



## State of Utah

GARY R. HERBERT  
*Governor*

SPENCER J. COX  
*Lieutenant Governor*

## Department of Environmental Quality

Alan Matheson  
*Executive Director*

DIVISION OF AIR QUALITY  
Bryce C. Bird  
*Director*

DAQE-IN144290005-19

May 24, 2019

LeeAnn Diamond  
Peak Minerals Inc., dba Crystal Peak Minerals  
2150 South 1300 East, Suite 550  
Salt Lake City, UT 84106

Dear Ms. Diamond:

Re: Intent to Approve: New Approval Order for the Sevier Playa Potash Project  
Project Number: N14429-0005

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

Future correspondence on this ITA should include the engineer's name, **Ms. Catherine Wyffels**, as well as the DAQE number as shown on the upper right-hand corner of this letter. Ms. Catherine Wyffels, can be reached at (801) 536-4232 or cwyffels@utah.gov, if you have any questions.

Sincerely,

Jon L. Black, Manager  
New Source Review Section

JLB:CW:sa

cc: Central Utah Health Department



**STATE OF UTAH**  
**Department of Environmental Quality**  
**Division of Air Quality**

**INTENT TO APPROVE:**  
**Approval Order DAQE-IN144290005-19**  
**New Approval Order for the Sevier Playa Potash Project**

**Prepared By:**  
**Ms. Catherine Wyffels, Engineer**  
**Phone: (801) 536-4232**  
**Email: cwyffels@utah.gov**  
**Date: May 24, 2019**

**Issued to:**  
**Peak Minerals Inc., dba Crystal Peak Minerals**  
**Sevier Playa Potash Project**

**New Source Review Section Manager:**  
**Jon L. Black**



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## **GENERAL INFORMATION**

**Owner Name:**

Peak Minerals Inc., dba Crystal Peak Minerals

**Source Name:**

Crystal Peak Minerals - Sevier Playa Potash Project

**Mailing Address:**

2150 South 1300 East, Suite 550  
Salt Lake City, UT 84106

**Physical Address:**

Sevier Playa Lakeview Yard  
36200 West Crystal Peak Spur Road  
Delta, UT 84624

**Source Contact:**

Name: LeeAnn Diamond  
Phone: (801) 485-0223  
Email: ldiamond@crystalpeakminerals.com

**UTM Coordinates:**

UTM: 314,505 m Easting  
UTM: 4,313,105 m Northing  
UTM Datum: NAD83  
UTM Zone: UTM Zone 12

**SIC code:** 1474 (Potash, Soda, & Borate Minerals)

## **SOURCE DESCRIPTION**

**Source Activity**

Peak Minerals Inc., dba Crystal Peak Minerals (CPM), is requesting approval to construct and operate a potash mining project, the Sevier Playa Potash Project, in Millard County. CPM will produce approximately 372,000 TPY of potash in the form of potassium sulfate ( $K_2SO_4$ ), also known as sulfate of potash (SOP), and other associated minerals from salts present in the brines of the playa. The site will be located on 118,000 acres of land administered by the Bureau of Land Management (BLM) and approximately 6,400 acres of state lands administered by Utah School and Institutional Trust Lands Administration. CPM controls through agreement the right to develop and operate potassium and potash mineral leases on this site. The site will consist of the following major features: 1) brine extraction system consisting of canals, trenches, and wells; 2) recharge system consisting of canals and trenches; 3) evaporation ponds consisting of preconcentration and production ponds; 4) Waste Product Storage Area; and 5) Processing Facility and Rail Loadout Facility. Brines will be extracted from below the surface of the Sevier Playa and concentrated by solar evaporation in a series of preconcentration ponds. The potassium-rich salts precipitated in the production ponds will be harvested and transported to a Processing Facility, where the salts will be processed to produce SOP, as well as other associated mineral products. The Rail Loadout Facility will receive SOP from the Processing Facility for storage, screening, and loading for off-site shipment.

**NSR Classification**

New Minor Source

**Source Classification**

Located in: Attainment Area  
County: Millard  
Airs Source Size: CDS SM

**Applicable Federal Standards**

NSPS (Part 60), A: General Provisions

NSPS (Part 60), IIII: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

MACT (Part 63), A: General Provisions

MACT (Part 63), ZZZZ: NESHAP for Stationary Reciprocating Internal Combustion Engines

**PROJECT PROPOSAL**

New AO for the Sevier Playa Potash Project

**SUMMARY OF EMISSIONS**

The emissions listed below are an estimate of the total potential emissions from the source. Some rounding of emissions is possible.

<b>Criteria Pollutant</b>	<b>Change (TPY)</b>	<b>Total (TPY)</b>
CO <sub>2</sub> Equivalent	0	25881.00
Carbon Monoxide	0	97.35
Nitrogen Oxides	0	25.72
Particulate Matter - PM <sub>10</sub>	0	170.74
Particulate Matter - PM <sub>10</sub> (Fugitives)	0	115.56
Particulate Matter - PM <sub>2.5</sub>	0	52.03
Particulate Matter - PM <sub>2.5</sub> (Fugitives)	0	15.67
Sulfur Dioxide	0	0.16
Volatile Organic Compounds	0	6.22

<b>Hazardous Air Pollutant</b>	<b>Change (lbs/yr)</b>	<b>Total (lbs/yr)</b>
Acetaldehyde (CAS #75070)	0	107
Acrolein (CAS #107028)	0	14
Benzene (Including Benzene From Gasoline) (CAS #71432)	0	187
Formaldehyde (CAS #50000)	0	169
Generic HAPs (CAS #GHAPS)	0	68
Toluene (CAS #108883)	0	83
Xylenes (Isomers And Mixture) (CAS #1330207)	0	58
	<b>Change (TPY)</b>	<b>Total (TPY)</b>
Total HAPs	0	0.34

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

### **ITA DISCLAIMER**

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

A 30-day public comment period will be held in accordance with UAC R307-401-7. A notification of the ITA will be published in the Millard County Chronicle Progress on May 29, 2019. During the public comment period, the proposal and the evaluation of its impact on air quality will be available for the public to review and provide comment. If anyone so requests a public hearing within 15 days of publication, it will be held in accordance with UAC R307-401-7. The hearing will be held as close as practicable to the location of the source. Any comments received during the public comment period and the hearing will be evaluated. The proposed conditions of the AO may be changed as a result of the comments received.

### **SECTION I: GENERAL PROVISIONS**

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

I.1	All definitions, terms, abbreviations, and references used in this AO conform to those used in the UAC R307 and 40 CFR. Unless noted otherwise, references cited in these AO conditions refer to those rules. [R307-101]
I.2	The limits set forth in this AO shall not be exceeded without prior approval. [R307-401]
I.3	Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved. [R307-401-1]
I.4	All records referenced in this AO or in other applicable rules, which are required to be kept by the owner/operator, shall be made available to the Director or Director's representative upon request, and the records shall include the two (2)-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 start-up, 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 every 18 months from the date of this AO until construction is completed to demonstrate reasonable construction progress. This AO may become invalid if construction is not commenced within 18 months from the date of this AO or if construction is discontinued for 18 months or more. To ensure proper credit when notifying the Director, send the documentation to the Director, attn.: NSR Section. [R307-401-18]



## **SECTION II: PERMITTED EQUIPMENT**

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

### **II.A      THE APPROVED EQUIPMENT:**

II.A.1	<b>Sevier Playa Potash Project</b>
II.A.2	<b>PROCESSING FACILITY</b> Items II.A.3 through II.A.13
II.A.3	<b>Fluid Bed Dryer</b> Heat Input Rating: 8.5 MMBtu/hr Fuel: Propane Control: Main Dryer Baghouse
II.A.4	<b>Glazing Fluid Bed Dryer</b> Heat Input Rating: 8.5 MMBtu/hr Fuel: Propane Control: Glazing Dryer Baghouse
II.A.5	<b>Compaction Baghouse (400-FL-001)</b> Flow Rate: 30,000 acfm Description: Controls emissions from all compaction operations including crushers, screens, and material handling (conveyors, bucket elevators, magnetic chutes, diverters, compactor, flake breaker, and bin)
II.A.6	<b>Main Dryer Baghouse (410-FL-001)</b> Flow Rate: 20,000 acfm Description: Controls emissions from the Fluid Bed Dryer
II.A.7	<b>Glazing Dryer Baghouse (430-FL-001)</b> Flow Rate: 19,000 acfm Description: Controls emissions from drop points, conveyors, chute, bucket elevator, and the Glazing Fluid Bed Dryer
II.A.8	<b>Loadout Silo #1 Baghouse (440-DS-001)</b> Flow Rate: 1,500 acfm Description: Controls emissions from loadout silo
II.A.9	<b>Loadout Silo #2 Baghouse (440-DS-002)</b> Flow Rate: 1,500 acfm Description: Controls emissions from loadout silo
II.A.10	<b>MOP Silo Dust Collector (380-DC-804)</b> Flow Rate: 349 acfm Description: Controls MOP silo
II.A.11	<b>Bagging Plant Buffer Silo Baghouse (460-DS-605)</b> Flow Rate: 1,500 acfm Description: Controls bagging operations, such as conveyors, silo, bucket elevator, and bagging filling station

II.A.12	<b>Material Handling Equipment</b> Various material handling equipment, including conveyors, bucket elevators, chutes, silos, feeder hoppers, diverter, flake breaker, bin, compactor, drum, drier/cooler, filling station, and apron feeder
II.A.13	<b>Screens and Crushers</b> Five (5) screens Four (4) crushers Controlled by Compaction Baghouse and Glazing Dryer Baghouse
II.A.14	<b>RAIL LOADOUT FACILITY</b> Items II.A.15 through II.A.23
II.A.15	<b>Unloading Baghouse (810-DS-001)</b> Flow Rate: 45,000 Description: Controls truck dump hopper, feeder, discharge valve, and belt tripper
II.A.16	<b>Product Bin Vent Filter (820-DS-001)</b> Flow Rate: 125 acfm Description: Controls product transfer to the product bin
II.A.17	<b>Reject Bin Vent Filter</b> Flow Rate: 4 scfm Description: Controls material transfer to the reject bin
II.A.18	<b>Rail Facility Dust Baghouse (820-DS-003)</b> Flow Rate: 10,000 acfm Description: Controls, elevators, conveyors, crusher, and a screen
II.A.19	<b>Loadout Baghouse (820-DS-004)</b> Flow Rate: 2,000 acfm Description: Controls conveyors, retractable chutes, and final sampler
II.A.20	<b>Storage Baghouse (830-DS-001)</b> Flow Rate: 1,200 acfm Description: Controls conveyors, diverter gate, and belt tripper
II.A.21	<b>Recovery Baghouse (830-DS-002)</b> Flow Rate: 2,000 acfm Description: Controls conveyor and elevator
II.A.22	<b>Material Handling Equipment</b> Various material handling equipment, such as conveyors, bucket elevators, drum hopper, recovery feeder, rotary discharge valve, belt tripper, diverter, final sampler, bins, diverter gate, belt feeders, chutes, and hopper recovery feeder
II.A.23	<b>Screen (820-SN-001) and Crusher (820-CR-001)</b> Controlled by Rail Facility Dust Baghouse
II.A.24	<b>OTHER FACILITY-WIDE EQUIPMENT</b> Items II.A.25 through II.A.36
II.A.25	<b>Generator Set 1</b> Quantity: Six (6) Rating: 27 hp each Fuel: Diesel

II.A.26	<b>Generator Set 2</b> Quantity: Two (2) Rating: 80 hp each Fuel: Diesel
II.A.27	<b>Generator Set 3</b> Quantity: One (1) Rating: 201 hp Fuel: Diesel
II.A.28	<b>Generator Set 4</b> Quantity: Two (2) Rating: 268 hp each Fuel: Diesel
II.A.29	<b>Generator Set 5</b> Quantity: One (1) Rating: 402 hp Fuel: Diesel
II.A.30	<b>Generator Set 6</b> Quantity: One (1) Rating: 335 hp Fuel: Diesel
II.A.31	<b>Generator Set 7</b> Quantity: Two (2) Rating: 670 hp each Fuel: Diesel
II.A.32	<b>Generator Set 8</b> Quantity: One (1) Rating: 34 hp Fuel: Diesel
II.A.33	<b>Generator Set 9</b> Quantity: One (1) Rating: 436 hp Fuel: Diesel
II.A.34	<b>Fire Pump Engines</b> Quantity: One (1) Rating: 100 hp Fuel: Diesel
II.A.35	<b>Emergency Generator Engines</b> Quantity: Two (2) Rating: 1,577 hp each Fuel: Diesel
II.A.36	<b>Supporting Equipment</b> Supporting equipment including diesel dispensing facility, diesel storage tanks

## **SECTION II: SPECIAL PROVISIONS**

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

### **II.B REQUIREMENTS AND LIMITATIONS:**

II.B.1	<b><u>Site-Wide Requirements</u></b>
II.B.1.a	The owner/operator shall not produce more than 372,000 tons of SOP and other associated minerals per rolling 12-month period. [R307-401-8]
II.B.1.a.1	Compliance with the production limitation shall be determined on a rolling 12-month total. A new 12-month total shall be calculated using data from the previous 12 months. Monthly calculations shall be made no later than 20 days after the end of each calendar month. Records of production shall be kept for all periods when the plant is in operation. Production shall be determined by examination of production records, which will be maintained by CPM and housed in the administrative offices onsite. The records of production shall be kept on a daily basis. [R307-401-8]
II.B.1.b	Unless otherwise specified in this AO, visible emissions from any stationary and fugitive dust source shall not exceed 20% opacity. [R307-401-8]
II.B.1.b.1	Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9. [R307-205]
II.B.1.c	The owner/operator shall comply with the latest version of the FDCP approved by the Director. The FDCP shall address the control of all fugitive dust sources at this source. [R307-401-8]
II.B.2	<b><u>Haul Road and Disturbed Areas Requirements</u></b>
II.B.2.a	Visible emissions in disturbed areas and unpaved haul roads from haul trucks and mobile equipment and windblown dust in operational areas shall not exceed 20% opacity at any point. [R307-205-4, R307-401-8]
II.B.2.a.1	Visible emission determinations for fugitive dust from operational disturbed areas shall use Method 9. However, with respect to emissions from mobile or intermittent sources, the normal requirement for observations to be made at 15-second intervals over a six (6)-minute period shall not apply. Visible emissions shall be observed 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. [R307-201-3, R307-205-4]
II.B.2.b	The owner/operator shall limit disturbed areas to the following:  A. On-Playa Disturbed Areas - 2.25 acres per day  B. Production Ponds Disturbed Areas - 1.86 acres per day  [R307-401-8]
II.B.2.b.1	To determine compliance with the maximum daily limits for disturbed areas, the owner/operator shall perform daily visual inspections. Records of daily visual inspections shall be maintained for all periods when the plant is in operation. The Director may require a survey of disturbed areas at any time. [R307-401-8]
II.B.2.b.2	Disturbed areas include berms, playa surfaces, and all areas disturbed by operational activities, such as bulldozing, scraping, grading, etc. [R307-401-8]

II.B.2.c	Vehicles speeds shall not exceed 30 miles per hour on haul roads and 15 miles per hour in off-road areas. The vehicle speed limits shall be clearly visible and posted, at a minimum, on site at the entrance to off-road areas and the beginning of the haul road. [R307-401-8]
II.B.2.d	<p>All operational disturbed areas and haul roads shall be sprayed with water, brine, or a chemical suppressant to control fugitive dust and maintain the opacity limit listed in this AO. The owner/operator may stop applying water when the temperature is below freezing or when the area is wet from precipitation. Records of water and/or chemical treatment shall be kept for all periods when the plant is in operation. The records shall include the following items:</p> <p>A. Date</p> <p>B. Location of treatment</p> <p>C. Rainfall received, if any, and approximate amount</p> <p>D. Records of temperature if the temperature is below freezing</p> <p>[R307-401-8]</p>
II.B.3	<b><u>Material Handling and Processing Equipment Requirements</u></b>
II.B.3.a	All material handling and processing equipment used for non-slurried material shall be controlled by baghouses, full enclosures, or partial enclosures. All material handling and processing equipment not controlled by baghouses shall be controlled by enclosed or partially-enclosed structures or located within buildings. Partial enclosures include conveyor covers for conveyors and socks/retractable chutes for transfer points. [R307-401-8]
II.B.3.b	Visible emissions from material handling and processing equipment located outdoors shall not exceed 20% opacity. [R307-401-8]
II.B.3.b.1	Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9. [R307-205-4, R307-401-8]
II.B.3.c	The owner/operator shall allow no visible emissions from tailings material stored at the Waste Product Storage Area. [R307-401-8]
II.B.4	<b><u>Emergency and Non-Emergency Engine Requirements</u></b>
II.B.4.a	Visible emissions from diesel-fired emergency and non-emergency generator engines shall not exceed 20% opacity. [R307-401-8]
II.B.4.a.1	Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9. [R307-205, R307-401-8]
II.B.4.b	The non-emergency stationary engines shall not operate more than 328 days per rolling 12-month period. [R307-401-8]
II.B.4.b.1	Compliance with the days of operation limitation shall be determined on a rolling 12-month total. A new 12-month total shall be calculated using data from the previous 12 months. Monthly calculations shall be made no later than 20 days after the end of each calendar month. Records of days of operation shall be kept on a daily basis for all periods when the plant is in operation. Days of operation shall be determined by supervisor monitoring and maintaining of an operations log. [R307-401-8]

II.B.4.c	Each emergency generator engine shall not exceed 100 hours of operation for testing and maintenance per rolling 12-month period. The 100 hours of operation for testing and maintenance purposes may include up to 50 hours per calendar year for operation in non-emergency situations as provided in 40 CFR 60.4211(f). [40 CFR 60 Subpart III, R307-401-8]
II.B.4.c.1	<p>Compliance with the limit of the hours of operation shall be determined by installation of an hour meter on the emergency generator engine or by recording hours of operation in an operations log. Records documenting the operation of the emergency generator engine shall be kept in a log and shall include the following:</p> <ul style="list-style-type: none"> <li>A. The date the emergency generator engine was used</li> <li>B. The duration of operation each day in hours, and</li> <li>C. The reason for the emergency generator engine usage</li> </ul> <p>[R307-401-8]</p>
II.B.4.c.2	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. [R307-401-8]
II.B.4.d	The owner/operator shall install emergency and non-emergency generator engines certified to meet Tier 4 emission standards. [R307-401-8]
II.B.4.d.1	The owner/operator shall keep a record of the manufacturer's emission rate certification for the life of the equipment. [R307-401-8]
II.B.5	<b><u>Baghouse Requirements</u></b>
II.B.5.a	<p>Visible emissions from baghouses shall not exceed the following opacity limits:</p> <ul style="list-style-type: none"> <li>A. Main Dryer Baghouse - 10%</li> <li>B. Glazing Dryer Baghouse - 10%</li> <li>C. All Other Baghouses - 7%</li> </ul> <p>[R307-401-8]</p>
II.B.5.a.1	Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9. [R307-205, R307-401-8]
II.B.5.b	Each baghouse shall operate within the static pressure range recommended by the manufacturer for normal operations. Manometer or magnehelic pressure gauges shall be installed to measure the differential pressure across each of the baghouses. The monitoring device shall be accurate within plus or minus one (1) inch of water column. The pressure gauges shall be located such that an inspector/operator can safely read the indicator at any time. [R307-401-8]

II.B.5.b.1	<p>Pressure drop readings shall be recorded at least once during each week of operation. Records documenting these inspections shall be kept in a log and shall include the following:</p> <p>A. Unit identification</p> <p>B. Manufacturer-recommended pressure drop for the unit</p> <p>C. Weekly pressure drop readings, and</p> <p>D. Date of bag replacement, if applicable</p> <p>[R307-401-8]</p>																		
II.B.5.b.2	<p>The instrument shall be calibrated in accordance with the manufacturer's instructions or recommendations. Documentation of calibrations shall be maintained. [R307-401-8]</p>																		
II.B.5.c	<p>Emissions of each PM<sub>10</sub> and PM<sub>2.5</sub> from the baghouses to the atmosphere shall not exceed the following rates and concentrations, based on an average of three (3) test runs:</p> <p><u>Processing Facility Baghouses PM<sub>10</sub> and PM<sub>2.5</sub></u></p> <table><tr><td>Emission Point</td><td>Emission Rate (lb/hr) 68°F, 29.92 in Hg</td><td>Concentration (grains/dscf)</td></tr><tr><td>Compaction Baghouse</td><td>1.29**</td><td>0.005**</td></tr><tr><td>Main Dryer Baghouse</td><td>1.71*</td><td>0.010*</td></tr><tr><td>Glazing Dryer Baghouse</td><td>1.63*</td><td>0.010*</td></tr></table> <p>*Includes both filterable and condensable particulates **Includes filterable particulates only</p> <p><u>Rail Loading Baghouses PM<sub>10</sub> and PM<sub>2.5</sub></u></p> <table><tr><td>Emission Point</td><td>Emission Rate (lb/hr) 68°F, 29.92 in Hg</td><td>Concentration (grains/dscf)</td></tr><tr><td>Unloading Baghouse</td><td>1.93**</td><td>0.005**</td></tr></table> <p>**Includes filterable particulates only</p> <p>[R307-401-8]</p>	Emission Point	Emission Rate (lb/hr) 68°F, 29.92 in Hg	Concentration (grains/dscf)	Compaction Baghouse	1.29**	0.005**	Main Dryer Baghouse	1.71*	0.010*	Glazing Dryer Baghouse	1.63*	0.010*	Emission Point	Emission Rate (lb/hr) 68°F, 29.92 in Hg	Concentration (grains/dscf)	Unloading Baghouse	1.93**	0.005**
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Unloading Baghouse	1.93**	0.005**																	
II.B.5.c.1	<p>Testing Frequency</p> <p>A. Initial compliance testing is required on all above listed emission sources. The initial test shall be performed as soon as possible and in no case later than 180 days after the start-up of each unit.</p> <p>B. Subsequent compliance tests shall be done on each emission source at least once every five (5) years subsequent to the initial compliance test. The Director may require testing at any time. If an existing source is modified, a compliance test is required on the modified emission point that has an emission rate limit.</p> <p>[R307-401-8]</p>																		

II.B.5.c.2	<p>Notification</p> <p>The Director shall be notified at least 30 days prior to conducting any required emission testing. A source test protocol shall be submitted to DAQ. The source test protocol shall be approved by the Director prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Director. [R307-165]</p>
II.B.5.c.3	<p>Sample Location</p> <p>The emission point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other EPA-approved methods acceptable to the Director. An Occupational Safety and Health Administration (OSHA)- or Mine Safety and Health Administration (MSHA)- approved access shall be provided to the test location. [R307-165]</p>
II.B.5.c.4	<p>Calculations</p> <p>To determine mass emission rates (lb/hr, etc.), the pollutant concentration as determined by the appropriate methods herein shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Director, to give the results in the specified units of the emission limitation. [R307-165]</p>
II.B.5.c.5	<p>New Source Operation</p> <p>For a new source/emission point, the production rate during all compliance testing shall be no less than 90% of the production rate listed in this AO. If the maximum AO allowable production rate has not been achieved at the time of the test, the following procedure shall be followed:</p> <ol style="list-style-type: none"> <li>1) Testing shall be at no less than 90% of the production rate achieved to date.</li> <li>2) If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum allowable production rate. This new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.</li> <li>3) The owner/operator shall request a higher production rate when necessary. Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is successful. This process may be repeated until the maximum AO production rate is achieved.</li> </ol> <p>[R307-165]</p>
II.B.5.c.6	<p>Existing Source Operation</p> <p>For an existing source/emission point, the production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years. [R307-165]</p>
II.B.5.c.7	<p>Volumetric Flow Rate</p> <p>40 CFR 60, Appendix A, Method 2 or other EPA-approved testing methods acceptable to the Director. [R307-165]</p>



II.B.5.c.8	<p>PM<sub>10</sub>/PM<sub>2.5</sub></p> <p>For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a, or other EPA-approved testing method, as acceptable by the Director. The back half condensable particulate emissions shall also be tested (where applicable) using 40 CFR 51, Appendix M Method 202, or other EPA-approved testing method, acceptable to the Director. All particulate captured using Method 202 shall be considered PM<sub>2.5</sub>. The only sources that will emit condensables are the Main Dryer Baghouse and the Glazing Dryer Baghouse.</p> <p>For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, 5i, or other as appropriate. Using Method 5, all filterable particulate emissions shall be considered PM<sub>10</sub>, unless otherwise approved by the Director. The portion of the filterable particulate emissions considered PM<sub>2.5</sub> shall be based on information in Appendix B of the fifth edition of the EPA document, AP-42, or other data acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M Method 202, or other EPA-approved testing method, acceptable to the Director. All particulate captured using Method 202 shall be considered PM<sub>2.5</sub>. [R307-165]</p>
II.B.5.c.9	<p>Reporting</p> <p>The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. [R307-165]</p>
II.B.6	<b><u>Fuels Requirements</u></b>
II.B.6.a	The owner/operator shall use only propane and natural gas as a fuel in the dryers. [R307-401-8]
II.B.6.b	The owner/operator shall only use diesel fuel (fuel oil #1, #2 or diesel fuel oil additives) in the generator engines and off-road equipment. All diesel burned shall meet the definition of ultra-low sulfur diesel (ULSD), and contain no more than 15 ppm sulfur. [R307-401-8]
II.B.6.b.1	To demonstrate compliance with the diesel fuel requirements for any diesel fuel purchased, the owner/operator shall keep and maintain fuel purchase invoices. The fuel purchase invoices shall indicate the diesel fuel meets the ULSD requirements, or the owner/operator shall obtain certification of sulfur content from the fuel supplier. [R307-401-8]
II.B.7	<b><u>Fluid Bed Dryers Requirements</u></b>
II.B.7.a	The owner/operator shall install dryers that are certified to meet a NO <sub>x</sub> emission rate of 25 ppmvd or less. [R307-401-8]
II.B.7.a.1	The owner/operator shall keep a record of the manufacturer's certification of the emission rate for each unit. The record shall be kept for the life of the equipment. [R307-401-8]

### **PERMIT HISTORY**

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

Is Derived From  
Incorporates  
Incorporates  
Incorporates  
Incorporates

NOI dated September 19, 2018  
Additional Information dated January 11, 2019  
Additional Information dated January 25, 2019  
Additional Information dated March 12, 2019  
Additional Information dated May 15, 2019

## ACRONYMS

The following lists commonly used acronyms and associated translations as they apply to this document:

40 CFR	Title 40 of the Code of Federal Regulations
AO	Approval Order
BACT	Best Available Control Technology
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CDS	Classification Data System (used by 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 <sub>2</sub>	Carbon Dioxide
CO <sub>2e</sub>	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/YR	Pounds per year
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 <sub>x</sub>	Oxides of nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review
PM <sub>10</sub>	Particulate matter less than 10 microns in size
PM <sub>2.5</sub>	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 <sub>2</sub>	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