

**DEPARTMENT OF NATURAL RESOURCES****MISSOURI AIR CONSERVATION COMMISSION****PERMIT TO CONSTRUCT**

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: **022014-001**Project Number: 2013-09-020
Installation Number: 011-0042

Parent Company: Redneck Manufacturing LLC

Parent Company Address: 153 SE 1st Lane and 1705 Gulf Street, Lamar, MO 64759

Installation Name: Redneck Manufacturing LLC

Installation Address: 153 SE 1st Lane and 1705 Gulf Street, Lamar, MO 64759

Location Information: Barton County, S35, T32N, R31W

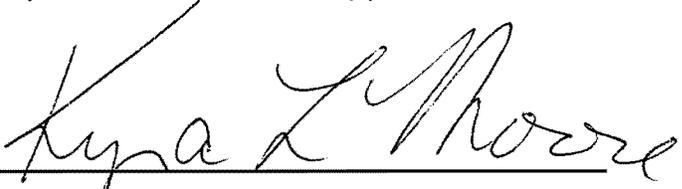
Application for Authority to Construct was made for:

The elimination of HAP limits in Permit No. 052012-011. This review was conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

-
- Standard Conditions (on reverse) are applicable to this permit.
- Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

FEB - 3 2014

EFFECTIVE DATE



DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Department's Air Pollution Control Program of the anticipated date of start up of these air contaminant sources. The information must be made available within 30 days of actual startup. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located within 15 days after the actual start up of these air contaminant sources.

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant sources(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

Page No.	3
Permit No.	
Project No.	2013-09-020

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."

Redneck Manufacturing
Barton County, S35, T32N, R31W

1. **Superseding Condition**
The conditions of this permit supersede all special conditions found in the previously issued construction permits 032011-004, 062011-012, 062011-012A and 052012-011 issued by the Air Pollution Control Program.
2. **Production Limitations**
 - A. Redneck Manufacturing LLC shall not produce more than 24 deer blinds per day.
 - B. Attachment A, or equivalent forms, such as electronic forms, shall be used to demonstrate compliance with Special Condition 2.A.
3. **Control Measures**
 - A. Redneck Manufacturing LLC shall use the controlled spray procedure as outlined in the Composites Fabricators Association's (CFA's) "Controlled Spray Handbook."
 - B. Redneck Manufacturing shall ensure that the mold containment flanges are in place during spraying operations in accordance with the CFA's "Controlled Spray Handbook."
 - C. Redneck Manufacturing LLC shall keep records that verify the following, in accordance with the CFA's "Controlled Spray Handbook."
 - 1) The spray gun pressure has been calibrated.
 - 2) The operators have been trained in the techniques of controlled spraying.
4. **Operating Time Restrictions**
Redneck Manufacturing LLC shall only operate daily between the hours of 7 a.m. to midnight (12 a.m.).

Page No.	4
Permit No.	
Project No.	2013-09-020

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

5. **Facility Design Requirements**
Before making significant alterations to the facility design, Redneck Manufacturing LLC shall submit, to the Air Pollution Control Program, an updated Ambient Air Quality Impact Analysis (AAQIA) that shows continued compliance with the styrene RAL. If the facility cannot show continued compliance with the styrene RAL using the new design, it shall contact the Air Pollution Control Program for further instructions.
6. **Operational Requirement**
Redneck Manufacturing LLC shall keep all chemicals, including the gel coats, resins, catalysts, coatings, and bonding putties, in sealed containers whenever the materials are not in use. Redneck Manufacturing LLC shall provide and maintain suitable, easily read, permanent markings on the containers.
7. **Use of Alternative Material and Coatings or Production of Different Deer Blinds**
 - A. When considering using an alternative gel coat, resin, bonding putty, or manufacturing a different type of deer blind than listed in the Application for Authority to Construct, Redneck Manufacturing shall calculate the potential emissions of styrene to show that the styrene emissions are less than 83.9 lb/day from the chop gun (EU-2), 65.2 lb/day from the gel coat application (EU-1), 21.1 lb/day from open seaming (EU-3), and 19.80 lb/day from bonding putty application (EU-6).
 - B. If the potential emissions of styrene exceed the values in Special Condition 7.A., Redneck Manufacturing shall seek approval from the Air Pollution Control Program before the use of the alternative gel coat, resin or bonding putty or the production of the new deer blinds.
 - C. Redneck Manufacturing LLC shall also calculate the emissions of VOC and other individual HAP (i.e. methyl methacrylate (MMA) and dimethyl phthalate) from the use of the alternative material and coatings or the manufacturing of a different type of deer blind than listed in the Application for Authority to Construct. If the potential emissions of the VOC and individual HAP from the alternative materials, coatings and the new deer blinds are greater than the emissions from the current material, coatings and deer blinds, Redneck Manufacturing shall seek approval from the Air Pollution Control Program before implementing their use.

Page No.	5
Permit No.	
Project No.	2013-09-020

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

- D. Attachment B and C or equivalent forms, such as electronic forms, approved by the Air Pollution Control Program shall be used to show compliance with Special Conditions 7.A., 7.B., and 7.C.
8. Record Keeping and Reporting Requirements
- A. Redneck Manufacturing LLC shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. These records shall include MSDS for all materials used.
 - B. Redneck Manufacturing shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after the end of the month during which any record required by this permit shows an exceedance of a limitation imposed by this permit.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (6) REVIEW

Project Number: 2013-09-020
Installation ID Number: 011-0042
Permit Number:

Redneck Manufacturing LLC
153 SE 1st Lane and 1705 Gulf Street
Lamar, MO 64759

Complete: September 12, 2013

Parent Company:
Redneck Manufacturing LLC
153 SE 1st Lane and 1705 Gulf Street
Lamar, MO 64759

Barton County, S35, T32N, R31W

REVIEW SUMMARY

- Redneck Manufacturing LLC has applied for authority to eliminate the 10.0 tpy styrene limit in the previously issued construction permit no. 052012-011.
- HAP emissions are expected from the proposed equipment. HAPs of concern from this process are styrene, methyl methacrylate (MMA), and dimethyl phthalate.
- None of the New Source Performance Standards (NSPS) apply to the installation.
- None of the NESHAPs apply to this installation.
- 40 CFR 63, Subpart WWWW, "National Emissions Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production," of the Maximum Achievable Control Technology (MACT) regulations applies to the installation.
- 40 CFR 63, Subpart HHHHHH, "National Emissions Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources," of the MACT regulations does not apply to the installation because the paint does not contain target HAPs listed in this subpart and the installation is not an area source for HAP.
- No air pollution control equipment is being used in association with the new equipment.
- This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of HAPs are above the major source level. However, Section (9) permit is not required because the facility is subject to MACT Subpart WWWW. Emissions of VOC are greater than the de minimis level. Therefore, the permit is issued under Section (6). Emissions of all other pollutants are at their respective *de minimis* levels.

- This installation is located in Barton County, an attainment area for all criteria pollutants.
- This installation is not on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation's major source level is 250 tons per year and fugitive emissions are not counted toward major source applicability.
- Ambient air quality modeling was performed to determine the ambient impact of styrene.
- Emissions testing is not required for the equipment.
- A Part 70 Operating Permit application is required for this installation within 1 year of permit issuance.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

Redneck Manufacturing owns and operates a deer blind production facility in Lamar, Missouri. Gel coats are applied to a number of open molds. After a short curing period, fiberglass reinforced resins are applied using a chopper gun system before additional curing. The parts are then sanded and prepped before being assembled into units. Screws and rivets will be used to temporarily hold the pieces together before the seams are bonded together with chopped strand mat. After curing, the blinds are rolled to the next station where the shelves are installed with screws and filled with a seam sealer. The blinds will then be painted with a water-based paint. Catalysts will be used with the resins.

The manufacturing process takes place at two separate locations. 153 SE 1st Lane is where the gel coats and resins are applied while 1705 Gulf Street is where the blinds are assembled, bonded, and painted. Both locations are considered part of the same installation for construction permitting purposes. Before this project, the facility was considered a minor source because it accepted a limit of 10.0 tons per year of styrene. However, after this project, this facility will be considered a major source for HAPs. It will be required to submit a Part 70 Operating Permit Application within 1 year of permit issuance.

The following New Source Review permits have been issued to Redneck Manufacturing from the Air Pollution Control Program.

Table 1: Permit History

Permit Number	Description
032011-004	New deer blinds production facility
062011-012	Relocating deer blind production facility to new location
062011-012A	Eliminating weekly production limit
052012-011	Increase deer blind production limit

PROJECT DESCRIPTION

Redneck Manufacturing LLC proposes to eliminate the 10 tpy styrene limit in the previously issued Permit 052012-011 to allow for more production. No additional equipment will be added. However, the production process has been modified since the issuance of the last permit. Catalysts will now be added to the resins and a bonding putty will now be used during open seaming (EU-3). The facility will also add a 6,016 gallon resin storage tank. Ambient Air Quality Impact Analysis (AAQIA) was performed on styrene emissions to ensure that the new emission rate will not cause an exceedance of the styrene RAL. Because the MACT, Subpart WWWW, now applies to the installation, a Section (9) permit is not required. This permit is issued under Section (6) because VOC emissions are greater than their *de minimis* level.

In Permit 052012-011, the facility was limited to the production of 24 deer blinds per day and also required to only operate between the hours of 7 a.m. to midnight (12 a.m.). These limits still apply to this facility because AAQIA was performed based on these conditions. If the installation decides to use a different material (i.e. coatings, gel coats, etc.) or produce a different deer blind than the ones listed in the permit application, it shall calculate the new VOC and individual HAP emissions to ensure that these emissions are less than the emissions from the current material. If the new VOC and individual HAP emissions are greater than the emissions from the current material and blinds, Redneck Manufacturing LLC shall contact the Air Pollution Control Program before the use of these materials or the production of the new type of blinds.

EMISSIONS/CONTROLS EVALUATION

The main pollutants expected from the operation are styrene, dimethyl phthalate, and MMA, which are considered both VOC and HAPs. Styrene and MMA emissions were calculated using emission factors from the "Unified Emission Factors for Open Molding of Composites" developed by the National Marine Manufacturer's Association (NMMA) and Composite Fabricators Association (CFA) and published in 1999 in the paper "Technical Discussion of the Unified Emission for Open Molding of Composites." The controlled emission factors were used because the facility uses the controlled spray procedure as outlined in the "CFA Controlled Spray Handbook." The facility produces five (5) types deer blinds and emissions were calculated assuming that only the blind with the highest emissions are being produced, which is the 6 x 6 C/O blind. Dimethyl phthalate emissions from the use of the catalyst were calculated using mass balances assuming that 100% is emitted.

VOC emissions from painting of the deer blinds were calculated assuming that all of the VOC in the paint are emitted. Different amounts of paint will be used for each type of blinds being produced. Emissions were calculated assuming that only the blind with the highest amount of paint are being produced. VOC and styrene emissions from the resin storage tank were calculated using EPA software TANKS 4.0.9d.

Approximately 8.74 pounds of paint will be applied to each of the 6 x 6 C/O blinds. PM_{2.5}, PM₁₀ and PM emissions from the painting operation were calculated using mass balances assuming an 75% transfer efficiency, which is taken from the Air Pollution Training Institute (APTI) Course 482 Student Manual. An airless spray gun will be used for the painting operation. The particle size distribution used to differentiate between PM_{2.5}, PM₁₀ and PM was taken from the California Emissions Inventory Development and Reporting System (CEIDARS). Emissions from the propane boiler were calculated using emission factors from EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Volume I, Fifth Edition, Chapter 1.5, *Liquefied Petroleum Gas Combustion*, (7/08).

The following table provides an emissions summary for this project. Existing potential emissions were taken from Permit No. 052012-011A. Existing actual emissions were taken from the installation's 2012 EIQ. Potential emissions of the application represent the potential of all equipment at the installation, assuming continuous operation (8760 hours per year).

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2012 EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM	25.0	2.59	N/D	3.94	N/A
PM ₁₀	15.0	1.76	0.73	2.68	N/A
PM _{2.5}	10.0	1.61	N/D	2.45	N/A
SO _x	40.0	N/A	N/A	1.58 x 10 ⁻⁵	N/A
NO _x	40.0	N/A	N/A	0.25	N/A
VOC	40.0	11.52	12.42	43.91	N/A
CO	100.0	N/A	N/A	0.14	N/A
GHG (CO ₂ e)	100,000	N/A	N/A	244.15	N/A
GHG (mass)	250.0	N/A	N/A	238.77	N/A
Styrene	1.0	<10.0	N/D	34.68	N/A
MMA	10.0	1.23	N/D	4.58	N/A
Dimethyl phthalate	10.0	N/D	N/D	3.63	N/A
Total HAPs	10.0/25.0	11.23	N/D	42.88	N/A

N/A = Not Applicable; N/D = Not Determined

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of HAPs are above the major source levels and the potential emissions of VOC are greater than the *de minimis* level. Potential emissions of all other pollutants are at their respective *de minimis* levels.

APPLICABLE REQUIREMENTS

Redneck Manufacturing shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
- *Operating Permits*, 10 CSR 10-6.065
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-6.165
- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400
 - Redneck manufacturing is deemed to be in compliance with this rule due to a combination of potential emissions calculations and engineering judgment. If it is assumed that all of the PM overspray is emitted, the potential emissions from the spray gun would be greater than the limit calculated in 10 CSR 10-6.400. However, for this project, it is believed that not all of the PM overspray will leave the installation's property. First, the installation will be using a dry-fall type coating, which is designed to dry within ten feet of spraying and be swept up for easy cleanup of work area. Secondly, according to some sources (i.e. "Painting Basics and Emission Calculations for TCEQ Air Quality Permit Applications" from the Texas Commission on Environmental Quality, 2006), particulate matter with diameter greater than 30 microns do not stay suspended in the air and would fall to the floor or impact the walls. Therefore, only particulate matter with diameter less than 30 microns (PM₃₀) would be emitted into the atmosphere. Calculations show that if less than 40% of the PM is PM₃₀, then the PM₃₀ potential emissions would be less than the limit in 10 CSR 10-6.400. Based on the aforementioned document from TCEQ and "Investigations of Spray Painting Processes Using an Airless Spray Gun" from the Journal of Energy and Power Engineering, 2011, airless spray guns should have PM₃₀ content less than 20% of PM. Based on these factors, it can be assumed that Redneck Manufacturing would be in compliance with 10 CSR 10-6.400. If the facility ever decides to use paint that is not considered to be dry-fall type, it shall contact the Air Pollution Control Program for a determination on whether it will be in compliance with 10 CSR 10-6.400.

SPECIFIC REQUIREMENTS

- *MACT Regulations*, 10 CSR 10-6.075
 - *National Emission Standards for Reinforced Plastic Composites Production*, 40 CFR Part 63, Subpart WWWW

AMBIENT AIR QUALITY IMPACT ANALYSIS

Ambient air quality impact analysis (AAQIA) was performed to determine the ambient impact of styrene. Results show that the facility will be in compliance with the RAL for styrene.

Table 3: Ambient Air Quality Modeling for Styrene

Modeled Impact ($\mu\text{g}/\text{m}^3$)	RAL ($\mu\text{g}/\text{m}^3$)	Time Period
280.09	333.0	Annual
1554.03	2,240	24-Hour

More details on the AAQIA can be found in the modeling memos “Ambient Air Quality Impact Analysis (AAQIA) for Redneck Manufacturing, LLC – 2013-02-080,” November 14, 2013 and “Ambient Air Quality Impact Analysis (AAQIA) for Redneck Manufacturing, LLC – 2013-09-020 – Revision,” November 26, 2013.

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

Chia-Wei Young
New Source Review Unit

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated September 10, 2013, received September 12, 2013, designating Redneck Manufacturing as the owner and operator of the installation
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition
- “Unified Emission Factors for Open Molding of Composites,” from the paper “Technical Discussion of the Unified emission for Open Molding of Composites,” 1999
- “Controlled Spray Handbook,” from the Composites Fabricators Association
- “Painting Basics and Emission Calculations for TEQ Air Quality Permit Applications” from the Texas Commission on Environmental Quality, 2006
- “Investigation of Spray Painting Processes Using an Airless Spray Gun,” from the Journal of Energy and Power Engineering, 2013, Ye, et al.

Attachment A – Production Limit Compliance Worksheet

Redneck Manufacturing
 Barton County, (S30, T32N, R30W)
 Project Number: 2013-09-020
 Installation ID Number: 011-0042
 Permit Number: _____

This sheet covers the period from _____ to _____.
 (month, year) (month, year)

Date							
Days of the Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
¹Production							
Date							
Days of the Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
¹Production							
Date							
Days of the Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
¹Production							
Date							
Days of the Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
¹Production							
Date							
Days of the Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
¹Production							

Note 1: A daily production of no more than **24** deer blinds is necessary for compliance.

Attachment B – Alternative Material Styrene and MMA Calculations

Redneck Manufacturing
 Barton County (S30, T32N, R30W)
 Project Number: 2013-09-020
 Installation ID Number: 011-0042
 Permit Number: _____

Pollutant: _____

Copy this sheet as needed.

Column 1	Column 2	Column 3	Column 4
Type of Process	Maximum Hourly Usage (lb/hr)	(a) Emission Factors (lbs/ton)	(b) Emissions (lb/day)
Gel Coat Gun for Deer Blinds			
(c) Chop Gun for the Blinds			
Open Seam Resin			
Open Floor Resin			
Type of Process	Maximum Hourly Usage (lb/hr)	Wt. % in the Putty	(d) Emissions (lb/day)
Bonding Putty			
(e) Total Emissions (lb/day)			
(f) Total Emissions (tpy)			

- (a) Emission factors for the Gel Coat Gun, Chop Gun, Open Seam Resin and Open Floor Resin should be taken from the Table “Unified Emission Factors for Open Molding of Composites”
- (b) Emissions (lb/day) calculated from $[\text{Column 2} \div 2,000 \text{ lb/ton}] \times \text{Column 3} \times 24 \text{ hours/day}$.
- (c) Amount used for the deer blinds should only be the resin portion and not the fiberglass portion.
- (d) Emissions from Bonding Putty (lb/day) calculated by using $\text{Column 2} \times \text{Column 3} \times 24 \text{ hours/day}$
- (e) Total Emissions (lb/day) calculated by summing Column 4
- (f) Total Emissions (tpy) calculated from $[\text{Total Emissions (lb/day)}] \times 365 \text{ days/yr}$.

- For styrene, Redneck Manufacturing LLC may use the alternative material if emissions are less than the following rates: 83.9 lb/day for the chop gun (EU-2), 65.2 lb/day from the gel coat application (EU-1), 21.1 lb/day from open seaming (EU-3) and 19.7 lb/day from bonding putty application.
- For MMA, Redneck Manufacturing LLC may use the alternative material if emissions are less than or equal to the emissions from the current materials.

Attachment C – Individual HAP and VOC Emissions Calculations from Alternative Material (Other than Styrene and MMA)

Redneck Manufacturing
 Barton County (S30, T32N, R30W)
 Project Number: 2013-09-020
 Installation ID Number: 011-0042
 Permit Number: _____

Individual HAP

Column 1 Material	Column 2 MHDR (gal/hr)	Column 3 Density (lb/gal)	Column 4 HAP Name, CAS #	Column 5 Individual HAP Content (Wt. %)	Column 6 (a) Individual HAP PTE (tpy)	Column 7 (b) HAP from Current Coatings (tpy)
<i>Example</i>	<i>1.67</i>	<i>8.75</i>	<i>Toluene</i>	<i>3.0%</i>	<i>1.92</i>	<i>10.0</i>

- (a) Individual HAP PTE (tpy) calculated using (Column 2) x (Column 3) x [(Column 5) ÷ 100] x 8760 hours ÷ 2,000 lb/ton
- (b) Individual HAP from current coatings can be calculated using the same method as listed in (a) using the values from the current coatings.

VOC

Column 1 Material	Column 2 MHDR (gal/hr)	Column 3 Density (lb/gal)	Column 4 VOC (Wt. %)	(a) Column 5 VOC PTE (tpy)	(b) Column 6 VOC from Current Material (tpy)
<i>Example</i>	<i>1.67</i>	<i>8.75</i>	<i>30</i>	<i>19.20</i>	<i>1.0</i>

- (a) VOC (tpy) calculated using (Column 2) x (Column 3) x [(Column 4) ÷ 100] x 8760 hours ÷ 2,000 lb/ton. If the material contains styrene or MMA, the styrene and MMA emissions should be calculated using Attachment B and added to the VOC emissions (tpy) from Attachment C.
- (b) VOC emissions from current material can be calculated using the same method as listed in (a) using the values from the current coatings.

Redneck Manufacturing LLC may use the new alternative material if the individual HAP or VOC emissions from the new material are less than or equal to the emissions from the current material.

APPENDIX A

Abbreviations and Acronyms

%	percent	m/s	meters per second
°F	degrees Fahrenheit	Mgal	1,000 gallons
acfm	actual cubic feet per minute	MW	megawatt
BACT	Best Available Control Technology	MHDR	maximum hourly design rate
BMPs	Best Management Practices	MMBtu	Million British thermal units
Btu	British thermal unit	MMCF	million cubic feet
CAM	Compliance Assurance Monitoring	MSDS	Material Safety Data Sheet
CAS	Chemical Abstracts Service	NAAQS ...	National Ambient Air Quality Standards
CEMS	Continuous Emission Monitor System	NESHAPs	
CFR	Code of Federal Regulations	National Emissions Standards for Hazardous Air Pollutants
CO	carbon monoxide	NO_x	nitrogen oxides
CO₂	carbon dioxide	NSPS	New Source Performance Standards
CO_{2e}	carbon dioxide equivalent	NSR	New Source Review
COMS	Continuous Opacity Monitoring System	PM	particulate matter
CSR	Code of State Regulations	PM_{2.5}	particulate matter less than 2.5 microns in aerodynamic diameter
dscf	dry standard cubic feet	PM₁₀	particulate matter less than 10 microns in aerodynamic diameter
EQ	Emission Inventory Questionnaire	ppm	parts per million
EP	Emission Point	PSD	Prevention of Significant Deterioration
EPA	Environmental Protection Agency	PTE	potential to emit
EU	Emission Unit	RACT	Reasonable Available Control Technology
fps	feet per second	RAL	Risk Assessment Level
ft	feet	SCC	Source Classification Code
GACT	Generally Available Control Technology	scfm	standard cubic feet per minute
GHG	Greenhouse Gas	SIC	Standard Industrial Classification
gpm	gallons per minute	SIP	State Implementation Plan
gr	grains	SMAL	Screening Model Action Levels
GWP	Global Warming Potential	SO_x	sulfur oxides
HAP	Hazardous Air Pollutant	SO₂	sulfur dioxide
hr	hour	tph	tons per hour
hp	horsepower	tpy	tons per year
lb	pound	VMT	vehicle miles traveled
lbs/hr	pounds per hour	VOC	Volatile Organic Compound
MACT	Maximum Achievable Control Technology		
µg/m³	micrograms per cubic meter		

Mr. Russ Hurt
Director of Manufacturing
Redneck Manufacturing
153 SE 1st Lane
Lamar, MO 64759

RE: New Source Review Permit - Project Number: 2013-09-020

Dear Mr. Hurt:

Enclosed with this letter is your permit to construct. Please study it carefully and refer to Appendix A for a list of common abbreviations and acronyms used in the permit. Also, note the special conditions, if any, on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. Operation in accordance with these conditions, your new source review permit application and with your operating permit is necessary for continued compliance. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact Chia-Wei Young, at the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Susan Heckenkamp
New Source Review Unit Chief

SH:cyl

Enclosures

c: Southwest Regional Office
PAMS File: 2013-09-020

Permit Number: