State of Utah

SPENCER J. COX
Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of
Environmental Quality

Kimberly D. Shelley
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQE-MN108430013-21

M E M O R A N D U M

TO: Tim DeJulis, NSR Engineer TMD

FROM: Dave Prey, Air Quality Modeler DP

DATE: March 12, 2021

SUBJECT: Modeling Analysis Review for the Notice of Intent for Geneva Rock Products, Inc. – Pelican Point facility, Utah County, Utah

---

This is not a Major Prevention of Significant Deterioration (PSD) Source.

I. OBJECTIVE

Geneva Rock Products, Inc. (Geneva Rock Products) (Applicant) is seeking a modified approval order for their Pelican Point facility, located in Utah County, Utah. Geneva Rock Products requested a modification to its AO DAQE-AN108430010-15 by adding one (1) 4.2 MMBtu/hr dual-fired hot water heater, and replacing one (1) of the permitted 12,000-gallon diesel tanks with a 15,000-gallon diesel tank at its Pelican Point facility in Lehi, Utah.

This report, prepared by the Staff of the New Source Review Section (NSR), contains a review of the air quality impact analysis (AQIA) including the information, data, assumptions and modeling results used to determine if the facility would be in compliance with State and Federal concentration standards.

II. APPLICABLE RULE(S)

Utah Air Quality Rules:

R307-401-6	Condition for Issuing an Approval Order
R307-410-3	Use of Dispersion Models
R307-410-4	Modeling of Criteria Pollutants in Attainment Areas

III. MODELING METHODOLOGY

A. Applicability

Emissions from the facility include PM_{10}, NO_x, CO, SO_2, and HAPs. This modeling is part of a modified approval order. PM_{10} modeling was performed by the UDAQ.

B. Assumptions

1. Topography/Terrain

The Plant is at an elevation 4628 feet with terrain features that have an affect on concentration predictions.

a. Zone: 12

b. Approximate Location:

UTM (NAD83): 426086 meters East
4456954 meters North

2. Urban or Rural Area Designation

After a review of the appropriate 7.5 minute quadrangles, it was concluded the area is "rural" for air modeling purposes.

3. Ambient Air

It was determined the Plant boundary used in the AQIA meets the State's definition of ambient air.

4. Building Downwash

The source was modeled with the AERMOD model. All structures at the plant were used in the model to account for their influence on downwash.

5. Meteorology

Five (5) years of off-site surface and upper air data were used in the analysis consisting of the following:

Surface – Salt Lake Airport, UT NWS: 2008-2012
Upper Air – Salt Lake Airport, UT NWS: 2008-2012

6. Background

No background concentrations are required for a Significant Impact Level (SIL) analysis.

7. Receptor and Terrain Elevations

The modeling domain consisted of receptors including property boundary receptors. This area of the state contains mountainous terrain and the modeling domain has simple and complex terrain features in the near and far fields. Therefore, receptor points representing actual terrain elevations from the area were used in the analysis.

8. Model and Options

The State-accepted AERMOD model was used to predict air pollutant concentrations under a simple/complex terrain/wake effect situation. In quantifying concentrations, the regulatory default option was selected by the UDAQ.

9. Air Pollutant Emission Rates

Source	UTM Coordinates		Modeled Emission Rates		
	Easting (m)	Northing (m)	PM_{10} (lb/hr)	PM_{10} (tons/yr)	hrs/year
HOTWTHTR	426086	4456954	0.0137	0.060	8760
Total			0.0137	0.0600	

10. Source Location and Parameters

Source	Type	Source Parameters					
		Elev (ft)	Ht (m)	Ht (ft)	Temp (K)	Flow (m/s)	Dia (ft)
HOTWTHTR	POINT	4628.0	5.0	16.4	478	3.30	0.51

IV. RESULTS AND CONCLUSIONS

A. National Ambient Air Quality Standards

The below table provides a comparison of the predicted air quality concentrations with the SIL. The predicted concentrations are less than the SIL so no further modeling is required.

Air Pollutant	Period	Prediction ($\mu g/m^3$)	Class II Significant Impact Level ($\mu g/m^3$)	Background ($\mu g/m^3$)	Nearby Sources* ($\mu g/m^3$)	Total ($\mu g/m^3$)	NAAQS ($\mu g/m^3$)	Percent SIL
PM_{10}	24-Hour	0.22	5				150	4.40%

DP:sa

Signature: Tim DeJulis (Mar 12, 2021 12:57 MST)
Email: tdejulis@utah.gov

Signature: Dave Prey (Mar 12, 2021 14:04 MST)
Email: dprey@utah.gov

Tim Dejulis <tdejulis@utah.gov>

GRP - Corinne and Pelican Pt.

7 messages

Tim Dejulis <tdejulis@utah.gov> Tue, Apr 6, 2021 at 9:22 AM
To: Bill King <billking@clydeinc.com>

Bill,

Here are the updates for Geneva Rock Products - Corinne and Pelican Pt. sites.

Corinne
I have received comments back from my supervisor and we have questions for Geneva Rock Products (GRP). We need the following information included in the NOI for the Corinne site.

- We need a justification from GRP, why the stack testing limit being proposed is 0.02 gr/dscf instead of 0.01 gr/dscf we usually put on asphalt plants.
- We need the stack testing limits for the filterable and condensable PM in gr/dscf.
- I had to tabulate the emissions of CO2e as 7,962 tpy, since it wasn't listed in the first table. Is this correct?

Please offer this information to us.

Pelican Pt.
The NOI for this modification deals with the modifications being sought, but that is all. I have attempted to see what is available in our records for reference, since I was assigned this from my former colleague. There are several changes that I have to consult with my manager on. As soon as possible after meeting with him, I will change the engineering review, let you know, and offer the engineering review back to him.k

If you have any further questions, please ask.

Timothy DeJulis, P.E.

195 N. 1950 W. Salt Lake City, Utah 84116

P:385-306-6523 F:801-536-4000 tdejulis@utah.gov

Bill King <billking@clydeinc.com> Tue, Apr 6, 2021 at 2:13 PM
To: Tim Dejulis <tdejulis@utah.gov>

Hello Tim,

Thanks for the update. I will get you the Corinne information shortly.

I appreciate your help on these projects.

Bill

[Quoted text hidden]

Bill King <billking@clydeinc.com> Tue, Apr 6, 2021 at 3:16 PM
To: Tim Dejulis <tdejulis@utah.gov>
Cc: Linda Conger <lconger@trinityconsultants.com>

Tim,

Attached is the information for the Greenhouse gases.

As far as the limit for the PM10 grains/dscf the emission limit that I am aware of is 0.024 g/dscf.

For the filterable and condensable that was not in the most current stack test.

Let me know if this answers your questions.

Bill

From: Tim Dejulis <tdejulis@utah.gov>
Sent: Tuesday, April 6, 2021 9:22 AM
To: Bill King <billking@clydeinc.com>

[Quoted text hidden]

[Quoted text hidden]

---------- Forwarded message ----------
From: Linda Conger <lconger@trinityconsultants.com>
To: Bill King <billking@clydeinc.com>
Cc:
Bcc:
Date: Tue, 6 Apr 2021 20:34:52 +0000
Subject: FW: Corrine Greenhouse Gas Totals

From: Linda Conger
Sent: Thursday, July 23, 2020 3:41 PM
To: Tim Dejulis <tdejulis@utah.gov>
Cc: Bill King (billking@clydeinc.com) <billking@clydeinc.com>
Subject: Corrine Greenhouse Gas Totals

Hi Tim,

I got your message and I have totaled the GHG values that were included in the individual calculations in the Corrine NOI.

Let me know if you have any questions or need further information.

Have a nice afternoon!

Sincerely,

Linda Conger

Linda Conger

Managing Consultant

Trinity Consultants – Ambient Monitoring Service and Integration

4525 Wasatch Blvd., Suite 200 | Salt Lake City, UT 84124
Office: 801-272-3000 x305 | Mobile: 801-556-9188

Email: lconger@trinityconsultants.com

Connect with us: LinkedIn / Facebook / Twitter / YouTube / trinityconsutants.com
Check out our live data service: mytrinitydata.com

2 attachments

Corrine Emissions GHG Totals.pdf
48K

FW: Corrine Greenhouse Gas Totals.eml
115K

Tim Dejulis <tdejulis@utah.gov> Tue, Apr 13, 2021 at 12:32 PM
To: Bill King <billking@clydeinc.com>

Bill,

Good afternoon.

The greenhouse gases aren't in a form that I have access to. It is .eml. Do you have a .pdf version of this document?
[Quoted text hidden]
[Quoted text hidden]

Bill King <billking@clydeinc.com> Tue, Apr 13, 2021 at 3:00 PM
To: Tim Dejulis <tdejulis@utah.gov>

Tim,

Let me know if this works.

Bill King

[Quoted text hidden]

Corrine Emissions GHG Totals.pdf
48K

Tim Dejulis <tdejulis@utah.gov> Tue, Apr 13, 2021 at 4:02 PM
To: Bill King <billking@clydeinc.com>

Perfect. I am working on Corinne right now, as a matter of fact. I will put 0.024 gr/dscf in the permit for the stack testing limits. I appreciate you sending these to me.

We ask for the PM values because initially the standard requires stack testing, but only initially. If you like, I could put the very same values that are in your PM10? We would need something from you though before I can do anything in your permit. Please let me know what you want me to do with the stack testing of the PM.
[Quoted text hidden]
[Quoted text hidden]

Bill King <billking@clydeinc.com> Thu, Apr 22, 2021 at 8:36 AM
To: Tim Dejulis <tdejulis@utah.gov>

Tim,

From our last phone conservation I think I have provided you with all the information you have requested. Is there anything else you need from me to wrap up the Pelican Point and Corinne permits?

Thanks again for your help on these projects.

[Quoted text hidden]

Tim Dejulis <tdejulis@utah.gov>

Pelican Pt. and Corinne NOI's

6 messages

Tim Dejulis <tdejulis@utah.gov> Mon, Jun 14, 2021 at 5:30 PM
To: gensign@clydeinc.com
Cc: Alan Humpherys <ahumpherys@utah.gov>

Hi Grant.

I tried to contact you by phone on Friday and again today. Your phone messaging is full, so I'm sending you this email.

Pelican Pt. is ready. See the attached email. Please review this. If satisfactory, sign the first page and return to me. Otherwise, we can discuss anything.

I'm afraid that I missed the throughput and control value in your emission calculation for Corinne. In your calculations for the paved haul roads, GRP uses an emissions control of 95% instead of 90%. The 95% is when GRP uses a vacuum on the roadway along with watering. If GRP wants to use vacuuming, please let me know and I'll put this into the requirements in the engineering review.

Also, in the unpaved/paved haul roads, it shows a tonnage of 1,500,000 tons going through the roads instead of 2,400,000 tons. I have looked in GRP's modeling analysis and the haul roads are included. Is my analysis correct that we need the calculations revised and the modeling re-submitted? I certainly hope this isn't the case, as we are so close to finishing the Corinne permit. Please let me know on both of the 95% emission control and the calculations for the haul roads.

Timothy DeJulis, P.E.

195 N. 1950 W. Salt Lake City, Utah 84116

P:385-306-6523 F:801-536-4000 tdejulis@utah.gov

RN108430013-21.GRP-PP.v 5.docx
154K

Alan Humpherys <ahumpherys@utah.gov> Tue, Jun 15, 2021 at 7:32 AM
To: Tim Dejulis <tdejulis@utah.gov>

Tim,

What about the asphalt plant baghouse, which includes both the BACT analysis and the stack testing limit in the permit?

Thanks,
Alan
[Quoted text hidden]
--

Alan Humpherys

Manager | Minor NSR Section

P: (385) 306-6520

AIR QUALITY

F: (801) 536-4099

airquality.utah.gov

Grant Ensign <gensign@clydeinc.com> Tue, Jun 15, 2021 at 8:58 AM
To: Tim Dejulis <tdejulis@utah.gov>
Cc: Alan Humpherys <ahumpherys@utah.gov>

Tim,

Thank you for sending over the Pelican Point AO. We will review it and get back to you very quickly.

We will discuss Corinne and get you the needed information.

Thanks.

[Quoted text hidden]

Grant Ensign <gensign@clydeinc.com> Tue, Jun 22, 2021 at 2:39 PM
To: Tim Dejulis <tdejulis@utah.gov>
Cc: Alan Humpherys <ahumpherys@utah.gov>

Hey Tim,

Thanks for helping us get this out. Attached is the signed cover sheet.

From: Tim Dejulis <tdejulis@utah.gov>
Sent: Monday, June 14, 2021 5:30 PM
To: Grant Ensign <gensign@clydeinc.com>
Cc: Alan Humpherys <ahumpherys@utah.gov>
Subject: Pelican Pt. and Corinne NOI's

Hi Grant.

[Quoted text hidden]

RN108430013-21.GRP-PP.v 5.pdf
381K

Tim Dejulis <tdejulis@utah.gov> Tue, Jun 22, 2021 at 5:04 PM
To: Grant Ensign <gensign@clydeinc.com>

Grant,

> The next step in the process is to have our secretaries make the Pelican Pt. engineering review into an intent to approve (ITA). I will have them do this right away. Geneva Rock Products will get a copy of the ITA once it is released to the public. I appreciate the patience Geneva Rock has shown us. Please let me know if there are any questions before we issue the ITA.

[Quoted text hidden]
[Quoted text hidden]

Grant Ensign <gensign@clydeinc.com> Wed, Jun 23, 2021 at 11:44 AM
To: Tim Dejulis <tdejulis@utah.gov>

Thanks Tim, please proceed.

[Quoted text hidden]

Tim Dejulis <tdejulis@utah.gov>

Geneva Rock Products, Pelican Point Facility

1 message

Sharon Anderson <sharonanderson@utah.gov> Fri, Mar 12, 2021 at 2:52 PM
To: Tim Dejulis <tdejulis@utah.gov>, Dave Prey <dprey@utah.gov>

Attached please find the signed copy of Modeling Analysis Review, MN108430013-21 for Geneva Rock Products, Pelican Point Facility.

DAQE-MN108430013-21.pdf
486K

State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Kim Shelley
Interim Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

RN108430013

January 8, 2021

Bill King
Geneva Rock Products, Inc.
1565 West 400 North
Orem, UT 84057

Dear Bill King,

Re: Engineer Review:
Modification to DAQE-AN108430010-15 to Add Equipment
Project Number: N108430013

The DAQ requests a company representative review and sign the attached Engineer Review (ER). This ER identifies all applicable elements of the New Source Review permitting program. Geneva Rock Products, Inc. should complete this review within **10 business days** of receipt.

Geneva Rock Products, Inc. should contact **Seme Enoka** at (385) 306-6503 if there are questions or concerns with the review of the draft permit conditions. Upon resolution of your concerns, please email slenoka@utah.gov the signed cover letter to Seme Enoka. Upon receipt of the signed cover letter, the DAQ will prepare an ITA for a 30-day public comment period. At the completion of the comment period, the DAQ will address any comments and will prepare an AO for signature by the DAQ Director.

If Geneva Rock Products, Inc. does not respond to this letter within **10 business days,** the project will move forward without source concurrence. If Geneva Rock Products, Inc. has concerns that cannot be resolved and the project becomes stagnant, the DAQ Director may issue an Order prohibiting construction.

Approval Signature _____
(Signature & Date)

UTAH DIVISION OF AIR QUALITY
ENGINEER REVIEW

SOURCE INFORMATION

Project Number	N108430013
Owner Name	Geneva Rock Products, Inc.
Mailing Address	1565 West 400 North Orem, UT, 84057
Source Name	Geneva Rock Products, Inc.- Pelican Point Limestone, Aggregate, & Concrete Facility
Source Location	1565 Redwood Road Lehi, UT 84043
UTM Projection	425,920 m Easting, 4,456,650 m Northing
UTM Datum	NAD83
UTM Zone	UTM Zone 12
SIC Code	3273 (Ready-Mixed Concrete)
Source Contact	Bill King
Phone Number	(801) 222-3306
Email	billking@clydeinc.com
Project Engineer	Seme Enoka, Engineer
Phone Number	(385) 306-6503
Email	slenoka@utah.gov
Notice of Intent (NOI) Submitted	June 5, 2020
Date of Accepted Application	September 28, 2020

SOURCE DESCRIPTION

General Description
Geneva Rock Products, Inc. (Geneva Rock) Pelican Point Facility, processes limestone, aggregate, and concrete. The Pelican Point facility has three aggregate processing plants, an aggregate wash plant, and a concrete batch plant. Among the support equipment at the facility are three diesel engines/generators, a hot water heater, and several fuel storage tanks. The current permitted annual production rate at the facility is 4,000,000 tons of processed aggregate, up to 200,000 tons of bank-run material, 200,000 cubic yards of concrete, and 70,000 tons of ground limestone.

NSR Classification:
Minor Modification at Minor Source

Source Classification
Located in , Southern Wasatch Front O3 NAA, Provo UT $PM_{2.5}$ NAA,
Utah 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
MACT (Part 63), CCCCCC: National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities
Title V (Part 70) Area Source

Project Proposal
Approval Order Modification for DAQE-AN108430010-15, dated December 8, 2015, to Add Equipment

Project Description
Geneva Rock Products requested a modification to its AO DAQE-AN108430010-15 by adding one (1) 4.2 MMBtu/hr, dual-fired hot water heater and replacing one (1) of the permitted, 12,000-gallon diesel tanks, with a 15,000-gallon diesel tank at its Pelican Point facility in Lehi, Utah. The 4.2 MMBtu/hr heater shall share the currently permitted 4380 hours per rolling 12-month period with the 9.9 MMBtu/hr heater. However, the two heaters will not be operated concurrently. Emissions changes were updated to reflect this modification.

EMISSION IMPACT ANALYSIS

The total emission changes due to the modification do not exceed the modeling thresholds listed in UAC R307-410-4 and UAC R307-410-5. Therefore, no modeling is required. [Last updated January 8, 2021]

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	52.63
Nitrogen Oxides	0	41.41
Particulate Matter - PM_{10}	0.06	149.68
Particulate Matter - $PM_{2.5}$	0.06	149.68
Sulfur Dioxide	0	2.87
Volatile Organic Compounds	0	2.10

Hazardous Air Pollutant	Change (lbs/yr)	Total (lbs/yr)
Benzene (Including Benzene From Gasoline) (CAS #71432)	0	12
Formaldehyde (CAS #50000)	0	15
Generic HAPs (CAS #GHAPS)	0	25
Hexane (CAS #110543)	0	76
	Change (TPY)	**Total (TPY)**
Total HAPs	0	0.06

Note: Change in emissions indicates the difference between previous AO and proposed modification.

Review of BACT for New/Modified Emission Units

1. **BACT review regarding Site Wide**

The source evaluated a 4.2 MMBtu/hr, dual-fueled water heater and a 15,000-gallon diesel storage tank. Due to the unavailability of natural gas infrastructure at the site the water heater will be fueled with diesel. The emissions from the water heater are NO_x, CO, PM, and SO_2 and emission from the diesel storage tank is mainly VOC.

Water Heater

NO_x

The source identified and evaluated all technically feasible controls for NO_x emissions. Of the technically feasible controls evaluated the source determined that Ultra Low NO_x Burners (ULNB) and Low NO_x Burners (LNB), with flue gas recirculation (FGR), are the most effective controls for NO_x emissions. The emission reduction levels for ULNB and LNB are 9 ppmv and 25 ppmv, respectively. The source performed an economic feasibility of retro-fitting the heater with either a ULNB or LNB with flue gas recirculation (FGR). Retrofitting the existing heater with ULNB would reduce the NO_x emission at the outlet to 0.72 tpy and the economic analysis of the ULNB yielded a cost of $17,783.76 per ton of NO_x removed. On the other hand, retrofitting the heater with a LNB and FGR would reduce the NO_x emissions at the outlet to 0.54 tpy and the economic analysis for the LNB and FGR showed a cost of $ 18,684.83per ton of NO_x removed. Both controls are economically infeasible. Therefore, the use of ultra-low sulfur content diesel as fuel for the heater is BACT.

CO

The source evaluated possible controls for CO emissions. Good Combustion Practices (GCP) and Catalytic Oxidation (85% control efficiency). GCP CO control technology includes proper air/fuel mixing, high temperature and low oxygen levels in the combustion zone, excess oxygen levels to allow for complete combustion and heater thermal efficiency, and sufficient residence time to complete combustion. Oxidation catalyst and good combustion practices would reduce the thermal efficiency of the heater. Good combustion practices are BACT for CO emissions.

PM

Fuel combustion generates PM emissions as ash-forming matter or carbon particles. While this is more prevalent in the combustion of solid fuels, PM emissions from the combustion of natural gas and diesel are small. The source evaluated the following technologies for the control of PM emissions: GCP, clean burning fuels, wet gas scrubber, and electrostatic precipitator. Of the four evaluated technologies, GCP and clean burning fuels are technically feasible. BACT for is following the manufacturer's operating and maintenance instructions and using low-sulfur fuels.

SO_2

The source identified two post-combustion controls for reducing SO_2 emissions. These two controls are wet or dry scrubber and the use of clean burning fuels. Wet or dry scrubbing technologies are typically less technically feasible and less cost-effective for low-sulfur fuel applications such as the heater. BACT is the use of ultra-low sulfur diesel.

Diesel Storage Tank

VOC

The source estimates that the VOC working losses from the diesel storage tank is 2.54 lbs/year. This is a very small amount of VOC emissions. Due to the low VOC emissions, BACT for VOC

emissions from the storage tank is sound operating practices and maintenance of the fuel tank. [Last updated January 8, 2021]

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. **(New or Modified conditions are indicated as "New" in the Outline Label):**

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. **(New or Modified conditions are indicated as "New" in the Outline Label):**

II.A THE APPROVED EQUIPMENT

II.A.1	**Limestone, Aggregate, and Concrete Facility**
II.A.2	**Bulldozing Operations**
II.A.3	**Wind Erosion of Exposed Areas**
II.A.4	**Paved Haul Roads**
II.A.5	**Drilling and Blasting Operations**
II.A.6	**Unpaved Haul Roads**
II.A.7	**Main Aggregate Processing Plant** Rated Capacity: 1,500 Tons per hour
II.A.8	**One (1) Grizzly Feeder with Hammer** Size: 72 Inches Wide
II.A.9	**One (1) Primary Crusher** Rated Capacity: 1,500 tons per hour
II.A.10	**Two (2) Tunnel Feeders (System)** Rated Capacity: 1,500 tons per hour each
II.A.11	**One (1) Primary Screen** Size: 8' x 24'
II.A.12	**One (1) Primary Feed Bin**
II.A.13	**Three (3) Aggregate Feeders** Size: 72 Inches Wide each
II.A.14	**Three (3) Secondary Screens** Size: 8' x 24' each
II.A.15	**One (1) Secondary Feed Bin**
II.A.16	**Two (2) Aggregate Feeders** Size: 72 Inches Wide each
II.A.17	**One (1) Secondary Crusher** Rated Capacity: 1,500 tons per hour

II.A.18	**One (1) Secondary Crusher** Rated Capacity: 830 tons per hour Type: Electric
II.A.19	**Two (2) Tertiary Screens** Size: 8' x 24' each
II.A.20	**One (1) Feeder** Size: 72 Inches Wide
II.A.21	**One (1) Tertiary Crusher** Rated Capacity: 800 tons per hour
II.A.22	**Various Main Plant Conveyors**
II.A.23	**Second Aggregate Processing Plant** Rated Capacity: 800 Tons per hour
II.A.24	**One (1) Grizzly Feeder with Hammer** Size: 62 Inches Wide
II.A.25	**One (1) Primary Crusher** Rated Capacity: 800 tons per hour
II.A.26	**One (1) Primary Screen** Size: 8' x 20'
II.A.27	**Various Second Plant Conveyors and Stackers**
II.A.28	**Third Aggregate Processing Plant** Rated Capacity: 600 Tons per hour
II.A.29	**One (1) Grizzly Feeder with Hammer** Size: 62 Inches Wide
II.A.30	**One (1) Primary Crusher** Rated Capacity: 600 tons per hour
II.A.31	**One (1) Feed Bin**
II.A.32	**One (1) Feeder** Size: 62 Inches Wide
II.A.33	**One (1) Primary Screen** Size: 8' x 20'
II.A.34	**Various Third Plant Conveyors**

II.A.35	**Limestone Grinding Mill** Rated Capacity: 25 Tons per hour
II.A.36	**One (1) Limestone Grinder** Rated Capacity: 25 tons per hour Control Device: Shaking Baghouse
II.A.37	**Two (2) Cyclones** Controls emissions from the Limestone Grinder
II.A.38	**Two (2) Powdered Limestone Storage Silos** Control Device: Baghouse
II.A.39	**Various Grinding Mill Conveyors and Feed Bins**
II.A.40	**Aggregate Wash Plant** Rated Capacity: 400 Tons per hour
II.A.41	**One (1) Wash Plant Feeder** Size: 54 Inches Wide
II.A.42	**One (1) Wet Screen** Size: 8' x 20'
II.A.43	**One (1) Sand Screw** Size: 2' x 54'
II.A.44	**Various Wash Plant Conveyors**
II.A.45	**One (1) Truck-Mix Concrete Batch Plant** Rated Capacity: 100 cubic yards per hour Weigh Hopper Control Device: Baghouse
II.A.46	**Various Cement Storage Silos** Control Device: Bin Vents
II.A.47	**Various Fly Ash Storage Silos** Control Device: Bin Vents
II.A.48	**Various Aggregate Storage Bins**
II.A.49	**Two (2) Hot Water Heaters** Size: 9.9 MMBTU per hour Size: 4.2 MMBTU per hour, dual-fired - new equipment

II.A.50	**One (1) Crusher/Screen Generator/Engine** Power: 900 hp Fuel: Diesel Fuel NSPS applicability: Subpart IIII MACT applicability: Subpart ZZZZ
II.A.51	**One (1) Screen Generator/Engine** Power: 174 hp Fuel: Diesel Fuel NSPS applicability: Subpart IIII MACT applicability: Subpart ZZZZ
II.A.52	**One (1) Emergency Generator** Power: 1,662 hp Fuel: Diesel Fuel NSPS applicability: Subpart IIII MACT applicability: Subpart ZZZZ
II.A.53	**One (1) 500-Gallon Gasoline Storage Tank**
II.A.54	**One (1) 1,000-Gallon Diesel Storage Tank**
II.A.55	**One (1) 10,000-Gallon Diesel Storage Tank**
II.A.56	**One (1) 12,000-Gallon Diesel Storage Tank**
II.A.57	**One (1) 6,000-Gallon Diesel Storage Tank**
II.A.58 NEW	**One (1) 15,000-Gallon Diesel Storage Tank**
II.A.59	**Various Welding Equipment** Welding Rods

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. **(New or Modified conditions are indicated as "New" in the Outline Label):**

II.B REQUIREMENTS AND LIMITATIONS

II.B.1	**The Limestone, Aggregate, and Concrete Facility shall be subject to the following:**
II.B.1.a	The owner/operator shall not produce more than 200,000 tons of bankrun material per rolling 12-month total. [R307-401]

II.B.1.a.1 NEW	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Records of production shall be kept for all periods when the plant is in operation. All bank-run material shall be weighed and accounted for prior to leaving the Pelican Point Site. Amount of material produced shall be determined by scale house records. The records of production shall be kept on a daily basis. [R307-401]
II.B.1.b	Unless otherwise specified in this AO, the owner/operator shall not allow visible emissions from any source on site to exceed 20 percent opacity. [R307-305]
II.B.1.b.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]
II.B.2	**All Bulldozing Operations on site shall be subject to the following:**
II.B.2.a	The hours of operation for all bulldozers at the facility shall not exceed 28,000 hours combined per rolling 12-month period. [R307-401]
II.B.2.a.1 NEW	To determine compliance with a rolling 12-month total, 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 hours of operation of each bulldozer shall be added together to determine the total hours. Hours of operation shall be determined by supervisor monitoring and maintaining of an operations log. [R307-401]
II.B.3	**All Haul Roads and Sources of Fugitive Dust on site shall be subject to the following:**
II.B.3.a NEW	The owner/operator shall comply with a fugitive dust control plan acceptable to the Director for control of all dust sources associated with the Pelican Point Limestone, Aggregate, and Concrete Batch Plant. [R307-309]

II.B.3.a.1 NEW	The fugitive dust control plan shall, at a minimum, address the following specific control strategies: Blasting Operations 1. Blasting during low wind events 2. Conducting blasting in a manner to prevent over-shoot 3. Maximize hole depth to decrease surface area affected by blasting Bulldozing 1. Minimizing drop distance 2. Minimizing activities during extreme meteorological conditions (i.e. high wind events) 3. Adding moisture to control visible emissions Storage Piles 1. Maintaining moisture in storage piles 2. Minimizing drop distance from conveyors to storage piles 3. Minimizing activities during windy meteorological conditions Exposed Areas 1. Maintaining moisture in exposed areas 2. Other stabilization methods in exposed areas 3. Methods to ensure exposed areas are not re-disturbed by on-site equipment Haul Roads 1. Minimizing the haul road length 2. Minimizing vehicle miles traveled on the haul roads 3. Regularly scheduled maintenance. [R307-401]
II.B.3.b	The owner/operator shall not allow visible emissions from haul roads and fugitive dust sources to exceed 20 percent opacity on site and 10 percent at the property boundary. [R307-309]
II.B.3.b.1	Visible emission determinations for fugitive dust emissions from haul-road traffic and mobile equipment in operational areas shall use procedures similar to Method 9. The normal requirement for observations to be made at 15-second intervals over a six-minute period, however, shall not apply. Visible emissions shall be measured at the densest point of the plume but at a point not less than 1/2 vehicle length behind the vehicle and not less than 1/2 the height of the vehicle. [R307-309]
II.B.3.c	The owner/operator shall install water sprays on all conveyor drop points on site. The owner/operator shall apply water from conveyor sprays and water trucks to all storage piles on site to control fugitive emissions. Sprays shall operate as required to ensure the opacity limits listed in this AO are not exceeded. The owner/operator may stop spraying the storage piles with water if the temperature is below freezing. [R307-401]
II.B.3.d NEW	The owner/operator shall comply with all applicable requirements of R307-309 for Fugitive Emission and Fugitive Dust sources on site. [R307-309]
II.B.4	**All Paved Haul Roads on site shall be subject to the following:**

II.B.4.a	The owner/operator shall pave the haul road from the site entrance to the grinding mill with concrete or asphalt. [R307-401]
II.B.4.b	The owner/operator shall vacuum sweep and flush with water all the paved haul roads on site to maintain opacity limits listed in this 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 with snow or ice, the owner/operator may stop vacuum sweeping the paved haul roads and flushing the paved haul roads with water. [R307-401]
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]
II.B.5	**All Drilling and Blasting Operations on site shall be subject to the following:**
II.B.5.a	The owner/operator shall install and use a shroud on all aggregate drills when drilling to control fugitive emissions. [R307-401]
II.B.5.b	The owner/operator shall not blast more than 188 blasts per rolling 12-month period. [R307-401]
II.B.5.b.1 NEW	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Number of blasts shall be determined by supervisor monitoring and maintaining of an operations log. [R307-401]
II.B.5.c	The owner/operator shall not use more than 1,340 tons of explosives per rolling 12-month period. [R307-401]
II.B.5.c.1 NEW	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Amount of explosives used shall be determined by purchasing records or maintaining an operations log. [R307-401]
II.B.6	**All Unpaved Haul Roads on site shall be subject to the following:**
II.B.6.a	The owner/operator shall cover all unpaved haul roads from the paved haul road to the concrete batch plant and the aggregate wash plant with road-base material. [R307-401]
II.B.6.b	The owner/operator shall use water application on all unpaved haul roads and wheeled-vehicle operational areas on site. Water application shall be of sufficient frequency to maintain the opacity limits listed in this AO. If the temperature is below freezing, the owner/operator may stop applying water to the unpaved haul roads and wheeled-vehicle operational areas. [R307-401]

II.B.6.b.1 NEW	Records of 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. [R307-401]
II.B.7	**The Main Aggregate Processing Plant shall be subject to the following:**
II.B.7.a	The main aggregate processing plant shall not produce more than 3,000,000 tons of aggregate and sand combined per rolling 12-month period. [R307-401]
II.B.7.a.1 NEW	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Records of production shall be kept for all periods when the plant is in operation. Production shall be determined by belt scale records. The records of production shall be kept on a daily basis. [R307-401]
II.B.8	**The Second Aggregate Processing Plant shall be subject to the following:**
II.B.8.a	The second aggregate processing plant shall not produce more than 600,000 tons of aggregate and sand combined per rolling 12-month period. [R307-401]
II.B.8.a.1 NEW	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Records of production shall be kept for all periods when the plant is in operation. Production shall be determined by belt scale records. The records of production shall be kept on a daily basis. [R307-401]
II.B.9	**The Third Aggregate Processing Plant shall be subject to the following:**
II.B.9.a	The third aggregate processing plant on site shall not produce more than 400,000 tons of aggregate and sand combined per rolling 12-month period. [R307-401]
II.B.9.a.1 NEW	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Records of production shall be kept for all periods when the plant is in operation. Production shall be determined by belt scale records. The records of production shall be kept on a daily basis. [R307-401]
II.B.10	**The Limestone Grinding Mill shall be subject to the following:**
II.B.10.a	The limestone grinding mill shall not produce more than 70,000 tons of ground limestone per rolling 12-month period. [R307-401]
II.B.10.a.1 NEW	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Records of production shall be kept for all periods when the plant is in operation. Production shall be determined by belt scale records. The records of production shall be kept on a daily basis. [R307-401]

II.B.10.b NEW	The owner/operator shall install a manometer or magnehelic pressure gauge to measure the static pressure drop across the baghouse system of the grinding mill. The static pressure drop across the baghouse system shall be maintained between one and six inches of water column. [R307-401-8]
II.B.10.b.1 NEW	Static pressure drop readings shall be recorded at least once daily, while the baghouse is operating. Records documenting these inspections shall be kept in a log and shall include the following: A. Unit identification B. Manufacturer recommended static pressure drop for the unit C. Daily static pressure drop readings; and D. Date of last bag replacement. [R307-401-8]
II.B.10.b.2 NEW	The pressure gauges shall be located such that an inspector/operator can safely read the indicator at any time. [R307-401-8]
II.B.10.b.3 NEW	The pressure gauges shall be calibrated in accordance with the manufacturer's instructions or recommendations or replaced at least once every 12 months. Documentation of calibrations shall be maintained. [R307-401-8]
II.B.11	**The Aggregate Wash Plant shall be subject to the following:**
II.B.11.a	The aggregate washing and screening plant shall not process more than 600,000 tons of aggregate material per rolling 12-month period. [R307-401]
II.B.11.a.1 NEW	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Records of processing shall be kept for all periods when the plant is in operation. Amount of material processed shall be determined by belt scale records. The records of processing shall be kept on a daily basis. [R307-401]
II.B.11.b	The owner/operator shall not allow any visible emissions from the wet screening operation or any conveyor on site that processes saturated material. [40 CFR 60 Subpart OOO]
II.B.12	**The Truck-Mix Concrete Batch Plant shall be subject to the following:**
II.B.12.a	The truck mix concrete batch plant shall not produce more than 200,000 cubic yards of concrete per rolling 12-month period. [R307-401]
II.B.12.a.1 NEW	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Records of production shall be kept for all periods when the plant is in operation. Production shall be determined by scale house records. The records of production shall be kept on a daily basis. [R307-401]

II.B.12.b NEW	The owner/operator shall install a manometer or magnehelic pressure gauge to measure the static pressure drop across the baghouse system of the concrete batch plant weigh hopper. The static pressure drop across the baghouse system shall be maintained between one and six inches of water column. [R307-401-8]
II.B.12.b.1 NEW	Static pressure drop readings shall be recorded at least once daily, while the baghouse is operating. Records documenting these inspections shall be kept in a log and shall include the following: A. Unit identification B. Manufacturer recommended pressure drop for the unit C. Daily static pressure drop readings; and D. Date of last bag replacement. [R307-401-8]
II.B.12.b.2 NEW	The pressure gauges shall be located such that an inspector/operator can safely read the indicator at any time. [R307-401-8]
II.B.12.b.3 NEW	The pressure gauges instrument shall be calibrated in accordance with the manufacturer's instructions or recommendations or replaced at least once every 12 months. Documentation of calibrations shall be maintained. [R307-401-8]
II.B.12.c	The owner/operator shall install bin vents on all material storage silos associated with the concrete batch plant. Displaced air from the silos shall pass through the bin vents before being vented to the atmosphere. [R307-401]
II.B.12.d NEW	The owner/operator shall not allow visible emissions from any baghouse or bin vent associated with the concrete batch plant to exceed 7% opacity. [R307-401]
II.B.13.a NEW	The hot water heaters shall not exceed 4,380 combined hours of operation per rolling 12-month period. [R307-401]
II.B.13 NEW	**The Hot Water Heaters shall be subject to the following:**
II.B.13.b.1 NEW	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Hours of operation shall be determined by supervisor monitoring and maintaining of an operations log. [R307-401]
II.B.13.b NEW	The owner/operator shall use liquefied petroleum gas, or diesel as fuel in the hot water heaters. [R307-401]
II.B.13.c NEW	The owner/operator shall not allow visible emissions from the hot water heaters to exceed 20 percent opacity. [R307-401]
II.B.14	**The 174 hp Screen Generator shall be subject to the following:**
II.B.14.a	The screen generator shall not exceed 2,400 hours of operation combined per rolling 12-month period. [R307-401]

II.B.14.a.1 NEW	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Hours of operation shall be determined by supervisor monitoring and maintaining of an operations log. [R307-401]
II.B.15	**The 900 hp Crusher/Screen Generator and the 1,662 Emergency Generator shall be subject to the following:**
II.B.15.a	The crusher/screen generator and the emergency generator shall not exceed 1,508,460 hp-hr of operation combined per rolling 12-month period. [R307-401]
II.B.15.a.1 NEW	To determine compliance with the rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. To determine the total hp-hrs for the facility, the owner/operator shall multiply the horsepower of the engine and the hours of operation for that engine and add the total hp-hrs of all the engines together. Hours of operation shall be determined by supervisor monitoring and maintaining of an operations log. [R307-401]
II.B.16	**All Stationary Engines/Generators on site shall be subject to the following:**
II.B.16.a	The owner/operator shall not allow visible emissions from any stationary diesel engine on site to exceed 20 percent opacity. [R307-305]
II.B.16.b	The owner/operator shall use only #1 diesel fuel in all stationary diesel engines on site. [R307-401]
II.B.16.c	The sulfur content of any fuel oil or diesel burned in any stationary diesel engine on site shall not exceed 0.05 percent by weight. [R307-401]
II.B.16.c.1	The sulfur content shall be determined by ASTM Method D2880-71, D4294-89, or approved equivalent. Certification of fuel oil or diesel fuel shall be either by the owner/operator's own testing or by test reports from the fuel oil or diesel fuel marketer. [R307-203]
II.B.17	**All Crushers on site shall be subject to the following:**
II.B.17.a NEW	The owner/operator shall not allow visible emissions from any crusher on site to exceed 12% opacity. [40 CFR 60 Subpart OOO]
II.B.17.b	The owner/operator shall install water sprays on all crushers on site to control fugitive emissions. Sprays shall operate as required to ensure the opacity limits listed in this AO are not exceeded. The owner/operator may stop the water sprays if the temperature is below freezing. [R307-401]
II.B.18	**All Screens on site shall be subject to the following:**
II.B.18.a NEW	The owner/operator shall not allow visible emissions from any screen on site to exceed 7% opacity. [40 CFR 60 Subpart OOO]

II.B.18.b	The owner/operator shall install water sprays on all screens on site to control fugitive emissions. Sprays shall operate as required to ensure the opacity limits listed in this AO are not exceeded. The owner/operator may stop the water sprays if the temperature is below freezing. [R307-401]
II.B.19	**All Conveyors on site shall be subject to the following:**
II.B.19.a NEW	The owner/operator shall not allow visible emissions from any conveyor transfer point on site to exceed 7% opacity. [40 CFR 60 Subpart OOO]
II.B.19.b	The owner/operator shall not allow visible emissions from any conveyor drop point on site to exceed 20 percent opacity. [R307-309]
II.B.19.c	The owner/operator shall install water sprays on all unenclosed conveyor transfer points on site to control fugitive emissions. Sprays shall operate as required to ensure the opacity limits listed in this AO are not exceeded. The owner/operator may stop the water sprays if the temperature is below freezing. [R307-401]
II.B.20	**All Bin Vents and Baghouses associated with the aggregate processing plants and the limestone grinding mill shall be subject to the following:**
II.B.20.a	The owner/operator shall not allow visible emissions from any baghouse or bin vent associated with the aggregate processing plants and the limestone grinding mill to exceed 7 percent opacity. [40 CFR 60 Subpart OOO]
II.B.20.b	The owner/operator shall control emissions from the material storage silos on site by passing all displaced air from the storage silos through a baghouse or bin vent before being vented to the atmosphere. [R307-401]
II.B.21	**All Crushers, Grinding Mills, Screens, Conveyors, and Storage Bins on site shall be subject to the following:**
II.B.21.a	Initial visible observations of opacity shall be conducted for all crushers, grinding mills, screens, conveyor transfer points, and storage bin vents/stacks on site. Observations shall meet the opacity limitations listed in this AO. [40 CFR 60 Subpart OOO]
II.B.21.a.1	Initial visible emission observations of opacity shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9. Initial visible emission observations shall consist of 30 observations of six minutes each in accordance with 40 CFR 60.11(b). The duration of observations may be reduced to comply with 40 CFR 60.675(c)(3) or 40 CFR 60.675(c)(4). A certified observer must be used for these observations. [40 CFR 60 Subpart OOO]

PERMIT HISTORY

When issued, the approval order shall supersede (if a modification) or will be based on the following documents:

Supersedes	DAQE-AN108430010-15 dated December 8, 2015
Is Derived From	NOI dated June 5, 2020

REVIEWER COMMENTS

2. **Comment regarding Emissions Estimates:**
Water Heater

All emissions from the water heater were estimated using emission factors in AP-42, 5th Edition.

Diesel Storage Tank

VOC emissions from the 15,000-gallon diesel tank were estimated using the EPA's TANKS program. [Last updated January 8, 2021]

3. **Comment regarding Changes in Emissions:**
The installation of the new water heater and the tank resulted in changes in the emissions. Except for a slight increase in PM_{10} emissions of 0.06 tpy, the proposed emissions due to the modification remain the same as the facility-wide permitted emissions. Emissions of NO_x, CO, VOC, HAPs and CO_2 decreased and emissions of PM_{10} and $PM_{2.5}$ increased due to the equipment modifications. [Last updated January 8, 2021]

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 EPA 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 - 40 CFR 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 UDAQ use
EPA	Environmental Protection Agency
FDCP	Fugitive dust control plan
GHG	Greenhouse Gas(es) - 40 CFR 52.21 (b)(49)(i)
GWP	Global Warming Potential - 40 CFR Part 86.1818-12(a)
HAP or HAPs	Hazardous air pollutant(s)
ITA	Intent to Approve
LB/HR	Pounds per hour
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

Tim Dejulis <tdejulis@utah.gov>

Re: Geneva Rock, Pelican Point Hot Water Info

4 messages

Alan Humpherys <ahumpherys@utah.gov> Thu, Mar 11, 2021 at 9:53 AM
To: Bill King <billking@clydeinc.com>
Cc: Dave Prey <dprey@utah.gov>, Amit Nair <ANair@kleinfelder.com>, Grant Ensign <gensign@clydeinc.com>, Tim Dejulis <tdejulis@utah.gov>

Bill,

Your project was reassigned to Tim DeJulis. I have included him in this email. He should be contacting you shortly.

Thanks,
Alan

On Thu, Mar 11, 2021 at 9:14 AM Bill King <billking@clydeinc.com> wrote:

> Alan and Dave,
>
> I believe its close to the 30 day review period being complete for the stack modeling. To my understanding this is the last item we need to be able to receive the updated permit.
>
> If Seme has left who will be the newly assigned permit engineer?
>
> Please let me know if there is anything else needed.
>
> Thanks,
>
> Bill King

From: Dave Prey <dprey@utah.gov>
Sent: Friday, March 5, 2021 3:30 PM
To: Bill King <billking@clydeinc.com>
Cc: Seme Enoka <slenoka@utah.gov>; Amit Nair <ANair@kleinfelder.com>
Subject: Re: Geneva Rock, Pelican Point Hot Water Info

Bill,

It should be reviewed within 30 days of receipt, it is real busy right now and 30 days is an estimate. Seme has left the UDAQ, so Alan will be assigning another engineer to it, so contact Alan, thanks.

On Fri, Mar 5, 2021 at 9:04 AM Bill King <billking@clydeinc.com> wrote:

Seme and Dave,

What is the status of the Geneva Rock, Pelican Point Air Quality Permit?

Bill King

From: Bill King
Sent: Tuesday, February 9, 2021 10:38 AM
To: Seme Enoka <slenoka@utah.gov>; Dave Prey <dprey@utah.gov>
Cc: Amit Nair <ANair@kleinfelder.com>
Subject: Geneva Rock, Pelican Point Hot Water Info

Dave,

You had requested some information on the hot water heater at the Geneva Rock, Pelican Point facility. Please let me know if you need additional information.

Stack Height: 16.4’

Stack Diameter: 20”

Exhaust Temperature: 400°F

Exhaust Flow Rate: ACFM out 1,419.8 (SCFM in 875)

See attached site map (scale is in bottom corner)

Let me know if you need additional information.

CLYDE COMPANIES

Bill King
PROPERTY/ENVIRONMENTAL SPEC.
O 801.222.3306 C 801.380.8706
WWW.CLYDEINC.COM

--

Alan Humpherys

Manager | Minor NSR Section

P: (385) 306-6520
F: (801) 536-4099

airquality.utah.gov

Alan Humpherys <ahumpherys@utah.gov> Thu, Mar 11, 2021 at 9:57 AM
To: Tim Dejulis <tdejulis@utah.gov>

Tim,

Can you please contact Bill as soon as possible and give him an update on this project?

Thanks,
Alan
[Quoted text hidden]

Dave Prey <dprey@utah.gov> Thu, Mar 11, 2021 at 11:07 AM
To: Bill King <billking@clydeinc.com>
Cc: Alan Humpherys <ahumpherys@utah.gov>, Amit Nair <ANair@kleinfelder.com>, Grant Ensign <gensign@clydeinc.com>, Tim Dejulis <tdejulis@utah.gov>

Bill,

The model was running while you emailed, but it has finished, and the 24hr PM10 impact was 0.22 ug/m^3, and this is less than 5 ug/m^3, so the modeling can be considered complete and acceptable.

I will finish up a memo on the model inputs for the file and Tim should be able to finish it up, thanks.

-Dave

[Quoted text hidden]

Tim Dejulis <tdejulis@utah.gov> Thu, Mar 11, 2021 at 1:42 PM
To: Bill King <billking@clydeinc.com>
Cc: Alan Humpherys <ahumpherys@utah.gov>

Bill,

Yes, I'm the engineer in charge of the Pelican Point project now. Pelican Point's engineering review looks to be finished and ready for GRP's review. I want to go through the engineering review to make sure everything was covered, which should take an hour or so. I would love to say that I will get to this, this week, but it will be at least Tuesday afternoon before I have the time in my schedule. It will come to you though, to approve Pelican Point's engineering review next week. If you have any questions though, please let me know.

Timothy DeJulis, P.E.

195 N. 1950 W. Salt Lake City, Utah 84116

P:385-306-6523 F:801-536-4000 tdejulis@utah.gov

[Quoted text hidden]

State of Utah
SPENCER J. COX
Governor
DEIDRE HENDERSON
Lieutenant Governor

Department of
Environmental Quality
Kimberly D. Shelley
Executive Director
DIVISION OF AIR QUALITY
Bryce C. Bird
Director

RN108430013

June 9, 2021

Bill King
Geneva Rock Products, Inc.
1565 West 400 North
Orem, UT 84057
billking@clydeinc.com

Dear Bill King,

Re: Engineer Review:
Modification to DAQE-AN108430010-15 to Add Equipment
Project Number: N108430013

The DAQ requests a company representative (Title V Responsible Official for enhanced Approval Order application) review and sign the attached Engineer Review (ER). This ER identifies all applicable elements of the New Source Review permitting program. Geneva Rock Products, Inc. should complete this review within **10 business days** of receipt.

Geneva Rock Products, Inc. should contact **Mr. Tim DeJulis** at (385) 306-6523 if there are questions or concerns with the review of the draft permit conditions. Upon resolution of your concerns, please email tdejulis@utah.gov the signed cover letter to Mr. Tim DeJulis. Upon receipt of the signed cover letter, the DAQ will prepare an ITA for a 30-day public comment period. At the completion of the comment period, the DAQ will address any comments and will prepare an AO for signature by the DAQ Director.

If Geneva Rock Products, Inc. does not respond to this letter within **10 business days,** the project will move forward without source concurrence. If Geneva Rock Products, Inc. has concerns that cannot be resolved and the project becomes stagnant, the DAQ Director may issue an Order prohibiting construction.

Approval Signature Bill King _____
(Signature & Date)

UTAH DIVISION OF AIR QUALITY
ENGINEER REVIEW

SOURCE INFORMATION

Project Number	N108430013
Owner Name	Geneva Rock Products, Inc.
Mailing Address	1565 West 400 North Orem, UT, 84057
Source Name	Geneva Rock Products, Inc.- Pelican Point Limestone, Aggregate, & Concrete Facility
Source Location	1565 Redwood Road Lehi, UT 84043
UTM Projection	425,920 m Easting, 4,456,650 m Northing
UTM Datum	NAD83
UTM Zone	UTM Zone 12
SIC Code	3273 (Ready-Mixed Concrete)
Source Contact	Bill King
Phone Number	(801) 222-3306
Email	billking@clydeinc.com
Project Engineer	Mr. Tim DeJulis, Engineer
Phone Number	(385) 306-6523
Email	tdejulis@utah.gov
Notice of Intent (NOI) Submitted	June 5, 2020
Date of Accepted Application	September 28, 2020

SOURCE DESCRIPTION

General Description
Geneva Rock Products, Inc. (Geneva Rock) Pelican Point Facility, processes limestone, aggregate, and concrete. The Pelican Point facility has three aggregate processing plants, an aggregate wash plant, and a concrete batch plant. Among the support equipment at the facility are three diesel engines/generators, a hot water heater, and several fuel storage tanks. The current permitted annual production rate at the facility is 4,000,000 tons of processed aggregate, up to 200,000 tons of bank-run material, 200,000 cubic yards of concrete, and 70,000 tons of ground limestone.

NSR Classification:
Minor Modification at Minor Source

Source Classification
Located in Southern Wasatch Front O3 NAA, Provo UT $PM_{2.5}$ NAA
Utah 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
MACT (Part 63), CCCCCC: National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities
Title V (Part 70) Area Source

Project Proposal
Modification to DAQE-AN108430010-15 to Add Equipment

Project Description
Geneva Rock Products requested a modification to its AO DAQE-AN108430010-15 by adding one (1) 4.2 MMBtu/hr, dual-fired hot water heater and one (1) 15,000-gallon diesel tank at its Pelican Point facility in Lehi, Utah. The 4.2 MMBtu/hr heater shall share the currently permitted 4,380 hours per rolling 12-month period along with the 9.9 MMBtu/hr heater. However, the two heaters will not be operated concurrently. Emissions changes were updated to reflect this modification.

EMISSION IMPACT ANALYSIS

The total emission changes due to the modification do not exceed the modeling thresholds listed in UAC R307-410-4 and UAC R307-410-5. Modeling was performed on the significant impact level (SIL) with the following results.

Air Pollutant	Predicted Concentration (ug/m3)	Percent SIL
PM_{10}		
24- Hour	0.22	4.40%

The predicted concentrations are less than the SIL, so no further modeling is required. [Last updated April 29, 2021]

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	52.63
Nitrogen Oxides	0	41.41
Particulate Matter - PM_{10}	0.06	149.68
Particulate Matter - $PM_{2.5}$		149.68
Sulfur Dioxide	0	2.87
Volatile Organic Compounds	0	2.10

Hazardous Air Pollutant	Change (lbs/yr)	Total (lbs/yr)
Benzene (Including Benzene From Gasoline) (CAS #71432)	0	12
Formaldehyde (CAS #50000)	0	15
Generic HAPs (CAS #GHAPS)	0	25
Hexane (CAS #110543)	0	76
	Change (TPY)	**Total (TPY)**
Total HAPs	0	0.06

Note: Change in emissions indicates the difference between previous AO and proposed modification.

Review of BACT for New/Modified Emission Units

. **BACT review regarding Equipment Modification**

The source evaluated a 4.2 MMBtu/hr, dual-fueled water heater and a 15,000-gallon diesel storage tank. Due to the unavailability of natural gas infrastructure at the site the water heater will be fueled with diesel. The emissions from the water heater are NO_x, CO, PM, and SO_2. VOC is the emissions from the diesel storage tank.

Water Heater

NO_x

The source identified and evaluated technically feasible controls for NO_x emissions. Of the technically feasible controls evaluated the source determined that Ultra Low NO_x Burners (ULNB) and Low NO_x Burners (LNB), with flue gas recirculation (FGR), are the most effective controls for NO_x emissions. The emission reduction levels for ULNB and LNB are 9 ppmv and 25 ppmv, respectively. The source performed an economic feasibility of retro-fitting the heater with either a ULNB or LNB with FGR. Retrofitting the existing heater with ULNB would reduce the NO_x emission at the outlet by 0.72 tpy and the economic analysis of the ULNB yielded a cost of $17,783.76 per ton of NO_x removed. On the other hand, retrofitting the heater with a LNB and FGR would reduce the NO_x emissions at the outlet by 0.54 tpy and the economic analysis for the LNB and FGR showed a cost of $18,684.83 per ton of NO_x removed. Both controls are economically infeasible. Therefore, BACT for controlling NO_x will be good operation and maintenance practices recommended by the manufacturer.

CO

The source evaluated the possible controls for CO emissions. Good Combustion Practices (GCP) CO control technology includes proper air/fuel mixing, high temperature and low oxygen levels in the combustion zone, excess oxygen levels to allow for complete combustion and heater thermal efficiency, and sufficient residence time to complete combustion. Catalytic oxidation is not cost-effective due to the low CO emission. Particulate matter also tends to rapidly coat the catalyst and deactivate the catalyst over time. Therefore, GCP is BACT for CO emissions.

PM

Fuel combustion generates PM emissions as ash-forming matter or carbon particles. While this is more prevalent in the combustion of solid fuels, PM emissions from the combustion of natural gas and diesel are small. BACT for PM emissions is following the manufacturer's operating and maintenance instructions.

SO_2

The source identified two post-combustion controls for reducing SO_2 emissions. These two controls are wet or dry scrubber and the use of clean burning fuels. Wet or dry scrubbing technologies are not technically feasible and less cost-effective for low-sulfur fuel applications such as the heater. BACT for SO_2 emissions is the use of ultra-low sulfur diesel.

Diesel Storage Tank

VOC

The source estimates that the VOC working losses from the diesel storage tank is 2.54 lbs/year. This is a very small amount of VOC emissions. Due to the low VOC emissions, BACT for VOC emissions from the storage tank is sound operating practices and maintenance of the fuel tank. [Last updated May 12, 2021]

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. **(New or Modified conditions are indicated as "New" in the Outline Label):**

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. **(New or Modified conditions are indicated as "New" in the Outline Label):**

II.A THE APPROVED EQUIPMENT

II.A.1	**Limestone, Aggregate, and Concrete Facility**
II.A.2	**Main Aggregate Processing Plant** Rated Capacity: 1,500 Tons per hour
II.A.3	**One (1) Grizzly Feeder with Hammer** Size: 72 Inches Wide
II.A.4	**One (1) Primary Crusher** Rated Capacity: 1,500 tons per hour
II.A.5	**Two (2) Tunnel Feeders (System)** Rated Capacity: 1,500 tons per hour each
II.A.6	**One (1) Primary Screen** Size: 8' x 24'
II.A.7	**One (1) Primary Feed Bin**
II.A.8	**Three (3) Aggregate Feeders** Size: 72 Inches Wide each
II.A.9	**Three (3) Secondary Screens** Size: 8' x 24' each
II.A.10	**One (1) Secondary Feed Bin**
II.A.11	**Two (2) Aggregate Feeders** Size: 72 Inches Wide each
II.A.12	**One (1) Secondary Crusher** Rated Capacity: 1,500 tons per hour
II.A.13	**One (1) Secondary Crusher** Rated Capacity: 830 tons per hour Type: Electric
II.A.14	**Two (2) Tertiary Screens** Size: 8' x 24' each
II.A.15	**One (1) Feeder** Size: 72 Inches Wide

II.A.16	**One (1) Tertiary Crusher** Rated Capacity: 800 tons per hour
II.A.17	**Various Main Plant Conveyors**
II.A.18	**Second Aggregate Processing Plant** Rated Capacity: 800 Tons per hour
II.A.19	**One (1) Grizzly Feeder with Hammer** Size: 62 Inches Wide
II.A.20	**One (1) Primary Crusher** Rated Capacity: 800 tons per hour
II.A.21	**One (1) Primary Screen** Size: 8' x 20'
II.A.22	**Various Second Plant Conveyors and Stackers**
II.A.23	**Third Aggregate Processing Plant** Rated Capacity: 600 Tons per hour
II.A.24	**One (1) Grizzly Feeder with Hammer** Size: 62 Inches Wide
II.A.25	**One (1) Primary Crusher** Rated Capacity: 600 tons per hour
II.A.26	**One (1) Feed Bin**
II.A.27	**One (1) Feeder** Size: 62 Inches Wide
II.A.28	**One (1) Primary Screen** Size: 8' x 20'
II.A.29	**Various Third Plant Conveyors**
II.A.30	**Limestone Grinding Mill** Rated Capacity: 25 Tons per hour
II.A.31	**One (1) Limestone Grinder** Rated Capacity: 25 tons per hour Control Device: Shaking Baghouse
II.A.32	**Two (2) Cyclones** Controls emissions from the Limestone Grinder

II.A.33	**Two (2) Powdered Limestone Storage Silos** Control Device: Baghouse
II.A.34	**Various Grinding Mill Conveyors and Feed Bins**
II.A.35	**Aggregate Wash Plant** Rated Capacity: 400 Tons per hour
II.A.36	**One (1) Wash Plant Feeder** Size: 54 Inches Wide
II.A.37	**One (1) Wet Screen** Size: 8' x 20'
II.A.38	**One (1) Sand Screw** Size: 2' x 54'
II.A.39	**Various Wash Plant Conveyors**
II.A.40	**One (1) Truck-Mix Concrete Batch Plant** Rated Capacity: 100 cubic yards per hour Weigh Hopper Control Device: Baghouse
II.A.41	**Various Cement Storage Silos** Control Device: Bin Vents
II.A.42	**Various Fly Ash Storage Silos** Control Device: Bin Vents
II.A.43	**Various Aggregate Storage Bins**
II.A.44	**Two (2) Hot Water Heaters** Size: 9.9 MMBTU per hour, natural gas fuel or liquefied petroleum gas fuel Size: 4.2 MMBTU per hour, natural gas fuel or diesel fuel - new equipment MACT Subpart JJJJJJ
II.A.45	**One (1) Crusher/Screen Generator/Engine** Power: 900 hp Fuel: Diesel Fuel NSPS applicability: Subpart IIII MACT applicability: Subpart ZZZZ
II.A.46	**One (1) Screen Generator/Engine** Power: 174 hp Fuel: Diesel Fuel NSPS applicability: Subpart IIII MACT applicability: Subpart ZZZZ

II.A.47	**One (1) Emergency Generator** Power: 1,662 hp Fuel: Diesel Fuel NSPS applicability: Subpart IIII MACT applicability: Subpart ZZZZ
II.A.48	**One (1) 500-Gallon Gasoline Storage Tank** MACT Subpart CCCCCC
II.A.49	**One (1) 1,000-Gallon Diesel Storage Tank**
II.A.50	**One (1) 10,000-Gallon Diesel Storage Tank**
II.A.51	**One (1) 12,000-Gallon Diesel Storage Tank**
II.A.52	**One (1) 6,000-Gallon Diesel Storage Tank**
II.A.53 NEW	**One (1) 15,000-Gallon Diesel Storage Tank**
II.A.54	**Various Welding Equipment** Welding Rods

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. **(New or Modified conditions are indicated as "New" in the Outline Label):**

II.B REQUIREMENTS AND LIMITATIONS

II.B.1	**The Limestone, Aggregate, and Concrete Facility shall be subject to the following:**
II.B.1.a	The owner/operator shall not produce more than 200,000 tons of bankrun material per rolling 12-month total. [R307-401]
II.B.1.a.1 NEW	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Records of production shall be kept for all periods when the plant is in operation. All bank-run material shall be weighed and accounted for prior to leaving the Pelican Point Site. Amount of material produced shall be determined by scale house records. The records of production shall be kept on a daily basis. [R307-401]
II.B.1.b	Unless otherwise specified in this AO, the owner/operator shall not allow visible emissions from any source on site to exceed 20 percent opacity. [R307-305]
II.B.1.b.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]
II.B.2	**All Bulldozing Operations on site shall be subject to the following:**

II.B.2.a	The hours of operation for all bulldozers at the facility shall not exceed 28,000 hours combined per rolling 12-month period. [R307-401]
II.B.2.a.1 NEW	To determine compliance with a rolling 12-month total, 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 hours of operation of each bulldozer shall be added together to determine the total hours. Hours of operation shall be determined by supervisor monitoring and maintaining of an operations log. [R307-401]
II.B.3	**All Paved Haul Roads on site shall be subject to the following:**
II.B.3.a	The owner/operator shall pave the haul road from the site entrance to the grinding mill with concrete or asphalt. [R307-401]
II.B.3.b	The owner/operator shall vacuum sweep and flush with water all the paved haul roads on site to maintain opacity limits listed in this 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 with snow or ice, the owner/operator may stop vacuum sweeping the paved haul roads and flushing the paved haul roads with water. [R307-401]
II.B.3.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]
II.B.4	**All Unpaved Haul Roads on site shall be subject to the following:**
II.B.4.a	The owner/operator shall cover all unpaved haul roads from the paved haul road to the concrete batch plant and the aggregate wash plant with road-base material. [R307-401]
II.B.4.b	The owner/operator shall use water application on all unpaved haul roads and wheeled-vehicle operational areas on site. Water application shall be of sufficient frequency to maintain the opacity limits listed in this AO. If the temperature is below freezing, the owner/operator may stop applying water to the unpaved haul roads and wheeled-vehicle operational areas. [R307-401]
II.B.4.b.1 NEW	Records of 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. [R307-401]
II.B.5	**All Drilling and Blasting Operations on site shall be subject to the following:**

II.B.5.a	The owner/operator shall install and use a shroud on all aggregate drills when drilling to control fugitive emissions. [R307-401]
II.B.5.b	The owner/operator shall not blast more than 188 blasts per rolling 12-month period. [R307-401]
II.B.5.b.1 NEW	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Number of blasts shall be determined by supervisor monitoring and maintaining of an operations log. [R307-401]
II.B.5.c	The owner/operator shall not use more than 1,340 tons of explosives per rolling 12-month period. [R307-401]
II.B.5.c.1 NEW	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Amount of explosives used shall be determined by purchasing records or maintaining an operations log. [R307-401]
II.B.6	**All Haul Roads and Sources of Fugitive Dust on site shall be subject to the following:**
II.B.6.a NEW	The owner/operator shall comply with a fugitive dust control plan acceptable to the Director for control of all dust sources associated with the Pelican Point Limestone, Aggregate, and Concrete Batch Plant. [R307-309]

II.B.6.a.1 NEW	The fugitive dust control plan shall, at a minimum, address the following specific control strategies: Blasting Operations 1. Blasting during low wind events 2. Conducting blasting in a manner to prevent over-shoot 3. Maximize hole depth to decrease surface area affected by blasting Bulldozing 1. Minimizing drop distance 2. Minimizing activities during extreme meteorological conditions (i.e. high wind events) 3. Adding moisture to control visible emissions Storage Piles 1. Maintaining moisture in storage piles 2. Minimizing drop distance from conveyors to storage piles 3. Minimizing activities during windy meteorological conditions Exposed Areas 1. Maintaining moisture in exposed areas 2. Other stabilization methods in exposed areas 3. Methods to ensure exposed areas are not re-disturbed by on-site equipment Haul Roads 1. Minimizing the haul road length 2. Minimizing vehicle miles traveled on the haul roads 3. Regularly scheduled maintenance. [R307-401]
II.B.6.b	The owner/operator shall not allow visible emissions from haul roads and fugitive dust sources to exceed 20 percent opacity on site and 10 percent at the property boundary. [R307-309]
II.B.6.b.1	Visible emission determinations for fugitive dust emissions from haul-road traffic and mobile equipment in operational areas shall use procedures similar to Method 9. The normal requirement for observations to be made at 15-second intervals over a six-minute period, however, shall not apply. Visible emissions shall be measured at the densest point of the plume but at a point not less than 1/2 vehicle length behind the vehicle and not less than 1/2 the height of the vehicle. [R307-309]
II.B.6.c	The owner/operator shall install water sprays on all conveyor drop points on site. The owner/operator shall apply water from conveyor sprays and water trucks to all storage piles on site to control fugitive emissions. Sprays shall operate as required to ensure the opacity limits listed in this AO are not exceeded. The owner/operator may stop spraying the storage piles with water if the temperature is below freezing. [R307-401]
II.B.6.d NEW	The owner/operator shall comply with all applicable requirements of R307-309 for Fugitive Emission and Fugitive Dust sources on site. [R307-309]
II.B.7	**The Main Aggregate Processing Plant shall be subject to the following:**

II.B.7.a	The main aggregate processing plant shall not produce more than 3,000,000 tons of aggregate and sand combined per rolling 12-month period. [R307-401]
II.B.7.a.1 NEW	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Records of production shall be kept for all periods when the plant is in operation. Production shall be determined by belt scale records. The records of production shall be kept on a daily basis. [R307-401]
II.B.8	**The Second Aggregate Processing Plant shall be subject to the following:**
II.B.8.a	The second aggregate processing plant shall not produce more than 600,000 tons of aggregate and sand combined per rolling 12-month period. [R307-401]
II.B.8.a.1 NEW	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Records of production shall be kept for all periods when the plant is in operation. Production shall be determined by belt scale records. The records of production shall be kept on a daily basis. [R307-401]
II.B.9	**The Third Aggregate Processing Plant shall be subject to the following:**
II.B.9.a	The third aggregate processing plant on site shall not produce more than 400,000 tons of aggregate and sand combined per rolling 12-month period. [R307-401]
II.B.9.a.1 NEW	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Records of production shall be kept for all periods when the plant is in operation. Production shall be determined by belt scale records. The records of production shall be kept on a daily basis. [R307-401]
II.B.10	**The Limestone Grinding Mill shall be subject to the following:**
II.B.10.a	The limestone grinding mill shall not produce more than 70,000 tons of ground limestone per rolling 12-month period. [R307-401]
II.B.10.a.1 NEW	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Records of production shall be kept for all periods when the plant is in operation. Production shall be determined by belt scale records. The records of production shall be kept on a daily basis. [R307-401]
II.B.10.b NEW	A manometer or magnehelic pressure gauge shall be installed to measure the differential pressure across all of the grinding mill baghouses. Static pressure differential across the fabric filter shall be between one and six inches of water column. The pressure gauge shall be located such that an inspector/operator can safely read the indicator at any time. The reading shall be accurate to within plus or minus 1.0 inch water column. The instrument shall be calibrated according to the manufacturer's instructions at least once every year. Continuous or intermittent recording of the reading is not required. [R307-401-8]
II.B.11	**The Aggregate Wash Plant shall be subject to the following:**

II.B.11.a	The aggregate washing and screening plant shall not process more than 600,000 tons of aggregate material per rolling 12-month period. [R307-401]
II.B.11.a.1 NEW	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Records of processing shall be kept for all periods when the plant is in operation. Amount of material processed shall be determined by belt scale records. The records of processing shall be kept on a daily basis. [R307-401]
II.B.11.b	The owner/operator shall not allow any visible emissions from the wet screening operation or any conveyor on site that processes saturated material. [40 CFR 60 Subpart OOO]
II.B.12	**The Truck-Mix Concrete Batch Plant shall be subject to the following:**
II.B.12.a	The truck mix concrete batch plant shall not produce more than 200,000 cubic yards of concrete per rolling 12-month period. [R307-401]
II.B.12.a.1 NEW	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Records of production shall be kept for all periods when the plant is in operation. Production shall be determined by scale house records. The records of production shall be kept on a daily basis. [R307-401]
II.B.12.b NEW	A manometer or magnehelic pressure gauge shall be installed to measure the differential pressure across all of the grinding mill baghouses. Static pressure differential across the fabric filter shall be between one and six inches of water column. The pressure gauge shall be located such that an inspector/operator can safely read the indicator at any time. The reading shall be accurate to within plus or minus 1.0 inch water column. The instrument shall be calibrated according to the manufacturer's instructions at least once every year. Continuous or intermittent recording of the reading is not required. [R307-401-8]
II.B.12.c	The owner/operator shall install bin vents on all material storage silos associated with the concrete batch plant. Displaced air from the silos shall pass through the bin vents before being vented to the atmosphere. [R307-401]
II.B.12.d NEW	The owner/operator shall not allow visible emissions from any baghouse or bin vent associated with the concrete batch plant to exceed 7% opacity. [R307-312-4]
II.B.13 NEW	**The Hot Water Heaters shall be subject to the following:**
II.B.13.a NEW	The owner/operator shall not operate the hot water heaters more than 4,380 hours combined per rolling 12-month period. [R307-401]
II.B.13.a.1 NEW	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Hours of operation shall be determined by supervisor monitoring and maintaining of an operations log. [R307-401]

II.B.13.b NEW	The owner/operator shall use natural gas or liquefied petroleum gas as fuel in the 9.9 MMBtu/hr water heater. The owner/operator shall use natural gas or diesel as fuel in the 4.2 MMBtu/hr water heater. [R307-401]
II.B.13.c NEW	The owner/operator shall not allow visible emissions from the hot water heaters to exceed 10 percent opacity. [R307-401]
II.B.14	**The 174 hp Screen Generator shall be subject to the following:**
II.B.14.a	The screen generator shall not exceed 2,400 hours of operation combined per rolling 12-month period. [R307-401]
II.B.14.a.1 NEW	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Hours of operation shall be determined by supervisor monitoring and maintaining of an operations log. [R307-401]
II.B.15	**The 900 hp Crusher/Screen Generator and the 1,662 Emergency Generator shall be subject to the following:**
II.B.15.a	The crusher/screen generator and the emergency generator shall not exceed 1,508,460 hp-hr of operation combined per rolling 12-month period. [R307-401]
II.B.15.a.1 NEW	To determine compliance with the rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. To determine the total hp-hrs for the facility, the owner/operator shall multiply the horsepower of the engine and the hours of operation for that engine and add the total hp-hrs of all the engines together. Hours of operation shall be determined by supervisor monitoring and maintaining of an operations log. [R307-401]
II.B.16	**All Stationary Engines/Generators on site shall be subject to the following:**
II.B.16.a	The owner/operator shall not allow visible emissions from any stationary diesel engine on site to exceed 20 percent opacity. [R307-305]
II.B.16.b	The owner/operator shall use only #1 diesel fuel in all stationary diesel engines on site. [R307-401]
II.B.16.c NEW	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.16.c.1 NEW	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. [R307-203]
II.B.17	**All Crushers on site shall be subject to the following:**
II.B.17.a NEW	The owner/operator shall not allow visible emissions from any crusher on site to exceed 12% opacity. [40 CFR 60 Subpart OOO, R307-312-4]

II.B.17.b	The owner/operator shall install water sprays on all crushers on site to control fugitive emissions. Sprays shall operate as required to ensure the opacity limits listed in this AO are not exceeded. The owner/operator may stop the water sprays if the temperature is below freezing. [R307-401]
II.B.18	**All Screens on site shall be subject to the following:**
II.B.18.a NEW	The owner/operator shall not allow visible emissions from any screen on site to exceed 7% opacity. [40 CFR 60 Subpart OOO, R307-312-4]
II.B.18.b	The owner/operator shall install water sprays on all screens on site to control fugitive emissions. Sprays shall operate as required to ensure the opacity limits listed in this AO are not exceeded. The owner/operator may stop the water sprays if the temperature is below freezing. [R307-401]
II.B.19	**All Conveyors on site shall be subject to the following:**
II.B.19.a NEW	The owner/operator shall not allow visible emissions from any conveyor transfer point on site to exceed 7% opacity. [40 CFR 60 Subpart OOO, R307-312-4]
II.B.19.b	The owner/operator shall not allow visible emissions from any conveyor drop point on site to exceed 20 percent opacity. [R307-309]
II.B.19.c	The owner/operator shall install water sprays on all unenclosed conveyor transfer points on site to control fugitive emissions. Sprays shall operate as required to ensure the opacity limits listed in this AO are not exceeded. The owner/operator may stop the water sprays if the temperature is below freezing. [R307-401]
II.B.20	**All Bin Vents and Baghouses associated with the aggregate processing plants and the limestone grinding mill shall be subject to the following:**
II.B.20.a	The owner/operator shall not allow visible emissions from any baghouse or bin vent associated with the aggregate processing plants and the limestone grinding mill to exceed 7 percent opacity. [40 CFR 60 Subpart OOO]
II.B.20.b	The owner/operator shall control emissions from the material storage silos on site by passing all displaced air from the storage silos through a baghouse or bin vent before being vented to the atmosphere. [R307-401]
II.B.21	**All Crushers, Grinding Mills, Screens, Conveyors, and Storage Bins on site shall be subject to the following:**
II.B.21.a	Initial visible observations of opacity shall be conducted for all crushers, grinding mills, screens, conveyor transfer points, and storage bin vents/stacks on site. Observations shall meet the opacity limitations listed in this AO. [40 CFR 60 Subpart OOO]
II.B.21.a.1	Initial visible emission observations of opacity shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9. Initial visible emission observations shall consist of 30 observations of six minutes each in accordance with 40 CFR 60.11(b). The duration of observations may be reduced to comply with 40 CFR 60.675(c)(3) or 40 CFR 60.675(c)(4). A certified observer must be used for these observations. [40 CFR 60 Subpart OOO]

PERMIT HISTORY

When issued, the approval order shall supersede (if a modification) or will be based on the following documents:

Supersedes	DAQE-AN108430010-15 dated December 8, 2015
Is Derived From	NOI dated June 5, 2020
Incorporates	Modeler's memorandum issued. dated March 15, 2021

REVIEWER COMMENTS

1. **Comment regarding Emissions Estimates:**

Water Heater

All emissions from the 4.2 MMBtu/hr water heater were estimated using emission factors in AP-42, 5th Edition, Section 1.3.

Diesel Storage Tank

VOC emissions from the 15,000-gallon diesel storage tank were estimated using the EPA's TANKS 4.09.d program. [Last updated April 28, 2021]

2. **Comment regarding Federal Applicability (NSPS, MACT):**

NSPS (40 CFR 60)

40 CFR 60 Subpart Dc applies to owners and operators of small industrial-commercial-institutional steam generating units between 100 MMBtu/hr and 10 MMBtu/hr. This steam generating units are less than 10 MMBtu/hr; therefore, NSPS Subpart Dc won't apply to this site.

40 CFR 60 Subpart Kb is the Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984. Vessels with a design capacity less than or equal to 75 m3 (19,813 gallons) with a vapor pressure of less than 15.0 kPa, used for petroleum or condensate stored, processed, or treated prior to custody transfer. The largest storage tank on site has a capacity of 15,000 gallons (56.78 m3). Therefore, this subpart does not apply to this facility because each of the diesel storage tanks has a capacity of less than 75 m3.

40 CFR Part 60 Subpart OOO applies to select equipment at nonmetallic mineral processing plants that commenced construction, modification, or reconstruction after August 31, 1983. The screens, crushers, and transfer/drop points (conveyors, stackers, feed bins) at this facility are subject to 40 CFR Part 60 Subpart OOO.

40 CFR 60) Subpart IIII, the Standards for Performance for Stationary Compression Ignition Internal Combustion Engine (CI ICE), applies to owners and operators of stationary CI ICE that commenced construction after July 11, 2005, where the stationary CI ICE are manufactured are manufactured after April 1, 2006. The three diesel engines commenced construction after July 11, 2005. Therefore, NSPS Subpart IIII applies to this source.

MACT (40 CFR 63)

40 CFR 63 Subpart ZZZZ applies to owners and operators of stationary internal combustion engines (RICE) at an area source of HAP emissions. Therefore, MACT Subpart ZZZZ applies to this facility.

40 CFR 63 Subpart CCCCCC applies to owners and operators of gasoline storage tanks

manufactured after November 9, 2006. The gasoline storage capacity is 500 gallons. The monthly throughput of gasoline at the Pelican Pt. site is less than 10,000 gallons/month. The requirement is that the vapor emissions are minimized and the source shall provide documentation of monthly gasoline throughput, made available within 24 hours of a records request.

40 CFR Subpart JJJJJJ applies to the owners and operators of area source boilers using coal, biomass or oil as fuel. The asphaltic oil heaters are fired with diesel fuel, this is an area source, rated at 5 MMBtu/hr or less, and it operates more than 48 hrs/yr. Subpart JJJJJJ applies to this source. [Last updated May 12, 2021]

3. **Comment regarding Title V Requirements:**
Title V of the 1990 Clean Air Act (Title V) applies to the following:

1. Any major source
2. Any source subject to a standard, limitation, or other requirement under Section 111 of the Act, Standards of Performance for New Stationary Sources;
3. Any source subject to a standard or other requirement under Section 112 of the Act, Hazardous Air Pollutants.
4. Any Title IV affected source.

This facility is not a major source and is not a Title IV source. The facility is subject to 40 CFR 60 (NSPS) and 40 CFR 63 (MACT) regulations. The facility is not subject to 40 CFR 61 (NESHAP) regulations. 40 CFR part 70 (Title V permit) applies due to NSPS Subpart OOO however, an application for a Title V permit is not required as per R307-415-5a(3)(c). [Last updated May 11, 2021]

4. **Comment regarding Equipment Requirements:**
The 4.2 MMBtu/hr heater and the 15,000 gallon diesel storage tank were already present on site, but unlisted in the equipment list. These were discovered by a DAQ compliance inspector and these equipment items are now included in the current NOI. [Last updated May 25, 2021]

5. **Comment regarding Changes in $PM_{10}/PM_{2.5}$ Emissions:**
The 4,380 hrs/yr are for the 9.9 MMBtu/hr and the 4.2 MMBtu/hr boilers combined use. These 4,380 hrs of operation were used to estimate the criteria and HAP emissions associated with each boiler individually and then were tabulated with the highest emissions for each one represented in the emission calculations.

The 4.2 MMBtu/hr has an increase in the $PM_{10}/PM_{2.5}$ emission factor for the new boiler, compared to the 9.9 MMBtu/hr emission factor. The reason for this is the 9.9 MMBtu/hr boiler is fired on LPG and the 4.2 MMBtu/hr MMBtu/hr boiler is fired on diesel. Therefore, the emissions are greater in the new boiler. The 4.2 MMBtu/hr has an increase of $PM_{10}/PM_{2.5}$ emissions of 0.06 tpy. [Last updated June 9, 2021]

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 EPA 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 - 40 CFR 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 UDAQ use
EPA	Environmental Protection Agency
FDCP	Fugitive dust control plan
GHG	Greenhouse Gas(es) - 40 CFR 52.21 (b)(49)(i)
GWP	Global Warming Potential - 40 CFR Part 86.1818-12(a)
HAP or HAPs	Hazardous air pollutant(s)
ITA	Intent to Approve
LB/HR	Pounds per hour
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