



State of Utah

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Department of
Environmental Quality

L. Scott Baird
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQE-IN159940001-20

February 24, 2020

John Johansen
DaDi Bathware
1760 West Associated Avenue, Bldg. 1
Salt Lake City, UT 84104

Dear Mr. Johansen:

Re: Intent to Approve:
New Approval Order for the Operation of a Fiberglass Bathware Manufacturing Facility
Project Number: N159940001

The attached document is the Intent to Approve (ITA) for the above-referenced project. The ITA is subject to public review. Any comments received shall be considered before an Approval Order (AO) is issued. The Division of Air Quality is authorized to charge a fee for reimbursement of the actual costs incurred in the issuance of an AO. An invoice will follow upon issuance of the final AO.

Future correspondence on this ITA should include the engineer's name, **Jake Ries**, as well as the DAQE number as shown on the upper right-hand corner of this letter. Jake Ries, can be reached at (801) 536-4052 or jries@utah.gov, if you have any questions.

Sincerely,

Alan D. Humpherys, Manager
New Source Review Section

ADH:JR:sb

cc: Salt Lake County Health Department

STATE OF UTAH
Department of Environmental Quality
Division of Air Quality

INTENT TO APPROVE
DAQE-IN159940001-20
New Approval Order for the Operation of a Fiberglass
Bathware Manufacturing Facility

Prepared By
Jake Ries, Engineer
(801) 536-4052
jries@utah.gov

Issued to
DaDi Bathware - Fiberglass Bathtub Manufacturing Facility

New Source Review Section Manager
Alan D. Humpherys

Date: February 24, 2020

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GENERAL INFORMATION**CONTACT/LOCATION INFORMATION****Owner Name**

DaDi Bathware

Source NameDaDi Bathware - Fiberglass Bathtub
Manufacturing Facility**Mailing Address**1760 West Associated Avenue, Bldg. 1
Salt Lake City, UT 84104**Physical Address**1760 West Associated Avenue, Bldg. 1
Salt Lake City, UT 84104**Source Contact**Name John Johansen
Phone (801) 556-4992
Email john.johansen@psppipe.com**UTM Coordinates**420,526 m Easting
4,509,165 m Northing
Datum NAD83
UTM Zone 12**SIC code** 3088 (Plastics Plumbing Fixtures)**SOURCE INFORMATION****General Description**

DaDi Bathware (DaDi) designs and manufactures fiberglass bathware. The process consists of heating and vacuum forming acrylic sheets over molds to form bathware shells. A combination of chopped fiberglass and polyester resin is then sprayed onto the shells to provide the strength of the final product. Once cured, the excess resin and fiberglass are trimmed from the edges of the bathware, and accessories are attached. The finished products are then prepared for shipment.

NSR Classification

New Minor Source

Source Classification

Located in Salt Lake City CO Maintenance Area, Northern Wasatch Front O3 NAA, Salt Lake City UT PM_{2.5} NAA, Salt Lake County PM₁₀ NAA, Salt Lake County SO₂ NAA
Salt Lake County
Airs Source Size: B

Applicable Federal Standards

None

Project Description

DaDi has requested to operate a fiberglass bathware manufacturing facility in Salt Lake City, UT.

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)
CO ₂ Equivalent		293.98
Carbon Monoxide		0.23
Nitrogen Oxides		0.28
Particulate Matter - PM ₁₀		0.14
Particulate Matter - PM _{2.5}		0.14
Sulfur Dioxide		0.00
Volatile Organic Compounds		9.90

Hazardous Air Pollutant	Change (lbs/yr)	Total (lbs/yr)
Dimethyl Phthalate (CAS #131113)		1840
Ethyl Benzene (CAS #100414)		60
Methyl Methacrylate (CAS #80626)		2
Styrene (CAS #100425)		19700
	Change (TPY)	Total (TPY)
Total HAPs		10.80

PUBLIC NOTICE STATEMENT

The NOI for the above-referenced project has been evaluated and has been found to be consistent with the requirements of UAC R307. Air pollution producing sources and/or their air control facilities may not be constructed, installed, established, or modified prior to the issuance of an AO by the Director.

A 30-day public comment period will be held in accordance with UAC R307-401-7. A notification of the ITA will be published in the Salt Lake Tribune and Deseret News on February 27, 2020. During the public comment period the proposal and the evaluation of its impact on air quality will be available for the public to review and provide comment. If anyone so requests a public hearing within 15 days of publication, it will be held in accordance with UAC R307-401-7. The hearing will be held as close as practicable to the location of the source. Any comments received during the public comment period and the hearing will be evaluated. The proposed conditions of the AO may be changed as a result of the comments received.

SECTION I: GENERAL PROVISIONS

The intent is to issue an air quality AO authorizing the project with the following recommended conditions and that failure to comply with any of the conditions may constitute a violation of the AO.

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]
I.8	The owner/operator shall submit documentation of the status of construction or modification to the Director within 18 months from the date of this AO. This AO may become invalid if construction is not commenced within 18 months from the date of this AO or if construction is discontinued for 18 months or more. To ensure proper credit when notifying the Director, send the documentation to the Director, attn.: NSR Section. [R307-401-18]

SECTION II: PERMITTED EQUIPMENT

The intent is to issue an air quality AO authorizing the project with the following recommended conditions and that failure to comply with any of the conditions may constitute a violation of the AO.

II.A THE APPROVED EQUIPMENT

II.A.1	DaDi Bathware Manufacturing Facility
II.A.2	Building Heater Rating: <5 MMBtu/hr Fuel: Natural Gas
II.A.3	Gelcoat Application Polyester Resin application
II.A.4	Structural Resin Application Polyester Resin application
II.A.5	Accessory Attachment Methyl methacrylate adhesive

II.A.6	Edge Trimming Cutting Grinding Sanding
II.A.7	Portable Dust Collector Rating: 5,000 cfm
II.A.8	Electric Heat Station Acrylic shell warming -listed for informational purposes only-

SECTION II: SPECIAL PROVISIONS

The intent is to issue an air quality AO authorizing the project with the following recommended conditions and that failure to comply with any of the conditions may constitute a violation of the AO.

II.B REQUIREMENTS AND LIMITATIONS

II.B.1	VOC & HAP Requirements									
II.B.1.a	The owner/operator shall use a resin with no more than a 45% styrene composition in the acrylic bathware process and no more than 35% styrene composition in the gelcoat bathware process. [R307-401-8]									
II.B.1.a.1	To determine compliance, the owner/operator shall maintain a record of SDS sheets of each resin used on site. [R307-401-8]									
II.B.1.b	<p>The owner/operator shall not emit more than the following from evaporative sources (painting, printing, coating, and/or cleaning) on site:</p> <p>9.90 tons per rolling 12-month period of VOCs 9.85 tons per rolling 12-month period of styrene 0.82 tons per rolling 12-month period of dimethyl phthalate 0.03 tons per rolling 12-month period of ethyl benzene 10.8 tons per rolling 12-month period of all HAPs combined</p> <p>[R307-401-8]</p>									
II.B.1.b.1	<p>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 resin and gelcoat application sources. The owner/operator may use the following equations with applicable units to comply with the mass-balance method:</p> <p>VOCs = [Density] x [Volume Consumed] x [Emission Factor]</p> <p>HAP = [Density] x [Volume Consumed] x [Emission Factor]</p> <p>The owner/operator shall use the following emission factors in calculations:</p> <table><tr><td><u>Chemical</u></td><td><u>VOC/HAP</u></td><td><u>Emission Factor</u></td></tr><tr><td>45% styrene resin</td><td>Styrene</td><td>0.141</td></tr><tr><td>35% styrene resin</td><td>Styrene</td><td>0.070</td></tr></table>	<u>Chemical</u>	<u>VOC/HAP</u>	<u>Emission Factor</u>	45% styrene resin	Styrene	0.141	35% styrene resin	Styrene	0.070
<u>Chemical</u>	<u>VOC/HAP</u>	<u>Emission Factor</u>								
45% styrene resin	Styrene	0.141								
35% styrene resin	Styrene	0.070								

	<p>Gelcoat Styrene 0.147</p> <p>Gelcoat Ethyl Benzene 0.0055</p> <p>MEKP Catalyst Dimethyl Phthalate 0.475</p> <p>[R307-401-8]</p>						
II.B.1.b.2	<p>The owner/operator shall use a mass-balance method to calculate emissions from the acrylic adhesive source. The owner/operator may use the following equations with applicable units to comply with the mass-balance method:</p> <p>VOCs = [% VOCs by Weight/100] x [Density] x [Volume Consumed] x [Emission Factor]</p> <p>HAP = [% HAP by Weight/100] x [Density] x [Volume Consumed] x [Emission Factor]</p> <p>The owner/operator shall use the following emission factors in calculations:</p> <table> <tr> <td><u>VOC/HAP</u></td><td><u>Emission Factor</u></td></tr> <tr> <td>Methyl Methacrylate</td><td>0.02</td></tr> <tr> <td>Methacrylic Acid</td><td>1.00</td></tr> </table> <p>[R307-401-8]</p>	<u>VOC/HAP</u>	<u>Emission Factor</u>	Methyl Methacrylate	0.02	Methacrylic Acid	1.00
<u>VOC/HAP</u>	<u>Emission Factor</u>						
Methyl Methacrylate	0.02						
Methacrylic Acid	1.00						
II.B.1.b.3	<p>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]</p>						
II.B.1.b.4	<p>The owner/operator shall keep records each month of the following:</p> <ul style="list-style-type: none"> A. The name (as per SDS) of the VOC- and HAP-emitting material 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). [R307-401-8] 						
II.B.1.c	<p>The owner/operator shall comply with the applicable requirements in R307-325, R307-342, and R307-353. [R307-325, R307-342, R307-353]</p>						
II.B.2	Dust Collector Requirements						
II.B.2.a	<p>The owner/operator shall control emissions from the edge trimming process with the portable dust collector. [R307-401-8]</p>						
II.B.2.b	<p>The owner/operator shall not allow visible emissions from the portable dust collector to exceed 10% opacity. [R307-401-8]</p>						

II.B.2.b.1	Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9. [40 CFR 60, R307-401-8]
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PERMIT HISTORY

This Approval Order shall be based on the following documents:

Is Derived From
Incorporates
Incorporates
Incorporates
Incorporates

NOI dated August 12, 2019
Additional Information dated September 18, 2019
Additional Information dated October 30, 2019
Additional Information dated November 13, 2019
Additional Information dated December 16, 2019

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 ₂ e	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