

STATE OF 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: 06 2016 - 007

Project Number: 2016-03-049
Installation Number: 055-5002

Parent Company: Steelville Manufacturing Co.

Parent Company Address: 1056 Perkins Drive, Steelville, MO 65565

Installation Name: Steelville Manufacturing Co.

Installation Address: 1056 Perkins Drive, Steelville, MO 65565

Location Information: Crawford County, S34, T38N, R4W

Application for Authority to Construct was made for:
Addition of a chemical process line. This review was conducted in accordance with Section (5), 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.

Handwritten signature of Chad Stephenson.

Prepared by
Chad Stephenson
New Source Review Unit

Handwritten signature of Kyma Z Moore.

Director or Designee
Department of Natural Resources

JUN 10 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."

Steelville Manufacturing Co.
Crawford County, S34, T38N, R4W

1. **Superseding Condition**
The conditions of this permit supersede the following special conditions found in the previously issued construction permit 102015-009 issued by the Air Pollution Control Program.
 - A. Special Condition 1.
2. **Installation-wide VOC and HAP Emission Limitations**
 - A. Steelville Manufacturing Co. shall emit less than 40.0 tons of VOCs in any consecutive 12-month period from the entire installation. This limit applies to the VOC emissions from all equipment and processes installed or permitted at Steelville Manufacturing Co. as of the issuance date of this permit.
 - B. Steelville Manufacturing Co. shall emit less than 10.0 tons individually or the applicable Screening Model Action Level (SMAL)—whichever value is less—and less than 25.0 tons combined of HAPs in any consecutive 12-month period from the the entire installation. This limit applies to the HAP emissions from all equipment and processes installed or permitted at Steelville Manufacturing Co. as of the issuance date of this permit.
 - C. Appendix B lists the SMALs for individual HAPs. 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 Condition 2.A and 2.B.
3. **Operational Requirement**
 - A. Steelville Manufacturing Co. shall not use any chromium containing compounds in the anodizing tanks.
 - B. Steelville Manufacturing Co. shall keep a record of all materials used in the anodizing tanks to demonstrate compliance with Special Condition 3.A.
4. **Operational Requirement**
 - A. Steelville Manufacturing Co. shall keep all coatings, solvents and cleaning solutions in sealed containers whenever the materials are not in use. Steelville Manufacturing Co. shall provide and maintain suitable, easily read, permanent

SPECIAL CONDITIONS:

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

markings on all inks, solvent and cleaning solution containers used with this equipment.

5. Record Keeping and Reporting Requirements
 - A. Steelville Manufacturing Co. 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.
 - B. Steelville Manufacturing Co. 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 (5) REVIEW

Project Number: 2016-03-049
Installation ID Number: 055-5002
Permit Number:

Installation Address:
Steelville Manufacturing Co.
1056 Perkins Drive
Steelville, MO 65565

Parent Company:
Steelville Manufacturing Co.
1056 Perkins Drive
Steelville, MO 65565

Crawford County, S34, T38N, R4W

REVIEW SUMMARY

- Steelville Manufacturing Co. has applied for authority to construct a chemical process line.
- The application was deemed complete on April 19, 2016.
- HAP emissions are expected from the proposed equipment. HAPs of concern from this process are hexavalent chromium and hydrogen fluoride.
- None of the New Source Performance Standards (NSPS) apply to the installation.
- None of the NESHAPs apply to this project emission units.
- The Maximum Achievable Control Technology (MACT) standard, 40 CFR Part 63, Subpart WWWW, *National Emission Standards for Hazardous Air Pollutants: Areas Source Standards for Plating and Polishing Operations*, applies to the chrome conversion coating. The tanks containing chromium are electroless and do not require a control device; however the facility must implement the applicable management practices found in 40 CFR 63.11507(g).
- No air pollution control equipment is being used in association with the new equipment.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Installation-wide potential emissions of HAPs and VOCs are conditioned below de minimis levels.
- This installation is located in Crawford 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 not performed since potential emissions of the application are below de minimis levels.
- Emissions testing is not required for the equipment as a part of this permit. Testing may be required as part of other state, federal or applicable rules.
- No Operating Permit is required for this installation.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

Steelville Manufacturing Co. is an aerospace component manufacturer and finish processing operation located in Crawford County, Steelville, Missouri. There was a previously unpermitted machine shop located at this installation; the calculations for the machine shop were included in the installation’s potential emissions. Finish processing operations include at least one of the following steps: heat treatment, tumbling, abrasive blasting, masking, priming, and painting. Steelville Manufacturing Company provides finishing operations for components that are aluminum, bronze, steel, copper, mesh, composite, or various other surface types.

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

Table 1: Permit History

Permit Number	Description
032015-015	Installation of a spray coating operation (booths, spray guns, drying room, mixing room).
102015-009	Use of additional coatings

PROJECT DESCRIPTION

This project consists of the addition of an aging furnace and adding a set of chemical processes including sulfuric acid anodizing, chromate conversion coating, and nitric and hydrofluoric acid etching of various types of metal structures for the aerospace industry. The Model #TBH-550 aging furnace is electric and any emissions associated with it were considered negligible. The chemical line consists of a series of soap, rinse, etch, anodize, and seal tanks. The emission sources associated with the chemical process line (EP-04) are from the sulfuric acid/water anodizing tanks and the tanks containing chrome compounds and hydrogen fluoride. The line will also use phosphoric acid and sodium hydroxide, however, these are not considered a VOC or HAP and therefore, the emissions do not have an impact on this project. The line will have approximately 27 tanks that each have a surface area of 2 feet by 4 feet. Two of these tanks will be used for sulfuric acid anodizing. The emissions associated with these new tanks are sulfuric acid mist and particulate emissions. Three of the tanks will contain hydrogen fluoride and an additional three of the tanks will contain chrome compounds. The emissions associated with

these tanks will be hydrogen fluoride and chrome compounds. No chromic acid will be used for the chemical line. The remainder of the tanks will either be water rinse tanks or not contain any HAPs.

EMISSIONS/CONTROLS EVALUATION

Emissions from the sulfuric acid anodizing was calculated using a method described in a paper presented at the 2000 AESF/SPA Conference for Environmental Excellence, *Characterizing Site Specific Source Emissions for EPA's Risk Assessment Tool for the Metal Finishing Industry* by S. Schwartz and M. Lorber. This paper used a formula to estimate sulfuric acid emissions based on a ratio of the hexavalent chromium emissions and an assumed scrubber efficiency of 90%. The following parameters were used to estimate sulfuric emissions in accordance with the aforementioned formula taking into account that no scrubber will be used: 2 tanks both with a surface area of 8 square feet, concentration of sulfuric acid of 26 ounces per gallon, current density of 0.217 amps per square inch for one tank and 0.434 amps per square inch for the other tank and an assumed cathode efficiency of 95%. Particulate matter emissions from anodizing with sulfuric acid were derived from Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 12.20, *Electroplating* (July 1996). According to Section 12.20, most of the particulate matter emitted during the chromic acid anodizing process is assumed to consist entirely of chromic acid mist. The facility will not use chromium containing materials in the anodizing process, however since there are no emission factors for sulfuric acid anodizing, the same ratio of particulate emissions to chromium compound emissions was used here for particulate to sulfuric acid.

Emissions from the tanks containing nitric acid, hydrogen fluoride and chrome compounds were calculated using equation (4) from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 12.20 "Electroplating," July 1999. Equation 4 is used to estimate emissions from electroless plating operations. Subpart N does not apply to the chemical process line. Process tanks with a chromium electroplating or chromium anodizing process, but in which neither chromium electroplating nor chromium anodizing is taking place, are not subject to the provisions of this subpart. Some tanks in the chemical process line contain a chromium solution for chrome conversion coating; however no electrolytic process occurs for these tanks. The tanks containing chromium compounds are subject to Subpart WWWW. The tanks containing chromium are electroless and do not require a control device; however the facility must implement the applicable management practices found in 40 CFR 63.11507(g). The chrome emissions from the tanks are hexavalent chromium. Nitric acid emissions were conservatively assumed to be particulate matter emissions.

Table 3 (below) represents the potential emissions of the installation because SMC is taking a voluntary installation-wide limit on VOC emissions, individual HAP, and combined HAP emissions. All PM emissions are considered to be PM_{2.5}. Existing actual emissions were taken from the 2015 EIQ when available.

Table 2: Installation Emissions Summary (tpy)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2015 EIQ)	Potential Emissions of the Project	New Installation Conditioned Potential
PM	25.0	2.07	N/A	0.24	2.31
PM ₁₀	15.0	2.07	0.0012	0.24	2.31
PM _{2.5}	10.0	2.07	0.0012	0.24	2.31
SO _x	40.0	0.00001	N/A	N/A	0.00001
NO _x	40.0	0.0013	N/A	N/A	0.0013
VOC	40.0	<40.0	0.1063	N/A	<40.0
CO	100.0	0.001	N/A	N/A	0.001
GHG (CO ₂ e)	75,000 / 100,000	1.21	N/A	N/A	1.21
Sulfuric Acid Mist	7.0	N/A	N/A	0.055	0.055
Individual HAPs	10.0	<10.0	N/A	<10.0	<10.0
Hexavalent Cr	0.002 ¹	<0.002	N/A	0.0096	<0.002 ²
Hydrogen Fluoride	0.1	N/A	N/A	0.0063	<0.1
<i>2-Butoxy Ethyl Acetate (CAS# 112-07-2)</i>	5.0 ¹	2.14	N/A	N/A	2.14
<i>Strontium Chromate (CAS# 7789-06-2)</i>	10.0	0.35	N/A	N/A	N/D
<i>Barium Chromate (CAS# 10294-40- 3)</i>	10.0	0.035	N/A	N/A	N/D
<i>Ethyl Acrylate (CAS# 140-88-5)</i>	1.0 ¹	0.006	N/A	N/A	0.006
<i>Ethyl Benzene (CAS# 100-41-4)</i>	10.0 ¹	1.06	N/A	N/A	1.06
<i>Formaldehyde (CAS# 50-00-0)</i>	2.0 ¹	0.11	N/A	N/A	0.11
<i>Methanol (CAS# 67-56-1)</i>	10.0 ¹	2.46	N/A	N/A	2.46
<i>Methyl Isobutyl Ketone (CAS# 108-10-1)</i>	10.0 ¹	<10.0	N/A	N/A	<10.0
<i>Napthalene (CAS# 91-20-3)</i>	10.0 ¹	0.02	N/A	N/A	0.02
<i>2-Nitropropane (CAS# 79-46-9)</i>	1.0 ¹	0.02	N/A	N/A	0.02
<i>Xylene (CAS# 1330-20-7)</i>	10.0 ¹	4.95	N/A	N/A	4.95
<i>Diphenylmethane Diisocyanate [4, 4-] (CAS# 101-68-8)</i>	0.1 ¹	<0.1	N/A	N/A	<0.1
<i>Toluene (CAS# 108-88-3)</i>	10.0 ¹	<10.0	N/A	N/A	<10.0
Combined HAPs	25.0	6.55	N/A	0.0159	<25.0

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

¹SMAL – Screening Model Action Level

²This limit is established as installation-wide annual limits in this permit.

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of HAPs are conditioned below de minimis levels.

APPLICABLE REQUIREMENTS

Steelville Manufacturing Co. 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.

GENERAL REQUIREMENTS

- *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.
- *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

SPECIFIC REQUIREMENTS

- *MACT Regulations*, 10 CSR 10-6.075
 - *National Emission Standards for Plating and Polishing Operations, applies to the chrome conversion coating*, 40 CFR Part 63, Subpart WWWW

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), 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 March 17, 2016, received March 21, 2016, designating Steelville Manufacturing Co. as the owner and operator of the installation.
- Emails received from John Crites on April 19, 2016 providing completeness information for the application

Table B: For Chemical Process Line described in this project

Tank Number	Individual HAP Contained	PTE (tons) ^c	Cumulative PTE (tons) ^d

^aFor proper nomenclature and/or values, refer to Table 2a, Table 2b in permit number 102015-009, or applicable SDSs (for coatings not included in this permit); for each separate coating used (per day), start a new record keeping row to track its usage. For all new SDSs, values for pollutants that are given in the form of a range shall be calculated using the highest value of the respective range; documentation from the manufacturer/supplier may be provided to support the use of an exact value.

^bFor individual HAP compounds that contain heavy metals (i.e. Chromium [Cr]), be sure to calculate the emissions based on the total weight of the compound and the weight of the metal portion of the compound. This should be done as a percentage by weight of the heavy metal with respect to the total molecular weight of the compound in question. (i.e. Strontium Chromate is comprised of 25.538% Chromium (VI) by weight; therefore, the potential emissions would be calculated based on 25.538% of the total amount of Strontium Chromate used.)

^cTo get the uncontrolled PTE for volatile HAPs in Table A, multiply the “Individual HAP Content” column by the “Gallons Used” column, then divide by “2000 lb/ton”. If the individual HAP being calculated is a particulate-based (non-volatile) HAP, then apply a transfer/control efficiency factor of 98%. This can be done by multiplying the uncontrolled value obtained in this step by “0.02” to calculate the PTE for non-volatile HAPs. To get the uncontrolled PTE for volatile HAPs in Table B use equation (4) from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 12.20 “Electroplating,” July 1999

^dAdd all values for each respective HAP in the Cumulative PTE column from Table A and B together and keep a running monthly total; add this value to the previous 11 month totals. This value shall never exceed **10.0 tons** for **any** individual HAP or HAP group (e.g. chromium compounds) contained in the coating materials over any consecutive 12-month period.

^eAdd all values for each respective HAP in the Cumulative PTE column from Table A and B together and keep a running monthly total; add this value to the previous 11 month totals. This value shall never exceed **the SMAL** (listed in Appendix B) **for** individual HAP or HAP group contained in the coating materials over any consecutive 12-month period. For metal HAPs, only the metal portion is compared to the SMAL.

{Please note when comparing Individual HAP or HAP groups to 10.0 tpy, the weight of the whole compound should be used. When comparing metal HAP groups to the SMAL, use only weight of the metal portion of the compound.}

Table B: For Chemical Process Line described in this project

Tank Number	Individual HAP Contained	PTE (tons) ^c	Cumulative PTE (tons) ^d

^aFor proper nomenclature and/or values, refer to Table 2a, Table 2b in permit number 102015-009, or applicable SDSs (for coatings not included in this permit). For each separate coating used (per day), start a new record keeping row to track its usage. For all new SDSs, values for pollutants that are given in the form of a range shall be calculated using the highest value of the respective range; documentation may be provided to support the use of an exact value (if the manufacturer/supplier can provide accurate information).

^bTo get the uncontrolled PTE for volatile HAPs, multiply the “Combined HAPs Content” column by the “Gallons Used” column, then divide by “2000 lb/ton”. If a portion of the combined HAPs being calculated is comprised of a particulate-based (non-volatile) HAP, then apply a transfer/control efficiency factor of 98% to that portion. This can be done by multiplying the uncontrolled PTE of the non-volatile portion of HAPs obtained in this step by “0.02” to calculate the PTE for the non-volatile HAPs; then, add the non-volatile portion of HAPs to the volatile portion of HAPs to obtain the total, controlled combined HAP PTE. To get the uncontrolled PTE for volatile HAPs in Table B use equation (4) from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 12.20 “Electroplating,” July 1999

^cAdd all values for each month from the “PTE” column in both Table A and B together; add the monthly total to the previous 11 month total. The 12-month rolling total shall never exceed **25.0 tons** over any consecutive 12-month period to remain in continued compliance.

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	National Emissions Standards for Hazardous Air Pollutants
CFR	Code of Federal Regulations	NO_x	nitrogen oxides
CO	carbon monoxide	NSPS	New Source Performance Standards
CO₂	carbon dioxide	NSR	New Source Review
CO_{2e}	carbon dioxide equivalent	PM	particulate matter
COMS	Continuous Opacity Monitoring System	PM_{2.5}	particulate matter less than 2.5 microns in aerodynamic diameter
CSR	Code of State Regulations	PM₁₀	particulate matter less than 10 microns in aerodynamic diameter
dscf	dry standard cubic feet	ppm	parts per million
EQ	Emission Inventory Questionnaire	PSD	Prevention of Significant Deterioration
EP	Emission Point	PTE	potential to emit
EPA	Environmental Protection Agency	RACT	Reasonable Available Control Technology
EU	Emission Unit	RAL	Risk Assessment Level
fps	feet per second	SCC	Source Classification Code
ft	feet	scfm	standard cubic feet per minute
GACT	Generally Available Control Technology	SDS	Safety Data Sheet
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		

Appendix B: Table of Hazardous Air Pollutants and Screening Model Action Levels

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	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	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	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	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	DINITROPHENOL, [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	DINITROTOLUENE, [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 MONOHEXYL 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 IMINE [AZIRIDINE]	151-56-4	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	0.6		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

Appendix B: Table of Hazardous Air Pollutants and Screening Model Action Levels

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
HEXACHLOROCYCLOPENTADIENE	77-47-4	0.1		Y	N	NITROSODIMETHYLAMINE, [N-]	62-75-9	0.001		Y	N	TRIMETHYLPENTANE, [2,2,4-]	540-84-1	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-DIISOCYANATE	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	593-60-2	0.6		Y	N
HEXANE, [N-]	110-54-3	10		Y	N	PARATHION	56-38-2	0.1		Y	Y	VINYL CHLORIDE	75-01-4	0.2		Y	N
HYDRAZINE	302-01-2	0.004		N	N	PCB [POLYCHLORINATED BIPHENYLS]	1336-36-3	0.009	X	Y	Y	XYLENE, [META-]	108-38-3	10	G	Y	N
HYDROGEN CHLORIDE	7647-01-0	10		N	N	PENTACHLORONITROBENZENE	82-68-8	0.3		Y	N	XYLENE, [ORTHO-]	95-47-6	10	G	Y	N
HYDROGEN FLUORIDE	7664-39-3	0.1		N	N	PENTACHLOROPHENOL	87-86-5	0.7		Y	N	XYLENE, [PARA-]	106-42-3	10	G	Y	N
HYDROQUINONE	123-31-9	1		Y	N	PHENOL	108-95-2	0.1	Y	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	PHENYLENEDIAMINE, [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	POLYCYLIC 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	67-56-1	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	80-62-6	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	96-09-3	1		Y	N	M	Cobalt Compounds				
METHYLCYCLOPENTADIENYL MANGANESE	12108-13-3	0.1	R	N	Y	TETRACHLORODIBENZO-P-DIOXIN,[2,3,7,8]	1746-01-6	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 DIISOCYANATE, [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-]	71-55-6	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	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				
NITROPROPANE, [2-]	79-46-9	1		Y	N	TRIFLURALIN	1582-09-8	9		Y	Y						

Mr. John Crites
Process General Manager
Steelville Manufacturing Co.
P.O. Box 919
Steelville, MO 65565

RE: New Source Review Permit - Project Number: 2016-03-049

Dear Mr. Crites:

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 and your new source review permit application 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.

If you have any questions regarding this permit, please do not hesitate to contact Chad Stephenson, 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:csj

Enclosures

c: Southeast Regional Office
PAMS File: 2016-03-049

Permit Number: