 365 gallons of degreasing solvent per year.
- (vt) 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]

This stationary source also includes the following insignificant activities:

- ~~(a) 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]~~
- (a) One (1) natural gas-fired fluidized bed paint booth burn-off oven, identified as PHBO-1, approved in 2011 for construction, with a capacity of 650 pounds of parts per hour, equipped with a burner which has a maximum heat input capacity of 1.6 million British thermal units per hour (MMBtu/hr), using a fume incineration thermal oxidizer (TO-2) as control, and exhausting indoors. [326 IAC 4-2]**
- (b) One (1) natural gas-fired thermal oxidizer, identified as TO-2, approved in 2011 for construction, with a maximum heat input capacity of 0.4 million British thermal units per hour (MMBtu/hr), and exhausting to stack TO-2S1.**
- (bc) One (1) MIG welding station, identified as PL-119, installed after 1990, with a maximum wire consumption of 0.02 pounds per day.
- ~~(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, **with a maximum heat input capacity of 0.90 million British thermal units per hour, and** 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.~~
- (ie) One (1) natural gas-fired, aqueous parts washer, identified as PW2, approved for construction in 2008 using alkaline (non-VOC) detergents, **with a maximum heat input capacity of 0.5 million British thermal units per hour, and** exhausting to stack SVPW2., ~~capacity: 0.5 million British thermal units per hour.~~
- (jf) Natural Gas-fired combustion units:
- (1) One (1) natural gas-fired process water heater, identified as PCS1, approved for construction in 2008, **with a maximum heat input capacity of 2.0 million British thermal units per hour, and** exhausting to stack SVPW2., ~~capacity: 2.0 million British thermal units per hour.~~
- (2) One (1) natural gas-fired process water heater, identified as PCS3, approved for construction in 2008, **with a maximum heat input capacity of 1.5 million British thermal units per hour, and** exhausting to stack SVPW2., ~~capacity: 1.5 million British thermal units per hour.~~
- (3) One (1) natural gas-fired powder coat drying oven, identified as PCD1, approved for construction in 2008, **with a maximum heat input capacity of 1.5 million British thermal units per hour, and** exhausting to stack SVPW2., ~~capacity: 1.5 million British thermal units per hour.~~
- (4) One (1) natural gas-fired Powder coat curing oven, identified as PCC1, approved or construction in 2008, **with a maximum heat input capacity of 2.5 million British thermal units per hour, and** exhausting to stack SVPW2., ~~capacity: 2.5 million British thermal units per hour.~~
- (kg) One (1) MIG and stick welding station, identified as WLD2, approved for construction in 2009, ~~exhausting inside,~~ with a maximum wire consumption of 5.40 pounds per hour combined, **and exhausting inside.**
- (lh) Miscellaneous hand held equipment usage for paint application containing VOC, approved for construction in 2009, utilizing spray cans, roll coat method, ~~capacity: with~~ **combined VOC emissions** less than three (3) pounds per day ~~VOC.~~
- (mi) Platinum Line Touch Up Painting Operation, approved for construction in 2010, identified as PL-134, using spray/aerosol can, **with a maximum capacity is 3.37 gallons per day,** with no control, **and** exhausting inside the building
3. *The uncontrolled increase in PTE from the addition of two (2) drum blast units, identified as DB-1 and DB-2, is greater than the PSD Major Source Thresholds of 250 tons/yr for pollutants PM, PM10 and PM2.5. Therefore, pollutants PM, PM10 and PM2.5 have been limited in order to render the requirements of 326 IAC 2-2 (PSD) and the requirements of 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable and in order to comply with the requirements of 326 IAC 2-8-4 (FESOP) for to this revision. In addition some of the existing source-wide emissions limitations to maintain the FESOP status of the source have also been adjusted. Testing requirements for the control devices for PL-131, DB-1 and DB-2 have been added.*

Therefore Section D.1 of the permit has been revised as described below:

D.1.1 FESOP [326 IAC 2-8-4] [326 IAC 2-2] [326 IAC 2-1.1-5]

Pursuant to 326 IAC 2-8-4 and in order to render the requirements of 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable, each of the abrasive blasting units equipped with baghouses/ cartridges, shall not exceed the following hourly PM₁₀ and PM_{2.5} emission limits:

Unit ID/Control Device	PM ₁₀ Emission Limits (pounds/hour)	PM _{2.5} Emission Limits (pounds/hour)
PL-100 / DC-1	0.41	0.41
PL-101 / DC-2	0.93	0.93
PL-104 / DC-3	0.16	0.16
PL-118 / DC-4	0.41	0.41
PL-123 / DC-5	0.58	0.58
PL-124 / DC-7	0.58	0.58
PL-125, PL-126, and PL-127 / DC-6	2.90 2.69	2.90 2.69
PL-128 / DC-8	0.53 0.61	0.53 0.61
PL-129 / DC-9	0.53 0.61	0.53 0.61
PL-130 / DC-10	0.53 0.61	0.53 0.61
PL-131 / DC-11	0.19 1.09	0.19 1.09
PL-132 / DC-12	1.156 1.34	1.156 1.34
PL-133 / DC-13	0.578 1.34	0.578 1.34
DB-1/ DBDC-1	3.36	3.36
DB-2/ DBDC-1		

Compliance with these limits, combined with the PM₁₀ and PM_{2.5} from other emission units, shall limit emissions from the entire source to less than one hundred (100) tons per year for PM₁₀ and PM_{2.5} each and render the requirements of 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (PSD) not applicable.

Compliance with these limits, combined with the potential to emit PM10 and PM2.5 from all other emission units at this source, shall limit the source-wide total potential to emit of PM10 and PM2.5 to less than 100 tons per 12 consecutive month period, each, and shall render 326 IAC 2-7 (Part 70 Permits), 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), and 326 IAC 2-1.1-5 (Nonattainment New Source Review not applicable).

D.1.2 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 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	4.95
PL-101 / DC-2	1.05	4.24
PL-104 / DC-3	0.05	0.551
PL-118 / DC-4	0.33	4.95
PL-123 / DC-5	0.99	4.07

Unit ID/Control Device	Process Weight Rate (ton/hour)	Particulate Emission Limits (pound/hour)
PL-125 / DC-6	0.99	4.07
PL-126 / DC-6	2.34	7.25
PL-127 / DC-6	2.34	7.25
PL-124 / DC-7	0.99	4.07
PL-128 / DC-8	0.99	4.07
PL-129 / DC-9	0.99	4.07
PL-130 / DC-10	0.99	4.07
PL-131 / DC-11	1.01	4.13
PL-132 / DC-12	2.34	7.25
PL-133 / DC-13	2.34	7.25

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

D.1.32 PM PSD Limits [326 IAC 2-2]

Pursuant to 326 IAC 2-2, the allowable particulate emission rates from the abrasive blasting operations shall be limited as follows: **In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, each of the abrasive blasting operations shall not exceed the following hourly PM limits:**

Unit ID / Control Device	Particulate Emission Limits (pounds / hour)
PL-100 / DC-1	4.95
PL-101 / DC-2	4.24
PL-104 / DC-3	0.551
PL-118 / DC-4	4.95
PL-123 / DC-5	4.07
PL-124 / DC-7	4.07
PL-125, PL-126, and PL-127 / DC-6	5.75 5.38
PL-128 / DC-8	4.07
PL-129 / DC-9	4.07
PL-130 / DC-10	4.07
PL-131 / DC-11	4.13 2.17
PL-132 / DC-12	7.24
PL-133 / DC-13	7.24
DB-1/ DBDC-1	6.72
DB-2/ DBDC-1	

~~This source shall comply with these limits through the use of the control devices, DC-1 through DC-13.~~

Compliance with these limits, combined with the PM **emissions** from other emission units **at this source**, shall limit **the source-wide PM** emissions ~~from the entire source~~ to less than two hundred fifty (250) tons per year for **PM 12 consecutive month period**, and render the requirements of 326 IAC 2-2 (**Prevention of Significant Deterioration (PSD)**) not applicable.

D.1.3 Particulate Emissions Limitations [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2, the particulate emissions from each of the following processes shall not exceed the pound per hour limitations specified in the following table:

Emission unit ID	Baghouse ID	Maximum Process Weight (tons/hour) for each unit *	326 IAC 6-3 Limit (lbs/hr) for each unit
PL-126	DC-6	19.14	29.63
PL-127	DC-6	19.14	29.63
PL-128	DC-8	8.64	17.39
PL-129	DC-9	8.64	17.39
PL-130	DC-10	8.64	17.39
PL-131	DC-11	28.15	38.36
PL-132	DC-12	19.14	29.63
PL-133	DC-13	19.14	29.63

*The process weight consists of the weight of the parts being processed and the amount of steel shot used.

The particulate emissions limitations from the above table shall be calculated using 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:

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

(b) Pursuant to 326 IAC 6-3-2, the particulate emissions from each of the following processes shall not exceed the pound per hour limitations specified in the following table:

Emission unit ID	Baghouse ID	Maximum Process Weight (tons/hour) for each unit *	326 IAC 6-3 Limit (lbs/hr) for each unit
DB-1	DBDC-1	47.61	44.12
DB-2	DBDC-1	47.61	44.12

*The process weight consists of the weight of the parts being processed and the amount of steel shot used.

The particulate emissions limitations from the above table shall be calculated using the following equation:

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

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

...

D.1.5 Particulate Control

In order to comply with Conditions D.1.1, ~~and D.1.2, and D.1.3~~, the baghouses/cartridges, identified as ~~DC-1 through DC-13~~ **DC-6, DC-8 through DC-13, and DBDC-1**, 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.

D.1.6 Testing Requirements [326 IAC 2-1.1-11]

- (a) No later than 180 days after the issuance date of this Significant Permit Revision No. 063-30665-00046, the Permittee shall conduct PM, PM₁₀, PM_{2.5} testing on the dust collection system, identified as DC-11, controlling the abrasive blasting unit, identified as PL-131, in order to verify the compliance status with Conditions D.1.1 and D.1.2.
- (b) No later than 180 days after initial startup of the two (2) drumblast abrasive blasting units, identified as DB-1 and DB-2, the Permittee shall conduct PM, PM₁₀, and PM_{2.5} testing on the common dust collector DBDC-1 controlling emissions from two (2) drumblast abrasive blasting units, identified as DB-1 and DB-2, in order to verify the compliance status with Conditions D.1.1 and D.1.2. Note: DB-1 and DB-2 shall both be operating during testing.

These tests shall be conducted utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of the prior valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). PM₁₀ and PM_{2.5} include filterable and condensable PM. Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

...

D.1.67 Broken or Failed Bag/Cartridge Detection

...

D.1.8 Visible Emissions Notations

- (a) Visible emission notations of the stack exhaust (DBDC-1S1) shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.**
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.**
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.**
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.**
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.**

D.1.79 Baghouse Parametric Monitoring

- (a) The Permittee shall record the pressure drop across each baghouse 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 each baghouse 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. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.**
- (b) The Permittee shall record the pressure drop across ~~the~~ each 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~~ each 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.**

D.1.810 Record Keeping Requirements

- (a) To document the compliance status with Condition D.1.8, the Permittee shall maintain records of visible emission notations of the stack exhaust (DBDC-1S1) once per day. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (i.e., the process did not operate that day).**

- (ab) To document the compliance status with Condition D.1.69, 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).
- (bc) Section C - General Record Keeping Requirements, of this permit contains the Permittee's obligation with regard to the reports required by this condition.

4. *The source never installed the spray paint booth, identified as PB-4. Therefore, Section D.2 of the permit has been revised as described below:*

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, ~~PB-4~~, and PC1 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.

...

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

- (a) Pursuant to 326 IAC 6-3-2(d) (Particulate Emission Limitations for Manufacturing Processes), particulate from each of the paint booths PL-121A, PB-1, PB-2, ~~PB-4~~ and powder coating booth, PC1 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 is required for spray paint booths PB-1, PB-2, ~~PB-4~~, and powder coating booth PC1, associated control devices and powder cartridge filtration system which is considered integral to the system. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventative maintenance plan required by this condition.

...

D.2.5 Particulate Control

In order to comply with Condition D.2.2(a), the dry filters for particulate control shall be in operation and control emissions from the paint booths PL-121A, PB-1, **and** PB-2 ~~and PB-4~~ at all times that the paint booths are in operation. In order to comply with Condition D.2.2(b), the cartridge filtration system integral to the powder coating booth, shall be in operation at all times when powder coating booth, identified as PC1, is in operation.

...

D.2.7 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 PL-121A, PB-1, **and** PB-2 ~~and PB-4~~. 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-4~~ 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.

5. *The source is adding two (2) conveyORIZED burn-off ovens and one (1) paint hook burn-off oven. In addition, the source is removing the bake-off oven PL-110. Therefore, Section D.4 of the permit has been revised as described below:*

D.4.2 Incinerator Requirements [326 IAC 4-2]

Pursuant to 326 IAC 4-2, the ~~bake~~**burn-off ovens** 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.4.3 Carbon Monoxide Emission Limits [326 IAC 9-1-2]

Pursuant to 326 IAC 9-1-2(a)(3), the Permittee shall not operate ~~bake~~**burn-off ovens, PL-110**, unless the waste gas stream is burned in one (1) of the following:

- (a) Direct-flame afterburner.
- (b) Secondary chamber.

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on June 27, 2011.

The construction and operation of this proposed revision shall be subject to the conditions of the attached proposed FESOP Significant Revision No. 063-30665-00046. The staff recommends to the Commissioner that this FESOP Significant Revision be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Sarah Conner, Ph. D. at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) (234-6555) or toll free at 1-800-451-6027 extension (4-6555).
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.in.gov/idem

**Appendix A: Emission Calculations
Emissions Summary For Revision**

Company Name: Meritor Heavy Vehicle Systems, LLC
Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
Significant Permit Revision: 063-30665-00046
First Permit Renewal No: F063-30665-00046
Reviewer: Sarah Conner, Ph. D.
Date: 7/25/2011

Unlimited Potential to Emit of New Units (Tons/yr)									
Emissions Unit	PM	PM10	PM2.5	SO2	Nox	VOC	CO	GHGs as CO2e (tons/yr)	Total HAPs
Drum Blaster DB-1	1,471.68	1,265.64	1,265.64	-	-	-	-	-	-
Drum Blaster DB-2	1,471.68	1,265.64	1,265.64	-	-	-	-	-	-
Conveyorized Burn-Off Ovens CBO-1, CBO-2 and Paint Hook Burn-Off Oven PHBO-1 from Incineration	12.81	12.81	12.81	2.14	1.71	12.81	17.08	6,263.40	-
Conveyorized Burn-Off Ovens CBO-1, CBO-2 and Paint Hook Burn-Off Oven PHBO-1 from Natural Gas usage	0.07	0.28	0.28	0.02	3.70	0.20	3.11	4,463.68	0.07
TO-1 and TO-2 from Natural Gas usage	0.04	0.18	0.18	0.01	2.32	0.13	1.95	2,799.52	0.04
TOTAL	2,956.24	2,544.38	2,544.38	2.16	5.41	13.01	20.19	10,727.08	0.07

- = negligible

Limited Emissions of New Units after Revision (Tons/yr)									
Emissions Unit	PM	PM10	PM2.5	SO2	Nox	VOC	CO	GHGs as CO2e (tons/yr)	Total HAPs
Drum Blaster DB-1	29.43	14.72	14.72	-	-	-	-	-	-
Drum Blaster DB-2				-	-	-	-	-	-
Conveyorized Burn-Off Ovens CBO-1, CBO-2 and Paint Hook Burn-Off Oven PHBO-1 from Incineration	12.81	12.81	12.81	2.14	1.71	12.81	17.08	6,263.40	-
Conveyorized Burn-Off Ovens CBO-1, CBO-2 and Paint Hook Burn-Off Oven PHBO-1 from Natural Gas usage	0.07	0.28	0.28	0.02	3.70	0.20	3.11	4,463.68	0.07
TO-1 and TO-2 from Natural Gas usage	0.04	0.18	0.18	0.01	2.32	0.13	1.95	2,799.52	0.04
TOTAL	42.36	27.99	27.99	2.17	7.72	13.14	22.14	13,526.61	0.11

- = negligible

**Appendix A: Emission Calculations
Summary of Emissions**

Company Name: Meritor Heavy Vehicle Systems, LLC
Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
Significant Permit Revision: 063-30665-00046
First Permit Renewal No: F063-30665-00046
Reviewer: Sarah Conner, Ph. D.
Date: 7/25/2011

Limited Emissions from the Entire Source After Revision (tons/year)									
	PM	PM10	PM2.5	SO ₂	Nox	VOC	CO	GHGs as CO ₂ e (tons/yr)	Total HAPs
Abrasive/Mechanical Blasting, consisting of units:									
PL-126	23.55	11.77	11.77	-	-	-	-	-	-
PL-127				-	-	-	-	-	-
PL-128	17.83	2.68	2.68	-	-	-	-	-	-
PL-129	17.83	2.68	2.68	-	-	-	-	-	-
PL-130	17.83	2.68	2.68	-	-	-	-	-	-
PL-131	9.51	4.75	4.75	-	-	-	-	-	-
PL-132	31.71	5.89	5.89	-	-	-	-	-	-
PL-133	31.71	5.89	5.89	-	-	-	-	-	-
Drum Blaster DB-1				-	-	-	-	-	-
Drum Blaster DB-2	29.43	14.72	14.72	-	-	-	-	-	-
¹ Dip coating Booth, PL-121A - Line 1	0.00	0.00	0.00	-	-	27.10	-	-	-
¹ Spray Paint Booth, PB-1, Line 2	0.28	0.28	0.28	-	-	8.98	-	-	-
¹ One (1) spray paint booth, identified as PB-2	2.55	2.55	2.55	-	-	25.34	-	-	0.82
² Powder coating booth, PC1	0.09	0.09	0.09	-	-	3.66	-	-	-
Degreasing operations consisting of:									
Handwipe Operations									
Cold Cleaner Degreaser Dip tanks, units - PL-103, PL-111, PL-112, PL-113, PL-114, PL-115, PL-116, PL-117 and PL-102 and PL-120	-	-	-	-	-	4.88	-	-	-
Cold Cleaner Degreaser dip tank, unit CC11	0.00	0.00	0.00	-	-	1.22	-	-	0.00
Cold Cleaner Degreaser dip tank, unit CC12	0.00	0.00	0.00	-	-	1.22	-	-	0.00
Insignificant Activities - Natural Gas Combustion Parts/aqueous Washers (Units - PL-106, and PW2) and Process water heaters and ovens, Units PCS1, PCS3, PCD1 and PCC1	0.07	0.29	0.29	0.02	3.82	0.21	3.21	4,614.03	0.07
Falcon Graphite cutting/weld removal operation, (WRB1)	11.86	11.86	11.86	-	-	-	-	-	0.00
MIG and Stick Welding Station, WLD2	0.41	0.41	0.41	-	-	-	-	-	0.01
MIG Welding Station, PL-119	0.00	0.00	0.00	-	-	-	-	-	0.00
Misc. VOC usage plant wide	0.41	0.41	0.41	-	-	3.56	-	-	0.96
Platinum Line Touch Up Painting Operation, PL-134	0.85	0.85	0.85	-	-	2.69	-	-	-
Conveyorized Burn-Off Ovens CBO-1, CBO-2 and Paint Hook Burn-Off Oven PHBO-1 from Incineration	12.81	12.81	12.81	2.14	1.71	12.81	17.08	6,263.40	-
Conveyorized Burn-Off Ovens CBO-1, CBO-2 and Paint Hook Burn-Off Oven PHBO-1 from Natural Gas usage	0.07	0.28	0.28	0.02	3.70	0.20	3.11	4,463.68	0.07
TO-1 and TO-2 from Natural Gas usage	0.04	0.18	0.18	0.01	2.32	0.13	1.95	2,799.52	0.04
TOTAL PTE	208.85	81.08	81.08	2.19	11.55	95.78	25.35	18,140.63	1.98

- = negligible

Note 1: For the booths above, the controlled emissions are shown for PM, PM10 and PM2.5 because they are required to operate the filters pursuant to 326 IAC 6-3-2(d).

Note 2: PC1 has integral cartridge filters; therefore, the PTE shown above is after the control.

**Appendix A: Emission Calculations
Incinerator (CBO-1, CBO-2, and PHBO-1)**

Company Name: Meritor Heavy Vehicle Systems, LLC
Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
Significant Permit Revision: 063-30665-00046
First Permit Renewal No: F063-30665-00046
Reviewer: Sarah Conner, Ph. D.
Date: 7/25/2011

Emission Unit	THROUGHPUT (lbs/hr)
¹ CBO-1	170
¹ CBO-2	170
PHBO-1	50
Total	390

THROUGHPUT lbs/hr 390

THROUGHPUT
ton/yr
1708.2

Emission Factor in lb/ton	POLLUTANT				
	PM	SO2	CO	² VOC	NOX
	15.0	2.5	20.0	15.0	2.0
Potential Emissions in ton/yr	12.81	2.14	17.08	12.81	1.71
³ Controlled Emissions in tons/yr	0.64	2.14	0.85	0.64	1.71

Note 1: The process combusts the dry paint residue off of brake shoes. The paint residue is similar to ink, paper, plastic and other refuse that an industrial furnace would burn. The burn-off process chars the paint residual on the part, leaving an ash residue. This combusted residue is then subsequently removed by shot blasting. This residue on the part is similar to that which is burned in an industrial furnace.

Note 2: as methane

Note 3: The oxidizers in this case burns the CO, VOC, organic condensibles and carbon into products of complete combustion, namely CO2 and H2O. The expected control efficiency from both TO-1 and TO-2 is 95% for pollutants, PM, PM10, PM2.5, VOC and CO.

See estimated CO2 calculations under methodology

Methodology

Emission factors are from AP 42 (5th Edition 1/95) Table 2.1-12, Uncontrolled emission factors for industrial/commercial refuse combustors, single chamber.

Residual Material Combusted (lb epoxy paint residue/part)	0.20	lb/part
Parts per hour	850.00	parts/hr/oven
Total Pounds Residue Combusted per Conveyorized Burn-off Oven	170.00	lb/hr
Total Pounds Residue Combusted in both Conveyorized Burn-off Ovens	340.00	lb/hr
Residual Material Combusted (lb paint residue/part)	1.00	lb residue/paint hook
Paint Hooks per hour	50.00	hooks/hr
Total Pounds Residue Combusted in Pyro-Strip Fluidized Bed Burn-off Oven	50.00	lb/hr

Throughput (lb/hr) * 8760 hr/yr * ton/2000 lb = throughput (ton/yr)

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

There are no emission factors for CO2, CH4 or N2O in Chapter 2.1 Refuse Combustion. Therefore, the CO2 emissions were estimated as a worse case assuming that all of the paint burned off becomes CO2 as follows:

$$390 \text{ pound/hr} \times 44 \text{ (MW of CO}_2\text{)} / 12 \text{ (MW of C)} \times 8760 \text{ hr/yr} \times 1 \text{ ton/2,000 pounds} = \text{Estimated worse case tons of CO}_2\text{ per year.}$$

$$= 6263.4 \text{ worse case tons of CO}_2\text{ per year.}$$

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
(TO-1 and TO-2)**

Company Name: Meritor Heavy Vehicle Systems, LLC
Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
Significant Permit Revision: 063-30665-00046
First Permit Renewal No: F063-30665-00046
Reviewer: Sarah Conner, Ph. D.
Date: 7/25/2011

Emission Unit	Total Heat Input Capacity (MMBtu/hr)
TO-1	5.000
TO-2	0.400
TOTAL	5.40

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

5.40

46.4

for all direct heating units

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	PM2.5	SO ₂	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.044	0.176	0.176	0.014	2.319	0.128	1.948

*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

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,020,000 Cubic Feet of Gas

NOx and CO Emission Factors are from AP 42, Chapter 1.4, Table 1.4-1

PM, SO₂, CO₂, N₂O and Methane Emission Factors are from AP 42, Chapter 1.4, Table 1.4-2

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

See next page for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions
(TO-1 and TO-2)

Company Name: Meritor Heavy Vehicle Systems, LLC
Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
Significant Permit Revision: 063-30665-00046
First Permit Renewal No: F063-30665-00046
Reviewer: Sarah Conner, Ph. D.
Date: 7/25/2011

Emission Factor in lb/MMcf	HAPs - Organics				
	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	4.87E-05	2.78E-05	0.0017	0.0417	7.88E-05

Emission Factor in lb/MMcf	HAPs - Metals					
	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total
Potential Emission in tons/yr	1.16E-05	2.55E-05	3.25E-05	8.81E-06	4.87E-05	0.044

Methodology is the same as previous page.

Organic HAPs Emission Factors are from AP 42, Chapter 1.4, Table 1.4-3

Metal HAPs Emission Factors are from AP 42, Chapter 1.4, Table 1.4-4

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4, Tables 1.4-3 and 1.4-4

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Greenhouse Gas Emissions
(TO-1 and TO-2)

Company Name: Meritor Heavy Vehicle Systems, LLC
Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
Significant Permit Revision: 063-30665-00046
First Permit Renewal No: F063-30665-00046
Reviewer: Sarah Conner, Ph. D.
Date: 7/25/2011

Emission Factor in lb/MMcf	Greenhouse Gas		
	CO2	CH4	N2O
120,000	2.3	2.2	
Potential Emission in tons/yr	2,782.59	0.05	0.05
Summed Potential Emissions in tons/yr	2,782.69		
CO2e Total in tons/yr	2,799.52		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.

Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.

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

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

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

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
(CBO-1, CBO-2, and PHBO-1)**

Company Name: Meritor Heavy Vehicle Systems, LLC
Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
Significant Permit Revision: 063-30665-00046
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Reviewer: Sarah Conner, Ph. D.
Date: 7/25/2011

Emission Unit	Total Heat Input Capacity (MMBtu/hr)
CBO-1	3.500
CBO-2	3.500
PHBO-1	1.610
TOTAL	8.61

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

8.61

73.9

for all direct heating units

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	PM2.5	SO ₂	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.070	0.281	0.281	0.022	3.697	0.203	3.106
¹ Controlled Emissions in tons/yr	0.004	0.014	0.014	0.022	3.697	0.010	0.155

*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

Note 1: The expected control efficiency from both TO-1 and TO-2 is 95% for pollutants, PM, PM10, PM2.5, VOC and CO.

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,020,000 Cubic Feet of Gas

NOx and CO Emission Factors are from AP 42, Chapter 1.4, Table 1.4-1

PM, SO₂, CO₂, N₂O and Methane Emission Factors are from AP 42, Chapter 1.4, Table 1.4-2

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

See next page for HAPs emissions calculations.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions
(CBO-1, CBO-2, and PHBO-1)**

**Company Name: Meritor Heavy Vehicle Systems, LLC
Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
Significant Permit Revision: 063-30665-00046
First Permit Renewal No: F063-30665-00046
Reviewer: Sarah Conner, Ph. D.
Date: 7/25/2011**

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	7.76E-05	4.44E-05	0.0028	0.0666	1.26E-04

HAPs - Metals						
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total
Potential Emission in tons/yr	1.85E-05	4.07E-05	5.18E-05	1.40E-05	7.76E-05	0.070

Methodology is the same as previous page.

Organic HAPs Emission Factors are from AP 42, Chapter 1.4, Table 1.4-3

Metal HAPs Emission Factors are from AP 42, Chapter 1.4, Table 1.4-4

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4, Tables 1.4-3 and 1.4-4

**Appendix A: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 Greenhouse Gas Emissions
 (CBO-1, CBO-2, and PHBO-1)**

**Company Name: Meritor Heavy Vehicle Systems, LLC
 Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
 Significant Permit Revision: 063-30665-00046
 First Permit Renewal No: F063-30665-00046
 Reviewer: Sarah Conner, Ph. D.
 Date: 7/25/2011**

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	4,436.68	0.09	0.08
Summed Potential Emissions in tons/yr	4,436.85		
CO2e Total in tons/yr	4,463.68		

Methodology

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

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

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

Company Name: Meritor Heavy Vehicle Systems, LLC
Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
Significant Permit Revision: 063-30665-00046
First Permit Renewal No: F063-30665-00046
Reviewer: Sarah Conner, Ph. D.
Date: 7/25/2011

Emission Unit	Total Heat Input Capacity (MMBtu/hr)
PL-106	0.90
PW2	0.50
Process water heater - PCS1	2.0
Process water heater - PCS3	1.5
Powder coating drying oven - PCD1	1.5
Powder coat curing oven - PCC1	2.5
TOTAL	8.90

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

8.90

76.4

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	PM2.5	SO ₂	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.073	0.290	0.290	0.023	3.822	0.210	3.210

*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

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,020,000 Cubic Feet of Gas

NOx and CO Emission Factors are from AP 42, Chapter 1.4, Table 1.4-1

PM, SO₂, CO₂, N₂O and Methane Emission Factors are from AP 42, Chapter 1.4, Table 1.4-2

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

See next page for HAPs emissions calculations.

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

Company Name: Meritor Heavy Vehicle Systems, LLC
Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
Significant Permit Revision: 063-30665-00046
First Permit Renewal No: F063-30665-00046
Reviewer: Sarah Conner, Ph. D.
Date: 7/25/2011

Emission Factor in lb/MMcf	HAPs - Organics				
	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	8.03E-05	4.59E-05	0.0029	0.0688	1.30E-04

Emission Factor in lb/MMcf	HAPs - Metals					Total
	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	
Potential Emission in tons/yr	1.91E-05	4.20E-05	5.35E-05	1.45E-05	8.03E-05	0.072

Methodology is the same as previous page.

Organic HAPs Emission Factors are from AP 42, Chapter 1.4, Table 1.4-3

Metal HAPs Emission Factors are from AP 42, Chapter 1.4, Table 1.4-4

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4, Tables 1.4-3 and 1.4-4

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

Company Name: Meritor Heavy Vehicle Systems, LLC
Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
Significant Permit Revision: 063-30665-00046
First Permit Renewal No: F063-30665-00046
Reviewer: Sarah Conner, Ph. D.
Date: 7/25/2011

Emission Factor in lb/MMcf	Greenhouse Gas		
	CO2	CH4	N2O
120,000	2.3	2.2	
Potential Emission in tons/yr	4,586.12	0.09	0.08
Summed Potential Emissions in tons/yr	4,586.29		
CO2e Total in tons/yr	4,614.03		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
 Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
 Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
 $CO_2e \text{ (tons/yr)} = CO_2 \text{ Potential Emission ton/yr} \times CO_2 \text{ GWP (1)} + CH_4 \text{ Potential Emission ton/yr} \times CH_4 \text{ GWP (21)} + N_2O \text{ Potential Emission ton/yr} \times N_2O \text{ GWP (310)}$.

**Appendix A: Emissions Calculations
Abrasive Blasting
(Using Steel Shot)**

Company Name: Meritor Heavy Vehicle Systems, LLC
Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
Significant Permit Revision: 063-30665-00046
First Permit Renewal No: F063-30665-00046
Reviewer: Sarah Conner, Ph. D.
Date: 7/25/2011

Emission Unit	Uncontrolled Emission Factor PM (pound/pound)	Steel Shot Rate (pounds/hour)	Uncontrolled Maximum Emissions of PM (pounds/hour)	Uncontrolled Emission Factor PM10 (pound/pound)	Uncontrolled Maximum Emissions of PM ₁₀ (pounds/hour)	Control Efficiency (%)	Controlled Potential to Emit of PM (pounds/hour)	Controlled Potential to Emit PM (tons/year)	Controlled Potential to Emit of PM ₁₀ (tons/year)	Uncontrolled PTE of PM (tons/year)	Uncontrolled PTE of PM ₁₀ (tons/year)
PL-126	0.004	33600	134.4	0.00344	115.6	99.0%	1.34	5.89	5.06	589	506
PL-127	0.004	33600	134.4	0.00344	115.6	99.0%	1.34	5.89	5.06	589	506
PL-128	0.004	15300	61.2	0.00344	52.6	99.0%	0.61	2.68	2.31	268	231
PL-129	0.004	15300	61.2	0.00344	52.6	99.0%	0.61	2.68	2.31	268	231
PL-130	0.004	15300	61.2	0.00344	52.6	99.0%	0.61	2.68	2.31	268	231
PL-131	0.004	54275	217.1	0.00344	186.7	99.50%	1.09	4.75	4.09	951	818
PL -132	0.004	33600	134.4	0.00344	115.6	99.00%	1.34	5.89	5.06	589	506
PL-133	0.004	33600	134.4	0.00344	115.6	99.00%	1.34	5.89	5.06	589	506
Total from existing units								36.3	31.3	4,109.8	3,534.4

Emission Unit	Uncontrolled Emission Factor PM (pound/pound)	Steel Shot Rate (pounds/hour)	Uncontrolled Maximum Emissions of PM (pounds/hour)	Uncontrolled Emission Factor PM10 (pound/pound)	Uncontrolled Maximum Emissions of PM ₁₀ (pounds/hour)	Control Efficiency (%)	Controlled Potential to Emit of PM (pounds/hour)	Controlled Potential to Emit PM (tons/year)	Controlled Potential to Emit of PM ₁₀ (tons/year)	Uncontrolled PTE of PM (tons/year)	Uncontrolled PTE of PM ₁₀ (tons/year)
DB-1	0.004	84000	336	0.00344	289.0	99.5%	1.68	7.36	6.33	1472	1266
DB-2	0.004	84000	336	0.00344	289.0	99.5%	1.68	7.36	6.33	1472	1266
Total for new units								14.72	12.66	2,943.36	2,531.29
Total for source after Revision								51.06	43.91	7,053.11	6,065.68

Methodology

Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)
 PM 10 emission factor = 0.86 X (0.004 pound/pound) = 0.00344 pound/pound
 PM Emissions (tons/year) = PM emission factor * Steel Shot Rate * 8,760 hrs / yr * 1 ton / 2000 lbs

**Appendix A: Emissions Calculations
Abrasive Blasting Limits
(Using Steel Shot)**

**Company Name: Meritor Heavy Vehicle Systems, LLC
Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
Significant Permit Revision: 063-30665-00046
First Permit Renewal No: F063-30665-00046
Reviewer: Sarah Conner, Ph. D.
Date: 7/25/2011**

Pursuant to 326 IAC 2-8-4 and in order to render the requirements of 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable, each of the abrasive blasting units equipped with baghouses/ cartridges, shall not exceed the following hourly PM10 and PM2.5 emission limits:

New Proposed Emission Limits for Significant Permit Revision 063-30665-00046				
Unit ID/Control Device	PM ₁₀ Emission Limits (pounds/hour)	PM _{2.5} Emission Limits (pounds/hour)	Limited PM ₁₀ Emissions (tons/yr)	Limited PM _{2.5} Emissions (tons/yr)
PL-126, and PL-127 / DC-6	2.69	2.69	11.77	11.77
PL-128 / DC-8	0.61	0.61	2.68	2.68
PL-129 / DC-9	0.61	0.61	2.68	2.68
PL-130 / DC-10	0.61	0.61	2.68	2.68
PL-131 / DC-11	1.09	1.09	4.75	4.75
PL-132 / DC-12	1.34	1.34	5.89	5.89
PL-133 / DC-13	1.34	1.34	5.89	5.89
DB-1 / DBDC-1	3.36	3.36	14.72	14.72
DB-2 / DBDC-1				
Total			51.06	51.06

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, each of the abrasive blasting operations shall not exceed the following hourly PM limits:

New Proposed Emission Limits for Significant Permit Revision 063-30665-00046		
Unit ID / Control Device	Particulate Emission Limits (pounds / hour)	Limited Particulate Emissions (tons/yr)
PL-126, and PL-127 / DC-6	5.38	23.55
PL-128 / DC-8	4.07	17.83
PL-129 / DC-9	4.07	17.83
PL-130 / DC-10	4.07	17.83
PL-131 / DC-11	2.17	9.51
PL-132 / DC-12	7.24	31.71
PL-133/ DC-13	7.24	31.71
DB-1 / DBDC-1	6.72	29.43
DB-2 / DBDC-1		
Total		179.39

Pursuant to 326 IAC 2-8-4, each of the abrasive blasting units equipped with baghouses/cartridges, shall not exceed the following hourly PM10 and PM2.5 emission limits:

Existing Emission Limits pursuant to F063-30665-00046, issued August 18, 2010				
Unit ID/Control Device	PM ₁₀ Emission Limits (pounds/hour)	PM _{2.5} Emission Limits (pounds/hour)	Limited PM ₁₀ Emissions (tons/yr)	Limited PM _{2.5} Emissions (tons/yr)
PL-126, and PL-127 / DC-6	2.90	2.90	12.70	12.70
PL-128 / DC-8	0.53	0.53	2.32	2.32
PL-129 / DC-9	0.53	0.53	2.32	2.32
PL-130 / DC-10	0.53	0.53	2.32	2.32
PL-131 / DC-11	0.19	0.19	0.83	0.83
PL-132 / DC-12	1.156	1.156	5.06	5.06
PL-133 / DC-13	0.578	0.578	2.53	2.53
Total			28.09	28.09

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, each of the abrasive blasting operations shall not exceed the following hourly PM limits:

Existing Emission Limits pursuant to F063-30665-00046, issued August 18, 2010		
Unit ID / Control Device	Particulate Emission Limits (pounds / hour)	Limited Particulate Emissions (tons/yr)
PL-126, and PL-127 / DC-6	5.75	25.19
PL-128 / DC-8	4.07	17.83
PL-129 / DC-9	4.07	17.83
PL-130 / DC-10	4.07	17.83
PL-131 / DC-11	4.13	18.09
PL-132 / DC-12	7.24	31.71
PL-133/ DC-13	7.24	31.71
Total		160.18

Appendix A: Emissions Calculations

**From Surface Coating Operations
Units PL-121A, PB-1 and PB-2**

Company Name: Meritor Heavy Vehicle Systems, LLC
Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
Significant Permit Revision: 063-30665-00046
First Permit Renewal No: F063-30665-00046
Reviewer: Sarah Conner, Ph. D.
Date: 7/25/2011

Material	Unit ID	Density (Lb/Gal)	Weight % Volatile (H2O & 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)	Controlled Potential Particulate (ton/yr)	Potential Particulate (ton/yr)	lb VOC/gal solids	Transfer Efficiency											
Dip Coating Booth, PL-121A, Line 1																																	
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	0.00	5.55	100%											
Spray Coating Booth, PB-1, Line 2																																	
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	0.28	5.53	5.70	75%											
Axle Spray Coating Operation * - PB-2																																	
Valgard 120	PB-2	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	1.73	34.57	4.57	50%											
R-Cure 800 2.8	PB-2	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	0.82	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.																<table border="1"> <tr> <td>Uncontrolled Total</td> <td>61.42</td> <td>20.47</td> <td>56.59</td> </tr> <tr> <td>PM Control Efficiency:</td> <td></td> <td>95.0%</td> <td></td> </tr> <tr> <td>Controlled Total</td> <td>61.42</td> <td>20.47</td> <td>2.83</td> </tr> </table>						Uncontrolled Total	61.42	20.47	56.59	PM Control Efficiency:		95.0%		Controlled Total	61.42	20.47	2.83
Uncontrolled Total	61.42	20.47	56.59																														
PM Control Efficiency:		95.0%																															
Controlled Total	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)
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)

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

Appendix A: Emissions Calculations

**From Surface Coating Operations
HAP Calculations for PB-2**

Company Name: Meritor Heavy Vehicle Systems, LLC
Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
Significant Permit Revision: 063-30665-00046
First Permit Renewal No: F063-30665-00046
Reviewer: Sarah Conner, Ph. D.
Date: 7/25/2011

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	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	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: Emission Calculations
Brake Shoe-Powder Coating Booth (PC1)**

Company Name: Meritor Heavy Vehicle Systems, LLC
Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
Significant Permit Revision: 063-30665-00046
First Permit Renewal No: F063-30665-00046
Reviewer: Sarah Conner, Ph. D.
Date: 7/25/2011

Emission Unit	Maximum Powder Use (lbs/part)	Maximum Powder Use (parts/hr)	Maximum Powder Use (lbs/hr)	Maximum Powder Use (tons/yr)	VOC %	VOC (lbs/hr)	VOC (lbs/day)	PTE VOC (tons/yr)	Transfer Efficiency (%)	Integral Cartridge filter Efficiency	PTE after cartridge filters (lbs/hr)	PTE before cartridge filter (tons/yr)	PTE after control (tons/yr)	PM/PM10/PM2.5 Allowable PM lbs/hr
PC1														
Powder Spray Booth	0.087	960.000	83.520	365.818	1.0	0.84	20.04	3.66	75.0%	99.90%	0.02	91.5	0.09	7.78
Total											0.02	91.5	0.09	

There are no exempt solvents nor water in the coating
 NOTE: The VOC content per gallon of coating = 0.129 lbs/gal (see below) < 3.5 pounds of VOC per gal -complies with 326 IAC 8-2-9 (d)

The weight of the part coated is 9 lbs. each
 Process weight rate (tons/hr) = [960 parts/hr * (9lbs/part) + 83.52 lbs/hr powder] * 1/2000 lbs/ton = 11 tons per hour
 The transfer efficiency of 75 % is provided by the applicant for Electrostatic gun-flat surfaces
 The control efficiency of the integral cartridge filters is provided by the source
 There are no emission factors for PM2.5 in AP42, PM 10 = PM2.5

Methodology

The specific gravity of the powder is 1.55
 The specific gravity of water is 8.34
 One gallon of powder = 1.55 * 8.34 =12.91 lbs
 Maximum VOC of 1% = 12.91 *0.01 = 0.129 lbs/gal
 Potential Emissions (lbs/hr) = Powder usage rate * (1- transfer efficiency)
 Emissions (tons/yr) = Emissions (lbs/hr) * 8760 hrs/yr / 2000 lbs/ton
 PM10 emissions are assumed to equal PM.

**Appendix A: Emissions Calculations
 Degreasing Operations
 (Handwipe Operations, 8 Dip Tanks and 2 Vibratory Degreaser Tanks)**

Company Name: Meritor Heavy Vehicle Systems, LLC
Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
Significant Permit Revision: 063-30665-00046
First Permit Renewal No: F063-30665-00046
Reviewer: Sarah Conner, Ph. D.
Date: 7/25/2011

Type of Operation	VOC content of Solvent (lbs/gal)	Maximum Amount of Solvent Used** (gal/year)	PTE for VOC (tons/year)
Handwipe	7	1,080.00	3.78
8 Cold Cleaner Degreasers Units - PL-103, PL-111, PL-112, PL-113, PL-114, PL-115 and PL-117 2 Vibratory Degreaser Tanks - PL-102 and PL-120	6.5	1,500.00	4.88
Total			8.66

Methodology :

** Based on information provided by the source. Estimate is for 8760 hours of operation.

PTE = VOC Content (lbs/gal) * Max. Amount of Solvent used (gal/year) * 1 ton/2000 lbs

**Appendix A: Emissions Calculation
CC11 and CC12-Solvent/Cleaning Operations**

Company Name: Meritor Heavy Vehicle Systems, LLC
Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
Significant Permit Revision: 063-30665-00046
First Permit Renewal No: F063-30665-00046
Reviewer: Sarah Conner, Ph. D.
Date: 7/25/2011

VOC and Particulate

Material	Unit ID	Density (Lb/Gal)	Weight % Volatile (H2O & 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 VOC (lb/day)	PTE	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%
Safety Kleen Premium Solvent	CC12	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%
														Uncontrolled		2.45	0.00			
														PM Control Efficiency:		95.0%				
														Controlled		2.45	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	CC11	6.70	1.00	0.279	0.20%	0.0024	0.10%	0.0012
Safety Kleen Premium Solvent	CC12	6.70	1.00	0.279	0.20%	0.0024	0.10%	0.0012

PCE = Perchloroethylene

Total HAPs =	9.34E-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

**Appendix A: Emission Calculations
Cutting/weld removal operation (WRB1)**

**Company Name: Meritor Heavy Vehicle Systems, LLC
Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
Significant Permit Revision: 063-30665-00046
First Permit Renewal No: F063-30665-00046
Reviewer: Sarah Conner, Ph. D.
Date: 7/25/2011**

Note: PTE for Graphite Weld Removal will be demonstrated by adding the emissions from flame cutting and total consumption of the graphite stick, combined

PROCESS	Number of Stations	Max. electrode consumption (lb/hr)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)**				Flame Cutting Emissions				HAPS	
			Max. Metal Cutting Rate (in./minute)	PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Weld Removal Stick *												
Graphite (Natural, worst case)	1	2.7										
FLAME CUTTING												
Oxyacetylene (assume worst case)	1	1	0.9	0.1622	0.0005	0.0001	0.0003	0.009	4.38E-06	4.38E-10	1.46E-13	4.38E-06
EMISSION TOTALS												
Potential Emissions (lbs/hr)								2.71				4.38E-06
Potential Emissions (lbs/day)								65.01				1.05E-04
Potential Emissions (tons/year)								11.86				1.92E-05

* Assumes all consumed graphite is emitted as PM/PM10

** Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.

Using AWS average values: (0.25 g/min)/(3.6 m/min) x (0.0022 lb/g)/(39.37 in./m) x (1,000 in.) = 0.0039 lb/1,000 in. cut, 8 mm thick

Methodology

Flame Cutting Emissions (lb/hr) = [# of stations] x [Max. metal thickness (in)] x [Max. cutting rate (in/min)] x 60 min/hr x [Emission factor (lb. pollutant/1,000 in. cut, 1" thick)]

Potential Emissions (tons/year) = Flame Cutting Emissions (lb/hr) + Max. electrode consumption (lb/hr) x 8760 hr/yr x 1 ton/2000 lb

Appendix A: Emission Calculations
ARVINMERITOR WELDING and FLAME CUTTING, UNIT WLD2

Company Name: Meritor Heavy Vehicle Systems, LLC
Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
Significant Permit Revision: 063-30665-00046
First Permit Renewal No: F063-30665-00046
Reviewer: Sarah Conner, Ph. D.
Date: 7/25/2011

PROCESS	# of Stations	Max. Electrode Consumption per Station (lb/hr)	EMISSION FACTORS (lb pollutant/lb electrode)					EMISSIONS (lb/hr)						
			PM/PM10	Mn	Ni	Co	Cr	PM/PM10	Mn	Ni	Co	Cr	HAPs	
WELDING														
Metal Inert Gas (MIG) Carbon Steel E70S	2	1.70	0.0052	0.000318	0.000001	0.000001	0.000001	0.01768	0.00108	0.00000	0.00000	0.00000	0.00000	0.00109
Stick (E6011)	2	1.00	0.0384	0.000998	0.000005	0.000001	0.000005	0.07680	0.00200	0.00001	0.00000	0.00001	0.00001	0.00202
EMISSION TOTALS								0.09448	0.00308	0.00001	0.00001	0.00001	0.00311	

Potential To Emit (PTE)	PM/PM10 (tpy)	Mn (tpy)	Ni (tpy)	Co (tpy)	Cr (tpy)	HAPs (tpy)
	0.414	0.013	0.000	0.000	0.000	0.014

METHODOLOGY

Emission factors are default values for carbon steel unless a specific electrode type is noted in the Process column, which are taken from AP-42, Table 12.19.1 & 2
Emission Factor for plasma cutting from American Welding Society. Trials reported for wet cutting of 8mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted). Therefore, the emission factor for plasma cutting is for 8 mm thick rather than 1 inch, and the maximum metal thickness is not used in calculating the emissions.
Using AWS average values: (0.25 g/min)(3.6 m/min) x (0.0022 lb/g)/(39.37 in/m) x (1,000 in.) = 0.00039 lb/1,000 in. cut, 8 mm thick
Plasma Cutting Emissions, lb/hr: (# of stations)(max. cutting rate, in./min)(60 min/hr)(emission factor, lb, pollutant / 1,000 in. cut, 8 mm thick)
Flame Cutting Emissions, lb/hr: (# of stations)(max. cutting rate, in./min)(60 min/hr)(emission factor, lb, pollutant / 1,000 in. cut, 1 " thick)
Welding Emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb, pollutant/lb of electrode used)
Emissions, ton/yr = emissions, lb/hr x 8760 hr/yr x 1 ton/2000 lb

**Appendix A: Emissions Calculations
Welding and Thermal Cutting**

Company Name: Meritor Heavy Vehicle Systems, LLC
Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
Significant Permit Revision: 063-30665-00046
First Permit Renewal No: F063-30665-00046
Reviewer: Sarah Conner, Ph. D.
Date: 7/25/2011

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
			PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
WELDING											
Submerged Arc	0	0	0.036	0.011			0.000	0.000	0.000	0	0.000
Metal Inert Gas (MIG)(carbon steel)	1	0.00083	0.0055	0.0005			0.000005	0.000000	0.000000	0.000000	0.0000004
Stick (E7018 electrode)	0	0	0.0211	0.0009			0.000	0.000	0.000	0	0.000
Tungsten Inert Gas (TIG)(carbon steel)	0	0	0.0055	0.0005			0.000	0.000	0.000	0	0.000
Oxyacetylene(carbon steel)	0	0	0.0055	0.0005			0.000	0.000	0.000	0	0.000
EMISSION TOTALS											
Potential Emissions lbs/hr							0.000005				0.0000004
Potential Emissions lbs/day							0.0001				0.00001
Potential Emissions tons/year							0.00002				0.00002

METHODOLOGY

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.

**Emission Factor for plasma cutting from American Welding Society (AWS). Trials reported for wet cutting of 8 mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted). Therefore, the emission factor for plasma cutting is for 8 mm thick rather than 1 inch, and the maximum metal thickness is not used in calculating the emissions.

Using AWS average values: (0.25 g/min)/(3.6 m/min) x (0.0022 lb/g)/(39.37 in./m) x (1,000 in.) = 0.0039 lb/1,000 in. cut, 8 mm thick

Plasma cutting emissions, lb/hr: (# of stations)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 8 mm thick)

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.

Appendix A: Emissions Calculations
VOC and Particulate
From Miscellaneous VOC Usage

Company Name: Meritor Heavy Vehicle Systems, LLC
 Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
 Significant Permit Revision: 063-3665-00046
 First Permit Renewal No: F063-3665-00046
 Reviewer: Sarah Conner, Ph. D.
 Date: 7/25/2011

Coating / Material	Estimated Annual Usage (Container UOM)	Container Size (Converted to gal)	Estimated Annual Usage (gal)	Estimated Annual Operating Hours	Density (Lb/Gal)	Wt % Volatile (W,ES,& VOC)	Wt % Water & ES	Wt % VOC	Vol% W&ES	Vol% Solids	VOC (lb/gal less W&ES)	VOC (lb/ gal)	PTE VOC (lb/hr)	PTE VOC (lb/day)	PTE VOC (ton/yr)	Uncontrolled PM/ PM10 (lb/hr)	Uncontrolled PM/ PM10 (lb/day)	Uncontrolled PM/ PM10 (ton/yr)	Transfer Efficiency	Method of Application & Surface, if applicable				
CRC Super Degreaser	564	0.156	88.15	5000	11.08	100.00%	1.62%	98.38%	1.62%	0.00%	11.08	10.90	0.192	4.612	0.842	0.00	0.00	0.00	50%	Spray, Metal				
Marker Paint - Cambar	842	0.094	78.94	5000	7.50	81.20%	35.91%	45.30%	35.91%	18.80%	5.30	3.40	0.054	1.287	0.235	0.01	0.27	0.05	50%	Spray, Metal				
Oakite Cleaner / Rust Preventative 5200007	165	1.000	165.00	5000	6.62	90.00%	0.00%	90.00%	0.00%	5.00%	5.96	5.96	0.197	4.719	0.861	0.01	0.26	0.05	50%	Spray, Metal				
Loctite 271	148	0.066	9.77	5000	9.16	0.82%	0.00%	0.82%	0.00%	99.18%	0.08	0.08	0.000	0.004	0.001					NA	bottle, metal			
Loctite 518	86	0.013	1.14	5000	9.16	4.00%	0.00%	4.00%	0.00%	96.00%	0.37	0.37	0.000	0.002	0.000						NA	bottle, metal		
Loctite 680	92	0.066	6.07	5000	9.16	4.22%	0.00%	4.22%	0.00%	95.78%	0.39	0.39	0.000	0.011	0.002							NA	bottle, metal	
Loctite 277	125	0.066	8.25	5000	9.16	0.71%	0.00%	0.71%	0.00%	99.29%	0.07	0.07	0.000	0.003	0.000							NA	bottle, metal	
Loctite 222MS	55	0.066	3.63	5000	8.75	0.19%	0.00%	0.19%	0.00%	99.80%	0.02	0.02	0.000	0.000	0.000							NA	bottle, metal	
Loctite 242	36	0.066	2.38	5000	9.16	4.48%	0.00%	4.48%	0.00%	95.52%	0.41	0.41	0.000	0.005	0.001							NA	bottle, metal	
Loctite 5699 Grey Silicone RTV Caulk	141	0.079	11.18	5000	12.50	3.31%	0.00%	3.31%	0.00%	96.69%	0.41	0.41	0.001	0.022	0.004							NA	extrusion,	
Fastball Degreaser (Warsaw)	624	0.250	156.00	5000	7.91	96.25%	85.25%	11.00%	85.25%	3.75%	5.90	0.87	0.027	0.652	0.119								NA	bottle, metal
TAP Magic Cutting Fluid	36	0.125	4.50	5000	10.87	98.92%	0%	98.90%	0	1.08%	10.75	10.75	0.010	0.232	0.042								NA	bottle, metal
Krylon Toughcoat Semiflat Black 3725	168	0.094	15.79	5000	6.51	88.00%	34.00%	47.28%	40.72%	12.00%	5.19	3.08	0.010	0.233	0.043	0.00	0.03	0.01	50%	spray, metal				
Multan Marking Green Paint 39SY201	60	0.133	8.00	5000	7.50	10.00%	0%	10%	0	90.00%	0.75	0.75	0.001	0.029	0.005	0.01	0.13	0.02	50%	bottle, metal				
WD40	165	1.000	165.00	5000	6.81	49.50%	0%	49.50%	0	26.00%	3.37	3.37	0.111	2.670	0.487	0.06	1.36	0.25	50%	spray, metal				
CRC Brakleen	600	0.148	89.04	5000	8.91	90.00%	0.00%	90.00%	0.00%	0.00%	8.02	8.02	0.143	3.427	0.625	0.01	0.19	0.03	50%	spray, metal				
Domino I-270BK InkJet Printing Ink	12	0.218	2.62	5000	7.26	90.00%	0.00%	90.00%	0.00%	10.00%	6.53	6.53	0.003	0.082	0.015							NA	Rollcoat, paper	
Domino M-270 Make Up	12	0.218	2.62	5000	6.78	100.00%	0%	100%	0	0.00%	6.78	6.78	0.004	0.085	0.016								NA	Rollcoat, paper
PPG AquaCron 880 (Latex Edge Paint)	50	1.000	50.00	5000	8.41	72.00%	0%	72%	0	24.44%	6.06	6.06	0.061	1.453	0.265								NA	Rollcoat, metal
Totals															19.53	3.56	0.09	2.24	0.41					

METHODOLOGY
 Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
 Potential VOC Pounds per Hour = (Density (lb/gal) * Weight % Organics) * Gal of Material (gal/yr) * Weight % VOC * 1 yr/ (actual) hours of operation
 Potential VOC Pounds per Day = Potential VOC Pounds per Hour * (24 hr/day)
 Potential VOC Tons per Year = Potential VOC Pounds per Day * (365 day/yr) * (1 ton/2000 lbs)
 Particulate Potential Tons per Year = * Gal of Material (gal/yr) * 1 yr/ (actual) hours of operation * Pounds of VOC per Gallon coating (lb/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)

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: Maritor Heavy Vehicle Systems, LLC
Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
Significant Permit Revision: 063-30665-00046
First Permit Renewal No: F063-30665-00046
Reviewer: Sarah Conner, Ph. D.
Date: 7/25/2011

Coating / Material	% Chrome Cmpds	Chrome Cmpds (lb/hr)	Chrome Cmpds (ton/yr)	% Glycol Ethers	Glycol Ethers (lb/hr)	Glycol Ethers (ton/yr)	% Perchlor-ethylene	Perchlor-ethylene (lb/hr)	Perchlor-ethylene (ton/yr)	% Ethylene Glycol	Ethylene Glycol (lb/hr)	Ethylene Glycol (ton/yr)	% Aceto-nitrile	Aceto-nitrile (lb/hr)	Aceto-nitrile (ton/yr)	% Xylene *	Xylene (lb/hr)	Xylene (ton/yr)
CRC Super Degreaser	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Marker Paint - Cambar	-	-	-	1.47%	0.002	0.008	-	-	-	-	-	-	1.00%	0.002	0.009	-	-	-
Oakite Cleaner / Rust Preventative 5200007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.90%	0.002	0.009
Loctite 271	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Loctite 518	-	-	-	-	-	-	-	-	-	4.00%	0.000	0.000	-	-	-	-	-	-
Loctite 680	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Loctite 277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Loctite 222MS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Loctite 242	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Loctite 5699 Grey Silicone RTV Caulk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fastball Degreaser (Warsaw)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TAP Magic Cutting Fluid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Krylon Toughcoat Semiflat Black 3725	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Multan Marking Green Paint 39SY201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WD40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRC Brakleen	-	-	-	-	-	-	95.00%	0.151	0.660	-	-	-	-	-	-	-	-	-
Domino 1-270BK InkJet Printing Ink	10.000	0.038	0.166	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Domino M-270 Make Up	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PPG AquaCron 880 (Latex Edge Paint)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.05%	0.00	0.00
Totals	0.00	0.00	0.17	0.00	0.00	0.01	0.00	0.15	0.66	0.00	0.00	0.00	0.00	0.000	0.01	0.00	0.000	0.01

Coating / Material	% Methyl Alcohol	Methyl Alcohol (lb/hr)	Methyl Alcohol (ton/yr)	% Ethyl-benzene	Ethyl-benzene (lb/hr)	Ethyl-benzene (ton/yr)	% Toluene	Toluene (lb/hr)	Toluene (ton/yr)
CRC Super Degreaser	-	-	-	-	-	-	-	-	-
Marker Paint - Cambar	-	-	-	-	-	-	11.27%	0.013	0.058
Oakite Cleaner / Rust Preventative 5200007	-	-	-	-	-	-	-	-	-
Loctite 271	-	-	-	-	-	-	-	-	-
Loctite 518	-	-	-	-	-	-	-	-	-
Loctite 680	-	-	-	-	-	-	-	-	-
Loctite 277	-	-	-	-	-	-	-	-	-
Loctite 222MS	-	-	-	-	-	-	-	-	-
Loctite 242	-	-	-	-	-	-	-	-	-
Loctite 5699 Grey Silicone RTV Caulk	-	-	-	-	-	-	-	-	-
Fastball Degreaser (Warsaw)	-	-	-	-	-	-	-	-	-
TAP Magic Cutting Fluid	-	-	-	-	-	-	-	-	-
Krylon Toughcoat Semiflat Black 3725	-	-	-	0.10%	0.000	0.000	19.0%	0.004	0.017
Multan Marking Green Paint 39SY201	-	-	-	-	-	-	-	-	-
WD40	-	-	-	-	-	-	-	-	-
CRC Brakleen	-	-	-	-	-	-	-	-	-
Domino 1-270BK InkJet Printing Ink	1.00	0.004	0.017	-	-	-	-	-	-
Domino M-270 Make Up	1.00	0.004	0.016	-	-	-	-	-	-
PPG AquaCron 880 (Latex Edge Paint)	-	-	-	-	-	-	-	-	-
Totals	0.00	0.01	0.03	0.00	0.00	0.00	0.30	0.02	0.08

Total HAPs 0.96

METHODOLOGY
Potential HAP Pounds per Hour = Pounds of HAP per Gallon coating (lb/gal) * Gal of Material (gal/yr) * Weight % HAP * 1 yr (actual) hours of operation
Potential HAP Tons per Year = Potential HAP Pounds per hour * (8760 hour/yr) * (1 ton/2000 lbs)
* Some coatings contain naphtha products which do not declare HAPs on the MSDS specifically related to that CAS, however, Table 3 to 40 CFR 63, Subpart IIII gives additional HAP information for coatings such as these and have been included here.

**Appendix A: Emissions Calculations
VOC and Particulate
From Platinum Line Touch Up Painting Operations - Insignificant Activity**

**Company Name: Meritor Heavy Vehicle Systems, LLC
Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
Significant Permit Revision: 063-30665-00046
First Permit Renewal No: F063-30665-00046
Reviewer: Sarah Conner, Ph. D.
Date: 7/25/2011**

Material	Estimated Max Daily Usage (gas)	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	PTE VOC (lb/hr)	PTE VOC (lb/day)	PTE VOC (ton/yr)	Uncontrolled/Controlled PM/PM10 (lb/hr)	Uncontrolled / Controlled PM/PM10 (lb/day)	Uncontrolled / Controlled PM/PM10 (ton/yr)	Transfer Efficiency	Method of Application & Surface, if applicable
PPG True Finish Q2365-9001	3.37	6.3	86.99%	18.0%	69.0%	17.3%	7.74%	3.37	0.140	5.28	4.37	0.613	14.72	2.686	0.195	4.68	0.85	50%	Spray, metal
															<15 lb/day, exempt		<25 lb/day, exempt		

This Touch Up Paint operation will be operated 24hr/day and 7 days/week
This coating contains no HAPs.

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)

Appendix A: 326 IAC 6-3-2 Compliance

Company Name: Meritor Heavy Vehicle Systems, LLC
Address City IN Zip: 849 Whitaker Road, Plainfield, Indiana 46168
Significant Permit Revision: 063-30665-00046
First Permit Renewal No: F063-30665-00046
Reviewer: Sarah Conner, Ph. D.
Date: 7/25/2011

Emissions Units	Maximum Process Weight (tons/hour)	326 IAC 6-3 Limit (lbs/hr)	Uncontrolled Emission Factor PM (pound/pound)	Steel Shot Rate (pounds/hour)	Uncontrolled Maximum Emissions of PM (pounds/hour)
process weight rate up to sixty thousand (60,000) pounds per hour					
PL-126	19.14	29.63	0.004	33600	134.40
PL-127	19.14	29.63	0.004	33600	134.40
PL-128	8.64	17.39	0.004	15300	61.20
PL-129	8.64	17.39	0.004	15300	61.20
PL-130	8.64	17.39	0.004	15300	61.20
PL-131	28.15	38.36	0.004	54275	217.10
PL-132	19.14	29.63	0.004	33600	134.40
PL-133	19.14	29.63	0.004	33600	134.40
process weight rate in excess of sixty thousand (60,000) pounds per hour					
DB1	47.61	44.12	0.004	84000	336.00
DB2	47.61	44.12	0.004	84000	336.00

Pursuant to 326 IAC 6-3-2, the particulate emissions limitations from the above table shall be calculated using the following equations:

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.

P = Process weight rate in tons per hour.

Pursuant to 326 IAC 6-3-2, the particulate emissions limitations from the above table shall be calculated using the following equation:

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

$$E = 55.0 P^{0.11} - 40$$

Where:

E = Rate of emission in pounds per hour.

P = Process weight rate in tons per hour.



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

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

TO: Gary Gillen
Meritor Heavy Vehicle Systems, LLC
849 Whitaker Rd
Plainfield, IN 46168

DATE: September 29, 2011

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

SUBJECT: Final Decision
Significant Permit Revision
063-30665-00046

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

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

A copy of the final decision and supporting materials has also been sent via standard mail to:
Dwight Treen (Site Manager)
John Wellspring (ERM)
OAQ Permits Branch Interested Parties List

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

Final Applicant Cover letter.dot 11/30/07



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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September 29, 2011

TO: Plainfield Public Library

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

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: Meritor Heavy Vehicle Systems, LLC
Permit Number: 063-30665-00046

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 11/30/07

Mail Code 61-53

IDEM Staff	MIDENNY 9/29/2011 Meritor Heavy Vehicle Systems LLC 063-30665-00046 (final)		Type of Mail: CERTIFICATE OF MAILING ONLY	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

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1		Gary Gillen Meritor Heavy Vehicle Systems LLC 849 Whitaker Rd Plainfield IN 46168 (Source CAATS)										
2		Dwight Treen Site Mgr Meritor Heavy Vehicle Systems LLC 849 Whitaker Rd Plainfield IN 46168 (RO CAATS)										
3		Larry and Becky Bischoff 10979 North Smokey Row Road Mooresville IN 46158 (Affected Party)										
4		Avon-Washington Twp Public Library 498 North State Road 26 Avon IN 46123 (Library)										
5		Hendricks County Commissioners 355 S Washington Danville IN 46122 (Local Official)										
6		Mr. Kevin Carnes 5173 McKellips Ct Plainfield IN 48168 (Affected Party)										
7		Mr. John Wellspring Environmental Resources Management (ERM) 11350 N Meridian St, Ste 320 Carmel IN 46032 (Consultant)										
8		Plainfield Public Library 1120 Stafford Rd Plainfield IN 46168-2230 (Library)										
9		Betty Bartley P.O. Box 149 Danville IN 46122 (Affected Party)										
10		Plainfield Town Council and Town Manager P.O. Box 65 Plainfield IN 46168 (Local Official)										
11		Hendricks County Health Department 355 S Washington Street, Suite 210 Danville IN 46122-1759 (Health Department)										
12		Mark Zeltwanger 26545 CR 52 Nappanee IN 46550 (Affected Party)										
13												
14												
15												

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