



**MISSOURI**  
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: 102016-006

Project Number: 2016-07-006  
Installation Number: 510-0097

Parent Company: U.S. Paint Corporation

Parent Company Address: 831 South 21<sup>st</sup> Street, St. Louis MO, 63103

Installation Name: U.S. Paint Corporation

Installation Address: 831 South 21<sup>st</sup> Street, St. Louis MO, 63103

Location Information: St. Louis City, Land-Grant-00363

Application for Authority to Construct was made for:

U.S. Paint Corporation has applied for a permit to install a horizontal mill, a basket mill, and five (5) mixers for the production of commercial paints. 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.

Hans Robinson

Prepared by  
Hans Robinson  
New Source Review Unit

Kendall B. Halo for

Director or Designee  
Department of Natural Resources

**OCT 24 2016**

Effective Date

## 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 Enforcement and Compliance Section of 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 Enforcement and Compliance Section of the Department's Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available within 30 days of actual startup. Also, you must notify the Department's regional office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of the permit application and this permit and permit review shall be kept at the installation address and shall be made available to Department's 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 source(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 using the contact information below.

**Contact Information:**  
Missouri Department of Natural Resources  
Air Pollution Control Program  
P.O. Box 176  
Jefferson City, MO 65102-0176  
(573) 751-4817

The regional office information can be found at the following website:  
<http://dnr.mo.gov/regions/>

**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."*

**U.S. Paint Corporation  
St. Louis City County, Land Grant - 00363**

1. **Superseding Condition**
  - A. The conditions of this permit supersede the following:
    - 1) Special Condition 2 and 3 of Permit # 122015-006 issued by Air Pollution Control Program.
  
2. **VOC and HAPs Emission Limitations**
  - A. U.S. Paint Corporation shall emit less than 100.0 tons of VOCs in any consecutive 12-month period from the entire installation. This limit applies to the VOC emissions from all the equipment/processes installed or permitted at U.S. Paint Corporation as of the issuance date of this permit.
  
  - B. U.S. Paint Corporation shall emit less than 10.0 tons individually and 25.0 tons combined of HAPs in any consecutive 12-month period from the entire installation. This limit applies to the VOC emissions from all the equipment/processes installed or permitted at U.S. Paint Corporation as of the issuance date of this permit. In addition, all HAP emissions must be limited below SMAL levels as stated in Appendix B.
  
  - C. Attachment A, Attachment B and Attachment C or equivalent forms, such as electronic forms, approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Conditions 2.A and 2.B.
  
  - D. In place of Special Condition 2.C, the facility may use Special Condition 3 as an alternative way to record emissions.
  
3. **Alternate Record Keeping and Reporting Requirements**
  - A. In lieu of using Attachment A for recordkeeping purposes, U.S. Paint may develop and keep monthly and annual records of VOC emissions to show compliance with Special Condition 2.A. These records shall include, at minimum, the following information:
    - 1) Installation name
    - 2) Installation ID
    - 3) Permit number
    - 4) Current month

**SPECIAL CONDITIONS:**

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

- 5) Current 12-month date range
  - 6) To calculate actual emissions for Emission Point 2 (EP2)
    - a) List all materials containing VOCs and the respective gallons filled per year.
    - b) List density of each material (lb per gal)
    - c) List the amount of paint filled. The calculation for tons of paint filled = gallons of paint through the mixer multiplied by density (lb/gal) x 0.0005 ton/lb
    - d) List the VOC Emission Factor for EP2 of 30.0 lbs/ ton of paint produced
    - e) List the Tons of VOC Emission per Year (EP2) = Tons of paint filled x 30.0 lbs/tons x 0.0005 tons/lb.
  - 7) To calculate actual emissions for all other emission points that emits VOC at the facility:
    - a) Monthly throughput of each material where applicable used for each emission point
    - b) Emission factor for each emission unit and emission factor source. For VOC emissions, use AP-42 guidelines
  - 8) Plant wide Monthly VOC Emissions (tons) shall be the sum of all Monthly VOC Emissions (tons) of all emission points (units).
  - 9) Plant wide 12-Month rolling Total VOC Emissions (tons) = The sum of the 12 most recent Plant wide Monthly VOC Emissions (tons) + the sum of all start-up, shutdown, and malfunction VOC emissions as reported to the Air Pollution Control Program's Compliance/Enforcement Section during the most recent 12 month period. Plant wide 12-Month Rolling Total VOC Emissions of less than 100.0 tons combined of VOCs per year indicates compliance with Special Condition 2.A.
- B. In lieu of using Attachment B and C for recordkeeping purposes, U.S. Paint may develop and keep monthly records of HAP emissions to show compliance with Special Condition 2.B. These records shall include at minimum, the following information:
- 1) Installation name
  - 2) Installation ID
  - 3) Permit number
  - 4) Current month
  - 5) Current 12-month date range
  - 6) To calculate actual HAP emissions for EP2
    - a) List all materials containing HAPs and the respective gallons filled per year. List the percentage of individual HAPs as stated on the SDS for that specific material. If there are a range of percentages, use the highest value.
    - b) List density of each material (lb per gal)

**SPECIAL CONDITIONS:**

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

- c) Tons of paint filled = gallons of paint through the mixer multiplied by density (lb/gal) x 0.0005 ton/lb
  - d) For volatile HAPs, the individual HAP emission factor for EP2 is equal to individual HAP percent by weight of each paint multiplied by 30.0 lbs VOC/ ton of paint produced
  - e) Total Tons of HAP Emission per Year (EP2) for an individual HAP equals the sums of the individual HAPs calculated in Special Condition 3.B.6 (d).
- 7) To calculate actual emissions for all other emission points that emits HAP at the facility:
    - a) Monthly throughput of each material containing HAPs for each emission point
    - b) Individual HAP emission factor for each emission unit with the emission factor source. If emission factors in AP-42 are not available, HAPs can be calculated as a portion of the VOC emissions equal to their percentage composition in the paint as stated in Special Condition 3.B(6) d.
  - 8) Plant wide Monthly Individual HAP Emissions (tons) shall be the sum of all HAP Emissions (tons) of all emission points (units) for each HAP.
  - 9) Plant wide 12-Month rolling Total HAP Emissions (tons) for each individual HAP= The sum of the 12 most recent Plant wide Monthly Individual HAP Emissions (tons) + the sum of all start-up, shutdown, and malfunction HAP emissions as reported to the Air Pollution Control Program's Compliance/Enforcement Section during the most recent 12 month period. Plant wide 12-Month Rolling Total HAP Emissions of each individual HAP less than 10.0 tons per year and less than individual SMAL indicates compliance with Special Condition 2.B.
  - 10) Plant wide 12-Month rolling Total Combined HAP Emissions (tons) = The sum of the 12 most recent Plant wide Monthly HAP Emissions (tons) for all individual HAP emissions as calculated in 3.B.9) and 3.B 6)e) plus the sum of all start-up, shutdown, and malfunction HAP emissions as reported to the Air Pollution Control Program's Compliance/Enforcement Section during the most recent 12 month period. Plant wide 12-Month Rolling Total HAP Emission of less 25.0 tons combined of HAPs per year indicates compliance with Special Condition 2(B).
- C. U.S. Paint Corporation 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 SDS for all materials used.

**SPECIAL CONDITIONS:**

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

- D. U.S. Paint Corporation 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 show an exceedance of a limitation imposed by this permit

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

Project Number: 2016-07-006

Installation ID Number: 510-0097

Permit Number: **102016-006**

Installation Address:

U.S. Paint Corporation  
831 South 21st Street  
St. Louis MO, 63103

Parent Company:

U.S. Paint Corporation  
831 South 21st Street  
St. Louis MO, 63103

St. Louis City, Land Grant - 00363

REVIEW SUMMARY

- U.S. Paint Corporation has applied for authority to install a horizontal mill, a batch mill, and five (5) mixers for paint processing.
- The application was deemed complete on August 3, 2016.
- HAP emissions are expected from the proposed equipment. HAPs of concern from this process are Glycol Ethers, Isomers of Xylene, Methyl Isobutyl Ketone, and Toluene.
- None of the New Source Performance Standards (NSPS) apply to the installation.
- None of the NESHAPs apply to this installation. None of the currently promulgated MACT regulations apply to the proposed equipment.
- 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 VOC are above de minimis levels but limited below major source levels.
- This installation is located in St. Louis City, a nonattainment area for the 8-hour ozone standard and the PM-2.5 standard and an attainment area for all other 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 100 tons per year and fugitive emissions are not counted toward major source applicability.

- Ambient air quality modeling was not performed for this review. No model is currently available which can accurately predict ambient ozone concentrations caused by this installation's VOC emissions.
- An Intermediate Operating Permit is required for this installation within 90 days of equipment startup.
- Approval of this permit is recommended with special conditions.

## INSTALLATION DESCRIPTION

U.S. Paint Corporation manufactures high performance paints for specialized industrial markets. The installation is a synthetic minor (Intermediate) source with an operating permit.

The following New Source Review permits have been issued to U.S. Paint Corporation from the St. Louis City Permits. The last permit issued (#122015-006) was issued by the Missouri Department of Natural Resources' Air Pollution Control Program.

Table 1: Permit History

Permit Number	Description
98-01-005	St. Louis CO (Paint)
98-08-055	Above ground solvent tanks
98-08-054	Paint mixers
99-07-049S	Coating mixing tank
99-07-051S	Sand mill installation
99-07-052	Paint booth
00-07-036	Submersible mill
01-01-052	Submersible mill
01-05-012	Fairing compound mixer
03-06-010	Paddle mixer
04-01-001	Paint booth
98-08-055A	New solvent
05-08-005	Tank washer
06-05-009	Submersible mill
98-08-055	Tank solvent changes
07-02-001	Paint mixers
*No permit # available	55-gallon dispensing systems
08-10-017	Record keeping changes
09-03-008	Container cleaning
122015-006	New paint mixer and filler

\*Permitting was previously performed by the City of St. Louis, no permit # was available in their records.

## PROJECT DESCRIPTION

U.S. Paint plans to install two new mills, a horizontal mill and a basket mill, as well as five new mixers all located at the EP-2 emission point in designated building – D. The mills will accommodate at most 40,000 gallons of paint each (80,000 combined) every year. Paint mills generally mix and grind paints for a desired consistency. Pigment and dry materials are added to portable mixing tanks in Building –E North. The main part of production is done in Building-D (adding solvent, resin, and other material mixing, milling, let back). The raw materials for milling are all liquids and therefore will emit a negligible amount of particulate matter. The five mixers will be used primarily to blend and shade paints from the mills in order to meet precise color specifications. Facility wide VOC and HAP emissions may increase as a natural consequence of larger paint production. Emissions from the mills and mixers will be uncontrolled.

Although this addition of new mills and mixers has the potential to debottleneck the production process (allows more paints to be processed at a time), U.S. Paint is taking voluntary installation wide limits of 100 tons of VOCs, 25 tons of total HAPs, and 10 tons of individual HAPs. Currently all HAPs emitted in significant quantities have Screening Model Action Levels (SMALS) at the 10 ton limit which is summarized in Table 2 emissions summary. All limits are considered on a yearly (8760 hour) basis. Emissions are based on the tonnage of paint filled. Therefore the volume of paint produced is limited by the voluntary annual limit of VOCs and HAPs. Additionally, the primary purpose of the new mills and mixers will be to decrease production time for paint batches. As it currently stands, U.S. Paint often needs to quickly make several batches of paint for customers followed by periods of downtime where less paint is produced. This new equipment will allow U.S. Paint to work through larger paint orders in a more timely fashion. Thus, the purpose of this new equipment is to primarily decrease production time rather than an increase overall paint production, although some additional paint production is anticipated.

Note: The five mixers were originally submitted under PAMS Project # 2016-05-036. However, it was combined with this permit (2016-07-006). This is because paint from the milling equipment may feed into the mixer equipment.

The mixers and mills will be located in emission point 2 (EP-2) for EIQ reporting. This point includes all of the equipment in D-building, C-building, E-building, and small batch.

## EMISSIONS/CONTROLS EVALUATION

The emission factors used in this analysis were obtained from the EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 6.4 *Paint and Varnish*, May 1983. Spreadsheets and methods from the previously issued permit

2015-08-028 were used in estimating HAP weight percentage, as well as all paints examined for the previous installation of a new paint mixer and filler. A detailed basis of calculations can be found under Table 2 Emissions Summary. Existing Potential Emissions calculations are limited based on the fact that new or exotic paints can drastically vary HAP and VOC emissions so limits were taken to remain a minor source. These limits are set for the St. Louis area as less than 100 tpy VOC and less than 10 tpy for individual HAPs and less than 25 tpy for all HAPS combined.

The following table provides an emissions summary for this project. Existing actual emissions were taken from the installation's 2015 EIQ. Potential emissions of the application represent the potential of the new horizontal mill, batch mill, and mixers assuming continuous operation (8760 hours per year).

Note: The facility has the potential to emit a wide variety of HAPs not explicitly mentioned in this permit. However, Toluene, Xylene, Methyl Isobutyl Ketone, and Glycol Ethers are the only HAPs currently emitted in significant quantities. For a complete list of HAPs visit the Department of Natural Resources' Air Construction Permits Guidance page or use the following link, <http://dnr.mo.gov/env/apcp/docs/haps-table-rev-12.pdf>.

Table 2: Emissions Summary (tpy)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2015 EIQ)	*Unconditioned Potential Emissions of the Project	*New Installation Conditioned Potential
PM	25.0	N/D	0.114	N/A	N/A
PM10	15.0	N/D	0.058	N/A	N/A
PM2.5	10.0	N/D	0.056	N/A	N/A
SOx	40.0	N/D	N/A	N/A	N/A
NOx	40.0	N/D	N/A	N/A	N/A
VOC	40.0	N/D	45.277	N/D	<100.0
CO	100.0	N/D	N/A	N/A	N/A
HAPs	10.0/25.0	N/D	4.370	N/D	<25.0
Individual HAPs	SMAL	N/D	N/A	<SMAL	<10.0
Toluene	10.0	N/D	1.421	<SMAL	<10.0
Xylene	10.0	N/D	0.499	<SMAL	<10.0
MIBK	10.0	N/D	0.927	<SMAL	<10.0
Glycol Ethers	10.0	N/D	0.149	<SMAL	<10.0

\*Installation uses multiple job specific paints and coatings. Therefore, no reliable PTE can be calculated. HAPs emissions of the project limited to less than the SMAL. VOC and HAPs emissions of the entire installation limited to less than major source levels.

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

<sup>a</sup>HAP reported on EIQ form 2.T.

## 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 VOC are above de minimis levels but limited below major source levels.

## APPLICABLE REQUIREMENTS

U.S. Paint Corporation 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

- *Control of Emissions From Manufacture of Paints, Varnishes, Lacquers, Enamels and Other Allied Surface Coating Products*, 10 CSR 10-5.390
  - As per 10 CSR 10-5.390 (4)(E) all grinding mills and mixers shall be operated and maintained in accordance with manufacturers' specifications. The manufacturer's specifications shall be kept on file and made available to the director upon his/her request.
- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
  - Per 10 CSR 10-6.110(4)(B)2.B(II) and (4)(B)2.C(II) a full EIQ is required for the first full calendar year the equipment (or modifications) approved by this permit are in operation.
- *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

## 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*, it is recommended that this permit be granted with special conditions.

## PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated 6/13/2016, received 7/5/2016, designating U.S. Paint Corporation as the owner and operator of the installation.
- CMC Milling Batch Mill/Basket Mill and Supermill Plus Spec sheets were used for verifying physical limitations of the project.
- U.S. Paint Corporation 12 month rolling VOC and HAP emission records, provided by U.S. Paint.
- Email correspondence from Laura Shubert from Monday, June 20<sup>th</sup> detailing how the mixers will be used and how they are primarily used to enhance shading and color from milled paint.







## APPENDIX A

### Abbreviations and Acronyms

<b>%</b> .....	percent	<b>m/s</b> .....	meters per second
<b>°F</b> .....	degrees Fahrenheit	<b>Mgal</b> .....	1,000 gallons
<b>acfm</b> .....	actual cubic feet per minute	<b>MW</b> .....	megawatt
<b>BACT</b> .....	Best Available Control Technology	<b>MHDR</b> .....	maximum hourly design rate
<b>BMPs</b> .....	Best Management Practices	<b>MMBtu</b> ...	Million British thermal units
<b>Btu</b> .....	British thermal unit	<b>MMCF</b> .....	million cubic feet
<b>CAM</b> .....	Compliance Assurance Monitoring	<b>MSDS</b> .....	Material Safety Data Sheet
<b>CAS</b> .....	Chemical Abstracts Service	<b>NAAQS</b> ..	National Ambient Air Quality Standards
<b>CEMS</b> .....	Continuous Emission Monitor System	<b>NESHAPs</b>	National Emissions Standards for Hazardous Air Pollutants
<b>CFR</b> .....	Code of Federal Regulations	<b>NO<sub>x</sub></b> .....	nitrogen oxides
<b>CO</b> .....	carbon monoxide	<b>NSPS</b> .....	New Source Performance Standards
<b>CO<sub>2</sub></b> .....	carbon dioxide	<b>NSR</b> .....	New Source Review
<b>CO<sub>2e</sub></b> .....	carbon dioxide equivalent	<b>PM</b> .....	particulate matter
<b>COMS</b> .....	Continuous Opacity Monitoring System	<b>PM<sub>2.5</sub></b> .....	particulate matter less than 2.5 microns in aerodynamic diameter
<b>CSR</b> .....	Code of State Regulations	<b>PM<sub>10</sub></b> .....	particulate matter less than 10 microns in aerodynamic diameter
<b>dscf</b> .....	dry standard cubic feet	<b>ppm</b> .....	parts per million
<b>EIQ</b> .....	Emission Inventory Questionnaire	<b>PSD</b> .....	Prevention of Significant Deterioration
<b>EP</b> .....	Emission Point	<b>PTE</b> .....	potential to emit
<b>EPA</b> .....	Environmental Protection Agency	<b>RACT</b> .....	Reasonable Available Control Technology
<b>EU</b> .....	Emission Unit	<b>RAL</b> .....	Risk Assessment Level
<b>fps</b> .....	feet per second	<b>SCC</b> .....	Source Classification Code
<b>ft</b> .....	feet	<b>scfm</b> .....	standard cubic feet per minute
<b>GACT</b> .....	Generally Available Control Technology	<b>SDS</b> .....	Safety Data Sheet
<b>GHG</b> .....	Greenhouse Gas	<b>SIC</b> .....	Standard Industrial Classification
<b>gpm</b> .....	gallons per minute	<b>SIP</b> .....	State Implementation Plan
<b>gr</b> .....	grains	<b>SMAL</b> .....	Screening Model Action Levels
<b>GWP</b> .....	Global Warming Potential	<b>SO<sub>x</sub></b> .....	sulfur oxides
<b>HAP</b> .....	Hazardous Air Pollutant	<b>SO<sub>2</sub></b> .....	sulfur dioxide
<b>hr</b> .....	hour	<b>tph</b> .....	tons per hour
<b>hp</b> .....	horsepower	<b>tpy</b> .....	tons per year
<b>lb</b> .....	pound	<b>VMT</b> .....	vehicle miles traveled
<b>lbs/hr</b> .....	pounds per hour	<b>VOC</b> .....	Volatile Organic Compound
<b>MACT</b> .....	Maximum Achievable Control Technology		
<b>µg/m<sup>3</sup></b> .....	micrograms per cubic meter		

# Appendix B: Table of HAPs and SMAL (continues for two pages)

Chemical	CAS #	SMAL (tones/yr)	Group ID	VOC	PM	Chemical	CAS #	SMAL (tones/yr)	Group ID	VOC	PM	Chemical	CAS #	SMAL (tones/yr)	Group ID	VOC	PM
HEXACHLOROCYCLOPENTADIENE	77-47-4	0.1		Y	N	NITROSODIMETHYLAMINE, [N-]	62-75-9	0.001		Y	N	TRIMETHYLPENTANE, [2,2,4-]	540-94-1	5		Y	N
HEXACHLOROETHANE	67-72-1	5		Y	N	NITROSOMORPHOLINE, [N-]	59-89-2	1		Y	N	URETHANE [ETHYL CARBAMATE]	51-79-6	0.8		Y	N
HEXAMETHYLENE,-1,6-DISOCYANATE	822-06-0	0.02		Y	N	NITROSO-N-METHYLUREA, [N-]	684-93-5	0.0002		Y	N	VINYL ACETATE	108-05-4	1		Y	N
HEXAMETHYLPHOSPHORAMIDE	680-31-9	0.01		Y	N	OCTACHLORONAPHTHALENE	2234-13-1	0.01	V	Y	N	VINYL BROMIDE	583-60-2	0.6		Y	N
HEXANE, [N-]	110-54-3	10		Y	N	PARATHION	58-38-2	0.1		Y	Y	VINYL CHLORIDE	75-01-4	0.2		Y	N
HYDRAZINE	302-01-2	0.004		N	N	PCB [POLYCHLORINATED BIPHENYLS]	1336-38-3	0.009	X	Y	Y	XYLENE, [META-]	108-38-3	10	G	Y	N
HYDROGEN CHLORIDE	7647-01-0	10		N	N	PENTACHLORONITROBENZENE	82-88-8	0.3		Y	N	XYLENE, [ORTHO-]	95-47-6	10	G	Y	N
HYDROGEN FLUORIDE	7664-39-3	0.1		N	N	PENTACHLOROPHENOL	87-88-5	0.7		Y	N	XYLENE, [PARA-]	108-42-3	10	G	Y	N
HYDROQUINONE	123-31-9	1		Y	N	PHENOL	108-95-2	0.1		Y	N	XYLENES (MIXED ISOMERS)	1330-20-7	10	G	Y	N
INDENO(1,2,3CD)PYRENE	193-39-5	0.01	V	Y	N	PHENYLENE DIAMINE, [PARA-]	106-50-3	10		Y	N						
ISOPHORONE	78-59-1	10		Y	N	PHOSGENE	75-44-5	0.1		Y	N						
LEAD COMPOUNDS		0.01	Q	N	Y	PHOSPHINE	7803-51-2	5		N	N						
LINDANE [GAMMA-HEXACHLOROCYCLOHEXANE]	58-89-9	0.01	F	Y	N	PHOSPHOROUS (YELLOW OR WHITE)	7723-14-0	0.1		N	N	Legend					
MALEIC ANHYDRIDE	108-31-6	1		Y	N	PHTHALIC ANHYDRIDE	85-44-9	5		Y	N	Group ID	Aggregate Group Name				
MANGANESE COMPOUNDS		0.8	R	N	Y	POLYCYCLIC ORGANIC MATTER		0.01	V	Y	N	A	Asbestos				
MERCURY COMPOUNDS		0.01	S	N	N	PROPANE SULTONE, [1,3-]	1120-71-4	0.03		Y	Y	B	Cresols/Cresylic Acid (isomers and mixtures)				
METHANOL	67-58-1	10		Y	N	PROPIOLACTONE, [BETA-]	57-57-8	0.1		Y	N	C	2,4 - D, Salts and Esters				
METHOXYCHLOR	72-43-5	10	V	Y	Y	PROPIONALDEHYDE	123-38-6	5		Y	N	D	Dibenzofurans, Dibenzodioxins				
METHOXYETHANOL, [2-]	109-86-4	10	P	Y	N	PROPOXUR [BAYGON]	114-26-1	10		Y	Y	E	4, 6 Dinitro-o-cresol, and Salts				
METHYL CHLORIDE	74-87-3	10		Y	N	PROPYLENE OXIDE	75-56-9	5		Y	N	F	Lindane (all isomers)				
METHYL ETHYL KETONE (Delisted)	78-93-3					PROPYLENEIMINE, [1,2-]	75-55-8	0.003		Y	N	G	Xylenes (all isomers and mixtures)				
METHYL HYDRAZINE	60-34-4	0.06		Y	N	QUINOLINE	91-22-5	0.006		Y	N	H	Antimony Compounds				
METHYL IODIDE	74-88-4	1		Y	N	QUINONE	106-51-4	5		Y	N	I	Arsenic Compounds				
METHYL ISOBUTYL KETONE	108-10-1	10		Y	N	RADIONUCLIDES		Note 1	Y	N	Y	J	Beryllium Compounds				
METHYL ISOCYANATE	624-83-9	0.1		Y	N	SELENIUM COMPOUNDS		0.1	W	N	Y	K	Cadmium Compounds				
METHYL METHACRYLATE	80-82-6	10		Y	N	STYRENE	100-42-5	1		Y	N	L	Chromium Compounds				
METHYL TERT-BUTYL ETHER	1634-04-4	10		Y	N	STYRENE OXIDE	98-09-3	1		Y	N	M	Cobalt Compounds				
METHYLCYCLOPENTADIENYL MANGANESE	12108-13-3	0.1	R	N	Y	TETRACHLORODIBENZO-P-DIOXIN,[2,3,7,8]	1748-01-6	6E-07	D,V	Y	Y	N	Coke Oven Emissions				
METHYLENE BIS(2-CHLOROANILINE), [4,4-]	101-14-4	0.2	V	Y	Y	TETRACHLOROETHANE, [1,1,2,2-]	79-34-5	0.3		Y	N	O	Cyanide Compounds				
METHYLENEDIANILINE, [4,4-]	101-77-9	1	V	Y	N	TETRACHLOROETHYLENE	127-18-4	10		N	N	P	Glycol Ethers				
METHYLNAPHTHALENE, [2-]	91-57-6	0.01	V	Y	N	TITANIUM TETRACHLORIDE	7550-45-0	0.1		N	N	Q	Lead Compounds (except elemental Lead)				
MINERAL FIBERS		0	T	N	Y	TOLUENE	108-88-3	10		Y	N	R	Manganese Compounds				
NAPHTHALENE	91-20-3	10	V	Y	N	TOLUENE DISOCYANATE, [2,4-]	584-84-9	0.1		Y	N	S	Mercury Compounds				
NAPHTHYLAMINE, [ALPHA-]	134-32-7	0.01	V	Y	N	TOLUIDINE, [ORTHO-]	95-53-4	4		Y	N	T	Fine Mineral Fibers				
NAPHTHYLAMINE, [BETA-]	91-59-8	0.01	V	Y	N	TOXAPHENE	8001-35-2	0.01		Y	N	U	Nickel Compounds				
NICKEL CARBONYL	13463-39-3	0.1	U	N	Y	TRICHLOROETHANE, [1,2,4-]	120-82-1	10		Y	N	V	Polycyclic Organic Matter				
NICKEL COMPOUNDS		1	U	N	Y	TRICHLOROETHANE, [1,1,1-]	71-55-8	10		N	N	W	Selenium Compounds				
NICKEL REFINERY DUST		0.08	U	N	Y	TRICHLOROETHANE, [1,1,2-]	79-00-5	1		Y	N	X	Polychlorinated Biphenyls (Aroclors)				
NICKEL SUBSULFIDE	12035-72-2	0.04	U	N	Y	TRICHLOROETHYLENE	79-01-6	10		Y	N	Y	Radionuclides				
NITROBENZENE	98-95-3	1		Y	N	TRICHLOROPHENOL, [2,4,5-]	95-95-4	1		Y	N						
NITROBIPHENYL, [4-]	92-93-3	1	V	Y	N	TRICHLOROPHENOL, [2,4,6-]	88-06-2	6		Y	N						
NITROPHENOL, [4-]	100-02-7	5		Y	N	TRIETHYLAMINE	121-44-8	10		Y	N						
NITROPROPANE, [2-]	79-48-9	1		Y	N	TRIFLURALIN	1582-09-8	9		Y	Y						

Note 1 The SMAL for radionuclides is defined as the effective dose equivalent to 0.3 millirems per year for 7 years exposure associated with a cancer risk of 1 in 1 million

# Appendix B: Table of HAPs and SMAL (continues for two pages)

Chemical	CAS #	SMAL (tons/yr)	Group ID	VOC	PM	Chemical	CAS #	SMAL (tons/yr)	Group ID	VOC	PM	Chemical	CAS #	SMAL (tons/yr)	Group ID	VOC	PM
ACETALDEHYDE	75-07-0	9		Y	N	CARBARYL	63-25-2	10	V	Y	Y	DICHLOROPROPANE, [1,2-]	78-87-5	1		Y	N
ACETAMIDE	60-35-5	1		Y	N	CARBON DISULFIDE	75-15-0	1		Y	N	DICHLOROPROPENE, [1,3-]	542-75-6	1		Y	N
ACETONITRILE	75-05-8	4		Y	N	CARBON TETRACHLORIDE	56-23-5	1		Y	N	DICHLORVOS	62-73-7	0.2		Y	N
ACETOPHENONE	98-86-2	1		Y	N	CARBONYL SULFIDE	463-58-1	5		Y	N	DIETHANOLAMINE	111-42-2	5		Y	N
ACETYLAMINOFLUORINE, [2-]	53-96-3	0.005	V	Y	Y	CATECHOL	120-80-9	5		Y	N	DIETHYL SULFATE	64-67-5	1		Y	N
ACROLEIN	107-02-8	0.04		Y	N	CHLORAMBEN	133-90-4	1		Y	Y	DIETHYLENE GLYCOL MONOBUTYL ETHER	112-34-5	5	P	Y	N
ACRYLAMIDE	79-06-1	0.02		Y	N	CHLORDANE	57-74-9	0.01		Y	Y	DIMETHOXYBENZIDINE, [3,3-]	119-90-4	0.1	V	Y	Y
ACRYLIC ACID	79-10-7	0.6		Y	N	CHLORINE	7782-50-5	0.1		N	N	DIMETHYL BENZIDINE, [3,3-]	119-93-7	0.008	V	Y	Y
ACRYLONITRILE	107-13-1	0.3		Y	N	CHLOROACETIC ACID	79-11-8	0.1		Y	N	DIMETHYL CARBAMOYL CHLORIDE	79-44-7	0.02		Y	N
ALLYL CHLORIDE	107-05-1	1		Y	N	CHLOROACETOPHENONE, [2-]	532-27-4	0.06		Y	N	DIMETHYL FORMAMIDE	68-12-2	1		Y	N
AMINOBIHENYL, [4-]	92-67-1	1	V	Y	N	CHLOROBENZENE	108-90-7	10		Y	N	DIMETHYL HYDRAZINE, [1,1-]	57-14-7	0.008		Y	N
ANILINE	62-53-3	1		Y	N	CHLOROBENZILATE	510-15-6	0.4	V	Y	Y	DIMETHYL PHTHALATE	131-11-3	10		Y	N
ANISIDINE, [ORTHO-]	90-04-0	1		Y	N	CHLOROFORM	67-66-3	0.9		Y	N	DIMETHYL SULFATE	77-78-1	0.1		Y	N
ANTHRACENE	120-12-7	0.01	V	Y	N	CHLOROMETHYL METHYL ETHER	107-30-2	0.1		Y	N	DIMETHYLAMINOAZOBENZENE, [4-]	60-11-7	1		Y	N
ANTIMONY COMPOUNDS		5	H	N	Y	CHLOROPRENE	126-99-8	1		Y	N	DIMETHYLANILINE, [N-N]	121-69-7	1		Y	N
ANTIMONY PENTAFLUORIDE	7783-70-2	0.1	H	N	Y	CHROMIUM (VI) COMPOUNDS		0.002	L	N	Y	DINITRO-O-CRESOL, [4,6-] (Note 6)	534-52-1	0.1	E	Y	Y
ANTIMONY POTASSIUM TARTRATE	28300-74-5	1	H	N	Y	CHROMIUM COMPOUNDS		5	L	N	Y	DINTROPHENOL, [2,4-]	51-28-5	1		Y	N
ANTIMONY TRIOXIDE	1309-64-4	1	H	N	Y	CHRYSENE	218-01-9	0.01	V	Y	N	DINTROTOLUENE, [2,4-]	121-14-2	0.02		Y	N
ANTIMONY TRISULFIDE	1345-04-6	0.1	H	N	Y	COBALT COMPOUNDS		0.1	M	N	Y	DIOXANE, [1,4-]	123-91-1	6		Y	N
ARSENIC COMPOUNDS		0.005	I	N	Y	COKE OVEN EMISSIONS	8007-45-2	0.03	N	Y	N	DIPHENYLHYDRAZINE, [1,2-]	122-66-7	0.09	V	Y	Y
ASBESTOS	1332-21-4	0	A	N	Y	CRESOL, [META-]	108-39-4	1	B	Y	N	DIPHENYLMETHANE DIISOCYANATE, [4,4-]	101-68-8	0.1	V	Y	N
BENZ(A)ANTHRACENE	56-55-3	0.01	V	Y	N	CRESOL, [ORTHO-]	95-48-7	1	B	Y	N	EPICHLOROHYDRIN	106-89-8	2		Y	N
BENZENE	71-43-2	2		Y	N	CRESOL, [PARA-]	106-44-5	1	B	Y	N	ETHOXYETHANOL, [2-]	110-80-5	10	P	Y	N
BENZIDINE	92-87-5	0.0003	V	Y	N	CRESOLS (MIXED ISOMERS)	1319-77-3	1	B	Y	N	ETHOXYETHYL ACETATE, [2-]	111-15-9	5	P	Y	N
BENZO(A)PYRENE	50-32-8	0.01	V	Y	N	CUMENE	98-82-8	10		Y	N	ETHYL ACRYLATE	140-88-5	1		Y	N
BENZO(B)FLUORANTHENE	205-99-2	0.01	V	Y	N	CYANIDE COMPOUNDS		0.1	O	Y	N	ETHYL BENZENE	100-41-4	10		Y	N
BENZO(K)FLUORANTHENE	207-08-9	0.01	V	Y	N	DDE	72-55-9	0.01	V	Y	Y	ETHYL CHLORIDE	75-00-3	10		Y	N
BENZOTRICHLORIDE	98-07-7	0.006		Y	N	DI(2-ETHYLHEXYL) PHTHALATE, (DEHP)	117-81-7	5		Y	N	ETHYLENE GLYCOL	107-21-1	10		Y	N
BENZYL CHLORIDE	100-44-7	0.1		Y	N	DIAMINOTOLUENE, [2,4-]	95-80-7	0.02		Y	N	ETHYLENE GLYCOL MONOBUTYL ETHER (Delisted)	111-76-2				
BERYLLIUM COMPOUNDS		0.008	J	N	Y	DIAZOMETHANE	334-88-3	1		Y	N	ETHYLENE GLYCOL MONOHXYL ETHER	112-25-4	5	P	Y	N
BERYLLIUM SALTS		2E-05	J	N	Y	DIBENZ(A,H)ANTHRACENE	53-70-3	0.01	V	Y	N	ETHYLENE MINE [AZIRIDINE]	151-58-4	0.003		Y	N
BIPHENYL, [1,1-]	92-52-4	10	V	Y	N	DIOXINS/FURANS		6E-07	D,V	Y	N	ETHYLENE OXIDE	75-21-8	0.1		Y	N
BIS(CHLOROETHYL)ETHER	111-44-4	0.06		Y	N	DIBENZOFURAN	132-64-9	5	V	Y	N	ETHYLENE THIOUREA	96-45-7	0.8		Y	Y
BIS(CHLOROMETHYL)ETHER	542-88-1	0.0003		Y	N	DIBROMO-3-CHLOROPROPANE, [1,2-]	96-12-8	0.01		Y	N	FORMALDEHYDE	50-00-0	2		Y	N
BROMOFORM	75-25-2	10		Y	N	DIBROMOETHANE, [1,2-]	106-93-4	0.1		Y	N	GLYCOL ETHER (ETHYLENE GLYCOL ETHERS)		5	P	Y	N
BROMOMETHANE	74-83-9	10		Y	N	DIBUTYL PHTHALATE	84-74-2	10		Y	Y	GLYCOL ETHER (DIETHYLENE GLYCOL ETHERS)		5	P	Y	N
BUTADIENE, [1,3-]	106-99-0	0.07		Y	N	DICHLOROBENZENE, [1,4-]	106-46-7	3		Y	N	HEPTACHLOR	76-44-8	0.02		Y	N
BUTOXYETHANOL ACETATE, [2-]	112-07-2	5	P	Y	N	DICHLOROBENZIDENE, [3,3-]	91-94-1	0.2	V	Y	Y	HEXACHLOROBENZENE	118-74-1	0.01		Y	N
BUTYLENE OXIDE, [1,2-]	106-88-7	1		Y	N	DICHLOROETHANE, [1,1-]	75-34-3	1		Y	N	HEXACHLOROBUTADIENE	87-68-3	0.9		Y	N
CADMIUM COMPOUNDS		0.01	K	N	Y	DICHLOROETHANE, [1,2-]	107-06-2	0.8		Y	N	HEXACHLOROCYCLOHEXANE, [ALPHA-]	319-84-6	0.01	F	Y	N
CALCIUM CYANAMIDE	156-62-7	10		Y	Y	DICHLOROETHYLENE, [1,1-]	75-35-4	0.4		Y	N	HEXACHLOROCYCLOHEXANE, [BETA-]	319-85-7	0.01	F	Y	N
CAPROLACTAM (Delisted)	105-60-2					DICHLOROMETHANE	75-09-2	10		N	N	HEXACHLOROCYCLOHEXANE, [DELTA-]	319-86-8	0.01	F	Y	N
CAPTAN	133-06-2	10		Y	Y	DICHLOROPHENOXY ACETIC ACID, [2,4-]	94-75-7	10	C	Y	Y	HEXACHLOROCYCLOHEXANE, [TECHNICAL]	608-73-1	0.01	F	Y	N



Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

## DEPARTMENT OF NATURAL RESOURCES

[www.dnr.mo.gov](http://www.dnr.mo.gov)

**OCT 24 2016**

Ms. Laura Schubert  
Regulatory Specialist  
U.S. Paint Corporation  
831 South 21st Street  
St. Louis MO 63103

RE: New Source Review Permit - Project Number: 2016-07-006

Dear Ms. Schubert:

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 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.

This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to understand and satisfy the requirements contained in this permit, an appointment referred to as a Compliance Assistance Visit (CAV) can be set up with you. To request a CAV, please contact your local regional office or fill out an online request. The regional office contact information can be found at the following website: <http://dnr.mo.gov/regions/>. The online CAV request can be found at <http://dnr.mo.gov/cav/compliance.htm>.

If you were adversely affected by this permit decision, you may be entitled to pursue an appeal before the administrative hearing commission pursuant to Sections 621.250 and 643.075.6 RSMo. To appeal, you must file a petition with the administrative hearing commission within thirty 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 administrative hearing commission, whose contact information is: Administrative Hearing Commission, United States Post Office Building, 131 West High Street, Third Floor, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: [www.oa.mo.gov/ahc](http://www.oa.mo.gov/ahc).

Ms. Laura Schubert  
Page Two

If you have any questions regarding this permit, please do not hesitate to contact Hans Robinson 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:hrj

Enclosures

c: St. Louis Regional Office  
PAMS File: 2016-07-006

Permit Number: 102016-006