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-AN119990003-24

September 27, 2024

Gary Streadbeck
Adonis Bronze
450 South Alpine Highway, Suite 102
Alpine, UT 84004
Gary@adonisbronze.com

Dear Mr. Streadbeck:

Re: Approval Order: Administrative Amendment to Approval Order DAQE-923-97 for a 10-Year Review and Permit Updates
Project Number: N119990003

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. Adonis Bronze must comply with the requirements of this AO, all applicable state requirements (R307), and Federal Standards.

The project engineer for this action is **Christine Bodell**, who can be contacted at (385) 290-2690 or cbodell@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:CB:jg

cc: Wasatch County Health Department

STATE OF UTAH
Department of Environmental Quality
Division of Air Quality

APPROVAL ORDER
DAQE-AN119990003-24
Administrative Amendment to Approval Order DAQE-923-97 for a 10-Year Review and Permit Updates

Prepared By
Christine Bodell, Engineer
(385) 290-2690
cbodell@utah.gov

Issued to
Adonis Bronze - Bronze Molding Facility

Issued On
September 27, 2024

Issued By

Bryce C. Bird
Director
Division of Air Quality

TABLE OF CONTENTS

GENERAL INFORMATION

CONTACT/LOCATION INFORMATION

Owner Name
Adonis Bronze

Source Name
Adonis Bronze - Bronze Molding Facility

Mailing Address
450 South Alpine Highway, Suite 102
Alpine, UT 84004

Physical Address
450 South Alpine Highway, Suite 102
Alpine, UT 84004

Source Contact
Name: Gary Streadbeck
Phone: (801) 763-9700
Email: Gary@adonisbronze.com

UTM Coordinates
433,777 m Easting
4,477,712 m Northing
Datum NAD83
UTM Zone 12

SIC code 3316 (Cold-Rolled Steel Sheet, Strip, & Bars)

SOURCE INFORMATION

General Description
Adonis Bronze (Adonis) owns and operates a bronze molding facility in the city of Alpine, Utah County. Bronze sculptures are molded from clay sculptures of various artists using thin ceramic molds that are created using a natural gas-fired kiln. Bronze metal is melted using two (2) small natural gas-fired kilns and subsequently poured into the molds. The molds are chipped away, and the bronze sculptures are sandblasting for cleaning.

NSR Classification
10-Year Review

Source Classification
Located in Southern Wasatch Front O3 NAA, Provo UT $PM_{2.5}$ NAA
Utah County
Airs Source Size: B

Applicable Federal Standards
None

Project Description
This administrative amendment is to AO DAQE-923-97, dated October 2, 1997. The DAQ is conducting a 10-year review and is updating the language and format of the 1997 AO.

According to Adonis and a DAQ Compliance Inspection Memorandum (See DAQC-036-16, dated January 6, 2016), Equipment C in Condition #5 (J.F. McCaughin Co. # 4-102 Gas-Heated Scoth Marine Steam Boiler, 35 HP) of the 1997 AO was replaced in 2012. The new boiler is a Cleaver Brooks natural gas-fired boiler with a rating of 2.5 MMBtu/hr (~75 hp). Utah Administrative Code (UAC) Rule R307-401-10(1) exempts natural gas fuel-burning equipment with a rated capacity of less than 5 MMBtu/hr from the approval order process.

Emissions are adjusted to account for the PTE increase due to the new boiler's higher rating.

Additionally, Equipment E in Condition #5 (Bronze Meltdown Kiln #2) of the 1997 AO was never installed. This equipment will be removed in the current AO.

There are no changes to the operations taking place at the Adonis Bronze Molding facility.

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	0.47	0.68
Nitrogen Oxides	0.28	0.95
Particulate Matter - PM_{10}	0.04	5.95
Particulate Matter - $PM_{2.5}$	0.04	5.95
Sulfur Dioxide	0.00	0.01
Volatile Organic Compounds	0.03	0.07

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	**Bronze Molding Facility**
II.A.2	**Two (2) Dust Collectors** One (1) Dust Collector Model: #FFBW-DC Dust Hog Location: Sandblast Room One (1) Dust Collector Model: #F200-5-D Dust Hog Location: Clipping/Blasting Room
II.A.3	**One (1) Bronze Meltdown Kiln**
II.A.4	**One (1) Pre-heat Oven Kiln** For firing ceramic
II.A.5	**One (1) Boiler** Rating: 2.5 MMBtu/hr Fuel: Natural Gas

SECTION II: SPECIAL PROVISIONS

II.B REQUIREMENTS AND LIMITATIONS

II.B.1	**Site-Wide Requirements**
II.B.1.a	The owner/operator shall not allow visible emissions from the following emission points to exceed the following values: A. Baghouses - 10% opacity. B. All other points - 20% opacity. [R307-401-8]
II.B.1.a.1	Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9. Visible emissions from mobile sources and intermittent sources shall use procedures similar to Method 9, but the requirement for observations to be made at 15-second intervals over a six-minute period shall not apply. Any time interval with no visible emissions shall not be included. [R307-401-8]
II.B.1.b	The owner/operator shall use the baghouse model #FFBW-DC to control process streams from the Sandblast room. All exhaust air from the Sandblast room shall be routed through the baghouse model #FFBW-DC before being vented to the atmosphere. [R307-401-8]
II.B.1.c	The owner/operator shall use the baghouse model #F200-5-D to control process streams from the Clipping/Blasting room. All exhaust air from the Clipping/Blasting room shall be routed through the baghouse model #F200-5-D before being vented to the atmosphere. [R307-401-8]
II.B.1.d	The owner/operator shall comply with all applicable requirements of UAC R307-306 (PM_{10} Nonattainment and Maintenance Areas: Abrasive Blasting), and UAC R307-325 (Ozone Nonattainment and Maintenance Areas: General Requirements). [R307-306, R307-325]
II.B.2	**Operator Training Requirements**
II.B.2.a	At least once per calendar year, all employees who operate equipment (operator) that produces and/or controls emissions to the air shall receive proper training as to their responsibilities in operating that equipment according to all relevant conditions of this AO. The training for each operator shall be for all equipment that operator operates and shall include all of the equipment listed in this AO. Within 60 days of every time this AO is modified or reissued, those employees who operate equipment that produces and/or controls emissions to the air that is affected by the AO changes shall receive proper training as to their responsibilities in operating equipment according to all relevant conditions of this AO. Within 60 days of a new operator being employed or assigned with the job responsibility to operate any of the equipment that produces and/or controls emissions to the air, the new operator shall receive proper training as to their responsibilities in operating the equipment according to all relevant conditions of this AO. [R307-401-8]
II.B.3	**Fuel Requirements**
II.B.3.a	The owner/operator shall use only natural gas as fuel for the boilers and the kilns and shall use only propane as fuel in the antiquing torches. [R307-401-8]

PERMIT HISTORY

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

Supersedes AO DAQE-923-97 dated October 2, 1997

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