

Department of Environmental Quality

Kimberly D. Shelley *Executive Director*

DIVISION OF AIR QUALITY Bryce C. Bird Director

DAQE-IN161200001-23

May 25, 2023

Quinten Bingham Granite Construction Company 1000 North Warm Springs Road Salt Lake City, UT 84116 quin.bingham@gcinc.com

Dear Mr. Bingham:

Re: Intent to Approve: New I-80 Aggregate Mining Facility

Project Number: N161200001

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, **John Persons**, as well as the DAQE number as shown on the upper right-hand corner of this letter. John Persons, can be reached at (385) 306-6503 or jpersons@utah.gov, if you have any questions.

Sincerely,

Alan D. Humpherys, Manager

alm D. Hugher

New Source Review Section

ADH:JP:jg

cc: Salt Lake County Health Department

STATE OF UTAH Department of Environmental Quality Division of Air Quality

INTENT TO APPROVE DAQE-IN161200001-23 New I-80 Aggregate Mining Facility

Prepared By John Persons, Engineer (385) 306-6503 jpersons@utah.gov

Issued to Granite Construction Company - I-80 South Quarry

Issued On May 25, 2023

alm D. Huzlur

New Source Review Section Manager Alan D. Humpherys

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GENERAL INFORMATION

CONTACT/LOCATION INFORMATION

Owner Name Source Name

Granite Construction Company - I-80 South

Quarry

Mailing Address Physical Address

1000 North Warm Springs Road Off Exit 132, Ranch Exit of Interstate I-80 East

Salt Lake City, UT 84116 of Salt Lake City
Salt Lake County, UT

Source Contact UTM Coordinates

Name Quinten Bingham 437,048 m Easting Phone (801) 526-6050 4,509,436 m Northing

Email quin.bingham@gcinc.com

Datum NAD83

UTM Zone 12

SIC code 1442 (Construction Sand & Gravel)

SOURCE INFORMATION

General Description

The Granite Construction Company has requested to operate an aggregate mining facility at its I-80 South Quarry located in Salt Lake County. The facility will act as a standalone aggregate mining, crushing, and screening operation. This facility will produce up to 1,100,000 tons of aggregate per year.

NSR Classification

New Minor Source

Source Classification

 $Located \ in \ Northern \ Was atch \ Front \ O3 \ NAA, \ Salt \ Lake \ City \ UT \ PM_{2.5} \ NAA, \ Salt \ Lake \ County \ SO_2$

NAA

Salt Lake County Airs Source Size: B

Applicable Federal Standards

NSPS (Part 60), A: General Provisions

NSPS (Part 60), OOO: Standards of Performance for Nonmetallic Mineral Processing Plants NSPS (Part 60), IIII: Standards of Performance for Stationary Compression Ignition Internal

Combustion Engines

MACT (Part 63), A: General Provisions

MACT (Part 63), ZZZZ: National Emissions Standards for Hazardous Air Pollutants for

Stationary Reciprocating Internal Combustion Engines

Project Description

The Granite Construction Company (GCC) has requested to install and operate an aggregate mining, crushing, and screening facility. This new facility will consist of one (1) feeder, two (2) crushers, three (3) diesel-fired generators, one (1) triple-deck screen, and eight (8) conveyors.

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	403103.00	403103.00
Carbon Monoxide	16.68	16.68
Nitrogen Oxides	1.73	1.73
Particulate Matter - PM ₁₀ (Fugitives)	11.40	11.40
Particulate Matter - PM _{2.5}	2.44	2.44
Sulfur Dioxide	0.03	0.03
Volatile Organic Compounds	0.78	0.78

Hazardous Air Pollutant	Change (lbs/yr)	Total (lbs/yr)
Total HAPs (CAS #THAPS)	100	100
	Change (TPY)	Total (TPY)
Total HAPs	0.05	0.05

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 intent to approve will be published in the Salt Lake Tribune on May 28, 2023. 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]
1.5	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]
1.8	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	Aggregate Mining Facility

II.A.2	One (1) Feeder 40 CFR 60 (NSPS) Applicability: Subpart OOO
II.A.3	(1) Primary Crusher 40 CFR 60 (NSPS) Applicability: Subpart OOO
II.A.4	One (1) Secondary Crusher 40 CFR 60 (NSPS) Applicability: Subpart OOO
II.A.5	One (1) Triple Deck Screen 40 CFR 60 (NSPS) Applicability: Subpart OOO
II.A.6	Various Conveyors and Stackers 40 CFR 60 (NSPS) Applicability: Subpart OOO
II.A.7	One (1) Diesel-Fired Generator engine Power: 440 hp (329 kW) 40 CFR 60 (NSPS) Applicability: Subpart IIII 40 CFR 63 (MACT) Applicability: Subpart ZZZZ
II.A.8	One (1) Diesel-Fired Generator Engine Power: 260 hp (194 kW) 40 CFR 60 (NSPS) Applicability: Subpart IIII 40 CFR 63 (MACT) Applicability: Subpart ZZZZ
II.A.9	One (1) Diesel-Fired Generator Engine Power: 175 hp (131 kW) 40 CFR 60 (NSPS) Applicability: Subpart IIII 40 CFR 63 (MACT) Applicability: Subpart ZZZZ
II.A.10	Three (3) Diesel Storage Tanks Capacity: 250 Gallons each
II.A.11	One (1) Dust Collection System

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.a	Unless otherwise specified in this AO, the owner/operator shall not allow visible emissions from any source on site to exceed 20% opacity. [R307-305-3]
II.B.1.a.1	Unless otherwise specified in this AO, opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9. [R307-305-3]
II.B.1.b	The owner/operator shall not produce more than 1,100,000 tons of aggregate per rolling 12-month period with no more than 1,000,000 tons of aggregate being processed in the aggregate equipment. [R307-401-8]

II.B.1.b.1	The owner/operator shall:
	A. Determine production and bank run by belt scale records or scale house records
	B. Record production and bank run on a daily basis
	C. Use this data to calculate a new rolling 12-month total by the 20th day of each month using data from the previous 12 months
	D. Keep these records for all periods the plant is in operation.
	[R307-401-8]
II.B.1.c	The owner/operator shall not operate the crushers, screens, conveyors, feeder, and generator engines at the I-80 South Quarry for more than 12 hours per day from January 1st through the last of February. [R307-401-8]
II.B.1.c.1	The owner/operator shall:
	A. Determine the hours of operation for the above-listed equipment using hours of operation records/logs
	B. Record hours of operation on a daily basis
	C. Keep the hours of operation records onsite for all periods the plant is in operation.
	[R307-401-8]
II.B.1.d	The owner/operator shall not conduct drilling or blasting operations at the I-80 South Quarry before 9:00 am or after 2:00 pm. [R307-401-8]
II.B.1.d.1	The owner/operator shall:
	A. Determine the hours drilling and blasting occur by keeping a records log
	B. Record the time drilling and/or blasting start and end on a daily basis
	C. Keep the hourly records onsite for all periods the facility is in operation.
	[R307-401-8]
II.B.1.e	The owner/operator shall not operate more than One (1) bulldozer onsite. [R307-401-8]
II.B.1.f	The owner/operator shall not operate the bulldozer on site for more than 2,903 hours per rolling 12-month period. [R307-401-8]

II.B.1.f.1	The owner/operator shall:
	A. Determine hours of operation by keeping an operational hour's log
	B. Record hours of operation on a daily basis
	C. Use the hours of operation data to calculate a new rolling 12-month total by the 20 th day of each month using data from the previous 12 months
	D. Keep the production records for all periods the plant is in operation.
	[R307-401-8]
II.B.1.g	The owner/operator shall only fill the diesel storage tanks using submerged filling. [R307-401-8]
II.B.2	Aggregate Processing Equipment Requirements
II.B.2.a	The owner/operator shall install water sprays on each crusher, screen, conveyor transfer point, and conveyor drop point on site to control emissions. Water sprays shall operate as necessary to prevent visible emissions from exceeding the opacity limits listed in this AO. [R307-401-8]
II.B.2.b	The owner/operator shall perform monthly periodic inspections to check that water is flowing to water sprays associated with each crusher, screen, and conveyor. If the owner/operator finds that water is not flowing properly during an inspection of the water sprays, the owner/operator shall initiate corrective action within 24 hours and complete corrective action as expediently as practical. [R307-401-8]
II.B.2.b.1	Records of the water spray inspections shall be maintained in a logbook for all periods when the plant is in operation. The records shall include the following items:
	A. Date the inspections were made
	B. Any corrective actions taken
	C. Control mechanism used if sprays are not operating.
	[R307-401-8]
II.B.2.c	The owner/operator shall not exceed the following opacity limits for the indicated emission units.
	A. Crushers - 12% Opacity
	B. Screens - 7% Opacity
	C. Conveyor Transfer Points - 7% Opacity
	D. Conveyor Drop Points - 20% Opacity.
	[R307-312-4, R307-401-8]
II.B.3	All NSPS Subpart OOO Equipment on Site Shall be Subject to the Following:
II.B.3.a	The owner/operator shall conduct an initial performance test for all crushers, screens, and conveyor transfer points. Performance tests shall meet the limitations specified in Table 3 to Subpart OOO. Records of initial performance tests shall be kept and maintained on-site for the life of the equipment. [40 CFR 60 Subpart OOO]
1	,

II.B.3.b	Initial performance tests for fugitive emissions limits shall be conducted according to 40 CFR 60.675(c). The owner or operator may use methods and procedures specified in 40 CFR 60.675(e) as alternatives to the reference methods and procedures specified in 40 CFR 60.675(c). [40 CFR 60 Subpart OOO]
II.B.3.c	The owner/operator shall submit written reports to the Director of the results of all performance tests conducted to demonstrate compliance with the standards set forth in 40 CFR 60.672. [40 CFR 60 Subpart OOO]
II.B.4	Paved Haul Road Requirements
II.B.4.a	The owner/operator shall pave the entrance road to the quarry with concrete or asphalt. The total length of all paved haul roads on-site shall not be less than 0.46 miles combined. [R307-401-8]
II.B.4.a.1	The owner/operator shall:
	A. Record the length of all paved haul roads using satellite imagery or measurement equipment, or other methods acceptable to the Director
	B. Keep a record of the total paved haul road length on site at all times the facility is in operation.
	[R307-401-8]
II.B.4.b	The owner/operator shall vacuum sweep and use water to flush all paved haul roads on-site to maintain the opacity limits listed in the AO. If the temperature is below freezing, the owner/operator shall continue to vacuum sweep the road but may stop flushing the paved haul roads with water. If the haul roads are covered in snow and ice, the owner/operator may stop vacuum sweeping and flushing the paved haul roads. [R307-401-8]
II.B.4.b.1	Records of vacuum sweeping and water application shall be kept for all periods when the plant is in operation. The records shall include the following items:
	A. Date and time treatments were made
	B. Number of treatments made and quantity of water applied
	C. Rainfall amount received, if any
	D. Records of temperature, if the temperature is below freezing
	E. Records shall note if the paved haul roads are covered with snow or ice.
	[R307-401-8]
II.B.5	Unpaved Roads and Surfaces
II.B.5.a	The owner/operator shall cover all unpaved haul roads with road base material to reduce fugitive dust emissions from unpaved haul roads. [R307-401-8]
II.B.5.b	The owner/operator shall use a chemical suppressant, water application, or other control options contained in R307-309 to minimize emissions from fugitive dust and fugitive emissions sources, including haul roads, storage piles, and unpaved areas. Controls shall be applied as needed to ensure the opacity limits in this AO are not exceeded. [R307-401-8]

II.B.5.b.1	Records of water and chemical treatment shall be kept for all periods when the plant is in operation. The records shall include the following items:
	A. Date of treatment
	B. Number of treatments made, dilution ratio, and quantity
	C. Rainfall received, if any, and approximate amount
	D. Time of day treatments were made
	E. Records of temperature if the temperature is below freezing.
	[R307-401-8]
II.B.6	Fugitive Dust Source Requirements
II.B.6.a	The owner/operator shall not conduct more than 12 blasts per rolling 12-month period. [R307-401-8]
II.B.6.a.1	The owner/operator shall:
	A. Record the time and date of each blast on an operations log
	B. Use the blast data to calculate a new rolling 12-month total by the 20th day of each month using the blasting data from the previous 12-months
	C. Keep blasting records onsite at all times the facility is in operation.
	[R307-401-8]
II.B.6.b	The owner/operator shall not allow visible emissions from haul roads and fugitive dust sources on-site to exceed 20% opacity on site and 10% opacity at the property boundary. [R307-401-8]
II.B.6.b.1	Opacity observations of fugitive dust from intermittent sources shall be conducted according to 40 CFR 60, Appendix A, Method 9; however, the requirement for observations to be made at 15-second intervals over a six-minute period shall not apply. The number of observations and the time period shall be determined by the length of the intermittent source. For fugitive dust generated by mobile sources, visible emissions shall be measured at the densest point of the plume but at a point not less than one-half vehicle length behind the vehicle and not less than one-half the height of the vehicle. [R307-401-8]
II.B.6.c	The owner/operator shall control particulate emissions from storage piles using water trucks and/or water cannons. The water trucks and/or water cannons shall operate as required to ensure the opacity limits in this AO are not exceeded. [R307-401-8]
II.B.6.c.1	Records of water application to the storage piles kept for all periods when the plant is in operation. The records shall include the following items:
	A. The date, time, and location of applications
	B. The volume of water applied.
	[R307-401-8]
II.B.6.d	The owner/operator shall install and operate a dust collection system on all drills to control emissions from drilling. [R307-401-8]

II.B.6.d.1	The owner/operator shall keep records of dust-control systems installed on all drills on-site at all times the facility is in operation. [R307-401-8]
II.B.6.e	The owner/operator shall apply water to any drilling or blasting area before blasting or drilling when the area is not already naturally wet. [R307-401-8]
II.B.6.e.1	Records of water application shall be kept for all periods that the plant is in operation. The records should include the following:
	A. Date and time treatments were made
	B. Number of treatments made and quantity of water applied
	C. Rainfall amount received, if any.
	[R307-401-8]
II.B.6.f	Within 30 days of the date of this AO, the owner/operator shall submit a FDCP in electronic or written format. An electronic FDCP can be completed through the Utah DEQ Fugitive Dust Plan Permit Application Website. If a written FDCP is completed, it shall be submitted to the Director, attention: Compliance Branch, for approval. The owner/operator shall comply with the FDCP for control of all fugitive dust sources associated with the I-80 South Quarry. [R307-309-6]
II.B.6.g	The owner/operator shall not allow the disturbed and exposed area to exceed 10 acres in size. [R307-401-8]
II.B.6.g.1	The owner/operator shall measure the size of the disturbed and exposed area using aerial photographs, land surveys, on-site measurements, or other methods acceptable to the Director at least once per calendar year. [R307-401-8]
II.B.6.h	The owner/operator shall not allow the total storage pile area to exceed 1.5 acres in size. [R307-401-8]
II.B.6.h.1	The owner/operator shall measure the total storage pile area using aerial photographs, land surveys, on-site measurements, or other methods acceptable to the Director at least once per calendar year. [R307-401-8]
II.B.7	Diesel Engine Requirements
II.B.7.a	The owner/operator shall not operate any engine on-site for more than 2,200 hours per rolling 12-month period. [R307-401-8]
II.B.7.a.1	The owner/operator shall:
	A. Determine hours of operation by supervisor monitoring and maintaining an operations log
	B. Records hours of operation each day
	C. Use the hours of operation to calculate a new rolling 12-month total by the 20th day of each month using data from the previous 12 months
	D. Keep hours of operation records for all periods the plant is in operation.
	[R307-401-8]

II.B.7.b	The owner/operator shall install diesel-fired generator engines that are certified to meet a NO _x emission rate of 0.30 g/hp-hr or less. [R307-401-8]
II.B.7.b.1	To demonstrate compliance with the emission rate, the owner/operator shall keep a record of the manufacturer's certification of the emission rate. The record shall be kept for the life of the equipment. [R307-401-8]
II.B.7.c	The owner/operator shall not allow visible emissions from the stationary diesel generator engine on-site to exceed 20% opacity. [R307-401-8]
II.B.7.d	The owner/operator shall only combust diesel fuel that meets the definition of ultra-low sulfur diesel (ULSD), which has a sulfur content of 15 ppm or less. [R307-401-8]
II.B.7.d.1	To demonstrate compliance with the ULSD fuel requirement, the owner/operator shall maintain records of diesel fuel purchase invoices or obtain certification of sulfur content from the diesel fuel supplier. The diesel fuel purchase invoices shall indicate that the diesel fuel meets the ULSD requirements. [R307-401-8]
II.B.7.e	The owner/operator shall operate the diesel-fired generator engines according to the manufacturer's operational and maintenance guidelines. [R307-401-8]

PERMIT HISTORY

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

Incorporates	NOI dated September 7, 2022
Incorporates	Additional Information dated September 13, 2022
Incorporates	Additional Information dated September 29, 2022
Incorporates	Additional Information dated October 17, 2022
Incorporates	Additional Information dated November 10, 2022
Incorporates	Additional Information dated November 14, 2022
Incorporates	Additional Information dated December 8, 2022
Incorporates	Additional Information dated January 24, 2023
Incorporates	Additional Information dated February 2, 2023
Incorporates	Additional Information dated February 28, 2023

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 CO₂ Carbon Dioxide

CO₂e 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

SO₂ 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