DAQC-CI100170001-23
Site ID 10017 (B1)

MEMORANDUM

TO: **FILE – R&S MARBLE (formerly known as Custom Interior Solutions)**

THROUGH: Chad Gilgen, Minor Source Compliance Section Manager CG

FROM: Connor Kijowski, Environmental Scientist CK
CK

DATE: April 10, 2023

SUBJECT: **FULL COMPLIANCE EVALUATION, Minor, Box Elder County**

INSPECTION DATE:	March 30, 2023
SOURCE LOCATION:	1100 North 27 East Brigham City, UT 84302
SOURCE CONTACTS:	Robert Weeks, Owner 435-723-2815; randsmarble9@gmail.com
OPERATING STATUS:	Operating normally at the time of inspection.
PROCESS DESCRIPTION:	R & S Marble manufactures, sells, and installs cultured marble window sills and simulated marble sheets for showers and countertops. After the item has been cast, the surface is ground and other cosmetic details are corrected. The process requires a paint booth and a grinder. Using a pressure pot and spray gun (in the spray booth), a mold is prepared by applying 15-20 mils of gel coat onto a mold. Polyester resin is then measured by weight and placed in the mixing bowl of an upright column mixer. The resin is then catalyzed and mixed for a predetermined time based on the total batch size. The appropriate size and type of fillers are added to the batch and mixed thoroughly to achieve proper wetting of the filler and consistency of the matrix. One or more color pigments are added to the matrix to achieve a veined pattern. The material is then drawn from the bowl and cast on the previously gel coated mold to achieve the desired effects. When the casting process is completed and the product has cured, the finished product is released from the mold. The final step is to grind off mold flash.
APPLICABLE REGULATIONS:	Approval Order (AO) DAQE-AN0100170001-09, dated September 17, 2009

SOURCE EVALUATION:

Name of Permittee:

Custom Interior Solutions – Cultured Marble Manufacturing Plant
1100 North Main Street
Brigham City, UT 84302

Permitted Location:

1100 North 27 East
Brigham City, UT 84302

SIC Code: 3089: (Plastics Products, NEC)

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]

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 Executive Secretary or Executive Secretary'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]. [R307-150]

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 Approval Order 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 Executive Secretary 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]

I.6 The owner/operator shall comply with R307-150 Series. Inventories, Testing and Monitoring. [R307-150]

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

Status: In Compliance. No modifications to the permitted equipment has occurred since the previous inspection. The limits did not appear to be exceeded during records review. Records are kept and maintained for a minimum of two years. The source maintains good air pollution control practices during periods of startup, shutdown and malfunctions. An emission inventory is not currently required for the source. No breakdowns have occurred since the previous inspection.

Section II: SPECIAL PROVISIONS

II.A The approved installations shall consist of the following equipment:

II.A.1 **Manufacturing Plant**
Cultured Marble

II.A.2 **Baghouses**
Three (3) fabric filter baghouses

II.A.3 **Cultured Marble Production**
Various Manufacturing Equipment Items
Casting tables
Batch resin mixers
Mixing vessels
Grinding - finishing tables
Cleaning equipment

Status: In Compliance. No unapproved equipment was observed during the inspection.

Additional Information:
II.A.2 : Two of the baghouses listed are air filters that vent internally. The third is a dust collector associated with grinding operations that vents externally to a covered metal drum.

There is also a paint booth on site. Filters were present and are changed as needed or on a monthly basis, whichever comes first.

II.B Requirements and Limitations

II.B.1.a Visible emissions from any stationary point or fugitive emission source associated with the source or with the control facilities shall not exceed 10% opacity. Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9. [R307-401-8, 40 CFR 60Appendix A (Method 9)]

Status: In Compliance. No visible emissions were observed during the inspection. Opacity observations were conducted according to 40 CFR 60, Appendix A, Method 9. Refer to the VEO form in the attachments.

II.B.1.b The following limit shall not be exceeded:

6,000 gallons of styrene resin consumption per rolling 12-month period

Based on the first day of each month, a new 12-month total shall be calculated using data from the previous 12 months. Monthly calculations shall be made no later than 20 days after the end of each calendar month. Records of styrene resin consumption shall be kept for all periods when the plant is in operation. Styrene resin consumption shall be determined by examination of company purchasing records. The records of styrene resin consumption shall be kept on a monthly basis.
. [R307-401-8]

Status: In Compliance. Total amount of styrene resin consumed for the rolling 12-month period of March 2022 – February 2023 was 2,415 gallons. Records are kept when the plant is in operation and determined by purchasing records.

II.B.1.c The emissions from all plant-wide operations shall not exceed:

1.31 tons per rolling 12-month period for VOCs
1.31 tons per rolling 12-month period for Styrene

Compliance with each limitation shall be determined on a rolling 12-month total. Based on the first day of each month, a new 12-month total shall be calculated using data from the previous 12 months. Monthly calculations shall be made no later than 20 days after the end of each calendar month.

The VOC or HAP emissions shall be determined by maintaining a record of VOC or HAP emitting materials used each month. The record shall include the following data for each material used:

A. Name of the VOC, or HAPs emitting material, such as: paint, adhesive, solvent, thinner, reducers, chemical compounds, toxics, isocyanates, etc.

B. Density of each material used (pounds per gallon)

C. Percent by weight of all VOC, or HAP in each material used

D. Gallons of each VOC, or HAP emitting material used

E. The amount of VOC, or HAP emitted monthly by each material used shall be calculated by the procedure specified in 40 CFR 63 Subpart WWWW, Table 1 (This source is not subject to this MACT standard, but the prescribed procedures are the only acceptable method of calculating emissions from this industry activity.)

F. The amount of VOC, or HAP emitted monthly from all materials used

G. The amount of VOCs, or HAPs reclaimed for the month shall be similarly quantified and subtracted from the quantities calculated above to provide the monthly total VOC, or HAP emissions. [R307-401-8]

Status: In Compliance. The rolling 12-month emission totals from March 2022 - February 2023 are as follows:

0.45 tons of VOCs
0.35 tons of Styrene

Calculations are made according to this condition and viewed after the inspection via email.

II.B.1.d All exhaust air from the product finishing tables shall be routed through one of the three baghouses before being vented to the atmosphere. [R307-401-8]

Status: In Compliance. Exhaust air is vented through a dust collector or spray booth filters prior to venting to the atmosphere.

AREA SOURCE RULES EVALUATION:

The following Area Source Rules were evaluated during this inspection:

R307-309. Nonattainment and Maintenance Areas for PM10 and PM2.5: Fugitive Emissions and Fugitive Dust

Status: In Compliance. No visible emissions were observed during the inspection.

EMISSION INVENTORY:
The emissions listed below are an estimate of the total potential emissions (PTE) from Custom Interior Solutions- Cultured Marble Manufacturing Plant on the Approval Order (AO) DAQE-AN0100170001-09, dated September 17, 2009. *(PTE) are supplied for supplemental purposes only.*

Criteria Pollutant	PTE tons/yr
Particulate Matter - PM_{10}	0.02
Volatile Organic Compounds	1.31

Hazardous Air Pollutant	PTE lbs/yr
Styrene (CAS #100425)	2620

PREVIOUS ENFORCEMENT ACTIONS: No enforcement actions within the past five years.

COMPLIANCE STATUS & RECOMMENDATIONS: In regards to Approval Order (AO) DAQE-AN0100170001-09, dated September 17, 2009: In Compliance. The source provided all records in a timely manner and appears to be well maintained and operated.

HPV STATUS: Not Applicable.

RECOMMENDATION FOR NEXT INSPECTION: Inspect at a normal frequency.

ATTACHMENTS: VEO Form, Email of VOC/Styrene Calculations

STATE OF UTAH, DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR QUALITY

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EPA METHOD 9 – VISIBLE EMISSION OBSERVATION FORM

Source Name: R+S Marble
Street Address: 1090 N Main St
City/County: Brigham City / Box Elder
Phone: 435-723-2815
Site ID: 10017
Facility: Marble Manufacturing
Equipment/Process: Mixers / Casting Tables
Control Equipment: Baghouses

Emission Point:

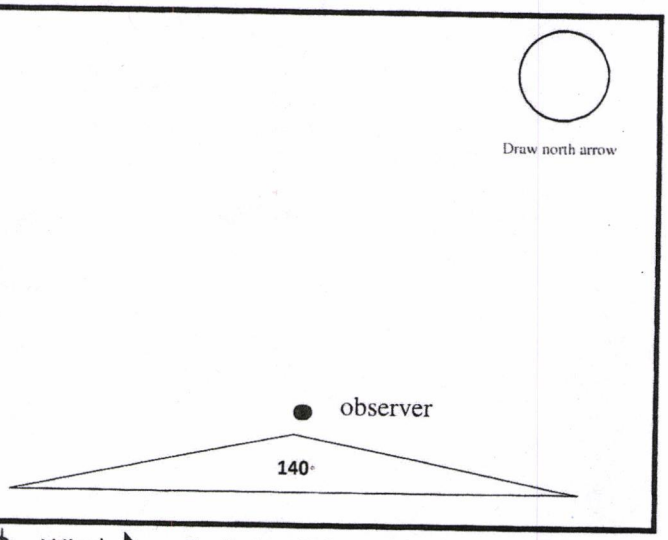
OBSERVATION DATE: 3/30/23

Start time: 10:31 Stop time: 10:37

min \ sec	0	15	30	45
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

Sky Conditions: Clear [ ] Partly Cloudy [ ] Overcast [ ]
Precipitation: No [ ] Yes [ ] _____
Wind: Direction: _____ Speed: _____ mph
Ambient Temp: _____ °F RH: _____ %
Height Relative to Observer: _____
Distance From Observer: _____
Condensed Water Vapor Present: No [ ] Yes [ ]
Attached [ ] Detached [ ]
Length of Condensed Water Vapor Plume: _____
Background: _____

Sketch process unit: indicate observer position relative to source; indicate potential emission points and/or actual emission points.



Sun ⊕ Wind ▶ Emission Point with Plume ◯
Observer Position ✖

Observer's Signature: _____

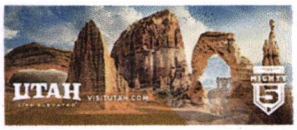
Distrib: white-file; canary-inspector; pink-owner/operator

COMMENTS: (Rolling 12-Month March 2022-Feb 2023)
II.B.1.b: Gallons of Styrene resin consumption
II.B.1.c: VOC and Styrene emissions for each

Email Records to ckijowski@utah.gov by April 10, 2023.

I have received a copy of these observations:

SIGNATURE: Shalyn Weeks
Printed Name: Shalyn Weeks
Title: CO-OWNER



Connor Kijowski <ckijowski@utah.gov>

Fwd: FW: March 2022 - March 20323 VOC's

4 messages

R & S Marble <randsmarble9@gmail.com> Mon, Apr 10, 2023 at 10:10 AM
To: Connor Kijowski <ckijowski@utah.gov>

ALL DATES ARE TENTATIVE

R & S Marble
randsmarble9@gmail.com
435-723-2815
rsmarbleutah.com

--------- Forwarded message ---------
From: **randsmarble9** <randsmarble9@gmail.com>
Date: Mon, Apr 3, 2023 at 5:47 PM
Subject: FW: March 2022 - March 20323 VOC's
To: Connor Christensen(cvb) <cchristensen@cachevalleybank.com>

Here is the info you needed for our audit.
Shalyce Weeks

Sent from my Verizon, Samsung Galaxy smartphone

------- Original message -------
From: Tim Burgess <Tim@fiberlay.com>
Date: 4/3/23 5:30 PM (GMT-07:00)
To: R & S Marble <randsmarble9@gmail.com>
Subject: March 2022 - March 20323 VOC's

Hello,

Below are the formulas and numbers that I got for your usage.

Gel Coats with Styrene Content S = 37.4%, MMA> 5% : EF = (1.03646 * .374) – 0.195 + [0.75 *.05] = .23 lb/lb

4090 lbs gelcoat x .23 emission factor = 940.7 lbs VOC emissions

Resin S < 35% EF (.042 x .35) = .0147

48016 lbs resin x .0147 emissions factor = 706 lbs VOC emissions

I hope this helps.

Kind Regards,

Tim Burgess

Southwest Regional Manager

Fiberlay, Inc.

42638 8th St. W

Lancaster CA 93534

800-942-0660 ext 8980

801-888-7589 - cell

206-782-0662 - fax

Tim@fiberlay.com

RSM4 Customer usage 2023.xlsx
12K

Connor Kijowski <ckijowski@utah.gov> Mon, Apr 10, 2023 at 11:08 AM
To: R & S Marble <randsmarble9@gmail.com>
Cc: Tim@fiberlay.com

Hi Shalyce,

Thank you for getting back to me. I need one more piece of information:

1) Gallons of styrene purchased for the rolling 12-month period (March 2022 - February 2023).

This is to satisfy Condition II.B.1.b of the Approval Order (attached for reference).

Thank you,
Connor Kijowski

[Quoted text hidden]

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Connor Kijowski

Environmental Scientist | Minor Source Compliance

M: (385)-245-6720

airquality.utah.gov

R&S Marble Approval Order.pdf
315K

Tim Burgess <Tim@fiberlay.com> Mon, Apr 10, 2023 at 11:20 AM
To: Connor Kijowski <ckijowski@utah.gov>, R & S Marble <randsmarble9@gmail.com>

Hello,

Gelcoat usage was 4090 lbs x 37.4 % of styrene = 1530 lbs of styrene / 7.59 lbs. of styrene per gallon = 201 gallons

Resin usage was 48,015 lbs x 35% of styrene = 16,805 lbs of styrene / 7.59 lbs. of styrene per gallon = 2214 gallons

Total gallons of styrene = 2415 gallons.

Kind Regards,

Tim Burgess

Southwest Regional Manager

Fiberlay, Inc.

42638 8th St. W

Lancaster CA 93534

800-942-0660 ext 8980

801-888-7589 - cell

206-782-0662 - fax

Tim@fiberlay.com

[Quoted text hidden]

Connor Kijowski <ckijowski@utah.gov> Mon, Apr 10, 2023 at 11:23 AM
To: Tim Burgess <Tim@fiberlay.com>
Cc: R & S Marble <randsmarble9@gmail.com>

Hello Tim,

Thank you for this information. This covers what I need.

Best,
Connor
[Quoted text hidden]