

April 3, 2003

Mr. Ricky Smith
AM General Corporation
13200 McKinley Highway
Mishawaka, IN 46545

Re:141-17181
2nd Minor Permit Modification to
Part 70 No.: T 141-6023-00031

Dear Mr. Smith:

AM General Corporation was issued a Part 70 operating permit T141-6023-00031 on February 25, 1999 for a military and commercial HUMMER production plant. A letter requesting changes to this permit was received on February 5, 2003. Pursuant to the provisions of 326 IAC 2-7-12 a minor permit modification to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of incorporating the applicable requirements in Minor Source Modification 141-17101 for the following emission unit:

- (a) One (1) new Zinc Rich Primer Dip Coating Booth capable of coating 4.33 units per hour, to be installed adjacent to Small Parts Prime Booth 001 of the main Hummer I plant. The proposed Zinc Rich Primer Dip Coating Booth will replace priming now done in Booth 001 on the second shift.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original 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 Aida De Guzman, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call at (800) 451-6027, press 0 and ask for Aida De Guzman or extension (3-4972), or dial (317) 233-4972.

Sincerely,

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

Attachments

APD

cc: File - St Joseph County
U.S. EPA, Region V
St Joseph County Health Department
Northern Regional Office
Air Compliance Section Inspector - Rick Reynolds
Compliance Data Section - Karen Nowak
Administrative and Development
Technical Support and Modeling - Michele Boner

PART 70 OPERATING PERMIT OFFICE OF AIR MANAGEMENT

**AM General Corporation
13200 McKinley Hwy.
Mishawaka, Indiana 46545**

(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.

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.

Operation Permit No.: T141-6023-00031	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Management	Issuance Date: February 25, 1999
1 st Administrative Amendment No.: 141-12041, issued on April 20, 2000 2 nd Administrative Amendment No.: 141-12212, issued on August 22, 2000 3 rd Administrative Amendment No.: 141-12413, issued on August 4, 2000 4 th Administrative Amendment No.: 141-14597, issued on July 31, 2001 1 st Reopening No.: 141-13466, issued on November 1, 2001 1 st Significant Permit Modification No.: 141-15219, issued on May 8, 2002 1 st Minor Permit Modification No.: 141-15726, issued on July 31, 2002 5 th Administrative Amendment No.: 141-16221, issued on August 20, 2002	
2 nd Minor Permit Modification 141-17181	Pages Affected: 5, 6, 28, 29, 30, 31, 35 Pages Added: 31 _a , 35 _x , 35 _y
Issued by: Original signed by Paul Dubenetzky Paul Dubenetzky, Chief Permit Branch Office of Air Quality	Issuance Date: April 3, 2003

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 plant for the production of HUMMERs for military and commercial use.

Responsible Official: Ricky Smith - Vice President
Source Address: 13200 McKinley Hwy., Mishawaka, IN 46545
Mailing Address: 13200 McKinley Hwy., Mishawaka, IN 46545
SIC Code: 3711
County Location: St. Joseph
County Status: Attainment for all criteria pollutants
Source Status: Minor Source, under PSD and Emission Offset Rules
Major Source, Part 70 Permit Program
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) Surface coating booths of the following types:
 - (a) One (1) spraying and dipping operation, constructed in 1983, identified as 001, for the prime coating of small metal parts, with PM overspray from the spraying controlled by water wash, and exhausting at stacks S1 and S2.
 - (b) One (1) spraying and dipping operation, constructed in 1983, identified as 002, for the topcoating of small metal parts, with a maximum capacity of 12.5 units per hour, with PM overspray from the spraying controlled by water wash, and exhausting at stacks S3 and S4.
 - (c) One (1) spray coating operation, constructed in 1983, identified as 003, for the prime coating of 1.25 ton metal truck bodies, with a maximum capacity of 12.5 units per hour, with PM overspray controlled by water wash, and exhausting to stacks S5, S6, S7 and S8.
 - (d) One (1) spray coating operation, constructed in 1983, identified as 004, for the topcoating of metal truck bodies, with a maximum capacity of 12.5 units per hour, with PM overspray controlled by water wash, and exhausting to stacks S9, S10, S11 and S12.
 - (e) One (1) spray coating operation, constructed in 1983, identified as 005, for the topcoating of metal truck chassis, with a maximum capacity of 12.5 units per hour, with PM overspray controlled by water wash, and exhausting to stacks S13, and S14.
 - (f) One (1) spray coating operation, constructed in 1983, identified as 006, for the camouflage painting of metal truck bodies, with a maximum capacity of 12.5 units

per hour, with PM overspray controlled by water wash, and exhausting to stacks S15, S16, S17 and S18.

- (g) One (1) dual touch-up/repair small parts spray coating operation, constructed in 1983, identified as 007, for the coating of small metal truck components, with PM overspray controlled by dry filters, and exhausting to stack S19.
 - (h) One (1) spray coating operation, constructed in 1991, identified as 008, for the prime coating and topcoating of metal commercial truck bodies, with a maximum capacity of 2 units per hour, with PM overspray controlled by dry filters, and exhausting to stacks S21, S22, S23, S24, S25, S26 and S27.
 - (i) One (1) spray coating operation, constructed in 1993, identified as 009, for accent and trim painting of metal commercial truck bodies, with a maximum capacity of 2 units per hour, with PM overspray controlled by dry filters, and exhausting to stacks S28 and S29.
 - (j) One (1) new Zinc Rich Primer Dip Booth capable of coating 4.33 units per hour, to be installed adjacent to Small Parts Prime Booth 001 of the main Hummer I plant. The proposed Zinc Rich Primer Dip Booth will replace priming now done in Booth 001 on the second shift.
- (2) Two (2) 25.2 MMBtu per hour natural gas-fired boilers, constructed in 1983, identified as 010 and 011, with no controls and exhausting to stacks S30 and S31, respectively.

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) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour. (two (2) 1.5 MMBtu per hour boilers)
- (2) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.
- (3) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (4) Detail sanding prep for paint.

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

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

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

D.1 FACILITY OPERATION CONDITIONS - Surface Coating Booths

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

- (1) Surface coating booths of the following types:
- (a) One (1) spraying and dipping operation, constructed in 1983, identified as 001, for the prime coating of small metal parts, with PM overspray from the spraying controlled by water wash, and exhausting at stacks S1 and S2.
 - (b) One (1) spraying and dipping operation, constructed in 1983, identified as 002, for the topcoating of small metal parts, with a maximum capacity of 12.5 units per hour, with PM overspray from the spraying controlled by water wash, and exhausting at stacks S3 and S4.
 - (c) One (1) spray coating operation, constructed in 1983, identified as 003, for the prime coating of 1.25 ton metal truck bodies, with a maximum capacity of 12.5 units per hour, with PM overspray controlled by water wash, and exhausting to stacks S5, S6, S7 and S8.
 - (d) One (1) spray coating operation, constructed in 1983, identified as 004, for the topcoating of metal truck bodies, with a maximum capacity of 12.5 units per hour, with PM overspray controlled by water wash, and exhausting to stacks S9, S10, S11 and S12.
 - (e) One (1) spray coating operation, constructed in 1983, identified as 005, for the topcoating of metal truck chassis, with a maximum capacity of 12.5 units per hour, with PM overspray controlled by water wash, and exhausting to stacks S13, and S14.
 - (f) One (1) spray coating operation, constructed in 1983, identified as 006, for the camouflage painting of metal truck bodies, with a maximum capacity of 12.5 units per hour, with PM overspray controlled by water wash, and exhausting to stacks S15, S16, S17 and S18.
 - (g) One (1) dual touch-up/repair small parts spray coating operation, constructed in 1983, identified as 007, for the coating of small metal truck components, with PM overspray controlled by dry filters, and exhausting to stack S19.
 - (h) One (1) spray coating operation, constructed in 1991, identified as 008, for the prime coating and topcoating of metal commercial truck bodies, with a maximum capacity of 2 units per hour, with PM overspray controlled by dry filters, and exhausting to stacks S21, S22, S23, S24, S25, S26 and S27.
 - (i) One (1) spray coating operation, constructed in 1993, identified as 009, for accent and trim painting of metal commercial truck bodies, with a maximum capacity of 2 units per hour, with PM overspray controlled by dry filters, and exhausting to stacks S28 and S29.
 - (j) One (1) new Zinc Rich Primer Dip Coating Booth capable of coating 4.33 units per hour, to be installed adjacent to Small Parts Prime Booth 001 of the main Hummer I plant. The proposed Zinc Rich Primer Dip Coating Booth will replace priming now done in Booth 001 on the second shift.

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

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicators of spray booths 001 - 009 shall be limited to the following:

- (a) 3.5 pounds of VOCs per gallon of coating less water, for forced warm air dried coatings; and
- (b) 4.3 pounds of VOCs per gallon of coating less water, for clear coatings.
- (c) The VOC limits in (a) and (b) of this condition shall be determined on a daily-volume weighted average, using the following equation:

$$\frac{\text{lb VOC}}{\text{gallon less water}} = \frac{3 \text{ coatings } [Dc * O * Q / [1 - W * Dc / Dw]]}{3C}$$

Dc = density of coating, lb/gal

O = weight percent organics, %

W = percent volume water, %

Dw = density of water, lb/gal

Q = quantity of coating, gal/unit

C = total coatings used, gal/unit

- (d) Pursuant to 326 IAC 8-2-9, the volatile organic compound (VOC) content of the coating used at the Zinc Rich Primer Dip Coating Booth shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for extreme performance coatings.

D.1.2 Emission Minimization [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

D.1.2_a Minor Source Operating Limit [326 IAC 2-7-10.5(d)(5)]

- (a) The total VOC input usage to Zinc Rich Primer Dip Coating Booth shall be limited to less than 25 tons per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with this limit by the Zinc Rich Primer Dip Coating Booth shall make 326 IAC 2-7-10.5(f), Significant Source Modification not applicable.

During the first twelve (12) months of operation, the VOC input shall be limited such that the total usage divided by the accumulated months of operation shall be less than 2.08 total tons per month.

- (b) The total single HAP input usage to Zinc Rich Primer Dip Coating Booth shall be limited to less than 10 tons per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with this limit by the Zinc Rich Primer Dip Coating Booth shall make 326 IAC 2-7-10.5(f), Significant Source Modification not applicable.

During the first twelve (12) months of operation, the VOC input shall be limited such that the total usage divided by the accumulated months of operation shall be less than 0.083 total tons per month.

- (c) Any change or modification which may increase the combined HAPs potential to emit to 25 tons per year or more from the equipment covered in this source modification will be subject to Significant Source Modification and must be approved by the Office of Air Quality (OAQ) before such change may occur.

D.1.3 Volatile Organic Compounds (VOC) Limitations [326 IAC 2-2]

- (a) Pursuant to CP141-5270, issued May 1, 1996, the total amount of VOC delivered to the coating applicator of booth 008 including clean up solvents, shall be limited to 3.25 tons per month. This limitation will make 326 IAC 2-2 (PSD) not applicable.
- (b) Pursuant to CP141-5270, issued May 1, 1996 and Registration CP141-3332, issued January 10, 1994, the total amount of VOC delivered to the coating applicator of booth 009 including clean up solvents, shall be limited to 24 tons per 365 day period, rolled on a daily basis. Any change or modification that would cause potential emissions to be greater than 25 tons per year will require prior approval by OAM.
- (c) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration), the booths 001-007, boilers 010-011, and insignificant degreasers shall have a limited potential to emit (PTE) VOC of 377 tons per 365 consecutive day period.

D.1.4 Particulate Matter (PM) Overspray [326 IAC 6-3-2(c)]

- (a) The PM overspray from the nine (9) paint booths (001 - 009) shall not exceed the pound per hour emission rate established as E in the following formula:

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:

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

- (b) The potential to emit (PTE) PM from spray booths 008 and 009 shall each be limited to 24 tons per year and the potential to emit (PTE) PM-10 shall be limited to 14 tons per year so that 326 IAC 2-2 (PSD) does not apply.

D.1.5 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 any control devices.

Compliance Determination Requirements

D.1.6 Testing Requirements [326 IAC 2-7-6(1), (6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the Volatile Organic Compound (VOC) and Particulate Matter (PM) limits specified in Condition D.1.1, D.1.2, D.1.2_a, D.1.3 and D.1.4 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.1.7 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Condition D.1.1, D.1.2_a and D.1.3 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, OAM reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.1.8 VOC Emissions

Compliance with Conditions D.1.1, D.1.2_a and D.1.3 shall be demonstrated at the end of each day based on the total volatile organic compound usage for the most recent 365 day period.

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

D.1.9 Particulate Matter (PM)

To show compliance with Condition D.1.4, the dry filters and water wash controls for PM overspray shall be properly installed, maintained and operating at all times when the nine (9) paint booths (001-009) are in operation.

D.1.10 Monitoring

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks (S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S13, S14, S15, S16, S17, S18, S19, S21, S22, S23, S24, S25, S26, S27, S28, and S29) while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

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

D.1.11 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1, D.1.2_a and D.1.3, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC usage limits established in Conditions D.1.1 and D.1.3.
 - (1) The amount and VOC content of each coating material and solvent used for emission units in items (a) through (i). The amount of VOC and HAP contents of the coating and solvent used for item (j). 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) For emission units in items (a) through (i), the volume weighted VOC content of the coatings applied for each day; If a coating greater than 3.5 pounds of VOC per gallon of coating less water for forced air dried coatings, or 4.3 pounds of VOC per gallon of coating less water for clear coatings is used, compliance shall be based on the following equation for daily volume weighted average:

$$\frac{\text{lb VOC}}{\text{gallon less water}} = \frac{3 \text{ coatings } [Dc * O * Q / [1 - W * Dc / Dw]]}{3C}$$

Dc = density of coating, lb/gal
O = weight percent organics, %
W = percent volume water, %

Dw = density of water, lb/gal
Q = quantity of coating, gal/unit
C = total coatings used, gal/unit

- (4) The cleanup solvent usage for each day;
 - (5) The total VOC usage for each day from emission units in items (a) through (i). and the total VOC and HAP usages for each month from emission unit in item (j); and
 - (6) The weight of VOCs emitted for each compliance period.
- (b) To document compliance with Condition D.1.10, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.
 - (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.12 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.2_a and D.1.3 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. A summary of the information to document compliance with Condition D.1.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit upon request.

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

Part 70 Source Modification Quarterly Report

Source Name: AM General Corporation
 Source Address: 13200 McKinley Highway, Mishawaka, Indiana 46545
 Mailing Address: 13200 McKinley Highway, Mishawaka, Indiana 46545
 Minor Permit Modification No.: 141-17181-00031
 Facility: Zinc Rich Primer Dip Coating Booth
 Parameter: Volatile Organic Compounds
 Limit: The total VOC input usage to Zinc Rich Primer Dip Coating Booth shall be limited to less than 25 tons per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with this limit by the Zinc Rich Primer Dip Coating Booth shall make 326 IAC 2-7-10.5(f), Significant Source Modification not applicable.

During the first twelve (12) months of operation, the VOC input shall be limited such that the total usage divided by the accumulated months of operation shall be less than 2.08 total tons per month.

QUARTER _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

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

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

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

Part 70 Source Modification Quarterly Report

Source Name: AM General Corporation
 Source Address: 13200 McKinley Highway, Mishawaka, Indiana 46545
 Mailing Address: 13200 McKinley Highway, Mishawaka, Indiana 46545
 Minor Permit Modification No.: 141-17181-00031
 Facility: Zinc Rich Primer Dip Coating Booth
 Parameter: Single HAPs
 Limit: The total single HAP input usage to Zinc Rich Primer Dip Coating Booth shall be limited to less than 10 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

During the first twelve (12) months of operation, the VOC input shall be limited such that the total usage divided by the accumulated months of operation shall be less than 0.083 total tons per month.

QUARTER _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

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

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

Indiana Department of Environmental Management Office of Air Quality

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

Source Background and Description

Source Name:	AM General Corporation
Source Location:	13200 McKinley Highway
County:	St. Joseph
SIC Code:	3711
Part 70 Operation Permit No.:	141-6023-00031
Operation Permit Issuance Date:	February 25, 1999
Minor Source Modification No.:	141-17101
Minor Permit Modification No.:	141-17181
Permit Reviewer:	Aida De Guzman

The Office of Air Quality (OAQ) has reviewed a modification application from AM General Corporation relating to the construction of the following emission units and pollution control devices:

- (a) One (1) new Zinc Rich Primer Dip Booth capable of coating 4.33 units per hour, to be installed adjacent to Small Parts Prime Booth 001 of the main Hummer I plant. The proposed Zinc Rich Primer Dip Booth will replace priming now done in Booth 001 on the second shift.

History

On January 9, 2003, AM General Corporation submitted an application to the OAQ requesting to add additional surface coating booth to their existing plant. AM General Corporation was issued a Part 70 permit on February 7, 1999.

Emission Calculations

See Pages 1 and 2 TSD Appendix A for detailed emission 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)	Limited Potential To Emit (tons/year)
PM	0.0	0.0
PM-10	0.0	0.0
SO ₂	0.0	0.0
VOC	37.60	<25
CO	0.0	0.0
NO _x	0.0	0.0

HAP's	Potential To Emit (tons/year)	Limited Potential To Emit (tons/year)
Xylene	19.88	9
Ethyl Benzene	3.54	
Methyl Isobutyl Ketone	0.57	
Worst Single HAP	19.88	<10
Combined HAPs	23.99	

Justification for Modification

- (a) The Part 70 Operating source is being modified through a Part 70 Minor Source Modification under 326 IAC 2-7-10.5(d)(5), since the potential to emit volatile organic compound (VOC) is limited to less than 25 tons per year, or the single hazardous air pollutant (HAP) is limited to less than 10 tons per year.
- (b) The Part 70 Operating permit is being modified through a Part 70 Minor Permit Modification under 326 IAC 2-7-12(b), since the change does not qualify as an administrative amendment nor it qualifies under a significant permit modification.

County Attainment Status

The source is located in St. Joseph County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	not determined

- (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. St Joseph County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CAR 52.21.
- (b) St Joseph County has been classified as attainment or unclassifiable for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CAR 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 limits. These emissions were taken from the PSD permit 141-11673-00031, issued on June 28, 2002, adding the data in tables for “Existing Source Status” and Potential to emit of Modification After Issuance”:

Pollutant	Emissions (tons/year)
PM	57.97
PM-10	42.07
SO ₂	0.5
VOC	700.7
CO	64.42
NOx	37.8

- (a) This existing source is a major stationary source because at least one 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.

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.

Process/facility	Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Proposed Modification (Zinc Rich Primer Dip Booth)	0.0	0.0	0.0	< 25	0.0	0.0	
PSD Significant Levels	25	15	40	40	100	40	-

Existing Source PTE	57.97	42.07	0.5	700.7	64.42	37.8	484.55
Source PTE After Issuance of the Modification	57.97	42.07	0.5	< 725.7	64.42	37.8	484.55

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

Federal Rule Applicability

- (a) New Source Performance Standards (NSPS)(326 IAC 12 and 40 CAR Part 60)
- (1) 40 CAR § 60.390, Subpart MM - Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations. This rule applies to each prime coat operation, each guide coat operation and each topcoat operation in an automobile and light duty truck assembly plant.
- The proposed Zinc Rich Primer Dip Booth is not subject to this rule, as the HUMMER vehicles being manufactured by the source are heavier than 3,850 kilograms (kg) (8,480 lbs), which is the weight of light duty trucks.
- (2) There are no other NSPS applicable to this proposed modification.
- (b) National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CAR Part 63)
- (1) There are no NESHAPs applicable to this proposed modification.

State Rule Applicability - Individual Facilities

- (a) 326 IAC 2-2 and 40 CAR 52.21 (Prevention of Significant Deterioration)
The proposed modification is not subject to this rule, as it does not emit VOC greater than 40 tons per year.
- (b) 326 IAC 8-2-2 (Surface Coating Automobile and Light Duty Truck Coating Operations)
This rule establishes emission limitation for automobile and light duty truck surface coating operation which includes all passenger car or passenger car derivatives capable of seating twelve (12) passengers and any motor vehicle rated at 3,864 kilograms (8,500 pounds) gross weight or less which are designed primarily for the purpose of transportation or are derivatives of such vehicles.
- This rule is not applicable to the Proposed Zinc Rich Primer Dip Booth HUMMER I vehicle surface coating operations, because HUMMER I has a gross weight heavier than Light Duty Truck's weight of 3,864 kilograms (8,500 pounds).
- (c) 326 IAC 8-2-9 (Miscellaneous Metal Coating)
The proposed Zinc Rich Primer Dip Booth is subject to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations). Pursuant to this rule the volatile organic compound (VOC) content of coating used at the Zinc Rich Primer Dip Booth shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for extreme performance coatings.
- The proposed Zinc Rich Primer Dip Booth is in compliance with this rule, as it emits 2.7 pounds per gallon less water, which is less than the limit of 3.5 pounds per gallon less water.
- (d) 326 IAC 6-3-2 (Process Operations)
The proposed Zinc Rich Primer Dip Booth is exempted from this rule, as dip coating operation is one of the exempted operations in 326 IAC 6-3-2.

Changes to the Part 70 Permit:

The following are the changes made to the Part 70 permit (changes are **bolded** and deletions are ~~struck through~~ for emphasis):

1. Section A.2 Emission Units and Pollution Control Equipment Summary is modified to include the above emission unit and be labeled as item (j):

- (j) **One (1) new Zinc Rich Primer Dip Booth capable of coating 4.33 units per hour, to be installed adjacent to Small Parts Prime Booth 001 of the main Hummer I plant. The proposed Zinc Rich Primer Dip Booth will replace priming now done in Booth 001 on the second shift.**

The change to Section A.2 will also be reflected in Section D.1 project description table:

Facility Description [326 IAC 2-7-5(15)
(1) Surface coating booths of the following types:
(a) through (i) no changes
(j) One (1) new Zinc Rich Primer Dip Booth capable of coating 4.33 units per hour, to be installed adjacent to Small Parts Prime Booth 001 of the main Hummer I plant. The proposed Zinc Rich Primer Dip Booth will replace priming now done in Booth 001 on the second shift.

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicators of spray booths 001 - 009 shall be limited to the following:

- (a) 3.5 pounds of VOCs per gallon of coating less water, for forced warm air dried coatings; and
- (b) 4.3 pounds of VOCs per gallon of coating less water, for clear coatings.
- (c) **The VOC limits in (a) and (b) of this condition shall be determined on a daily-volume weighted average, using the following equation:**

$$\frac{\text{lb VOC}}{\text{gallon less water}} = \frac{3 \text{ coatings } [Dc * O * Q / [1 - W * Dc / Dw]]}{3C}$$

Dc = density of coating, lb/gal
O = weight percent organics, %
W = percent volume water, %

Dw = density of water, lb/gal
Q = quantity of coating, gal/unit
C = total coatings used, gal/unit

- (d) **Pursuant to 326 IAC 8-2-9, the volatile organic compound (VOC) content of the coating used at the Zinc Rich Primer Dip Booth shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for extreme performance coatings.**

2. The following condition will be added in the Part 70 permit and be numbered as D.1.2_a

D.1.2_a Minor Source Operating Limit [326 IAC 2-7-10.5(d)(5)]

- (a) **The total VOC input usage to Zinc Rich Primer Dip Booth shall be limited to less than 25 tons per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with this limit by the Zinc Rich Primer Dip Booth shall make 326 IAC 2-7-10.5(f), Significant Source Modification not applicable.**

During the first twelve (12) months of operation, the VOC input shall be limited such that the total usage divided by the accumulated months of operation shall be less than 2.08 total tons per month.

- (b) **The total single HAP input usage to Zinc Rich Primer Dip Booth shall be limited to less than 10 tons per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with this limit by the Zinc Rich Primer Dip Booth shall make 326 IAC 2-7-10.5(f), Significant Source Modification not applicable.**

During the first twelve (12) months of operation, the VOC input shall be limited such that the total usage divided by the accumulated months of operation shall be less than 0.083 total tons per month.

- (c) **Any change or modification which may increase the combined HAPs potential to emit to 25 tons per year or more from the equipment covered in this source modification will be subject to Significant Source Modification and must be approved by the Office of Air Quality (OAQ) before such change may occur.**

3. Condition D.1.3 through D.1.5 no change
4. The following conditions will be changed to include the requirements for the new Zinc Rich Primer Dip Booth:

D.1.6 Testing Requirements [326 IAC 2-7-6(1), (6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the Volatile Organic Compound (VOC) and Particulate Matter (PM) limits specified in Condition D.1.1, D.1.2, **D.1.2_a**, D.1.3 and D.1.4 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.1.7 Volatile Organic Compounds

Compliance with the VOC content and usage limitations contained in Condition D.1.1, **D.1.2_a** and D.1.3 shall be determined pursuant to 326 IAC 8-1-4(a)(3)(A) using formulation data supplied by the coating manufacturer. However, 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.1.8 VOC Emissions

Compliance with Conditions D.1.1, **D.1.2_a** and D.1.3 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.1.9 through D.1.10 no change

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

D.1.11 Record Keeping Requirements

- (a) To document compliance with Conditions D1.1, **D1.2_a** and D.1.3, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) 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 D1.1 and D1.2.
- (1) The amount and VOC content of each coating material and solvent used **for emission units in items (a) through (i). The amount of VOC and HAP contents of the coating and solvent used for item (j).** 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) **For emission units in items (a) through (i),** the volume weighted VOC content of the coatings applied for each day; If a coating greater than 3.5 pounds of VOC per gallon of coating less water for forced air dried coatings, or 4.3 pounds of VOC per gallon of coating less water for clear coatings is used, compliance shall be based on the following equation for daily volume weighted average:

$$\frac{\text{lb VOC}}{\text{gallon less water}} = \frac{3 \text{ coatings } [Dc * O * Q / [1 - W * Dc / Dw]]}{3C}$$

Dc = density of coating, lb/gal

O = weight percent organics, %

W = percent volume water, %

Dw = density of water, lb/gal

Q = quantity of coating, gal/unit

C = total coatings used, gal/unit

- (4) The cleanup solvent usage for each day;
 - (5) The total VOC usage for each day **from emission units in items (a) through (i). and the total VOC and HAP usages for each month from emission unit in item (j)** ; and
 - (6) The weight of VOCs emitted for each compliance period.
- (b) To document compliance with Condition D.1.10, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.
 - (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.12 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions **D.1.2_a** and D.1.3 shall be submitted to the address listed in Section C - General Reporting Requirements, of the issued Part 70 permit, 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. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- 5. The following Reporting Forms will be added in the permit:

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

Part 70 Source Modification Quarterly Report

Source Name: AM General Corporation
Source Address: 13200 McKinley Highway, Mishawaka, Indiana 46545
Mailing Address: 13200 McKinley Highway, Mishawaka, Indiana 46545
Source Modification No.: 141-17101-00031
Facility: Zinc Rich Primer Dip Booth
Parameter: Volatile Organic Compounds
Limit: The total VOC input usage to Zinc Rich Primer Dip Booth shall be limited to less than 25 tons per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with this limit by the Zinc Rich Primer Dip Booth shall make 326 IAC 2-7-10.5(f), Significant Source Modification not applicable.

During the first twelve (12) months of operation, the VOC input shall be limited such that the total usage divided by the accumulated months of operation shall be less than 2.08 total tons per month.

QUARTER _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

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

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

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

Part 70 Source Modification Quarterly Report

Source Name: AM General Corporation
Source Address: 13200 McKinley Highway, Mishawaka, Indiana 46545
Mailing Address: 13200 McKinley Highway, Mishawaka, Indiana 46545
Source Modification No.: 141-17101-00031
Facility: Zinc Rich Primer Dip Booth
Parameter: Single HAPs
Limit: The total single HAP input usage to Zinc Rich Primer Dip Booth shall be limited to less than 10 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

During the first twelve (12) months of operation, the VOC input shall be limited such that the total usage divided by the accumulated months of operation shall be less than 0.083 total tons per month.

QUARTER _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

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

Submitted by: _____

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

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.

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 **Minor Source Modification No. 141-17101-00031, and Minor Permit Modification 141-17181-00031.**