



**COMMONWEALTH of VIRGINIA**

*DEPARTMENT OF ENVIRONMENTAL QUALITY*

PIEDMONT REGIONAL OFFICE

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**COMMONWEALTH OF VIRGINIA  
Department of Environmental Quality  
Piedmont Regional Office**

**STATEMENT OF LEGAL AND FACTUAL BASIS**

Hawkeye Manufacturing, Inc.  
1500 Commerce Road, Richmond, Virginia  
Permit No. (PRO52158)

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Hawkeye Manufacturing, Inc. has applied for a Title V Operating Permit for its Richmond facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact: \_\_\_\_\_ Date:  
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## **FACILITY INFORMATION**

### Permittee

Hawkeye Manufacturing, Inc.  
1500 Commerce Road  
Richmond, VA 23224

### Facility

Hawkeye Manufacturing, Inc.  
1500 Commerce Road  
Richmond, VA 23224

County-Plant Identification Number: 51-760-00498

## **SOURCE DESCRIPTION**

NAICS 326191 – Manufacturing of Plastics and Rubber Plumbing Fixtures.

Hawkeye Manufacturing, Inc. produces hot tubs. Acrylic sheets are formed into the desired shape using a vacuum process. The underside of the formed acrylic sheet is sprayed with two different resins mixed with fiberglass strand using a non-atomized spray gun and allowed to set. The hot tub shell is sanded, trimmed and drilled for jet installation. The jets and plumbing are then installed. A wooden frame is constructed and the hot tub assembly is mounted on the frame. The pumps and controls are installed. At this point, some models receive a coating of foam insulation. The tub is tested and either repaired or readied for sale.

The facility is a Title V major source for HAP emissions because it did not obtain a permit to limit emissions prior to the compliance date for MACT WWWW. This source is located in an attainment area for all pollutants. The facility is currently permitted under a Title V Operating Permit initially issued on April 24, 2008 and a Minor NSR Permit issued on December 1, 2006. The current permit action is for the renewal of the Title V Operating Permit. An application for permit renewal was received on March 2, 2012 by the Virginia Department of Environmental Quality (the Department) and was deemed administratively complete March 27, 2012.

## **COMPLIANCE STATUS**

A full compliance evaluation of this facility, including a site visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

**EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION**

The emissions units at this facility consist of the following:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
<b>Resin application</b>							
RES1	Res1	Non atomized mechanical application of resin – 1 <sup>st</sup> coat (2006)	138 lbs/hr	-	-	-	December 1, 2006
RES2	Res2	Non atomized mechanical application of resin – 2 <sup>nd</sup> coat (2006)	207 lbs/hr	-	-	-	December 1, 2006
<b>Miscellaneous Operations</b>							
CC1	CC1	Transfer of calcium carbonate chips (2006)	137 lbs/hr	Dust collection system	DC1	PM/PM10	December 1, 2006
HS1	HS1	Hand sanding of fiberglass (2006)	-	Dust collection system	DC1	PM/PM10	December 1, 2006
WW1	S1	Woodworking for frame and siding (2006)	-	Dust collection system	DC1	PM/PM10	December 1, 2006

**EMISSIONS INVENTORY**

A copy of the 2011 annual emission update is attached. Emissions are summarized in the following tables.

2011 Actual Emissions

Emission Unit	2006 Criteria Pollutant Emission in Tons/Year				
	VOC	CO	SO <sub>2</sub>	PM <sub>10</sub>	NO <sub>x</sub>
RES1	0.712	-	-	-	-
RES2	2.296	-	-	-	-
Total	3.008	-	-	-	-

2011 Facility Hazardous Air Pollutant Emissions

Pollutant	2011 Hazardous Air Pollutant Emission in Tons/Yr
Styrene	3.008

**EMISSION UNIT APPLICABLE REQUIREMENTS - [Emission Units: RES1, RES2, HS1, CC1, and WW1]**

The Title V emission requirements are based on the following: the Minor NSR permit issued on December 1, 2006, 40 CFR Part 63 MACT Subpart WWW, Standards of Performance for Reinforced Plastic Composites Production and 9 VAC 5-80-50 *et seq.*, Part II-Article 1 Federal Operating Permit for Stationary Sources.

**Limitations**

The condition numbers listed below are from the Minor NSR permit issued on December 1, 2006.

Condition 2, VOC and Organic HAP emissions (RES1 and RES2) are limited through the use of a non-atomized mechanical resin applicator as a control device.

Condition 3, Particulate matter emissions (HS1, CC1, and WW1) are limited through the use of a dust collection system as a control device.

Condition 12, Visible emissions (Dust Collection System) are limited to 10 percent opacity.

Condition 6, The throughput of resin to the first coat in the hot tub manufacturing process (RES1) is limited to 103,500 pounds per year.

Condition 7, The throughput of resin to the second coat in the hot tub manufacturing process (RES2) is limited to 388,313 pounds per year.

Condition 9, The equations in Table 1 of MACT Subpart WWW shall be used to determine the VOC/Organic HAP emission factors used to calculate emissions of VOC/Organic HAPs from each of the resin application processes (RES1 and RES2).

Condition 10, VOC emissions (RES1 and RES2) are limited to 7.0 lbs/hr and 8.9 tons/yr.

Condition 11, The Organic HAP emission factor is limited to 88 lbs per ton of resin applied, calculated monthly on a 12-month rolling average (RES1 and RES2). This condition includes the equation to be used to determine the average emission factor.

**Monitoring and Recordkeeping**

The following monitoring requirement was added to the Title V permit to meet Part 70 requirements.

Condition 9 of the Title V permit requires an annual internal inspection be conducted on the dust collection system by the permittee to ensure structural integrity.

The Title V permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records are from Condition 13 of the Minor NSR permit issued on December 1, 2006 and include:

Annual throughput of resin applied in both the first coat (RES1) and second coat (RES2) to the hot tub manufacturing process, calculated monthly as the sum of each consecutive 12-month period. Compliance

for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

Monthly and annual emissions of VOC from the resin application processes (RES1 and RES2). The annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

**Testing** – Testing is addressed under the Facility Wide Conditions.

**Streamlined Requirements** - None

## **FACILITY WIDE CONDITIONS**

The following conditions from the December 1, 2006 NSR permit are part of the MACT WWWW requirements.

### **Limitations**

Condition 4, requires that the disposal, storage and handling of volatile organic compounds be accomplished by taking measures, to the extent practicable, consistent with air pollution control practices for minimizing emissions.

Condition 5, requires the following MACT standards be followed:

- a. Use mixer covers with no visible gaps present in the mixer covers, except that gaps of up to 1 inch are permissible around mixer shafts and any required instrumentation.
- b. Close any mixer vents when actual mixing is occurring, except that venting is allowed during addition of materials, or as necessary prior to adding materials or opening the cover for safety.
- c. Keep the mixer covers closed while actual mixing is occurring except when adding materials or changing covers to the mixing vessels.

Condition 8, requires the MACT equipment, RES1 and RES2, to be operated in compliance with the requirements of 40 CFR 63, Subpart WWWW, except where this permit is more restrictive than the applicable requirement.

### **Recordkeeping**

The Title V permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records are from Condition 13 of the Minor NSR permit issued on December 1, 2006 and include:

Calculations showing the 12-month rolling average organic HAP emission limit does not exceed the MACT standard.

Records of emission factors used for each resin formulation.

Material Safety Data Sheets (MSDS) or other vendor information as approved by DEQ showing VOC and HAP content of each resin, catalyst, solvent and cleaning solution used.

Scheduled and unscheduled maintenance and operator training.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

### **Testing**

The permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have the authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Condition 15 of the Title V permit requires the permitted facility to be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.

Condition 16 of the Title V permit requires the permittee to use the appropriate method(s) in accordance with procedures approved by the Department.

### **Reporting**

The permit includes semi-annual MACT compliance status reporting requirements. The reporting requirements records are from Condition 16 of the Minor NSR permit issued on December 1, 2006 and include:

The condition requires the permittee to submit a notification of compliance status semi-annually to the Piedmont Regional Office and EPA. The reports shall include:

- a. Company name and address.
- b. Statement by a responsible official certifying the truth, accuracy and completeness of the content of the report.
- c. Date of the report and beginning and ending dates of the reporting period.
- d. If there are no deviations from the organic HAP emission limitation (Condition 8) and there are no deviations from the requirements for work practice standards (Conditions 14), a statement that there were no deviations during the reporting period.
- e. If there were deviations from the organic HAP emission limitation or the work practice standard, the compliance report must contain the following:

- f. The total operating time of each affected source during the reporting period.
- g. Information on the number, duration, and cause of deviations, as applicable, and the corrective action taken
- h. If you have exceeded the 100 ton per year HAP emissions threshold.

### **Obsolete Requirements**

Condition 14 of the Minor NSR December 1, 2006 permit. The initial compliance notification with the organic HAP emissions standard is obsolete because the requirement has been met. The notification was received on January 26, 2007. As the result, this condition was removed from the Title V permit.

Condition 15 of the Minor NSR December 1, 2006 permit. The initial compliance notification with the work practice standard is obsolete because the requirement has been met. The notification was received on January 26, 2007. As the result, this condition was removed from the Title V permit.

### **GENERAL CONDITIONS**

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

### **Comments on General Conditions**

#### **Permit Expiration**

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by   §2.2-604 and  §10.1-1185 of the *Code of Virginia*, and the “Department of Environmental Quality Agency Policy Statement No. 2-09”.

This general condition cite(s) the Article(s) that follow(s):  
Article 1 (9 VAC 5-80-50 et seq.), Part II of 9 VAC 5 Chapter 80. Federal Operating Permits for Stationary Sources

This general condition cites the sections that follow:  
9 VAC 5-80-80. Application  
9 VAC 5-80-140. Permit Shield  
9 VAC 5-80-150. Action on Permit Applications

#### **Failure/Malfunction Reporting**

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations.

All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

### **Permit Modification**

This general condition cites the sections that follow:

9 VAC 5-80-50. Applicability, Federal Operating Permit For Stationary Sources

9 VAC 5-80-190. Changes to Permits.

9 VAC 5-80-260. Enforcement.

9 VAC 5-80-1100. Applicability, Permits For New and Modified Stationary Sources

9 VAC 5-80-1605. Applicability, Permits For Major Stationary Sources and Modifications Located in Prevention of Significant Deterioration Areas

9 VAC 5-80-2000. Applicability, Permits for Major Stationary Sources and Major Modifications Locating in Nonattainment Areas

### **Malfunction as an Affirmative Defense**

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition 32 and General Conditions 50-53. For further explanation see the comments on General Condition 32.

### **Asbestos Requirements**

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

**STATE ONLY APPLICABLE REQUIREMENTS** - No State-Only requirements were identified.

**FUTURE APPLICABLE REQUIREMENTS** – No future applicable requirements were identified.

**GREENHOUSE GAS (GHG) REQUIREMENTS** - There are no applicable GHG permitting requirements for this source.

### **INAPPLICABLE REQUIREMENTS**

Compliance Assurance Monitoring (CAM) requirements of 40 CFR 64 do not apply to RES1 and RES2 emission units because the units do not have add-on control devices to achieve compliance with emission limitations. CAM does not apply to HS1, CC1 and WW1 emission units because the control device that is in place is not required for the purposes of achieving compliance with an emission limitation.

Flexible Foam Fabrication (MACT Subparts III, MMMMM, and OOOOOO) do not apply to rigid foam insulation.

Plastic Parts Surface Coating (MACT Subpart PPPP) does not apply to facilities that are subject to MACT

WWWW.

Stationary Compression Ignition Internal Combustion Engines (NSPS Subpart IIII) does not apply to engines manufactured before April 1, 2006.

**INSIGNIFICANT EMISSION UNITS**

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

<b>Emission Unit No.</b>	<b>Emission Unit Description</b>	<b>Citation</b>	<b>Pollutants Emitted</b>	<b>Rated Capacity</b>
CS1	Transfer of chopped strand	9 VAC 5-80-720 B	PM/PM10	186 lbs/hr
F1	Spray application of foam insulation	9 VAC 5-80-720 B	Methylene Diphenyl diisocyanate	13 lb/hr
GEN1	European Testing Generator	9 VAC 5-80-720 A 46	NO <sub>x</sub> , CO, PM	100 kW
WWC	Staining of Wood Frames	9 VAC 5-80-720 B	VOC	1 gal/day
SH	Small NG Space heaters	9 VAC 5-80-720 C 2	NO <sub>x</sub> , CO	1mmBtu/hr

<sup>1</sup>The citation criteria for insignificant activities are as follows:

- 9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application
- 9 VAC 5-80-720 B - Insignificant due to emission levels
- 9 VAC 5-80-720 C - Insignificant due to size or production rate

**CONFIDENTIAL INFORMATION**

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

**PUBLIC PARTICIPATION**

The proposed permit was placed in public notice in the Style Weekly from TBD to TBD. The permit underwent concurrent review by EPA. The EPA review period ended on TBD. No comments were received in this office during the Public Comment Period.