

# Indiana Department of Environmental Management

We make Indiana a cleaner, healthier place to live.

Frank O'Bannon Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue P. O. Box 6015 Indianapolis, Indiana 46206-6015 (317) 232-8603 (800) 451-6027 www.IN.gov/idem

March 4, 2003

Mr. Sam Lombardo Meridian Automotive Systems, Inc. 501 Northridge Drive Shelbyville, Indiana 46176

Re: 145-16510
Minor Source Modification to:
Part 70 Operating Permit No.: T 145-5966-00017

Dear Mr. Lombardo:

Meridian Automotive Systems, Inc. was issued Part 70 Operating Permit **T 145-5966-00017** on November 17, 1998 for a fiberglass reinforced automotive parts molding and painting source. An application to modify the source was received on November 27, 2002. Pursuant to 326 IAC 2-7-10.5, the following emission units are approved for construction at the source:

Six (6) touch-up paint booths, identified as PBVolvo/GMT, PBViper, PBTri-door 1, PBTri-door 2, PBHummer and PBC5, constructed in 2003, each equipped with dry filters as particulate control, exhausting to Stacks PB Volvo/GMT, PB Viper, PB Tri-door 1, PB Tri-door 2, PB Hummer, and PBC5, respectively, capacity: variable, depending on part type.

The following construction conditions are applicable to the proposed project:

# **General Construction Conditions**

- The data and information supplied with the application shall be considered part of this source modification approval. Prior to <u>any</u> 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. <u>Effective Date of the Permit</u>
  Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
- 4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

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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.

6. Pursuant to 326 IAC 2-7-10.5(I) the emission units constructed under this approval shall <u>not</u> be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

The source may begin construction when the minor source modification has been issued. Operating conditions shall be incorporated into the Part 70 Operating Permit as a significant permit modification in accordance with 326 IAC 2-7-10.5(I)(2) and 326 IAC 2-7-12. Operation is not approved until the significant permit modification has been issued.

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 contact Edward A. Longenberger, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395, ext. 20 or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Original signed by Paul Dubenetzky Paul Dubenetzky, Chief Permits Branch Office of Air Quality

Attachments EAL/MES

cc: File - Shelby County

Shelby County Health Department

Air Compliance Section Inspector - D.J. Knotts

Compliance Branch - Karen Nowak

Administrative and Development - Lisa Lawrence Technical Support and Modeling - Michele Boner

# PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

# Meridian Automotive Systems, Inc. 501 Northridge Drive Shelbyville, Indiana 46176

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and 326 IAC 2-1-3.2 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

First Minor Source Modification 145-16510	Sections Affected: A.2, D.3, D.4, Report Forms
Issued by:Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: March 4, 2003

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Meridian Automotive Systems, Inc. Shelbyville, Indiana

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

The Permittee owns and operates a stationary fiberglass molding and painting operation.

Plant Manager Responsible Official:

Source Address: 501 Northridge Drive, Shelbyville, Indiana 46176 Mailing Address: 501 Northridge Drive, Shelbyville, Indiana 46176

SIC Code: 3089 County Location: Shelby

County Status: Attainment for all criteria pollutants

Source Status: Part 70 Permit Program

Minor Source, under PSD Rules;

Major Source, Section 112 of the Clean Air Act

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

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

- (1) Two (2) Cleaver-Brooks natural gas fired boilers, with propane as back up fuel, identified as BR-1, constructed in March, 1988 and BR-2, constructed in June, 1988, with a maximum capacity of 24.3 million British thermal units per hour each, exhausting to two (2) stacks (EP39 and EP-40);
- (2) One (1) Blu Surf natural gas fired rack burner, constructed in June, 1988, identified as RB-1, with a maximum capacity of 4.6 million British thermal units per hour, controlled by a baghouse, exhausting to one (1) stack (EP-26);
- One (1) fiberglass coating system, consisting of the following equipment: (3)
  - (A) One (1) Gallagher-Kaiser manual spray booth, constructed in June, 1988, identified as SB-M, utilizing a high volume low pressure application method, with maximum capacity of forty-five (45) molded reinforced plastic body subassemblies per hour, controlled by a waterwash collection system, exhausting to two (2) stacks (EP19 and EP20);
  - (B) One (1) Gallagher-Kaiser automatic spray booth, constructed in March, 1994, identified as SB-A, utilizing robots equipped with electrostatic applicators and electrostatic spray guns, with maximum capacity of forty-five (45) molded reinforced plastic body subassemblies per hour, controlled by a waterwash collection system, exhausting to one (1) stack (EP 21);
  - (C) One (1) Eclipse natural gas fired bake oven and one (1) flash tunnel, identified as BO-1, with a maximum capacity of 10.45 million British thermal units per hour, controlled by a 11.0 million British thermal units per hour natural gas fired thermal incinerator, exhausting to one (1) stack (EP-22);

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- (4) Six (6) touch-up paint booths, identified as PBVolvo/GMT, PBViper, PBTri-door 1, PBTri-door 2, PBHummer and PBC5, constructed in 2003, each equipped with dry filters as particulate control, exhausting to Stacks PB Volvo/GMT, PB Viper, PB Tri-door 1, PB Tri-door 2, PB Hummer, and PBC5, respectively, capacity: variable, depending on part type.
- (5) Nineteen (19) plastic forming presses with maximum capacity of 6,771 pounds per hour of sheet molding compound; and
- (6) Plastic parts machining and cleaning operation, with maximum capacity of 6,771 pounds per hour of sheet molding compound, with particulate emissions controlled by two (2) dust collector baghouses.

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

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

- (1) Two (2) hydraulic molding presses and associated secondary fixtures (deflashing, drilling, sanding, routing and punching equipment), molding a maximum of 616 pounds per hour of sheet molding compound per press into reinforced plastic automotive body panels and assemblies, using a maximum of 0.88 pounds per hour of mold release.
- (2) Four (4) 500-2500 ton capacity hydraulic presses for molding, drilling, sanding, routing, and bonding reinforced plastic; and
- (3) Two (2) 2500 hydraulic press for molding, drilling, sanding, routing and bonding.

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

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

(a) It is a major source, as defined in 326 IAC 2-7-1(22).

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# **Stratospheric Ozone Protection**

#### C.23 Compliance with 40 CFR 82 and 326 IAC 22-1

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

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

# Parts 1 and 2 MACT Applications Submittal Requirements

- C.24 Application Requirements for Section 112(j) of the Clean Air Act [40 CFR 63.52(b) and (e)] [40 CFR 63.56(a)] [40 CFR 63.9(b)] [326 IAC 2-7-12]
  - (a) The Permittee shall submit a Part 1 Maximum Achievable Control Technology (MACT) Application in accordance with 40 CFR 63.52(b)(1) within thirty (30) days of startup of the new emission units. The Part 1 MACT Application shall meet the requirements of 40 CFR 63.53(a).
  - (b) The Permittee shall submit a Part 2 MACT Application in accordance with 40 CFR 63.52 (e)(1). The Part 2 MACT Application shall meet the requirements of 40 CFR 63.53(b).
  - (c) Notwithstanding paragraph (b), the Permittee is not required to submit a Part 2 MACT Application if the Permittee no longer meets the applicability criteria of 40 CFR 63.50 by the application deadline in 40 CFR 63.52(e)(1). For example, the Permittee would not have to submit a Part 2 MACT Application if, by the application deadline:
    - (1) The source is no longer a major source of hazardous air pollutants, as defined in 40 CFR 63.2;
    - (2) The source no longer includes one or more units in an affected source category for which the U.S. EPA failed to promulgate an emission standard by May 15, 2002; or
    - (3) The MACT standard or standards for the affected source categories included at the source are promulgated.
  - (d) Notwithstanding paragraph (b), pursuant to 40 CFR 63.56(a), the Permittee shall comply with an applicable promulgated MACT standard in accordance with the schedule provided in the MACT standard if the MACT standard is promulgated prior to the Part 2 MACT Application deadline or prior to the issuance of permit with a case-by-case Section 112(j) MACT determination. The MACT requirements include the applicable General Provisions requirements of 40 CFR 63, Subpart A. Pursuant to 40 CFR 63.9(b), the Permittee shall submit an initial notification not later than 120 days after the effective date of the MACT, unless the MACT specifies otherwise. The initial notification shall be submitted to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Quality 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

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and

United States Environmental Protection Agency, Region V Director, Air and Radiation Division 77 West Jackson Boulevard Chicago, Illinois 60604-3590

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#### **SECTION D.3**

# **FACILITY OPERATION CONDITIONS**

# Facility Description [326 IAC 2-7-5(15)]

- (3) One (1) fiberglass coating system, consisting of the following equipment:
  - (A) One (1) Gallagher-Kaiser manual spray booth, constructed in June, 1988, identified as SB-M, utilizing a high volume low pressure application method, with maximum capacity of forty-five (45) molded reinforced plastic body subassemblies per hour, controlled by a waterwash collection system, exhausting to two (2) stacks (EP19 and EP20);
  - (B) One (1) Gallagher-Kaiser automatic spray booth, constructed in March, 1994, identified as SB-A, utilizing robots equipped with electrostatic applicators and electrostatic spray guns, with maximum capacity of forty-five (45) molded reinforced plastic body subassemblies per hour, controlled by a waterwash collection system, exhausting to one (1) stack (EP 21);
  - (C) One (1) Eclipse natural gas fired bake oven and one (1) flash tunnel, identified as BO-1, with a maximum capacity of 10.45 million British thermal units per hour, controlled by a 11.0 million British thermal units per hour natural gas fired thermal incinerator, exhausting to one (1) stack (EP-22);
- (4) Six (6) touch-up paint booths, identified as PBVolvo/GMT, PBViper, PBTri-door 1, PBTri-door 2, PBHummer and PBC5, constructed in 2003, each equipped with dry filters as particulate control, exhausting to Stacks PB Volvo/GMT, PB Viper, PB Tri-door 1, PB Tri-door 2, PB Hummer, and PBC5, respectively, capacity: variable, depending on part type.

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

#### D.3.1 Volatile Organic Compound (VOC) [326 IAC 2-2]

Pursuant to Construction Permit (CP 145-5373-00017), issued on July 3, 1996,

- (a) The input VOC of coatings applied and solvent applied to the one (1) fiberglass coating system and the six (6) touch-up paint booths (PBVolvo/GMT, PBViper, PBTri-door 1, PBTri-door 2, PBHummer and PBC5) shall be limited to 222 tons per 365 consecutive day period, rolled on a daily basis. This throughput limitation is equivalent to potential to emit (PTE) VOC from the surface coating operation of 159 tons per 365 consecutive day period, rolled on a daily basis, after control with the thermal incinerator operating at an overall efficiency of 95%.
- (b) This production limitation is necessary in order to ensure that the Prevention of Significant Deterioration (PSD) rules, 326 IAC 2-2 and 40 CFR 52.21, will not apply.

# D.3.2 Volatile Organic Compound (VOC) [326 IAC 8-1-6]

Pursuant to Construction Permit (CP-145-5373-00017), issued on July 3, 1996 and 326 IAC 8-1-6 (General Reduction Requirements):

- (a) The Volatile Organic Compound (VOC) content of the coatings as delivered to the applicators at the one (1) fiberglass coating system shall be limited to 8.3 pounds of VOC per gallon of coating solids for prime coat applications.
- (b) The Volatile Organic Compound (VOC) content of the coatings as delivered to the applicators at the one (1) fiberglass coating system shall be limited to 12.2 pounds of VOC per gallon of coating solids for topcoat applications.

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- (c) The manual spray booth at the one (1) fiberglass coating system shall use a high volume, low pressure (HVLP) application method. High volume low pressure (HVLP) spray means technology used to apply coating to a substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.
- (d) The automatic spray booth at the one (1) fiberglass coating system shall utilize the automatic electrostatic rotating bell.

# D.3.3 Volatile Organic Compound (VOC) [326 IAC 8-1-6]

The total amount of VOC delivered to the applicators at the six (6) touch-up paint booths (PBVolvo/GMT, PBViper, PBTri-door 1, PBTri-door 2, PBHummer and PBC5) shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period, with compliance determined at the end of each month. Therefore, the requirements of 326 IAC 8-1-6 (New facilities; general reduction requirements) do not apply.

# D.3.4 Hazardous Air Pollutants (HAPs) [326 IAC 2-4.1-1]

The total amount of any single HAP and combination of all HAPs delivered to the applicators at the six (6) touch-up paint booths (PBVolvo/GMT, PBViper, PBTri-door 1, PBTri-door 2, PBHummer and PBC5) shall be limited to less than ten (10) and less than twenty-five (25) tons per twelve (12) consecutive month period, respectively, with compliance determined at the end of each month. Therefore, the requirements of 326 IAC 2-4.1-1 (New source toxics control) do not apply.

# D.3.5 Particulate Matter (PM and PM<sub>10</sub>)

The total amount of solids delivered to the applicators at the six (6) touch-up booths (PBVolvo/GMT, PBViper, PBTri-door 2, PBTri-door 1, PBHummer and PBC5) shall be limited to less than one hundred (100) tons per twelve consecutive (12) month period, with compliance determined at the end of each month, based on a seventy-five percent (75%) transfer efficiency, which is equivalent to PM and PM10 emissions of less than a total of twenty-five (25) tons per year from the six (6) touch-up booths. Therefore, the construction of the six (6) touch-up booths (PBVolvo/GMT, PBViper, PBTri-door 1, PBHummer and PBC5) is not subject to the requirements of 326 IAC 2-7-10.5(f).

### D.3.6 Particulate Matter (PM) [326 IAC 6-3-2] [40 CFR 52 Subpart P]

Pursuant to 326 IAC 6-3-2 (Process Operations) the particulate matter (PM) from the two (2) spray booths (SB-M and SB-A) shall be limited by the following:

Interpolation and extrapolation 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

(b) Pursuant to 40 CFR 52 Subpart P, the PM from each of the six (6) touch-up paint booths (PBVolvo/GMT, PBViper, PBTri-door 1, PBTri-door 2, PBHummer and PBC5) shall not exceed the pound per hour emission rate established as E in the following formula:

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

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## D.3.7 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

# **Compliance Determination Requirements**

# D.3.8 Testing Requirements [326 IAC 2-7-6(1),(6)]

During the period between 18 and 48 after issuance of this permit, in order to demonstrate compliance with the thermal incinerator control efficiency stated in Condition D.3.1, the Permittee shall perform VOC testing utilizing Method 25 (40 CFR 60, Appendix A) or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

### D.3.9 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Conditions D.3.1 and D.3.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. 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.3.10 VOC Emissions

Compliance with Condition D.3.1 shall be demonstrated at the end of each day based on the total volatile organic compound usage for the most recent 365 day period.

#### D.3.11 Thermal Incinerator

Pursuant to 326 IAC 8-1-6 (General Reduction Requirements), when operating the thermal incinerator shall maintain a minimum operating temperature of 1,400°F or a temperature determined in the compliance tests, and a fan amperage and duct velocity determined in the compliance tests to maintain a minimum 95% destruction of the volatile organic compound (VOC) captured.

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

#### D.3.12 Volatile Organic Compound (VOC)

Pursuant to Construction Permit (CP 145-5373-00017) issued on July 3, 1996, the thermal incinerator shall operate at all times that the bake oven and flash tunnel is in operation.

#### D.3.13 Particulate Matter (PM)

The waterwash collection system shall be in operation at all times the two (2) spray booths (SB-M and SB-A) are in operation.

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

# D.3.14 Record Keeping Requirements

- (a) To document compliance with Condition D.3.12, the Permittee shall maintain daily records of the thermal incinerator temperature.
- (b) To document compliance with Conditions D.3.1, D.3.2 and D.3.3, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.3.1 and D.3.3.
  - (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differ-

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entiate between those added to coatings and those used as cleanup solvents;

- (2) The cleanup solvent usage for each month;
- (3) The total VOC usage for each month; and
- (4) The weight of VOCs emitted for each compliance period.
- (c) To document compliance with Condition D.3.4, the Permittee shall maintain records in accordance with (1) through (4) below for the six (6) touch-up paint booths. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the HAP usage limits established in Condition D.3.4.
  - (1) The HAPs content of each coating material and solvent used.
  - (2) The amount of coating material and solvent used on monthly basis. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
  - (3) The total HAPs usage for each month; and
  - (4) The weight of HAPs emitted for each compliance period.
- (d) To document compliance with Condition D.3.5, the Permittee shall maintain records in accordance with (1) through (4) below for the six (6) touch-up paint booths. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the PM and PM<sub>10</sub> emission limits established in Condition D.3.5.
  - (1) The total solids content of each coating material and solvent used.
  - (2) The amount of coating material and solvent used on monthly basis. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
  - (3) The total solids usage for each month; and
  - (4) The weight of PM and  $PM_{10}$  emitted for each compliance period.
- (e) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

#### D.3.15 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.3.1, D.3.3, D.3.4 and D.3.5 shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

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#### **SECTION D.4**

# **FACILITY OPERATION CONDITIONS**

### Facility Description [326 IAC 2-7-5(15)]

- (5) Nineteen (19) plastic forming presses with maximum capacity of 6,771 pounds per hour of sheet molding compound; and
- (6) Plastic parts machining and cleaning operation, with maximum capacity of 6,771 pounds per hour of sheet molding compound, with particulate emissions controlled by two (2) dust collector baghouses.

(Insignificant Activity) Two (2) hydraulic molding presses and associated secondary fixtures (deflashing,

drilling, sanding, routing and punching equipment), molding a maximum of 616 pounds per hour of sheet molding compound per press into reinforced plastic automotive body panels and assemblies, using a maximum of 0.88 pounds per

hour of mold release.

(Insignificant Activity) Four (4) 500-2500 ton capacity hydraulic presses for molding, drilling, sanding,

routing, and bonding reinforced plastic;

(Insignificant Activity) Two (2) 2500 hydraulic press for molding, drilling, sanding, routing and bonding;

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

# D.4.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations) the particulate matter (PM) from the nineteen (19) plastic forming presses, the plastic parts machining and cleaning operation, the two (2) hydraulic molding presses and associated secondary fixtures (Insignificant Activity), the four (4) 500-2500 ton capacity hydraulic presses (Insignificant Activity), and the one (1) 2500 hydraulic press (Insignificant Activity) shall be limited by the following:

Interpolation and extrapolation 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.4.2 Volatile Organic Compound (VOC) [326 IAC 2-2]

Pursuant to Construction Permit (CP145-5373-00017), issued on July 3, 1996:

- (a) The sheet molding compound usage from the nineteen plastic forming presses shall be limited to 2113 tons per month. This production limitation is equivalent to potential to emit (PTE) volatile organic compounds from the press room of 6.23 tons per month.
- (b) This production limitation is necessary in order to ensure that the Prevention of Significant Deterioration (PSD) rules, 326 IAC 2-2 and 40 CFR 52.21, will not apply.

# D.4.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the nineteen plastic forming presses.

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

# Part 70 Quarterly Report

Source Name:	Meridian Automotive System	ems. Inc.

Source Address: 501 Northridge Drive, Shelbyville, Indiana 46176 501 Northridge Drive, Shelbyville, Indiana 46176 Mailing Address:

Part 70 Permit No.: T 145-5966-00017

9

Six (6) touch-up paint booths (PBVolvo/GMT, PBViper, PBTri-door 1, PBTri-door 2, Facility:

PBHummer and PBC5)

Total VOC delivered to the applicators Parameter:

Limit: Less than twenty-five (25) tons per twelve (12) consecutive month period, with

compliance determined at the end of each month.

YEAR:

	Tons of VOC	Tons of VOC	Tons of VOC
Month	This Month	Previous 11 Months	12 Month Total

9	Deviation/s occurred in this month.
	Deviation has been reported on:

Submitted by:

Title/Position:

Signature:

Date:

Phone:

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

# Part 70 Quarterly Report

Source Name:	Meridian Auf	tomotive Systems.	Inc

Source Address: 501 Northridge Drive, Shelbyville, Indiana 46176
Mailing Address: 501 Northridge Drive, Shelbyville, Indiana 46176

Part 70 Permit No.: T 145-5966-00017

9

Facility: Six (6) touch-up paint booths (PBVolvo/GMT, PBViper, PBTri-door 1, PBTri-door 2,

PBHummer and PBC5)

Parameter: HAPs delivered to the applicators

Limit: Less than ten (10) tons of the worst case single HAP, and less than twenty-five (25)

tons of total HAPs per twelve (12) consecutive month period, with compliance

determined at the end of each month.

YEAR:

		_				
Month	Worst case single HAP (tons)	Worst case single HAP (tons)	Worst case single HAP (tons)	Total HAPs (tons)	Total HAPs (tons)	Total HAPs (tons)
	This Month	Previous 11 Months	12 Month Total	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this m	ino devialio	m occurred	ın m	s monun.
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Deviation/s occurred in this month.

Deviatio	in has been reported on.	
Submitted by:		
T		
Signature:		
Date:		
Phone:		

Page 14 of 14 First Minor Source Modification No.: 145-16510-00017

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

# Part 70 Quarterly Report

Source Name:	Meridian Automotive Systems, Inc.
Source Address:	501 Northridge Drive, Shelbyville, Indiana 46176
Mailing Address:	501 Northridge Drive, Shelbyville, Indiana 46176

Part 70 Permit No.: T 145-5966-00017

Six (6) touch-up paint booths (PBVolvo/GMT, PBViper, PBTri-door 1, PBTri-door 2, Facility:

PBHummer and PBC5)

Parameter: Total solids delivered to the applicators

Less than one hundred (100) tons per twelve consecutive (12) month period, with Limit:

compliance determined at the end of each month.

YEAR:

Tons of solids Tons of solids Tons of solids Month This Month Previous 11 Months 12 Month Total

9	No deviation occurred in this month.				
9	Deviation/s occurred in this month.  Deviation has been reported on:				
Submit	ted by:				
Title/Po	osition:				
Signatu	ıre:				
Date:	Date:				
Phone:					

# Indiana Department of Environmental Management Office of Air Quality

# Technical Support Document (TSD) for a Part 70 Minor Source Modification and a Significant Permit Modification

# **Source Background and Description**

Source Name: Meridian Automotive Systems, Inc.

Source Location: 501 Northridge Drive, Shelbyville, Indiana 46176

County: Shelby SIC Code: 3089

Operation Permit No.:

Operation Permit Issuance Date:

Minor Source Modification No.:

Significant Permit Modification No.:

Permit Reviewer:

T 145-5966-00017

November 17, 1998

MSM 145-16510-00017

SPM 145-16596-00017

Edward A. Longenberger

The Office of Air Quality (OAQ) has reviewed a modification application from Meridian Automotive Systems, Inc. relating to the construction and operation of the following emission units and pollution control devices:

Six (6) touch-up paint booths, identified as PBVolvo/GMT, PBViper, PBTri-door 1, PBTri-door 2, PBHummer and PBC5, constructed in 2003, each equipped with dry filters as particulate control, exhausting to Stacks PB Volvo/GMT, PB Viper, PB Tri-door 1, PB Tri-door 2, PB Hummer, and PBC5, respectively, capacity: variable, depending on part type.

### **History**

On November 27, 2002, Meridian Automotive Systems, Inc. submitted an application to the OAQ requesting to add additional touch-up paint booths to their existing plant. Cambridge Industries, Inc. was issued a Part 70 permit on November 17, 1998. An administrative amendment to change the name of the source from Cambridge Industries to Meridian Automotive Systems, Inc. was issued on October 23, 2000.

# **Enforcement Issue**

There are no enforcement actions pending.

#### **Stack Summary**

Stack ID	Operation	<b>Height</b> (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
PB Viper	PB Viper	36.0	2.0	10,000	ambient
PB Hummer	PB Hummer	36.0	2.83	7,500	ambient
PB Volvo/GMT	PB Volvo/GMT	36.0	TBD	TBD	ambient

Meridian Automotive Systems, Inc.

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Shelbyville, Indiana Minor Source Modification No.: 145-16510-00017
Permit Reviewer: MES Significant Permit Modification No.: 145-16596-00017

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
PB C5	PB C5	36.0	TBD	TBD	ambient
PB Tri-door 1	PB Tri-door 1	36.0	TBD	TBD	ambient
PB Tri-door 2	PB Tri-door 2	36.0	TBD	TBD	ambient

#### Recommendation

The staff recommends to the Commissioner that the Part 70 Minor Source Modification and the Significant Permit Modification be approved. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on November 27, 2002.

# **Emission Calculations**

See pages 1 through 2 of 2 of Appendix A of this document for detailed emissions calculations.

#### **Potential To Emit of Modification**

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

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	37.3
PM <sub>10</sub>	37.3
SO <sub>2</sub>	0.00
VOC	165
СО	0.00
NO <sub>X</sub>	0.00

Meridian Automotive Systems, Inc.

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Minor Source Modification No.: 145-16510-00017
Permit Reviewer: MES

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HAPs	Potential To Emit (tons/year)
Xylene	57.3
Ethyl Benzene	10.2
Toluene	4.39
MEK	4.16
MIBK	3.01
Glycol Ethers	1.30
Naphthalene	0.781
Cumene	0.521
TOTAL	81.7

#### **Justification for Modification**

The Part 70 Operating permit is being modified through a Part 70 Minor Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(d)(5), because the potential to emit of VOC, PM and PM<sub>10</sub> are each limited to less than twenty-five (25) tons per year, and the potential HAP emissions are limited to less than ten (10) tons per year for the worst case single HAP, and twenty-five (25) tons per year for total HAPs, by limiting total annual solvent usage.

The proposed operating conditions shall be incorporated into the Part 70 Operating Permit as a Significant Permit Modification (SPM 145-16596-00017) in accordance with 326 IAC 2-7-12(b)(1) (D), since the permit modification seeks to establish a Part 70 condition for which there is no underlying applicable requirement and which the source has assumed to make a requirement not applicable. The Significant Permit Modification will give the source approval to operate the proposed emission units.

# **County Attainment Status**

The source is located in Shelby County.

Pollutant	Status
PM <sub>10</sub>	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
СО	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Shelby County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of

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Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Shelby County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

#### **Source Status**

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	less than 250
PM <sub>10</sub>	less than 250
SO <sub>2</sub>	less than 100
VOC	less than 250
СО	less than 100
$NO_{\chi}$	greater than 100, less than 250

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.
- (b) These emissions are based upon the Technical Support Document for Part 70 Permit No. T 145-5966-00017.

#### Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

		Potential to Emit (tons/year)					
Process/facility	PM	PM <sub>10</sub>	SO <sub>2</sub>	voc	СО	NO <sub>x</sub>	HAPs
Six (6) touch-up paint booths	Less than 25	Less than 25	0.00	Less than 25	0.00	0.00	Less than 10/25
PSD Threshold Level	250	250	250	250	250	250	-

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD threshold levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

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Permit Reviewer: MES Significant Permit Modification No.: 145-16596-00017

# **Federal Rule Applicability**

(a) This significant modification does not involve a pollutant-specific emissions unit:

- (1) with the potential to emit before controls equal to or greater than one hundred (100) tons per year, and
- (2) that is subject to an emission limit and has a control device that is necessary to meet that limit.

Therefore, the requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are not applicable.

- (b) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 326 IAC 20, 40 CFR 61 and 40 CFR Part 63) applicable to this modification.
- (d) The requirements of Section 112(j) of the Clean Air Act (40 CFR Part 63.50 through 63.56) are applicable to this source because the source is a major source of hazardous air pollutant (HAP) emissions (i.e., the source has the potential to emit 10 tons per year or greater of a single HAP or 25 tons per year or greater of a combination of HAPs) and the source is constructing one or more units that belong to one or more source categories affected by the Section 112(j) Maximum Achievable Control Technology (MACT) Hammer date of May 15, 2002. This rule requires the Permittee to:
  - (1) Submit a Part 1 MACT Application within thirty (30) days of startup of the new emission units; and
  - (2) Submit a Part 2 MACT Application within twenty-four (24) months after the Permittee submitted a Part 1 MACT Application.

Note that on April 25, 2002, Earthjustice filed a lawsuit against the US EPA regarding the April 5, 2002 revisions to the rules implementing Section 112(j) of the Clean Air Act. In particular, Earthjustice is challenging the US EPA's 24-month period between the Part 1 and Part 2 MACT Application due dates. Therefore, the Part 2 MACT Application due date may be changed as a result of the suit. Based on a proposed settlement published in the August 26, 2002 Federal Register, it appears that US EPA intends to revise the rule so that the due date of the Part 2 MACT Application will be within twelve (12) months after the Permittee submitted the Part 1 MACT application.

(3) Pursuant to 40 CFR 63.56(a), the Permittee shall comply with an applicable promulgated MACT standard in accordance with the schedule provided in the MACT standard if the MACT standard is promulgated prior to the Part 2 MACT Application deadline or prior to the issuance of permit with a case-by-case Section 112(j) MACT determination. The MACT requirements include the applicable General Provisions requirements of 40 CFR 63, Subpart A. Pursuant to 40 CFR 63.9(b), the Permittee shall submit an initial notification not later than 120 days after the effective date of the MACT, unless the MACT specifies otherwise. The MACT and the General Provisions of 40 CFR 63, Subpart A will become new applicable requirements, as defined by 326 IAC 2-7-1(6), that must be incorporated into the Part 70 permit. After IDEM, OAQ receives the initial notification, any of the following will

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#### occur:

- (A) If three or more years remain on the Part 70 permit term at the time the MACT is promulgated, IDEM, OAQ will notify the source that IDEM, OAQ will reopen the permit to include the MACT requirements pursuant to 326 IAC 2-7-9; or
- (B) If less than three years remain on the Part 70 permit term at the time the MACT is promulgated, the Permittee must include information regarding the MACT in the renewal application, including the information required in 326 IAC 2-7-4(c); or
- (C) The Permittee may submit an application for a significant permit modification under 326 IAC 2-7-12 to incorporate the MACT requirements. The application may include information regarding which portions of the MACT are applicable to the emission units at the source and which compliance options will be followed.

# State Rule Applicability - Individual Facilities

326 IAC 2-4.1 (New source toxics control)

The total HAPs emissions from the six (6) touch-up booths (PBVolvo/GMT, PBViper, PBTri-door 2, PBTri-door 1, PBHummer and PBC5) will be limited to less than ten (10) tons per year of any single HAP, and less than twenty-five (25) tons per year of total HAPs. Therefore, this modification is not a construction of a major source pursuant to 40 CFR 63.41, and thus the requirements of 326 IAC 2-4.1 are not applicable to the proposed touch-up booths.

326 IAC 2-7-10.5 (Part 70 Source Modifications)

The total amount of solids delivered to the applicators at the six (6) touch-up booths (PBVolvo/GMT, PBViper, PBTri-door 2, PBTri-door 1, PBHummer and PBC5) shall be limited to less than one hundred (100) tons per twelve consecutive (12) month period, based on a seventy-five percent (75%) transfer efficiency, which is equivalent to PM and PM $_{10}$  emissions of less than a total of twenty-five (25) tons per year from the six (6) touch-up booths. Therefore, the construction of the six (6) touch-up booths can be performed through a Part 70 Minor Source Modification.

#### 326 IAC 6-3-2 (Process Operations)

On June 12, 2002, revisions to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) became effective; this rule was previously referred to as 326 IAC 6-3 (Process Operations). As of the date this permit is being issued these revisions have not been approved by EPA into the Indiana State Implementation Plan (SIP); therefore, the following requirements from the previous version of 326 IAC 6-3 (Process Operations) which has been approved into the SIP will remain applicable requirements until the revisions to 326 IAC 6-3 are approved into the SIP and the condition is modified in a subsequent permit action.

Pursuant to 40 CFR 52 Subpart P, the particulate matter (PM) from the six (6) touch-up paint booths shall be limited by the following:

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:

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

Under the rule revision, particulate from the six (6) touch-up paint booths shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

326 IAC 8-1-6 (New facilities; general reduction requirements)

The applicant has requested that the VOC emissions from the six (6) touch-up booths (PBVolvo/GMT, PBViper, PBTri-door 2, PBTri-door 1, PBHummer and PBC5) be limited to less than twenty-five (25) tons per year, total. Therefore, the requirements of 326 IAC 8-1-6 are not applicable to the proposed touch-up booths.

# **Compliance Requirements**

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

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

There are no specific compliance monitoring requirements applicable to this proposed modification.

# **Proposed Changes**

The permit language is changed to read as follows (deleted language appears as strikeouts, new language appears in bold):

On January 1, 2001, the IDEM Office of Air Management changed to the Office of Air Quality. Therefore, all references to Office of Air Management or OAM have been changed to **Office of Air Quality** or **OAQ**.

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

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

- (3) One (1) fiberglass coating system, consisting of the following equipment:
  - (A) One (1) Gallagher-Kaiser manual spray booth, constructed in June, 1988, identified as SB-M, utilizing a high volume low pressure application method, with maximum capacity of forty-five (45) molded reinforced plastic body subassemblies per hour,

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controlled by a waterwash collection system, exhausting to two (2) stacks (EP19 and EP20);

- (B) One (1) Gallagher-Kaiser automatic spray booth, constructed in March, 1994, identified as SB-A, utilizing robots equipped with electrostatic applicators and electrostatic spray guns, with maximum capacity of forty-five (45) molded reinforced plastic body subassemblies per hour, controlled by a waterwash collection system, exhausting to one (1) stack (EP 21);
- (C) One (1) Eclipse natural gas fired bake oven and one (1) flash tunnel, identified as BO-1, with a maximum capacity of 10.45 million British thermal units per hour, controlled by a 11.0 million British thermal units per hour natural gas fired thermal incinerator, exhausting to one (1) stack (EP-22);
- (4) Six (6) touch-up paint booths, identified as PBVolvo/GMT, PBViper, PBTri-door 1, PBTri-door 2, PBHummer and PBC5, constructed in 2003, each equipped with dry filters as particulate control, exhausting to Stacks PB Volvo/GMT, PB Viper, PB Tri-door 1, PB Tri-door 2, PB Hummer, and PBC5, respectively, capacity: variable, depending on part type.
- (5 4) Nineteen (19) plastic forming presses with maximum capacity of 6,771 pounds per hour of sheet molding compound; and
- (6 5) Plastic parts machining and cleaning operation, with maximum capacity of 6,771 pounds per hour of sheet molding compound, with particulate emissions controlled by two (2) dust collector baghouses.

#### **SECTION C**

#### **SOURCE OPERATION CONDITIONS**

- C.24 Application Requirements for Section 112(j) of the Clean Air Act [40 CFR 63.52(b) and (e)] [40 CFR 63.56(a)] [40 CFR 63.9(b)] [326 IAC 2-7-12]
  - (a) The Permittee shall submit a Part 1 Maximum Achievable Control Technology (MACT) Application in accordance with 40 CFR 63.52(b)(1) within thirty (30) days of startup of the new emission units. The Part 1 MACT Application shall meet the requirements of 40 CFR 63.53(a).
  - (b) The Permittee shall submit a Part 2 MACT Application in accordance with 40 CFR 63.52 (e)(1). The Part 2 MACT Application shall meet the requirements of 40 CFR 63.53(b).
  - (c) Notwithstanding paragraph (b), the Permittee is not required to submit a Part 2 MACT Application if the Permittee no longer meets the applicability criteria of 40 CFR 63.50 by the application deadline in 40 CFR 63.52(e)(1). For example, the Permittee would not have to submit a Part 2 MACT Application if, by the application deadline:
    - (1) The source is no longer a major source of hazardous air pollutants, as defined in 40 CFR 63.2;
    - (2) The source no longer includes one or more units in an affected source category for which the U.S. EPA failed to promulgate an emission standard by May 15, 2002; or

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(3) The MACT standard or standards for the affected source categories included at the source are promulgated.

(d) Notwithstanding paragraph (b), pursuant to 40 CFR 63.56(a), the Permittee shall comply with an applicable promulgated MACT standard in accordance with the schedule provided in the MACT standard if the MACT standard is promulgated prior to the Part 2 MACT Application deadline or prior to the issuance of permit with a case-bycase Section 112(j) MACT determination. The MACT requirements include the applicable General Provisions requirements of 40 CFR 63, Subpart A. Pursuant to 40 CFR 63.9(b), the Permittee shall submit an initial notification not later than 120 days after the effective date of the MACT, unless the MACT specifies otherwise. The initial notification shall be submitted to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Quality 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V Director, Air and Radiation Division 77 West Jackson Boulevard Chicago, Illinois 60604-3590

#### **SECTION D.3**

#### **FACILITY OPERATION CONDITIONS**

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

- (3) One (1) fiberglass coating system, consisting of the following equipment:
  - (A) One (1) Gallagher-Kaiser manual spray booth, constructed in June, 1988, identified as SB-M, utilizing a high volume low pressure application method, with maximum capacity of forty-five (45) molded reinforced plastic body subassemblies per hour, controlled by a waterwash collection system, exhausting to two (2) stacks (EP19 and EP20);
  - (B) One (1) Gallagher-Kaiser automatic spray booth, constructed in March, 1994, identified as SB-A, utilizing robots equipped with electrostatic applicators and electrostatic spray guns, with maximum capacity of forty-five (45) molded reinforced plastic body subassemblies per hour, controlled by a waterwash collection system, exhausting to one (1) stack (EP 21);
  - (C) One (1) Eclipse natural gas fired bake oven and one (1) flash tunnel, identified as BO-1, with a maximum capacity of 10.45 million British thermal units per hour, controlled by a 11.0 million British thermal units per hour natural gas fired thermal incinerator, exhausting to one (1) stack (EP-22);
- (4) Six (6) touch-up paint booths, identified as PBVolvo/GMT, PBViper, PBTri-door 1, PBTri-door 2, PBHummer and PBC5, constructed in 2003, each equipped with dry filters as particulate control, exhausting to Stacks PB Volvo/GMT, PB Viper, PB Tri-door 1, PB Tri-door 2, PB Hummer, and PBC5, respectively, capacity: variable, depending on part type.

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

# D.3.1 Volatile Organic Compound (VOC) [326 IAC 2-2]

Pursuant to Construction Permit (CP 145-5373-00017), issued on July 3, 1996,

- (a) The input VOC of coatings applied and solvent applied to the surface coating systems one (1) fiberglass coating system and the six (6) touch-up paint booths (PBVolvo/GMT, PBViper, PBTri-door 1, PBTri-door 2, PBHummer and PBC5) shall be limited to 222 tons per 365 consecutive day period, rolled on a daily basis. This throughput limitation is equivalent to potential to emit (PTE) VOC from the surface coating operation of 159 tons per 365 consecutive day period, rolled on a daily basis, after control with the thermal incinerator operating at an overall efficiency of 95%.
- (b) This production limitation is necessary in order to ensure that the Prevention of Significant Deterioration (PSD) rules, 326 IAC 2-2 and 40 CFR 52.21, will not apply.

# D.3.2 Volatile Organic Compound (VOC) [326 IAC 8-1-6]

Pursuant to Construction Permit (CP-145-5373-00017), issued on July 3, 1996 and 326 IAC 8-1-6 (General Reduction Requirements):

- (a) The Volatile Organic Compound (VOC) content of the coatings as delivered to the applicators at the one (1) fiberglass coating system shall be limited to 8.3 pounds of VOC per gallon of coating solids for prime coat applications.
- (b) The Volatile Organic Compound (VOC) content of the coatings as delivered to the applicators at the one (1) fiberglass coating system shall be limited to 12.2 pounds of VOC per gallon of coating solids for topcoat applications.
- (c) The manual spray booth at the one (1) fiberglass coating system shall use a high volume, low pressure (HVLP) application method. High volume low pressure (HVLP) spray means technology used to apply coating to a substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.
- (d) The automatic spray booth **at the one (1) fiberglass coating system** shall utilize the automatic electrostatic rotating bell.

### D.3.3 Volatile Organic Compound (VOC) [326 IAC 8-1-6]

The total amount of VOC delivered to the applicators at the six (6) touch-up paint booths (PBVolvo/GMT, PBViper, PBTri-door 1, PBTri-door 2, PBHummer and PBC5) shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period, with compliance determined at the end of each month. Therefore, the requirements of 326 IAC 8-1-6 (New facilities; general reduction requirements) do not apply.

#### D.3.4 Hazardous Air Pollutants (HAPs) [326 IAC 2-4.1-1]

The total amount of any single HAP and combination of all HAPs delivered to the applicators at the six (6) touch-up paint booths (PBVolvo/GMT, PBViper, PBTri-door 1, PBTri-door 2, PBHummer and PBC5) shall be limited to less than ten (10) and less than twenty-five (25) tons per twelve (12) consecutive month period, respectively, with compliance determined at the end of each month. Therefore, the requirements of 326 IAC 2-4.1-1 (New source toxics control) do not apply.

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### D.3.5 Particulate Matter (PM and PM<sub>10</sub>)

The total amount of solids delivered to the applicators at the six (6) touch-up booths (PBVolvo/GMT, PBViper, PBTri-door 2, PBTri-door 1, PBHummer and PBC5) shall be limited to less than one hundred (100) tons per twelve consecutive (12) month period, with compliance determined at the end of each month, based on a seventy-five percent (75%) transfer efficiency, which is equivalent to PM and PM10 emissions of less than a total of twenty-five (25) tons per year from the six (6) touch-up booths. Therefore, the construction of the six (6) touch-up booths (PBVolvo/GMT, PBViper, PBTri-door 2, PBTri-door 1, PBHummer and PBC5) is not subject to the requirements of 326 IAC 2-7-10.5(f).

### D.3.63 Particulate Matter (PM) [326 IAC 6-3-2] [40 CFR 52 Subpart P]

Pursuant to 326 IAC 6-3-2 (Process Operations) the particulate matter (PM) from the two (2) spray booths (SB-M and SB-A) shall be limited by the following:

Interpolation and extrapolation 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

(b) Pursuant to 40 CFR 52 Subpart P, the PM from each of the six (6) touch-up paint booths (PBVolvo/GMT, PBViper, PBTri-door 1, PBTri-door 2, PBHummer and PBC5) shall not exceed the pound per hour emission rate established as E in the following formula:

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

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

#### **Compliance Determination Requirements**

# D.3.85 Testing Requirements [326 IAC 2-7-6(1),(6)]

During the period between 18 and 48 after issuance of this permit, in order to demonstrate compliance with the thermal incinerator control efficiency stated in Condition D.3.1, the Permittee shall perform VOC testing utilizing Method 25 (40 CFR 60, Appendix A) or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

# D.3.96 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Conditions D.3.1 and D.3.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

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# D.3.107VOC Emissions

Compliance with Condition D.3.1 shall be demonstrated at the end of each day based on the total volatile organic compound usage for the most recent 365 day period.

#### D.3.118Thermal Incinerator

Pursuant to 326 IAC 8-1-6 (General Reduction Requirements), when operating the thermal incinerator shall maintain a minimum operating temperature of 1,400°F or a temperature determined in the compliance tests, and a fan amperage and duct velocity determined in the compliance tests to maintain a minimum 95% destruction of the volatile organic compound (VOC) captured.

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

### D.3.129 Volatile Organic Compound (VOC)

Pursuant to Construction Permit (CP 145-5373-00017) issued on July 3, 1996, the thermal incinerator shall operate at all times that the bake oven and flash tunnel is in operation.

### D.3.130Particulate Matter (PM)

The waterwash collection system shall be in operation at all times the two (2) spray booths (SB-M and SB-A) are in operation.

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

# D.3.141Record Keeping Requirements

- (a) To document compliance with Condition D.3.**129**, the Permittee shall maintain daily records of the thermal incinerator temperature.
- (b) To document compliance with Conditions D.3.1, and D.3.2 and D.3.3, the Permittee shall maintain records in accordance with (1) through (46) below. Records maintained for (1) through (46) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.3.1 and D.3.3.
  - (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
  - (2) A log of the dates of use:
  - (3) The volume weighted VOC content of the coatings used for each month;
  - (2 4) The cleanup solvent usage for each month;
  - (3 5) The total VOC usage for each month; and
  - (4 6) The weight of VOCs emitted for each compliance period.
- (c) To document compliance with Condition D.3.4, the Permittee shall maintain records in accordance with (1) through (4) below for the six (6) touch-up paint booths. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the HAP usage limits established in Condition D.3.4.

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- (1) The HAPs content of each coating material and solvent used.
- (2) The amount of coating material and solvent used on monthly basis. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
- (3) The total HAPs usage for each month; and
- (4) The weight of HAPs emitted for each compliance period.
- (d) To document compliance with Condition D.3.5, the Permittee shall maintain records in accordance with (1) through (4) below for the six (6) touch-up paint booths. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the PM and PM<sub>10</sub> emission limits established in Condition D.3.5.
  - (1) The total solids content of each coating material and solvent used.
  - (2) The amount of coating material and solvent used on monthly basis. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
  - (3) The total solids usage for each month; and
  - (4) The weight of PM and  $PM_{10}$  emitted for each compliance period.
- (e e) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

# D.3.1**5**2Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.3.1, D.3.3, D.3.4 and D.3.5 shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

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#### SECTION D.4 FACILITY OPERATION CONDITIONS

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

(45) Nineteen (19) plastic forming presses with maximum capacity of 6,771 pounds per hour of sheet molding compound; and

(56) Plastic parts machining and cleaning operation, with maximum capacity of 6,771 pounds per hour of sheet molding compound, with particulate emissions controlled by two (2) dust collector baghouses.

(Insignificant Activity) Two (2) hydraulic molding presses and associated secondary fixtures

(deflashing, drilling, sanding, routing and punching equipment), molding a maximum of 616 pounds per hour of sheet molding compound per press into reinforced plastic automotive body panels and assemblies, using a maximum

of 0.88 pounds per hour of mold release.

(Insignificant Activity) Four (4) 500-2500 ton capacity hydraulic presses for molding, drilling,

sanding, routing, and bonding reinforced plastic;

(Insignificant Activity) Two (2) 2500 hydraulic press for molding, drilling, sanding, routing and

bonding;

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

#### Part 70 Quarterly Report

Source Name:	Moridian	Automotive \$	Svetome	Inc
Source name:	wendan	Automotive 3	Systems,	mc.

Source Address: 501 Northridge Drive, Shelbyville, Indiana 46176
Mailing Address: 501 Northridge Drive, Shelbyville, Indiana 46176

Part 70 Permit No.: T 145-5966-00017

9

Facility: Six (6) touch-up paint booths (PBVolvo/GMT, PBViper, PBTri-door 1, PBTri-door 2,

**PBHummer and PBC5)** 

Parameter: Total VOC delivered to the applicators

Limit: Less than twenty-five (25) tons per twelve (12) consecutive month period, with

compliance determined at the end of each month.

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

	Tons of VOC	Tons of VOC	Tons of VOC
Month	This Month	Previous 11 Months	12 Month Total

nth.
۱

Deviation/s occurred in this month.

<b>5</b>	1 1		

Deviatio	n nas been reported on.	
Submitted by:		
Signature:		
Date:		
Phone:		

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

# Part 70 Quarterly Report

Source Name: Meridian Automotive Systems, Inc.
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Source Address: 501 Northridge Drive, Shelbyville, Indiana 46176
Mailing Address: 501 Northridge Drive, Shelbyville, Indiana 46176

Part 70 Permit No.: T 145-5966-00017

Facility: Six (6) touch-up paint booths (PBVolvo/GMT, PBViper, PBTri-door 1, PBTri-door 2,

**PBHummer and PBC5**)

Parameter: HAPs delivered to the applicators

Limit: Less than ten (10) tons of the worst case single HAP, and less than twenty-five (25)

tons of total HAPs per twelve (12) consecutive month period, with compliance

determined at the end of each month.

YEAR:

Month	Worst case single HAP (tons)	Worst case single HAP (tons)	Worst case single HAP (tons)	Total HAPs (tons)	Total HAPs (tons)	Total HAPs (tons)
	This Month	Previous 11 Months	12 Month Total	This Month	Previous 11 Months	12 Month Total

- 9 No deviation occurred in this month.
- 9 Deviation/s occurred in this month.

Deviation has been reported on:

Submitted by:

Title/Position:

Signature:

Date:

Phone:

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

# Part 70 Quarterly Report

Source Name:	Meridian Automotive Systems, Inc.

Source Address: 501 Northridge Drive, Shelbyville, Indiana 46176
Mailing Address: 501 Northridge Drive, Shelbyville, Indiana 46176

Part 70 Permit No.: T 145-5966-00017

Facility: Six (6) touch-up paint booths (PBVolvo/GMT, PBViper, PBTri-door 1, PBTri-door 2,

PBHummer and PBC5)

Parameter: Total solids delivered to the applicators

Limit: Less than one hundred (100) tons per twelve consecutive (12) month period, with

compliance determined at the end of each month.

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

	Tons of solids	Tons of solids	Tons of solids
Month	This Month	Previous 11 Months	12 Month Total

9	No (	deviation	occurred	in	this	month.
---	------	-----------	----------	----	------	--------

9	Deviation/s occurred in this month.  Deviation has been reported on:
Submit	ted by:
Title/Po	osition:
Signatu	ıre:
Date:	
Phone:	

Meridian Automotive Systems, Inc.

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Shelbyville, Indiana

Minor Source Modification No.: 145-16510-00017
Permit Reviewer: MES

Significant Permit Modification No.: 145-16596-00017

# Conclusion

The construction and operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification No. **145-16510-00017** and the attached proposed Part 70 Significant Permit Modification No. **145-16596-00017**.

#### Appendix A: Emissions Calculations VOC and Particulate From Surface Coating Operations

Company Name: Meridian Automotive Systems, Inc.

Address City IN Zip: 501 Northridge Drive, Shelbyville, Indiana 46176

MSM: 145-16510 Plt ID: 145-00017

Reviewer: Edward A. Longenberger Date: November 27, 2002

Material	Density (lbs/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency
PBViper																
2560	9.47	47.4%	0.00%	47.4%	0.00%	34.6%	6.84	1.00	4.49	4.49	30.7	737	134	37.3	13.0	75.0%
RXF	8.69	63.5%	0.00%	63.5%	0.00%	26.7%	6.84	1.00	5.52	5.52	37.7	906	165	23.8	20.67	75.0%
886A	10.64	48.1%	0.00%	48.1%	0.00%	33.0%	2.28	1.00	5.12	5.12	11.67	280	51.1	13.8	15.51	75.0%
PBHummer																
2560	9.47	47.4%	0.00%	47.4%	0.00%	34.6%	6.84	1.00	4.49	4.49	30.7	737	134	37.3	13.0	75.0%
RXF	8.69	63.5%	0.00%	63.5%	0.00%	26.7%	6.84	1.00	5.52	5.52	37.7	906	165	23.8	20.67	75.0%
PBVolvo/GMT																
BC17	8.95	57.9%	0.00%	57.9%	0.00%	30.5%	2.00	1.00	5.18	5.18	10.4	249	45.4	8.25	17.0	75.0%
2495	9.71	50.9%	0.00%	50.9%	0.00%	26.9%	2.00	1.00	4.94	4.94	9.9	237	43.3	10.4	18.4	75.0%
PBC5																
AC17	10.5	49.0%	0.00%	49.0%	0.00%	33.7%	0.910	1.00	5.15	5.15	4.68	112	20.5	5.34	15.3	75.0%
PBTri-door 1																
BC17	8.94	58.3%	0.00%	58.3%	0.00%	30.0%	0.640	1.00	5.21	5.21	3.34	80.1	14.6	2.61	17.4	75.0%
1510	11.44	39.6%	0.00%	39.6%	0.00%	37.6%	0.640	1.00	4.53	4.53	2.90	69.6	12.7	4.84	12.0	75.0%
PBTri-door 2																
BC17	8.94	58.3%	0.00%	58.3%	0.00%	30.0%	0.640	1.00	5.21	5.21	3.34	80.1	14.6	2.61	17.4	75.0%
1510	11.44	39.6%	0.00%	39.6%	0.00%	37.6%	0.640	1.00	4.53	4.53	2.90	69.6	12.7	4.84	12.0	75.0%

 Potential to Emit
 Add worst case coating to all solvents
 PM
 Control Efficiency
 95.0%

 Potential to Emit
 Add worst case coating to all solvents
 Uncontrolled
 37.7
 906
 165
 1.87

 Controlled
 37.7
 906
 165
 1.87

METHODOLOGY

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

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

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

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

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/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

Total

81.6

#### Appendix A: Emission Calculations **HAP Emission Calculations**

Company Name: Meridian Automotive Systems, Inc.

Address City IN Zip: 501 Northridge Drive, Shelbyville, Indiana 46176 MSM: 145-16510

PIt ID: 145-00017

Reviewer: Edward A. Longenberger Date: November 27, 2002

Material	Density (lbs/gal)			Weight % Xylene	Weight % Ethyl Benzene	Weight % Toluene	Weight % MEK	Weight % MIBK	Weight % Glycol Ethers	Weight % Napthalene	Weight % Cumene	Xylene Emissions	Ethyl Benzene Emissions	Toluene Emissions	MEK Emissions	MIBK Emissions	Glycol Ether Emissions	Napthalene Emissions	Cumene Emissions
PBViper												(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
2560	9.47	6.84	1.00	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00
RXF	8.69	6.84	1.00	22.0%	3.9%	0.0%	0.0%	0.0%	0.0%	0.3%	0.2%	57.3	10.15	0.00	0.00	0.00	0.00	0.781	0.521
886A	10.64	2.28	1.00	10.2%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	10.8	1.91	0.00	0.00	0.00	0.00	0.000	0.106
PBHummer																			
2560	9.47	6.84	1.00	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00
RXF	8.69	6.84	1.00	22.0%	3.9%	0.0%	0.0%	0.0%	0.0%	0.3%	0.2%	57.3	10.15	0.00	0.00	0.00	0.00	0.781	0.521
PBVolvo/GMT																			
BC17	8.95	2.00	1.00	3.2%	0.5%	5.6%	5.3%	0.5%	0.7%	0.0%	0.0%	2.51	0.392	4.391	4.16	0.392	0.549	0.00	0.00
2495	9.71	2.00	1.00	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.00	0.00	0.00	0.936	0.00	0.00	0.00	0.00
PBC5																			
AC17	10.5	0.910	1.00	1.7%	0.0%	1.7%	6.0%	7.2%	3.1%	0.0%	0.0%	0.711	0.000	0.711	2.51	3.01	1.30	0.00	0.00
PBTri-door 1																			
BC17	8.94	0.640	1.00	3.2%	0.5%	5.6%	5.3%	0.5%	0.7%	0.0%	0.0%	0.802	0.125	1.403	1.33	0.125	0.175	0.00	0.00
1510	11.44	0.640	1.00	17.3%	4.3%	1.2%	2.4%	0.0%	0.0%	0.0%	0.1%	5.55	1.38	0.385	0.770	0.00	0.00	0.000	0.032
PBTri-door 2																			
BC17	8.94	0.640	1.00	3.2%	0.5%	5.6%	5.3%	0.5%	0.7%	0.0%	0.0%	0.802	0.125	1.403	1.33	0.125	0.175	0.00	0.00
1510	11.44	0.640	1.00	17.3%	4.3%	1.2%	2.4%	0.0%	0.0%	0.0%	0.1%	5.55	1.38	0.385	0.770	0.00	0.00	0.000	0.032
												57.3	10.2	4.39	4.16	3.01	1.30	0.781	0.521

#### **METHODOLOGY**

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