State of Utah

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Department of
Environmental Quality

Kimberly D. Shelley
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQE-AN121040008-24

December 5, 2024

Mike Busch
Rocky Mountain Machine Shop Inc.
PO Box 25006
Salt Lake City, UT 84125
mbusch@rmmshop.com

Dear Mr. Busch:

Re: Approval Order: Administrative Amendment to Approval Order DAQE-AN0121040007-09 for a 10-Year Review and Permit Updates
Project Number: N121040008

The attached Approval Order (AO) is issued pursuant to the Division of Air Quality conducting a 10-year administrative review of this source and its respective AO. Rocky Mountain Machine Shop Inc. must comply with the requirements of this AO, all applicable state requirements (R307), and Federal Standards.

The project engineer for this action is **Katie Andersen**, who can be contacted at (385) 515-1748 or kandersen@utah.gov. Future correspondence on this AO should include the engineer's name as well as the DAQE number shown on the upper right-hand corner of this letter.

Sincerely,

Bryce C. Bird
Director

BCB:KA:jg

cc: Salt Lake County Health Department

STATE OF UTAH
Department of Environmental Quality
Division of Air Quality

APPROVAL ORDER
DAQE-AN121040008-24
Administrative Amendment to Approval Order DAQE-AN0121040007-09 for a 10-Year Review and Permit Updates

Prepared By
Katie Andersen, Engineer
(385) 515-1748
kandersen@utah.gov

Issued to
Rocky Mountain Machine Shop Inc. - Salt Lake City Machine Shop

Issued On
December 5, 2024

Issued By

Bryce C. Bird
Director
Division of Air Quality

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GENERAL INFORMATION

CONTACT/LOCATION INFORMATION

Owner Name
Rocky Mountain Machine Shop Inc.

Source Name
Rocky Mountain Machine Shop Inc. - Salt Lake City Machine Shop

Mailing Address
PO Box 25006
Salt Lake City, UT 84125

Physical Address
1165 South Pioneer Road
Salt Lake City, UT 84104

Source Contact
Name: Mike Busch
Phone: (801) 649-9544
Email: mbusch@rmmshop.com

UTM Coordinates
419,171 m Easting
4,510,786 m Northing
Datum NAD83
UTM Zone 12

SIC code 3549 (Metalworking Machinery, NEC)

SOURCE INFORMATION

General Description
Rocky Mountain Machine Shop Inc. (RMMS) owns and operates an industrial machine service and metalwork fabrication plant in Salt Lake City, Salt Lake County. RMMS refurbishes and services defective, corroded, or nicked drive shafts and hydraulic cylinders from heavy machinery. Items are received in the plant and prepared by removing the defective plating. The items are then cleaned with solvents and prepared for plating. Three (3) 5,000-amp, two (2) 8,000-amp, and one (1) 10,000-amp rectifiers support the electrochemical plating process of depositing chromium oxide to a base metal via the appropriate electrolyte. The source is categorized as a large, hard chromium (Cr) electroplating facility.

NSR Classification
10-Year Review

Source Classification
Located in Northern Wasatch Front O3 NAA, Salt Lake City UT $PM_{2.5}$ NAA, Salt Lake County SO_2 NAA
Salt Lake County
Airs Source Size: B

Applicable Federal Standards
MACT (Part 63), A: General Provisions
MACT (Part 63), N: National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks

Project Description
This is a 10-Year Review to update the format, language, and layout of the AO to match current DAQ permitting standards.

SUMMARY OF EMISSIONS

The emissions listed below are an estimate of the total potential emissions from the source. Some rounding of emissions is possible.

Criteria Pollutant	Change (TPY)	Total (TPY)
Carbon Monoxide	0	0.48
Nitrogen Oxides	0	0.11
Volatile Organic Compounds	0	20.00

Hazardous Air Pollutant	Change (lbs/yr)	Total (lbs/yr)
Generic HAPs (CAS #GHAPS)	0	12000
Hexane (CAS #110543)	0	18000
	Change (TPY)	**Total (TPY)**
Total HAPs	0	15.00

SECTION I: GENERAL PROVISIONS

I.1	All definitions, terms, abbreviations, and references used in this AO conform to those used in the UAC R307 and 40 CFR. Unless noted otherwise, references cited in these AO conditions refer to those rules. [R307-101]
I.2	The limits set forth in this AO shall not be exceeded without prior approval. [R307-401]
I.3	Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved. [R307-401-1]
I.4	All records referenced in this AO or in other applicable rules, which are required to be kept by the owner/operator, shall be made available to the Director or Director's representative upon request, and the records shall include the two-year period prior to the date of the request. Unless otherwise specified in this AO or in other applicable state and federal rules, records shall be kept for a minimum of two (2) years. [R307-401-8]
I.5	At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this AO, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded. [R307-401-4]

I.6	The owner/operator shall comply with UAC R307-107. General Requirements: Breakdowns. [R307-107]
I.7	The owner/operator shall comply with UAC R307-150 Series. Emission Inventories. [R307-150]

SECTION II: PERMITTED EQUIPMENT

II.A THE APPROVED EQUIPMENT

II.A.1	**Machine Shop** Industrial machine service and metalwork fabrication plant.
II.A.2	**Chrome plating tanks** Six (6) chrome plating tanks
II.A.3	**Surface preparation** Preparation of various metal parts for chrome plating or painting
II.A.4	**Surface coating** Painting of various metal parts
II.A.5	**Welding**
II.A.6	**Mist eliminator** Horizontal mist eliminator, attached to the chrome plating tanks, 12,000 acfm
II.A.7	**Paint booth DB-108** 12' x 6' x 7'8", 12,000 cfm, 30" diameter stack, particulate arrestor filters
II.A.8	**Various Heaters** Rating: less than 5 MMBtu/hr each Fuel: Natural Gas Rating: Less than 0.5 MMBtu/hr each Fuel: Hydraulic Oil or Used Oil Listed for informational purposes only.

SECTION II: SPECIAL PROVISIONS

II.B REQUIREMENTS AND LIMITATIONS

II.B.1	**The Machine Shop shall be subject to the following:**
II.B.1.a	The owner/operator shall not allow visible emissions from any stationary point or fugitive emission source associated with the source or with the control facilities to exceed 10% opacity. [R307-401-8]
II.B.1.a.1	Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60 Appendix A, Method 9. [R307-401-8]

II.B.2	**VOC & HAP Requirements**
II.B.2.a	The owner/operator shall not emit more than the following from evaporative sources (painting, printing, coating, and/or cleaning) on site: 20.00 tons per rolling 12-month period of VOCs 9.00 tons per rolling 12-month period of hexane (HAP) 6.00 tons per rolling 12-month period combined for xylene, toluene, and methanol. [R307-401-8]
II.B.2.a.1	The owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. The owner/operator shall use a mass-balance method to calculate emissions from evaporative sources. The owner/operator may use the following equations with applicable units to comply with the mass-balance method: VOCs = [% VOCs by Weight/100] x [Density] x [Volume Consumed] HAP = [% HAP by Weight/100] x [Density] x [Volume Consumed] [R307-401-8]
II.B.2.a.2	The owner/operator shall use a mass-balance method to quantify any amount of VOCs and HAPs reclaimed. The owner/operator shall subtract the amount of VOCs and HAPs reclaimed from the quantities calculated above to provide the monthly total emissions of VOCs and HAPs. [R307-401-8]
II.B.2.a.3	The owner/operator shall keep records each month of the following: A. The name of the VOC- and HAP-emitting material, such as paint, adhesive, solvent, thinner, reducers, chemical compounds, toxics, isocyanates, etc. B. The maximum percent by weight of VOCs and each HAP in each material used C. The density of each material used D. The volume of each VOC- and HAP-emitting material used E. The amount of VOCs and the amount of each HAP emitted from each material F. The amount of VOCs and the amount of each HAP reclaimed and/or controlled from each material G. The total amount of VOCs, the total amount of each HAP, and the total amount of all HAPs combined emitted from all materials (in tons) H. The VOC or HAP emissions from the fuel-burning devices (products of incomplete combustion) are not included in the above total. [R307-401-8]
II.B.2.b	The owner/operator shall comply with the applicable requirements of R307-350: Miscellaneous Metal Parts and Products Coatings. [R307-350]
II.B.2.c	The owner/operator shall comply with the applicable requirements of 40 CFR 63 Subpart N: National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks. [40 CFR 63 Subpart N]

PERMIT HISTORY

This Approval Order shall supersede (if a modification) or will be based on the following documents:

Supersedes	AO DAQE-AN0121040007-09 dated April 9, 2009

ACRONYMS

The following lists commonly used acronyms and associated translations as they apply to this document:

40 CFR	Title 40 of the Code of Federal Regulations
AO	Approval Order
BACT	Best Available Control Technology
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CDS	Classification Data System (used by Environmental Protection Agency to classify sources by size/type)
CEM	Continuous emissions monitor
CEMS	Continuous emissions monitoring system
CFR	Code of Federal Regulations
CMS	Continuous monitoring system
CO	Carbon monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent - Title 40 of the Code of Federal Regulations Part 98, Subpart A, Table A-1
COM	Continuous opacity monitor
DAQ/UDAQ	Division of Air Quality
DAQE	This is a document tracking code for internal Division of Air Quality use
EPA	Environmental Protection Agency
FDCP	Fugitive dust control plan
GHG	Greenhouse Gas(es) - Title 40 of the Code of Federal Regulations 52.21 (b)(49)(i)
GWP	Global Warming Potential - Title 40 of the Code of Federal Regulations Part 86.1818-12(a)
HAP or HAPs	Hazardous air pollutant(s)
ITA	Intent to Approve
LB/YR	Pounds per year
MACT	Maximum Achievable Control Technology
MMBTU	Million British Thermal Units
NAA	Nonattainment Area
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOI	Notice of Intent
NO_x	Oxides of nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review
PM_{10}	Particulate matter less than 10 microns in size
$PM_{2.5}$	Particulate matter less than 2.5 microns in size
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
R307	Rules Series 307
R307-401	Rules Series 307 - Section 401
SO_2	Sulfur dioxide
Title IV	Title IV of the Clean Air Act
Title V	Title V of the Clean Air Act
TPY	Tons per year
UAC	Utah Administrative Code
VOC	Volatile organic compounds