Nevada Department of Conservation and Natural Resources • Division of Environmental Protection

Bureau of Air Pollution Control

901 SOUTH STEWART STREET SUITE 4001
CARSON CITY, NEVADA 89701-5249
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Facility ID No. A2243 *Permit No.* AP1099-4256

CLASS II AIR QUALITY OPERATING PERMIT

Issued to: IONEER USA CORPORATION (HEREINAFTER REFERRED TO AS PERMITTEE)
Mailing Address: 290 GENTRY WAY, SUITE 1, RENO, NV 89502
Driving Directions: FROM TONOPAH, NV FOLLOW US-95 NORTH FOR 40 MILES. TURN LEFT ONTO US-6 WEST FOR 6 MILES. TURN LEFT ON NV-773 AND FOLLOW EMIGRANT PASS ROAD FOR 17 MILES. FACILITY IS LOCATED ON THE LEFT SIDE OF THE ROAD.

General Facility Location:

SECTIONS 19-23, AND 26-35, T 1 S, R 37 E, MDB&M
SECTIONS 2-4, T 2 S, R 37 E, MDB&M
HA 117 – FISH LAKE VALLEY / ESMERELDA COUNTY
NORTH 4,186,716 M, EAST 422,104 M, UTM ZONE 11, NAD 83

Emission Unit List:

A. System 01 - Quarry Primary Crushing Loading (Revised March 2022, Air Case 11118) (Revised DATE 2025, Air Case 12253)

PF1.001	Loading ROM Ore Feed Hopper

B. System 02 - Quarry Primary Crushing (Revised March 2022, Air Case 11118) (Revised DATE 2025, Air Case 12253)

PF1.002	ROM Ore Feed Hopper transfer to ROM Ore Apron Feeder via chute Apron Feeder to Primary Sizer Feed Conveyor - Fully Enclosed Primary Sizer and Associated Transfers (In: Primary Sizer Feed Conveyor; Out: Primary Sizer Discharge Conveyor) - Fully Enclosed
PF1.004	Roller Screen 1 and Associated Transfers (In: Primary Sizer Discharge Conveyor; Out: Secondary Sizer and Undersize Discharge Chute) - Fully Enclosed **(Removed DATE 2025, Air Case 12253)**

C. System 03 - Quarry Secondary Crushing (Revised March 2022, Air Case 11118) (Revised DATE 2025, Air Case 12253)

	Secondary Sizer No.1 and Associated Transfers (In: Primary Discharge Conveyor via Secondary Sizer No. 1 Feed Chute; Out: Scalping Screen Feed Conveyor) - Fully Enclosed Secondary Sizer No. 2 and Associated Transfers (In: Primary Discharge Conveyor via Secondary Sizer No. 2 Feed Chute; Out: Scalping Screen Feed Conveyor) - Fully Enclosed Scalping Screen Feed Conveyor to Scalping Screen Feed Hopper - Fully Enclosed
PF1.035	Scalping Screen Feed Hopper transfer to Scalping Screen Feeder **(Added DATE 2025, Air Case 12253)** Scalping Screen and Associated Transfers (In: Scalping Screen Feed Hopper; Out: Scalping Screen Undersize Conveyor or Tertiary Sizer) - Fully Enclosed
PF1.005	Undersize Discharge Chute transfer to Tertiary (Cone) Crusher Feed Conveyor - Fully Enclosed/Saturated **(Removed DATE 2025, Air Case 12253)**
PF1.007	Discharge Chute transfer to Tertiary (Cone) Crusher Feed Conveyor - Fully Enclosed/Saturated **(Removed DATE 2025, Air Case 12253)**
PF1.008	Roller Screen 2 and Associated Transfers (In: Tertiary (Cone) Crusher Feed Conveyor; Out: Tertiary (Cone) Crusher, Vat Feed Tripper Conveyor) - Fully Enclosed/Saturated **(Removed DATE 2025, Air Case 12253)** Tertiary Sizer and Associated Transfers (In: Scalping Screen Undersize Conveyor; Out: Tertiary Sizer Discharge Conveyor) - Fully Enclosed Tertiary Sizer Discharge Conveyor Transfer to Scalping Screen Undersize Conveyor - Fully Enclosed Scalping Screen Undersize Conveyor Transfer to Vat Feed Tripper Conveyor - Fully Enclosed Vat Feed Tripper Conveyor transfer to Vat Loading Transfer Conveyor - Fully Enclosed Vat Loading Transfer Conveyor transfer to Vat Loading Shuttle Conveyor - Fully Enclosed

D. System 04 - Quarry Tertiary Crushing (Revised March 2022, Air Case 11118) (Moved to System 03 DATE 2025, Air Case 12253)

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Emission Unit List: (continued)

E. System 05 - Leaching (Revised March 2022, Air Case 11118) (Moved to System 03 DATE 2025, Air Case 12253)

F. System 06 - Leaching (Revised March 2022, Air Case 11118) (Revised DATE 2025, Air Case 12253)

PF1.012 Vat Loading Shuttle Conveyor transfer to Vat via chutes
PF1.013 Vat Loading Shuttle Conveyor Chute 2 transfer to Vat **(Removed DATE 2025, Air Case 12253)**

G. System 07 - Leaching (Fully Saturated) (Revised March 2022, Air Case 11118) (Revised DATE 2025, Air Case 12253)

PF1.014 Spent Ore transfer to Spent Ore Hopper (via Vat Leach Unloading Crane)
PF1.036 Spent Ore Hopper transfer to Spent Ore Transfer Conveyor **(Added DATE 2025, Air Case 12253)**
PF1.015 Spent Ore Transfer Conveyor transfer to Spent Ore Unloading Conveyor
PF1.016 Spent Ore Unloading Conveyor transfer to Spent Ore Pad
PF1.017 Spent Ore Unloading Conveyor transfer Chute transfer to Spent Ore Pad **(Removed DATE 2025, Air Case 12253)**

H. System 08 - Sulphur Plant (Lime Loading) (Revised March 2022, Air Case 11118) (Revised DATE 2025, Air Case 12253)

PF1.018 Lime Feed Hopper Loading (Hopper discharge to Lime Bags Screw Conveyor - Fully Enclosed)
PF1.037 Prilled Sulfur Feed Hopper Loading (Sulphur Feed Conveyor to Sulfur Melting Pit - Fully Enclosed) **(Added DATE 2025, Air Case 12253)**

I. System 09 - Boric Acid Plant (Fully Saturated) (Revised March 2022, Air Case 11118) (Revised DATE 2025, Air Case 12253)

PF1.019 Boric Acid Centrifuge discharge to Sulphate Salts Conveyor - Fully Enclosed **(Removed DATE 2025, Air Case 12253)**
PF1.020 Salts Conveyor 1 to Salts Bunker 1
PF1.021 Salts Bunkers 1, 2, and 3 transfer to Haul Truck
PF1.022 Haul Truck transfer to Spent Ore Storage Facility
PF1.038 EVP-01- 3 Repulp Centrifuge A to Salts Conveyor 1 **(Added DATE 2025, Air Case 12253)**
PF1.039 EVP-01- 3 Repulp Centrifuge B to Salts Conveyor 1 **(Added DATE 2025, Air Case 12253)**
PF1.040 EVP-01- 3 Repulp Centrifuge C to Salts Conveyor 1 **(Added DATE 2025, Air Case 12253)**
PF1.041 EVP-01- 3 Repulp Centrifuge D to Salts Conveyor 1 **(Added DATE 2025, Air Case 12253)**
PF1.042 EVP-01- 4 Repulp Centrifuge A to Salts Conveyor 1 **(Added DATE 2025, Air Case 12253)**
PF1.043 EVP-01- 4 Repulp Centrifuge B to Salts Conveyor 1 **(Added DATE 2025, Air Case 12253)**
PF1.044 EVP-01- 4 Repulp Centrifuge C to Salts Conveyor 1 **(Added DATE 2025, Air Case 12253)**
PF1.045 EVP-01- 4 Repulp Centrifuge D to Salts Conveyor 1 **(Added DATE 2025, Air Case 12253)**
PF1.046 CRZ2-2 Flotation Tails Repulp Centrifuge A to Salts Conveyor 2 **(Added DATE 2025, Air Case 12253)**
PF1.047 CRZ2-2 Flotation Tails Repulp Centrifuge B to Salts Conveyor 2 **(Added DATE 2025, Air Case 12253)**
PF1.048 CRZ2-2 Flotation Tails Repulp Centrifuge C to Salts Conveyor 2 **(Added DATE 2025, Air Case 12253)**
PF1.049 CRZ2-2 Flotation Tails Repulp Centrifuge D to Salts Conveyor 2 **(Added DATE 2025, Air Case 12253)**
PF1.050 CRZ2-4 Flotation Tails Repulp Centrifuge A to Salts Conveyor 3 **(Added DATE 2025, Air Case 12253)**
PF1.051 CRZ2-4 Flotation Tails Repulp Centrifuge B to Salts Conveyor 3 **(Added DATE 2025, Air Case 12253)**
PF1.052 CRZ2-4 Flotation Tails Repulp Centrifuge C to Salts Conveyor 3 **(Added DATE 2025, Air Case 12253)**
PF1.053 Salts Conveyor 2 to Salts Bunker 2 **(Added DATE 2025, Air Case 12253)**
PF1.054 Salts Conveyor 3 to Salts Bunker 3 **(Added DATE 2025, Air Case 12253)**
PF1.055 Impurity Precipitate Filter Press cake to Spent Ore Storage Facility **(Added DATE 2025, Air Case 12253)**

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Emission Unit List: (continued)

J. System 10 - Lithium Carbonate Plant (Revised March 2022, Air Case 11118) (Revised DATE 2025, Air Case 12253)

PF1.023	Lithium Carbonate Centrifuge discharge to Lithium Carbonate Cake Stockpile - Fully Enclosed **(Removed DATE 2025, Air Case 12253)**
PF1.056	Sulfate Salts Centrifuge A Discharge to Sulphate Salts Stockpile **(Added DATE 2025, Air Case 12253)**
PF1.057	Sulfate Salts Centrifuge B Discharge to Sulphate Salts Stockpile **(Added DATE 2025, Air Case 12253)**
PF1.024	Sulphate Salts Stockpile transfer to Haul Truck
PF1.025	Haul Truck transfer to Spent Ore Storage Facility

K. System 11 - Vat Leaching (Revised March 2022, Air Case 11118) (Revised DATE 2025, Air Case 12253)

PF1.026	Vat Tank 1
PF1.027	Vat Tank 2
PF1.028	Vat Tank 3
PF1.029	Vat Tank 4
PF1.030	Vat Tank 5
PF1.031	Vat Tank 6
PF1.032	Vat Tank 7

L. System 12 - Sulphuric Acid Plant (Revised March 2022, Air Case 11118) (Revised DATE 2025, Air Case 12253)

S2.001	Sulphur Storage Tank (477,706 gallons)

M. System 13 - Sulphuric Acid Plant (Revised March 2022, Air Case 11118) (Revised DATE 2025, Air Case 12253)

S2.002	Precoat Pit

N. System 14 - Sulphuric Acid Plant (Revised March 2022, Air Case 11118) (Revised DATE 2025, Air Case 12253)

S2.003	Clean Sulphur Pit

O. System 15 - Sulphuric Acid Plant (Revised March 2022, Air Case 11118) (Revised DATE 2025, Air Case 12253)

S2.004	Sulphuric Acid Plant Stack

P. System 16 - Sulphuric Acid Plant Tanks (Revised March 2022, Air Case 11118) (Revised DATE 2025, Air Case 12253)

PF1.033	Sulphuric Acid Tank 1 (508,006 gallon)
PF1.034	Sulphuric Acid Tank 2 (508,006 gallon)

Q. System 17 - Acid Plant Start-Up Burner (Revised March 2022, Air Case 11118) (Revised DATE 2025, Air Case 12253)

S2.005	Acid Plant Start-Up Burner (Diesel-Fired, 120 MMBtu)

R. System 18 - Auxiliary Boiler (Revised March 2022, Air Case 11118) (Revised DATE 2025, Air Case 12253)

S2.006	Auxiliary Boiler (Diesel-Fired, 148 MMBtu)

S. System 19 - Boric Acid Dryer (Revised March 2022, Air Case 11118) (Revised DATE 2025, Air Case 12253)

S2.007	Boric Acid Dryer (Electric Heater)

T. System 20 - Lithium Carbonate Dryer (Revised March 2022, Air Case 11118) (Revised DATE 2025, Air Case 12253)

S2.008	Lithium Carbonate Dryer (Electric Heater)

U. System 21 - Acid Plant Generators (Revised DATE 2025, Air Case 12253)

S2.009	Black Start Generator 1 (4,693 HP, mfd. after 2020)
S2.010	Black Start Generator 2 (4,693 HP, mfd. after 2020)

V. System 22 - Admin Trailer Generator (Revised DATE 2025, Air Case 12253)

S2.011	Emergency Generator (100 HP, mfd. 2020)

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Emission Unit List: (continued)

W. System 23 - Spent Ore Area Water Pump
S2.012 Spent Ore Area Water Pump (62 HP, mfd. 2020)

X. System 24 - Explosive Area Generator
S2.013 Explosive Area Generator (49 HP, mfd. 2020)

Y. System 25 - Lithium Boron Processing Fire Water Pumps (Revised DATE 2025, Air Case 12253)
S2.014 Fire Water Pump FP1 (305 HP, mfd. 2020)
S2.015 Fire Water Pump FP2 (305 HP, mfd. 2020)

Z. System 26 - Cooling Tower (Revised DATE 2025, Air Case 12253)
S2.016 Cooling Tower 1 (2 Cells)

AA. System 27 - Cooling Tower (Revised DATE 2025, Air Case 12253)
S2.017 Cooling Tower 2 (5 Cells)

AB. System 28 - Lime Silo (Revised March 2022, Air Case 11118) (Revised DATE 2025, Air Case 12253)
S2.018 Lime Silo Loading (Discharge is Fully Enclosed)
S2.019 Lime Silo #2 Loading to Fully Enclosed Discharge **(Removed DATE 2025, Air Case 12253)**
S2.020 Lime Silo #3 Loading to Fully Enclosed Discharge **(Removed DATE 2025, Air Case 12253)**
S2.021 Lime Silo #4 Loading to Fully Enclosed Discharge **(Removed DATE 2025, Air Case 12253)**

AC. System 29 - Soda Ash Silo (Revised March 2022, Air Case 11118) (Revised DATE 2025, Air Case 12253)
S2.022 Soda Ash Silo Loading (Discharge is Fully Enclosed)

AD. System 30 - Dry Lithium Carbonate Silo (Revised March 2022, Air Case 11118) (Revised DATE 2025, Air Case 12253)
S2.023 Dry Lithium Carbonate Silo Loading (Discharge is Fully Enclosed)

AE. System 31 - Boric Acid Silos (Revised March 2022, Air Case 11118) (Revised DATE 2025, Air Case 12253)
S2.024 Boric Acid Silo #1 Loading (Discharge is Fully Enclosed)
S2.028 Boric Acid Silo #2 Loading (Discharge is Fully Enclosed)

AF. System 32 - Boric Acid Product Work Bins (Revised March 2022, Air Case 11118) (Revised DATE 2025, Air Case 12253)
S2.025 Boric Acid Product Work Bin #1 Loading (Discharge is Fully Enclosed)
S2.029 Boric Acid Product Work Bin #2 Loading (Discharge is Fully Enclosed)
Boric Acid Product Bagging Systems # 1 and 2 - Fully Enclosed

AG. System 33 - Dry Lithium Carbonate Transfer Bin (Revised March 2022, Air Case 11118) (Revised DATE 2025, Air Case 12253)
S2.026 Dry Lithium Carbonate Transfer Bin Loading (Discharge is Fully Enclosed)
Lithium Carbonate Product Bagging System - Fully Enclosed

AH. System 34 - Gasoline Storage Tank
S2.027 Gasoline Tank, 5,000 gallon

AI. System 35 – Sulphuric Acid Plant (Added DATE 2025, Air Case 12253)
S2.030 Molten Sulphur Unloading Pit

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Emission Unit List: (continued)

AJ. System 36 – Sulphuric Acid Plant (Added DATE 2025, Air Case 12253)
S2.031 Prilled Sulphur Melting Pit

AK. System 37 – Sulphuric Acid Plant (Added DATE 2025, Air Case 12253)
S2.032 Dirty Sulphur Pit

******End of Emission Unit List******

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Section I. General Provisions

A. Prohibited acts; penalty; establishment of violation; request for prosecution (NRS 445B.470) (*State Only Requirement)*

1. A person shall not knowingly:
   a. Violate any applicable provision, the terms or conditions of any permit or any provision for the filing of information;
   b. Fail to pay any fee;
   c. Falsify any material statement, representation or certification in any notice or report; or
   d. Render inaccurate any monitoring device or method, required pursuant to the provisions of NRS 445B.100 to 445B.450, inclusive, or 445B.470 to 445B.640, inclusive, or any regulation adopted pursuant to those provisions.
2. Any person who violates any provision of subsection 1 shall be punished by a fine of not more than $10,000 for each day of the violation.
3. The burden of proof and degree of knowledge required to establish a violation of subsection 1 are the same as those required by 42 U.S.C. § 7413(c), as that section existed on October 1, 1993.
4. If, in the judgment of the Director of the Department or the Director's designee, any person is engaged in any act or practice which constitutes a criminal offense pursuant to NRS 445B.100 to 445B.640, inclusive, the Director of the Department or the designee may request that the Attorney General or the district attorney of the county in which the criminal offense is alleged to have occurred institute by indictment or information a criminal prosecution of the person.
5. If, in the judgment of the control officer of a local air pollution control board, any person is engaged in such an act or practice, the control officer may request that the district attorney of the county in which the criminal offense is alleged to have occurred institute by indictment or information a criminal prosecution of the person.

B. Visible emissions: Maximum opacity; determination and monitoring of opacity (NAC 445B.22017) (*Federally Enforceable SIP Requirement)*

1. Except as otherwise provided in this section and NAC 445B.2202, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods:
   a. If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A of 40 CFR Part 60.
   b. If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 CFR 60.13(h).
2. The provisions of this section and NAC 445B.2202 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.
3. If the provisions of 40 CFR Part 60, Subpart D or Da apply to an emission unit, the emission unit must be allowed one 6-minute period per hour of not more than 27 percent opacity as set forth in 40 CFR 60.42(a)(2) and 40 CFR 60.42a(b).
4. The continuous monitoring system for monitoring opacity at a facility must be operated and maintained by the owner or operator specified in the permit for the facility in accordance with NAC 445B.256 to 445B.267, inclusive.

C. Visible emissions: Exceptions for stationary sources (NAC 445B.2202) (*Federally Enforceable SIP Requirement)*

The provisions of NAC 445B.22017 do not apply to:

1. Smoke from the open burning described in NAC 445B.22067;
2. Smoke discharged in the course of training air pollution control inspectors to observe visible emissions, if the facility has written approval of the Commission;
3. Emissions from an incinerator as set forth in NAC 445B.2207; or
4. Emissions of stationary diesel-powered engines during warm-up for not longer than 15 minutes to achieve operating temperatures.

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Section I. General Provisions (continued)

D. Odors (NAC 445B.22087) (*State Only Requirement)*

1. No person may discharge or cause to be discharged, from any stationary source, any material or regulated air pollutant which is or tends to be offensive to the senses, injurious or detrimental to health and safety, or which in any way interferes with or prevents the comfortable enjoyment of life or property.
2. The Director shall investigate an odor when 30 percent or more of a sample of the people exposed to it believe it to be objectionable in usual places of occupancy. The sample must be at least 20 people or 75 percent of those exposed if fewer than 20 people are exposed.
3. The Director shall deem the odor to be a violation if he or she is able to make two odor measurements within a period of 1 hour. These measurements must be separated by at least 15 minutes. An odor measurement consists of a detectable odor after the odorous air has been diluted with eight or more volumes of odor-free air.

E. Prohibited Conduct: Concealment of Emissions (NAC 445B.225) (*Federally Enforceable SIP Requirement)*

No person may install, construct or use any device which conceals any emission without reducing the total release of regulated air pollutants to the atmosphere.

F. Prohibited conduct: Operation of source without required equipment; removal or modification of required equipment; modification of required procedure (NAC 445B.227) (*Federally Enforceable SIP Requirement)*

Except as otherwise provided in NAC 445B.001 to 445B.390, inclusive, no person may:

1. Operate a stationary source of air pollution unless the control equipment for air pollution which is required by applicable requirements or conditions of this Operating Permit is installed and operating.
2. Disconnect, alter, modify or remove any of the control equipment for air pollution or modify any procedure required by an applicable requirement or condition of the permit.

G. Excess Emissions (NAC 445B.232) (*State Only Requirement)*

1. Scheduled maintenance or testing or scheduled repairs which may result in excess emissions of regulated air pollutants prohibited by NAC 445B.001 to 445B.390, inclusive, must be approved in advance by the Director and performed during a time designated by the Director as being favorable for atmospheric ventilation.
2. Each owner or operator shall notify the Director of the proposed time and expected duration at least 30 days before any scheduled maintenance or testing which may result in excess emissions of regulated air pollutants prohibited by NAC 445B.001 to 445B.390, inclusive. The scheduled maintenance or testing must not be conducted unless the scheduled maintenance or testing is approved pursuant to subsection 1.
3. Each owner or operator shall notify the Director of the proposed time and expected duration at least 24 hours before any scheduled repairs which may result in excess emissions of regulated air pollutants prohibited by NAC 445B.001 to 445B.390, inclusive. The scheduled repairs must not be conducted unless the scheduled repairs are approved pursuant to subsection 1.
4. Each owner or operator shall notify the Director of any excess emissions within 24 hours after any malfunction or upset of the process equipment or equipment for controlling pollution or during start-up or shutdown of that equipment.

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Section I. General Provisions (continued)

G. Excess Emissions (NAC 445B.232) (*State Only Requirement)* (continued)

5. Each owner or operator shall provide the Director, within 15 days after any malfunction, upset, start-up, shutdown or human error which results in excess emissions, sufficient information to enable the Director to determine the seriousness of the excess emissions. The information must include at least the following:
   a. The identity of the stack or other point of emission, or both, where the excess emissions occurred.
   b. The estimated magnitude of the excess emissions expressed in opacity or in the units of the applicable limitation on emission and the operating data and methods used in estimating the magnitude of the excess emissions.
   c. The time and duration of the excess emissions.
   d. The identity of the equipment causing the excess emissions.
   e. If the excess emissions were the result of a malfunction, the steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of the malfunction.
   f. The steps taken to limit the excess emissions.
   g. Documentation that the equipment for controlling air pollution, process equipment or processes were at all times maintained and operated, to a maximum extent practicable, in a manner consistent with good practice for minimizing emissions.
6. Each owner or operator shall ensure that any notification or related information submitted to the Director pursuant to this section is provided in a format specified by the Director.

H. Testing and Sampling (NAC 445B.252) (*Federally Enforceable SIP Requirement*)

1. To determine compliance with NAC 445B.001 to 445B.390, inclusive, before the approval or the continuance of an operating permit or similar class of permits, the Director may either conduct or order the owner of any stationary source to conduct or have conducted such testing and sampling as the Director determines necessary. Testing and sampling or either of them must be conducted and the results submitted to the Director within 60 days after achieving the maximum rate of production at which the affected facility will be operated, but not later than 180 days after initial start-up of the facility and at such other times as may be required by the Director.
2. Tests of performance must be conducted and data reduced in accordance with the methods and procedures of the test contained in each applicable subsection of this section unless the Director:
   a. Specifies or approves, in specific cases, the use of a method of reference with minor changes in methodology;
   b. Approves the use of an equivalent method;
   c. Approves the use of an alternative method, the results of which the Director has determined to be adequate for indicating whether a specific stationary source is in compliance; or
   d. Waives the requirement for tests of performance because the owner or operator of a stationary source has demonstrated by other means to the Director's satisfaction that the affected facility is in compliance with the standard.
3. Tests of performance must be conducted under such conditions as the Director specifies to the operator of the plant based on representative performance of the affected facility. The owner or operator shall make available to the Director such records as may be necessary to determine the conditions of the performance test. Operations during periods of startup, shutdown and malfunction must not constitute representative conditions of a performance test unless otherwise specified in the applicable standard.
4. The owner or operator of an affected facility shall give notice to the Director 30 days before the test of performance to allow the Director to have an observer present. A written testing procedure for the test of performance must be submitted to the Director at least 30 days before the test of performance to allow the Director to review the proposed testing procedures.
5. Each test of performance must consist of at least three separate runs using the applicable method for that test. Each run must be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the runs apply. In the event of forced shutdown, failure of an irreplaceable portion of the sampling train, extreme meteorological conditions or other circumstances with less than three valid samples being obtained, compliance may be determined using the arithmetic mean of the results of the other two runs upon the Director's approval.
6. All testing and sampling will be performed in accordance with recognized methods and as specified by the Director.

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Section I. General Provisions (continued)

H. Testing and Sampling (NAC 445B.252) (*Federally Enforceable SIP Requirement*) (continued)

7. The cost of all testing and sampling and the cost of all sampling holes, scaffolding, electric power and other pertinent allied facilities as may be required and specified in writing by the Director must be provided and paid for by the owner of the stationary source.
8. All information and analytical results of testing and sampling must be certified as to their truth and accuracy and as to their compliance with all provisions of these regulations, and copies of these results must be provided to the Director no later than 60 days after the testing or sampling, or both.
9. Notwithstanding the provisions of subsection 2, the Director shall not approve an alternative method or equivalent method to determine compliance with a standard or emission limitation contained in Part 60, 61 or 63 of Title 40 of the Code of Federal Regulations for:
    a. An emission unit that is subject to a testing requirement pursuant to Part 60, 61 or 63 of Title 40 of the Code of Federal Regulations; or
    b. An affected source.

I. Permit Revision (NAC 445B.287(1)(b)) (*Federally Enforceable SIP Requirement)*

If a stationary source is a Class II source, a revision of the operating permit or the permit to construct is required pursuant to the requirements of NAC 445B.3465 before the stationary source may be modified.

J. Violations: Acts constituting; notice (NAC 445B.275) (*Federally Enforceable SIP Requirement)*

1. Failure to comply with any requirement of NAC 445B.001 to 445B.390, inclusive, any applicable requirement or any condition of an operating permit constitutes a violation. As required by NRS 445B.450, the Director shall issue a written notice of an alleged violation to any owner or operator for any violation, including, but not limited to:
    a. Failure to apply for and obtain an operating permit;
    b. Failure to construct a stationary source in accordance with the application for an operating permit as approved by the Director;
    c. Failure to construct or operate a stationary source in accordance with any condition of an operating permit;
    d. Commencing construction or modification of a stationary source without applying for and receiving an operating permit or a modification of an operating permit as required by NAC 445B.001 to 445B.3477, inclusive, or a mercury operating permit to construct as required by NAC 445B.3611 to 445B.3689, inclusive;
    e. Failure to comply with any requirement for recordkeeping, monitoring, reporting or compliance certification contained in an operating permit; or
    f. Failure to pay fees as required by NAC 445B.327 or 445B.3689.
2. The written notice must specify the provision of NAC 445B.001 to 445B.390, inclusive, the condition of the operating permit or the applicable requirement that is being violated.
3. Written notice shall be deemed to have been served if delivered to the person to whom addressed or if sent by registered or certified mail to the last known address of the person.

K. Operating permits: Imposition of more stringent standards for emissions (NAC 445B.305) (*Federally Enforceable SIP Requirement)*

1. The Director may impose standards for emissions on a proposed stationary source that are more stringent than those found in NAC 445B.001 to 445B.390, inclusive, as a condition of approving an operating permit for the proposed stationary source.

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Section I. General Provisions (continued)

L. Contents of operating permits: Exception for operating permits to construct; required conditions (NAC 445B.315) (*Federally Enforceable SIP Requirement)*

1. Notwithstanding any provision of this section to the contrary, the provisions of this section do not apply to operating permits to construct.
2. The Director shall cite the legal authority for each condition contained in an operating permit.
3. An operating permit must contain the following conditions:
   a. The term of the operating permit is 5 years.
   b. The holder of the operating permit shall retain records of all required monitoring data and supporting information for 5 years after the date of the sample collection, measurement, report or analysis. Supporting information includes all records regarding calibration and maintenance of the monitoring equipment and all original strip-chart recordings for continuous monitoring instrumentation.
   c. Each of the conditions and requirements of the operating permit is severable, and if any are held invalid, the remaining conditions and requirements continue in effect.
   d. The holder of the operating permit shall comply with all conditions of the operating permit. Any noncompliance constitutes a violation and is a ground for:
      (1) An action for noncompliance;
      (2) Revising, revoking, reopening and revising, or terminating the operating permit by the Director; or
      (3) Denial of an application for a renewal of the operating permit by the Director.
   e. The need to halt or reduce activity to maintain compliance with the conditions of the operating permit is not a defense to noncompliance with any condition of the operating permit.
   f. The Director may revise, revoke and reissue, reopen and revise, or terminate the operating permit for cause.
   g. The operating permit does not convey any property rights or any exclusive privilege.
   h. The holder of the operating permit shall provide the Director, in writing and within a reasonable time, with any information that the Director requests to determine whether cause exists for revising, revoking and reissuing, reopening and revising, or terminating the operating permit, or to determine compliance with the conditions of the operating permit.
   i. The holder of the operating permit shall pay fees to the Director in accordance with the provisions set forth in NAC 445B.327 and 445B.331.
   j. The holder of the operating permit shall allow the Director or any authorized representative, upon presentation of credentials, to:
      (1) Enter upon the premises of the holder of the operating permit where:
         (a) The stationary source is located;
         (b) Activity related to emissions is conducted; or
         (c) Records are kept pursuant to the conditions of the operating permit;
      (2) Have access to and copy, during normal business hours, any records that are kept pursuant to the conditions of the operating permit;
      (3) Inspect, at reasonable times, any facilities, practices, operations or equipment, including any equipment for monitoring or controlling air pollution, that are regulated or required pursuant to the operating permit; and
      (4) Sample or monitor, at reasonable times, substances or parameters to determine compliance with the conditions of the operating permit or applicable requirements.
   k. A responsible official of the stationary source shall certify that, based on information and belief formed after a reasonable inquiry, the statements made in any document required to be submitted by any condition of the operating permit are true, accurate and complete.

Issued to: IONEER USA CORPORATION – RHYOLITE RIDGE (AS PERMITTEE)

Section I. General Provisions (continued)

M. Operating permits: Revocation and reissuance (NAC 445B.3265) (*State Only Requirement)*

1. An operating permit may be revoked if the control equipment is not operating.
2. An operating permit may be revoked by the Director upon determining that there has been a violation of NAC 445B.001 to 445B.390, inclusive, or the provisions of 40 CFR 52.21, or 40 CFR Part 60 or 61, Prevention of Significant Deterioration, New Source Performance Standards, and National Emission Standards for Hazardous Air Pollutants, adopted by reference in NAC 445B.221.
3. The revocation is effective 10 days after the service of a written notice, unless a hearing is requested.
4. To reissue a revoked operating permit, the holder of the revoked permit must file a new application with the Director, accompanied by the fee for an initial operating permit as specified in NAC 445B.327. An environmental review of the stationary source must be conducted as though construction had not yet commenced.

N. Required contents of permit (NAC 445B.346) (*Federally Enforceable SIP Requirement)*

In addition to the conditions set forth in NAC 445B.315, Class II operating permits must contain, as applicable:

1. Emission limitations and standards, including those operational requirements and limitations that ensure compliance with the conditions of the operating permit.
2. All requirements for monitoring, testing and reporting that apply to the stationary source.
3. A requirement that the owner or operator of the stationary source promptly report any deviations from any requirements of the operating permit.
4. The terms and conditions for any reasonably anticipated alternative operating scenarios identified by the owner or operator of the stationary source in his or her application and approved by the Director. Such terms and conditions must require the owner or operator to keep a contemporaneous log of changes from one alternative operating scenario to another.
5. A schedule of compliance for stationary sources that are not in compliance with any applicable requirement or NAC 445B.001 to 445B.390, inclusive:
   a. Semiannual progress reports and a schedule of dates for achieving milestones;
   b. Prior notice of and explanations for missed deadlines; and
   c. Any preventive or corrective measures taken.

******End of General Provisions******

Issued to: IONEER USA CORPORATION – RHYOLITE RIDGE (AS PERMITTEE)

Section II. General Monitoring, Recordkeeping, and Reporting Conditions

A. Records Retention (NAC 445B.315(3)(b)) (*Federally Enforceable SIP Requirement)*
The holder of the operating permit shall retain records of all required monitoring data and supporting information for 5 years after the date of the sample collection, measurement, report or analysis. Supporting information includes all records regarding calibration and maintenance of the monitoring equipment and all original strip-chart recordings for continuous monitoring instrumentation.

B. Deviations (NAC 445B.346(3)) (*Federally Enforceable SIP Requirement*)
Under the authority of NAC 445B.346(3), and in addition to the conditions set forth in NAC 445B.315, the owner or operator of the stationary source shall promptly report to the Director any deviations from the requirements of the operating permit. The report to the Director shall include the probable cause of all deviations and any action taken to correct the deviations. For the operating permit, prompt is defined as submittal of a report within 15 days of the deviation. This definition does not alter any reporting requirements as established for reporting of excess emissions as required under NAC 445B.232 as reproduced in **Section I.G.**
E-mail notifications to: aircompliance@ndep.nv.gov

C. Yearly Reports (NAC 445B.315(3)(h), NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
Under the authority of NAC 445B.315(3)(h) and NAC 445B.346(2) the Permittee will submit yearly reports including, but not limited to, throughput, production, fuel consumption, hours of operation, emissions and supporting documentation to support the calculation of annual emissions These reports and supporting documentation (if applicable) will be submitted via the State and Local Emissions Inventory System (SLEIS) maintained by the Bureau of Air Quality Planning for all emission units/systems specified. The completed report must be submitted to the Bureau of Air Quality Planning no later than March 1 annually for the preceding calendar year.

******End of General Monitoring, Recordkeeping, and Reporting Conditions******

Issued to: IONEER USA CORPORATION – RHYOLITE RIDGE (AS PERMITTEE)

Section III. General Construction Conditions

A. Notification (NAC 445B.250; NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
Under the authority of NAC 445B.250 and NAC 445B.346; the Director shall be notified in writing of the following for **PF1.001 through PF1.057 and S2.001 through S2.032**

1. The date construction (or reconstruction as defined under NAC 445B.247) of the affected facility is commenced, postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.
2. The anticipated date of initial startup of an affected facility, postmarked no more than 60 days and no less than 30 days prior to such date.
3. The actual date of initial startup of the affected facility, postmarked within 15 days after such date.
4. The date upon which demonstration of the continuous monitoring system performance commences in accordance with NAC 445B.256 to 445B.267, inclusive. Notification must be postmarked not less than 30 days before such date.

******End of General Construction Conditions******

Issued to: IONEER USA CORPORATION – RHYOLITE RIDGE (AS PERMITTEE)

Section IV. Specific Construction Requirements

A. Initial Opacity Compliance Demonstration and Initial Performance Tests (NAC 445B.22017, NAC 445B.252, NAC 445B.346(2)) (*Federally Enforceable SIP Requirement*)

1. Under the authority of NAC 445B.22017, NAC 445B.252, and NAC 445B.346, the Permittee, upon issuance of this operating permit, shall conduct initial opacity compliance demonstrations and/or initial performance tests within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup. The Permittee shall follow the test methods and procedures referenced in Table IV-1 and Table IV-2 below:

Table IV-1: Initial Opacity Compliance Demonstration

Systems	Emission Units	Pollutant To Be Tested	Testing Methods/Procedures
System 01 - Quarry Primary Crushing Loading	PF1.001	Opacity	Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.
System 03 – Quarry Secondary Crushing	PF1.035		
System 07 - Leaching	PF1.014 - PF1.016 and PF1.036		
System 08 - Sulphur Plant (Lime Loading)	PF1.018 and PF1.037		
System 09 - Boric Acid Plant	PF1.020 - PF1.022 and PF1.038 - PF1.055		
System 10 - Lithium Carbonate Plant	PF1.024, PF1.025, PF1.056, and PF1.057		
System 11 - Vat Leaching	PF1.026 - PF1.032		
System 12 - Sulphuric Acid Plant	S2.001		
System 13 - Sulphuric Acid Plant	S2.002		
System 14 - Sulphuric Acid Plant	S2.003		
System 15 - Sulphuric Acid Plant	S2.004		
System 17 - Acid Plant Start-Up Burner	S2.005		
System 18 - Auxiliary Boiler	S2.006		
System 19 - Boric Acid Dryer	S2.007		
System 20 - Lithium Carbonate Dryer	S2.008		
System 21 - Acid Plant Generators	S2.009 and S2.010		
System 22 - Admin Trailer Generator	S2.011		
System 23 - Spent Ore Area Water Pump	S2.012		
System 24 - Explosive Area Generator	S2.013		
System 25 - Lithium Boron Processing Fire Water Pumps	S2.014 and S2.015		
System 26 - Cooling Tower	S2.016		
System 27 - Cooling Tower	S2.017		
System 28 – Lime Silo	S2.018		
System 29 – Soda Ash Silo	S2.022		
System 30 – Dry Lithium Carbonate Silo	S2.023		
System 31 – Boric Acid Silos	S2.024 and S2.028		
System 32 - Boric Acid Product Work Bins	S2.025 and S2.029		
System 33 - Dry Lithium Carbonate Transfer Bin	S2.026		
System 35 – Sulphuric Acid Plant	S2.030		
System 36 – Sulphuric Acid Plant	S2.031		
System 37 – Sulphuric Acid Plant	S2.032		

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Section IV. Specific Construction Requirements (continued)

A. Initial Opacity Compliance Demonstration and Initial Performance Tests (NAC 445B.22017, NAC 445B.252, NAC 445B.346(2)) (*Federally Enforceable SIP Requirement*) (continued)

Table IV-1: Initial Opacity Compliance Demonstration (continued)

Systems	Emission Units	Pollutant To Be Tested	Testing Methods/Procedures
System 02 - Quarry Primary Crushing	PF1.002	Opacity	Method 9 in Appendix A-4 of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations must be 30 minutes (five 6-minute averages).
System 06 - Leaching	PF1.012		

Table IV-2: Initial Performance Tests

Systems	Emission Units	Pollutants To Be Tested	Testing Methods/Procedures
System 12 - Sulphuric Acid Plant	S2.001	PM	Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
System 13 - Sulphuric Acid Plant	S2.002		
System 14 - Sulphuric Acid Plant	S2.003	$PM_{10}/PM_{2.5}$	Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM_{10} and $PM_{2.5}$ emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately. The Method 201A and 202 test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 and Method 202 in Appendix M of 40 CFR Part 51 test. All particulate captured in the Method 5 and Method 202 test performed under this provision shall be considered $PM_{2.5}$ for determination of compliance.
System 35 – Sulphuric Acid Plant	S2.030		
System 36 – Sulphuric Acid Plant	S2.031		
System 37 – Sulphuric Acid Plant	S2.032		
		SO_2	Method 6C in Appendix A of 40 CFR Part 60 shall be used to determine the sulfur dioxide concentration. Each test will be run for a minimum of one hour.
		H_2S	Method 15 in Appendix A of 40 CFR Part 60 shall be used to determine the hydrogen sulfide concentration. Each test will be run for a minimum of one hour.

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Table IV-2: Initial Performance Tests (continued)			
System	**Emission Unit**	**Pollutants To Be Tested**	**Testing Methods/Procedures**
System 15 - Sulphuric Acid Plant	S2.004	PM	Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
		$PM_{10}/PM_{2.5}$	Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM_{10} and $PM_{2.5}$ emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately. The Method 201A and 202 test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 and Method 202 in Appendix M of 40 CFR Part 51 test. All particulate captured in the Method 5 and Method 202 test performed under this provision shall be considered $PM_{2.5}$ for determination of compliance.
		SO_2	Method 6C in Appendix A of 40 CFR Part 60 shall be used to determine the sulfur dioxide concentration. Each test will be run for a minimum of one hour.
		NO_X	Method 7E in Appendix A of 40 CFR Part 60 shall be used to determine the nitrogen oxides concentration. Each test will be run for a minimum of one hour.
		H_2SO_4	Method 8 in Appendix A of 40 CFR Part 60 shall be used to determine the sulfuric acid mist concentration. The sample volume for each test run shall be at least 1.15 dscm (40.6 dscf). Each test will be run for a minimum of one hour.

Table IV-2: Initial Performance Tests (continued)			
System	**Emission Unit**	**Pollutants To Be Tested**	**Testing Methods/Procedures**
System 16 – Sulphuric Acid Plant Tanks	PF1.033 and PF1.034	SO_2	Method 6C in Appendix A of 40 CFR Part 60 shall be used to determine the sulfur dioxide concentration. Each test will be run for a minimum of one hour.
		H_2SO_4	Method 8 in Appendix A of 40 CFR Part 60 shall be used to determine the sulfuric acid mist concentration. The sample volume for each test run shall be at least 1.15 dscm (40.6 dscf). Each test will be run for a minimum of one hour.

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Section IV. Specific Construction Requirements (continued)

A. Initial Opacity Compliance Demonstration and Initial Performance Tests (NAC 445B.22017, NAC 445B.252, NAC 445B.346(2)) (*Federally Enforceable SIP Requirement*) (continued)

Table IV-2: Initial Performance Tests (continued)

System	Emission Units	Pollutants To Be Tested	Testing Methods/Procedures
System 17 - Acid Plant Start-Up Burner	S2.005	PM	Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
System 18 - Auxiliary Boiler	S2.006	$PM_{10}/PM_{2.5}$	Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM_{10} and $PM_{2.5}$ emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately. The Method 201A and 202 test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 and Method 202 in Appendix M of 40 CFR Part 51 test. All particulate captured in the Method 5 and Method 202 test performed under this provision shall be considered $PM_{2.5}$ for determination of compliance.
System 21 - Acid Plant Generators	S2.009 and S2.010	SO_2	Method 6C in Appendix A of 40 CFR Part 60 shall be used to determine the sulfur dioxide concentration. Each test will be run for a minimum of one hour.
		NO_X	Method 7E in Appendix A of 40 CFR Part 60 shall be used to determine the nitrogen oxides concentration. Each test will be run for a minimum of one hour.
		CO	Method 10 in Appendix A of 40 CFR Part 60 shall be used to determine the carbon monoxide concentration. Each test will be run for a minimum of one hour.
		VOC	Method 25A in Appendix A of 40 CFR Part 60 shall be used to determine the volatile organic compound concentration. Method 18 in Appendix A of 40 CFR Part 60 or Method 320 in Appendix A of CFR Part 63 may be used in conjunction with Method 25A to break out the organic compounds that are not considered VOC's by definition per 40 CFR 51.100(s). Each Method 25A test will be run for a minimum of one hour.

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Section IV. Specific Construction Requirements (continued)

A. Initial Opacity Compliance Demonstration and Initial Performance Tests (NAC 445B.22017, NAC 445B.252, NAC 445B.346(2)) (*Federally Enforceable SIP Requirement*) (continued)

Table IV-2: Initial Performance Tests (continued)

System	Emission Units	Pollutants To Be Tested	Testing Methods/Procedures
System 19 - Boric Acid Dryer	S2.007	PM	Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
System 20 - Lithium Carbonate Dryer **System 32 – Boric Acid Product Work Bin** **System 33 – Dry Lithium Carbonate Transfer Bin**	S2.008 S2.025 and S2.029 S2.026	$PM_{10}/PM_{2.5}$	Method 201A in Appendix M of 40 CFR Part 51 shall be used to determine PM_{10} and $PM_{2.5}$ emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately. The Method 201A test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 test. All particulate captured in the Method 5 test performed under this provision shall be considered $PM_{2.5}$ for determination of compliance.

2. All initial opacity compliance demonstrations and initial performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of **Section I.H.** Testing and Sampling (NAC 445B.252) of this operating permit. Material sampling must be conducted in accordance with protocols approved by the Director. All initial performance test results shall be based on the arithmetic average of three valid runs. (NAC 445B.252(5))
3. Testing shall be conducted on the exhaust stack (post controls).
4. Initial opacity compliance demonstrations and initial performance tests, as specified in Table IV-1 and Table IV-2 above, must be conducted under such conditions as the Director specifies to the operator of the plant based on representative performance of the affected facility. The Permittee shall make available to the Director such records as may be necessary to determine the conditions of the initial opacity compliance demonstrations and initial performance tests. Operations during periods of startup, shutdown and malfunction must not constitute representative conditions of the initial opacity compliance demonstrations and initial performance tests unless otherwise specified in the applicable standard. (NAC 445B.252(3))
5. The Permittee shall give notice to the Director 30 days before the initial opacity compliance demonstrations and initial performance tests to allow the Director to have an observer present. A written testing procedure must be submitted to the Director at least 30 days before the initial opacity compliance demonstrations and initial performance tests to allow the Director to review the proposed testing procedures. (NAC 445B.252(4) and 40 CFR Part 60.7(a)(6))
6. Within 60 days after completing the initial opacity compliance demonstrations and initial performance tests contained in Table IV-1 and Table IV-2 of this section, the Permittee shall furnish the Director a written report of the results. All information and analytical results of testing and sampling must be certified as to the truth and accuracy and as to their compliance with NAC 445B.001 to 445B.390, inclusive. (NAC 445B.252(8))
7. Initial opacity compliance demonstrations and initial performance tests required under this section that are conducted below the maximum allowable throughput, shall be subject to the Director's review to determine if the throughputs during the initial opacity compliance demonstrations and initial performance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the initial opacity compliance demonstrations and initial performance tests do not provide adequate compliance demonstration, the Director may require additional testing.

******End of Specific Construction Requirements******

Issued to: IONEER USA CORPORATION – RHYOLITE RIDGE (AS PERMITTEE)

Section V. Specific Operating Conditions

A. Emission Unit PF1.001

System 01 - Quarry Primary Crushing Loading (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.001	Loading ROM Ore Feed Hopper	4,186,956	422,256

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   Emissions from **PF1.001** shall be controlled by **Fogging Water Sprays**.

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **PF1.001** shall not exceed **1,107.0** tons of **Boron Material** per any one-hour period averaged over a daily basis, nor more than **3,206,160.0** tons per 12-month rolling period.
   b. Hours
      (1) **PF1.001** may operate a total of **24** hours per day**.**

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B.22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.001** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **1.66** pounds per hour, nor more than **2.40** tons per 12-month rolling period.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.66** pounds per hour, nor more than **0.96** tons per 12-month rolling period.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.10** pounds per hour, nor more than **0.15** tons per 12-month rolling period.
   d. The opacity from **PF1.001** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **PF1.001** on a daily basis.
   b. Monitor and record the hours of operation for **PF1.001** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
   e. Conduct and record an observation of visible emissions (excluding water vapor) on the **Fogging Water Sprays** controlling **PF1.001** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log with the following recordkeeping: the calendar date and time of any required monitoring, name of the observer, results of the monthly observation of visible emissions, and any corrective actions taken.
   f. The Permittee of any affected facility that uses wet suppression to control emissions from the affected facility must perform **monthly** periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The Permittee must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the Permittee finds that water is not flowing properly during an inspection of the water spray nozzles. The Permittee must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken.

Issued to: IONEER USA CORPORATION – RHYOLITE RIDGE (AS PERMITTEE)

Section V. Specific Operating Conditions (continued)

B. Emission Unit PF1.002

System 02 - Quarry Primary Crushing (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.002	ROM Ore Feed Hopper transfer to ROM Ore Apron Feeder via chute	4,186,956	422,256
	Apron Feeder to Primary Sizer Feed Conveyor - Fully Enclosed		
	Primary Sizer and Associated Transfers (In: Primary Sizer Feed Conveyor; Out: Primary Sizer Discharge Conveyor) - Fully Enclosed		
PF1.004	Roller Screen 1 and Associated Transfers (In: Primary Sizer Discharge Conveyor; Out: Secondary Sizer and Undersize Discharge Chute) - Fully Enclosed **(Removed DATE 2025, Air Case 12253)**		

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. Emissions from **PF1.002** shall be controlled by **Fogging Water Sprays**.

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **PF1.002** shall not exceed **1,107.0** tons of **Run of Mill Ore** per any one-hour period averaged over a daily basis, nor more than **3,206,160** tons per year.
   b. Hours
      (1) **PF1.002** may operate a total of **24** hours per day.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.002** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **3.32** pounds per hour, nor more than **4.81** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **1.49** pounds per hour, nor more than **2.16** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.23** pounds per hour, nor more than **0.33** tons per year.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **PF1.002** on a daily basis.
   b. Monitor and record the hours of operation for **PF1.002** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Monitor and record the total yearly throughput rate in tons per year. The annual throughput shall be determined as the sum of the monthly throughput rates for the year for all previous months of that year.
   e. Conduct and record an observation of visible emissions (excluding water vapor) on the **Fogging Water Sprays** controlling **PF1.002** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log with the following recordkeeping: the calendar date and time of any required monitoring, name of the observer, results of the monthly observation of visible emissions, and any corrective actions taken.

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Section V. Specific Operating Conditions (continued)

B. Emission Unit PF1.002 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
(continued)
   f. The Permittee of any affected facility that uses wet suppression to control emissions from the affected facility must perform **monthly** periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The Permittee must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the Permittee finds that water is not flowing properly during an inspection of the water spray nozzles. The Permittee must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken.
   g. The Permittee, upon issuance of this operating permit, shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))

5. Federal Requirements (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)
   a. Emission Limits (40 CFR Part 60.672, Table 3)
   On and after the sixtieth day after achieving the maximum production rate at which **PF1.002** will be operated, but not later than 180 days after initial startup, the Permittee shall not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
      (1) Process fugitive emissions from **PF1.002** will not exceed **7 percent** opacity. (40 CFR Part 60.672(b))**.**
      (2) The opacity standard set forth in this part shall apply at all times except during period of startup, shutdown, and malfunction, and as otherwise provided in the applicable standard. (40 CFR 60.11(c))
   b. The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under 40 CFR 60.676(b). (40 CFR 60.674(b))
   c. Notifications and reports required under this subpart and under subpart A of this part to demonstrate compliance with this subpart need only to be sent to the EPA Region or the State which has been delegated authority according to 40 CFR 60.4(b). (40 CFR 60.676(k))
   d. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.002** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

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Section V. Specific Operating Conditions (continued)

C. Emission Unit PF1.035

	System 03 - Quarry Secondary Crushing (Revised DATE 2025, Air Case 12253)	Location UTM (Zone 11, NAD 83) m North	Location UTM (Zone 11, NAD 83) m East
	Secondary Sizer No.1 and Associated Transfers (In: Primary Discharge Conveyor; Out: Scalping Screen Feed Conveyor 1) - Fully Enclosed		
	Secondary Sizer No. 2 and Associated Transfers (In: Scalping Screen Feed Conveyor 1; Out: Scalping Screen Feed Conveyor 2) - Fully Enclosed		
	Scalping Screen Feed Conveyor to Scalping Screen Feed Hopper - Fully Enclosed		
PF1.035	Scalping Screen Feed Hopper transfer to Scalping Screen Feeder **(Added DATE 2025, Air Case 12253)**	4,186,903	422,161
	Scalping Screen and Associated Transfers (In: Scalping Screen Feed Hopper; Out: Scalping Screen Undersize Conveyor or Tertiary Sizer) - Fully Enclosed		
PF1.005	Undersize Discharge Chute transfer to Tertiary (Cone) Crusher Feed Conveyor - Fully Enclosed/Saturated **(Removed DATE 2025, Air Case 12253)**		
PF1.007	Discharge Chute transfer to Tertiary (Cone) Crusher Feed Conveyor - Fully Enclosed/Saturated **(Removed DATE 2025, Air Case 12253)**		
PF1.008	Roller Screen 2 and Associated Transfers (In: Tertiary (Cone) Crusher Feed Conveyor; Out: Tertiary (Cone) Crusher, Vat Feed Tripper Conveyor) - Fully Enclosed/Saturated **(Removed DATE 2025, Air Case 12253)**		
	Tertiary Sizer and Associated Transfers (In; Scalping Screen Undersize Conveyor, Out; Tertiary Sizer Discharge Conveyor) - Fully Enclosed		
	Tertiary Sizer Discharge Conveyor Transfer to Scalping Screen Undersize Conveyor - Fully Enclosed		
	Scalping Screen Undersize Conveyor Transfer to Vat Feed Tripper Conveyor - Fully Enclosed		
	Vat Feed Tripper Conveyor transfer to Vat Loading Transfer Conveyor - Fully Enclosed		
	Vat Loading Transfer Conveyor transfer to Vat Loading Shuttle Conveyor - Fully Enclosed		

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   Emissions from **System 03** shall be controlled by **Fogging Water Sprays**.

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **PF1.035** shall not exceed **1,107.0** tons of **Run of Mill Ore** per any one-hour period averaged over a daily basis, nor more than **3,206,160** tons per year.
   b. Hours
      (1) **PF1.035** may operate a total of **24** hours per day.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.035** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **8.30** pounds per hour, nor more than **12.0** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **3.32** pounds per hour, nor more than **4.81** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.50** pounds per hour, nor more than **0.73** tons per year.

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Section V. Specific Operating Conditions (continued)

C. Emission Unit PF1.035 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **PF1.035** on a daily basis.
   b. Monitor and record the hours of operation for **PF1.035** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Monitor and record the total yearly throughput rate in tons per year. The annual throughput shall be determined as the sum of the monthly throughput rates for the year for all previous months of that year.
   e. Conduct and record an observation of visible emissions (excluding water vapor) on the **Fogging Water Sprays** controlling **PF1.035** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log with the following recordkeeping: the calendar date and time of any required monitoring, name of the observer, results of the monthly observation of visible emissions, and any corrective actions taken.
   f. The Permittee of any affected facility that uses wet suppression to control emissions from the affected facility must perform **monthly** periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The Permittee must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the Permittee finds that water is not flowing properly during an inspection of the water spray nozzles. The Permittee must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken.
   g. The Permittee, upon issuance of this operating permit, shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))

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Section V. Specific Operating Conditions (continued)

C. Emission Unit PF1.035 (continued)

5. Federal Requirements (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)

   a. Emission Limits (40 CFR Part 60.672, Table 3)
   On and after the sixtieth day after achieving the maximum production rate at which **PF1.035** will be operated, but not later than 180 days after initial startup, the Permittee shall not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
      (1) Process fugitive emissions from **PF1.035** will not exceed **7 percent** opacity. (40 CFR Part 60.672(b))**.**
      (2) The opacity standard set forth in this part shall apply at all times except during period of startup, shutdown, and malfunction, and as otherwise provided in the applicable standard. (40 CFR 60.11(c))

   b. The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under 40 CFR 60.676(b). (40 CFR 60.674(b))

   c. Notifications and reports required under Subpart OOO and under subpart A of 40 CFR Part 60 to demonstrate compliance with Subpart OOO need only to be sent to the EPA Region or the State which has been delegated authority according to 40 CFR 60.4(b). (40 CFR 60.676(k))

   d. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.035** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

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Section V. Specific Operating Conditions (continued)

D. System 04 - Quarry Tertiary Crushing (Moved to System 03 DATE 2025, Air Case 12253)

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Section V. Specific Operating Conditions (continued)

E. System 05 - Leaching (Moved to System 03 DATE 2025, Air Case 12253)

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Section V. Specific Operating Conditions (continued)

F. Emission Unit PF1.012

System 06 - Leaching (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.012	Vat Loading Shuttle Conveyor transfer to Vat via chutes	4,187,123	422,050
PF1.013	Vat Loading Shuttle Conveyor Chute 2 transfer to Vat **(REMOVED DATE 2025, Air Case 12253)**		

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   Emissions from **PF1.012** shall be controlled by an **Enclosure**.

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **PF1.012** shall not exceed **1,107.0** tons of **Run of Mill Ore** per any one-hour period averaged over a daily basis, nor more than **3,206,160** tons per year.
   b. Hours
      (1) **PF1.012** may operate a total of **24** hours per day.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.012** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **5.54** pounds per hour, nor more than **8.02** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **2.21** pounds per hour, nor more than **3.21** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.34** pounds per hour, nor more than **0.49** tons per year.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **PF1.012** on a daily basis.
   b. Monitor and record the hours of operation for **PF1.012** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Monitor and record the total yearly throughput rate in tons per year. The annual throughput shall be determined as the sum of the monthly throughput rates for the year for all previous months of that year.
   e. Conduct and record an observation of visible emissions (excluding water vapor) on the **Enclosure** controlling **PF1.012** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly observation of visible emissions, and any corrective actions taken.
   f. Inspect the enclosure installed on **PF1.012** on a **monthly** basis to confirm that the enclosure is in place and functioning properly. If the enclosure is in disrepair, the Permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical to ensure that the enclosure is functioning properly. The Permittee must record each inspection of the enclosures, including the date of each inspection and any corrective actions taken.

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Section V. Specific Operating Conditions (continued)

F. Emission Unit PF1.012 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
(continued)
   g. The Permittee, upon issuance of this operating permit, shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))

5. Federal Requirements (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)
   a. Emission Limits (40 CFR Part 60.672, Table 3)
   On and after the sixtieth day after achieving the maximum production rate at which **PF1.012** will be operated, but not later than 180 days after initial startup, the Permittee shall not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
      (1) Process fugitive emissions from **PF1.012** will not exceed **7 percent** opacity. (40 CFR Part 60.672(b)).
      (2) The opacity standard set forth in this part shall apply at all times except during period of startup, shutdown, and malfunction, and as otherwise provided in the applicable standard. (40 CFR 60.11(c))
   b. Notifications and reports required under Subpart OOO and under subpart A of 40 CFR Part 60 to demonstrate compliance with Subpart OOO need only to be sent to the EPA Region or the State which has been delegated authority according to 40 CFR 60.4(b). (40 CFR 60.676(k))
   c. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.012** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

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Section V. Specific Operating Conditions (continued)

G. Emission Units PF1.014 through PF1.016 and PF1.036

System 07 - Leaching (Fully Saturated) (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.014	Spent Ore transfer to Spent Ore Hopper (via Vat Leach Unloading Crane)	4,187,207	422,006
PF1.036	Spent Ore Hopper transfer to Spent Ore Transfer Conveyor **(Added DATE 2025, Air Case 12253)**	4,187,207	422,006
PF1.015	Spent Ore Transfer Conveyor transfer to Spent Ore Unloading Conveyor	4,187,207	422,006
PF1.016	Spent Ore Unloading Conveyor transfer to Spent Ore Pad	4,186,971	422,179
PF1.017	Spent Ore Unloading Conveyor transfer Chute transfer to Spent Ore Pad **(Removed DATE 2025, Air Case 12253)**		

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   Emissions from **PF1.014 through PF1.016, and PF1.036, each,** shall be controlled by **Full Saturation**.

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **PF1.014 through PF1.016, and PF1.036, each,** shall not exceed **1,107.0** tons of **Spent Ore** per any one-hour period averaged over a daily basis, nor more than **3,206,160** tons per year.
   b. Hours
      (1) **PF1.014 through PF1.016, and PF1.036, each,** may operate a total of **24** hours per day.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.014 through PF1.016, and PF1.036, each,** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.00** pounds per hour, nor more than **0.00** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.00** pounds per hour, nor more than **0.00** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.00** pounds per hour, nor more than **0.00** tons per year.
   d. The opacity from **PF1.014 through PF1.016, and PF1.036, each,** shall not exceed **0.00** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **PF1.014 through PF1.016, and PF1.036, each,** on a daily basis.
   b. Monitor and record the hours of operation for **PF1.014 through PF1.016, and PF1.036, each,** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Monitor and record the total yearly throughput rate in tons per year. The annual throughput shall be determined as the sum of the monthly throughput rates for the year for all previous months of that year.
   e. Conduct and record an observation of visible emissions (excluding water vapor) on **PF1.014 through PF1.016, and PF1.036 each,** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly observation of visible emissions, and any corrective actions taken.

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Section V. Specific Operating Conditions (continued)

H. Emission Units PF1.018 and PF1.037

System 08 - Sulphur Plant (Lime Loading) (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.018	Lime Feed Hopper Loading (Hopper discharge to Lime Bags Screw Conveyor – Fully Enclosed)	4,187,301	421,764
PF1.037	Prilled Sulfur Feed Hopper Loading (Sulphur Feed Conveyor to Sulfur Melting Pit – Fully Enclosed) **(Added DATE 2025, Air Case 12253)**	4,187,303	421,756

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
PF1.018 and PF1.037, each, have no add-on controls.

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **PF1.018** shall not exceed **0.10** tons of **Lime** per any one-hour period averaged over a daily basis, nor more than **2.76** tons per year.
   b. The maximum allowable throughput rate for **PF1.037** shall not exceed **58.0** tons of **Prilled Sulfur** per any one-hour period averaged over a daily basis, nor more than **168,033.7** tons per year.
   c. Hours
      (1) **PF1.018 and PF1.037, each,** may operate a total of **24** hours per day.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B.22017) (*Federally Enforceable SIP Requirement)*
   a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.018** the following pollutants in excess of the following specified limits:
      (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.0010** pounds per hour, nor more than **0.000014** tons per year.
      (2) The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.00040** pounds per hour, nor more than **0.000005** tons per year.
      (3) The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.000061** pounds per hour, nor more than **0.00000084** tons per year.
      (4) The opacity from **PF1.018** shall not equal or exceed **20** percent.
   b. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.037** the following pollutants in excess of the following specified limits:
      (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.58** pounds per hour, nor more than **0.84** tons per year.
      (2) The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.23** pounds per hour, nor more than **0.34** tons per year.
      (3) The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.035** pounds per hour, nor more than **0.051** tons per year.
      (4) The opacity from **PF1.037** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **PF1.018 and PF1.037, each,** on a daily basis.
   b. Monitor and record the hours of operation for **PF1.018 and PF1.037, each,** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Monitor and record the total yearly throughput rate in tons per year. The annual throughput shall be determined as the sum of the monthly throughput rates for the year for all previous months of that year.

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Section V. Specific Operating Conditions (continued)

I. Emission Units PF1.020 through PF1.022 and PF1.038 through PF1.055

System 09 - Boric Acid Plant (Fully Saturated) **(Revised DATE 2025, Air Case 12253)**		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.019	Boric Acid Centrifuge discharge to Sulphate Salts Conveyor - Fully Enclosed **(Removed DATE 2025, Air Case 12253)**		
PF1.020	Salts Conveyor 1 to Salts Bunker 1	4,187,152	421,937
PF1.021	Salts Bunkers 1, 2, and 3 transfer to Haul Truck	4,187,162	421,930
PF1.022	Haul Truck transfer to Spent Ore Storage Facility	4,187,162	421,930
PF1.038	EVP-01- 3 Repulp Centrifuge A to Salts Conveyor 1 **(Added DATE 2025, Air Case 12253)**	4,187,150	421,935
PF1.039	EVP-01- 3 Repulp Centrifuge B to Salts Conveyor 1 **(Added DATE 2025, Air Case 12253)**	4,187,148	421,933
PF1.040	EVP-01- 3 Repulp Centrifuge C to Salts Conveyor 1 **(Added DATE 2025, Air Case 12253)**	4,187,146	421,930
PF1.041	EVP-01- 3 Repulp Centrifuge D to Salts Conveyor 1 **(Added DATE 2025, Air Case 12253)**	4,187,143	421,927
PF1.042	EVP-01- 4 Repulp Centrifuge A to Salts Conveyor 1 **(Added DATE 2025, Air Case 12253)**	4,187,142	421,924
PF1.043	EVP-01- 4 Repulp Centrifuge B to Salts Conveyor 1 **(Added DATE 2025, Air Case 12253)**	4,187,139	421,921
PF1.044	EVP-01- 4 Repulp Centrifuge C to Salts Conveyor 1 **(Added DATE 2025, Air Case 12253)**	4,187,137	421,919
PF1.045	EVP-01- 4 Repulp Centrifuge D to Salts Conveyor 1 **(Added DATE 2025, Air Case 12253)**	4,187,136	421,916
PF1.046	CRZ2-2 Flotation Tails Repulp Centrifuge A to Salts Conveyor 2 **(Added DATE 2025, Air Case 12253)**	4,187,144	421,916
PF1.047	CRZ2-2 Flotation Tails Repulp Centrifuge B to Salts Conveyor 2 **(Added DATE 2025, Air Case 12253)**	4,187,144	421,916
PF1.048	CRZ2-2 Flotation Tails Repulp Centrifuge C to Salts Conveyor 2 **(Added DATE 2025, Air Case 12253)**	4,187,144	421,916
PF1.049	CRZ2-2 Flotation Tails Repulp Centrifuge D to Salts Conveyor 2 **(Added DATE 2025, Air Case 12253)**	4,187,144	421,916
PF1.050	CRZ2-4 Flotation Tails Repulp Centrifuge A to Salts Conveyor 3 **(Added DATE 2025, Air Case 12253)**	4,187,153	421,917
PF1.051	CRZ2-4 Flotation Tails Repulp Centrifuge B to Salts Conveyor 3 **(Added DATE 2025, Air Case 12253)**	4,187,150	421,914
PF1.052	CRZ2-4 Flotation Tails Repulp Centrifuge C to Salts Conveyor 3 **(Added DATE 2025, Air Case 12253)**	4,187,148	421,910
PF1.053	Salts Conveyor 2 to Salts Bunker 2 **(Added DATE 2025, Air Case 12253)**	4,187,149	421,923
PF1.054	Salts Conveyor 3 to Salts Bunker 3 **(Added DATE 2025, Air Case 12253)**	4,187,155	421,919
PF1.055	Impurity Precipitate Filter Press cake to Spent Ore Storage Facility **(Added DATE 2025, Air Case 12253)**	4,187,064	421,994

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. Emissions from **PF1.020 through PF1.022 and PF1.038 through PF1.055, each,** shall be controlled by **Full Saturation**.

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Section V. Specific Operating Conditions (continued)

I. Emission Units PF1.020 through PF1.022 and PF1.038 through PF1.055 (continued)

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **PF1.020 through PF1.022 and PF1.038 through PF1.055, each,** shall not exceed **732.0** tons of **Sulphate Salts** per any one-hour period averaged over a daily basis, nor more than **3,206,160** tons per year.
   b. Hours
      (1) **PF1.020 through PF1.022 and PF1.038 through PF1.055, each,** may operate a total of **24** hours per day.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.020 through PF1.022 and PF1.038 through PF1.055, each,** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.00** pounds per hour, nor more than **0.00** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.00** pounds per hour, nor more than **0.00** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.00** pounds per hour, nor more than **0.00** tons per year.
   d. The opacity from **PF1.020 through PF1.022 and PF1.038 through PF1.055, each,** shall not exceed **0.00** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **PF1.020 through PF1.022 and PF1.038 through PF1.055, each,** on a daily basis.
   b. Monitor and record the hours of operation for **PF1.020 through PF1.022 and PF1.038 through PF1.055, each,** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Monitor and record the total yearly throughput rate in tons per year. The annual throughput shall be determined as the sum of the monthly throughput rates for the year for all previous months of that year.
   e. Conduct and record an observation of visible emissions (excluding water vapor) on **PF1.020 through PF1.022 and PF1.038 through PF1.055, each,** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly observation of visible emissions, and any corrective actions taken.

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Section V. Specific Operating Conditions (continued)

J. Emission Units PF1.024, PF1.025, PF1.056, and PF1.057

System 10 - Lithium Carbonate Plant (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.056	Sulfate Salts Centrifuge A Discharge to Sulphate Salts Stockpile **(Added DATE 2025, Air Case 12253)**	4,187,014	422,018
PF1.057	Sulfate Salts Centrifuge B Discharge to Sulphate Salts Stockpile **(Added DATE 2025, Air Case 12253)**	4,187,017	422,015
PF1.023	Lithium Carbonate Centrifuge discharge to Lithium Carbonate Cake Stockpile - Fully Enclosed **(REMOVED DATE 2025, Air Case 12253)**		
PF1.024	Sulphate Salts Stockpile transfer to Haul Truck	4,187,020	422,017
PF1.025	Haul Truck transfer to Spent Ore Storage Facility	4,185,846	421,445

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   Emissions from **PF1.024, PF1.025, PF1.056, and PF1.057, each,** shall be controlled by **Full Saturation**.

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **PF1.024, PF1.025, PF1.056, and PF1.057, each,** shall not exceed **732.0** tons of **Sulphate Salts** per any one-hour period averaged over a daily basis, nor more than **3,206,160** tons per year.
   b. Hours
      (1) **PF1.024, PF1.025, PF1.056, and PF1.057, each,** may operate a total of **24** hours per day.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.024, PF1.025, PF1.056, and PF1.057, each,** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.00** pounds per hour, nor more than **0.00** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.00** pounds per hour, nor more than **0.00** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.00** pounds per hour, nor more than **0.00** tons per year.
   d. The opacity from **PF1.024, PF1.025, PF1.056, and PF1.057, each,** shall not exceed **0.00** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **PF1.024, PF1.025, PF1.056, and PF1.057, each,** on a daily basis.
   b. Monitor and record the hours of operation for **PF1.024, PF1.025, PF1.056, and PF1.057, each,** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Monitor and record the total yearly throughput rate in tons per year. The annual throughput shall be determined as the sum of the monthly throughput rates for the year for all previous months of that year.
   e. Conduct and record an observation of visible emissions (excluding water vapor) on **PF1.024, PF1.025, PF1.056, and PF1.057, each,** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly observation of visible emissions, and any corrective actions taken.

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Section V. Specific Operating Conditions (continued)

K. Emission Units PF1.026 through PF1.032

System 11 - Vat Leaching (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.026	Vat Tank 1	4,187,208	421,973
PF1.027	Vat Tank 2	4,187,175	421,997
PF1.028	Vat Tank 3	4,187,142	422,022
PF1.029	Vat Tank 4	4,187,108	422,046
PF1.030	Vat Tank 5	4,187,074	422,070
PF1.031	Vat Tank 6	4,187,041	422,095
PF1.032	Vat Tank 7	4,187,008	422,119

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   PF1.026 through PF1.032, each, have no add-on controls.

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **PF1.026 through PF1.032, each,** shall not exceed **732.0** tons of **Sulphuric Acid and Ore** per any one-hour period averaged over a daily basis, nor more than **3,206,160.0** tons per year.
   b. Hours
      (1) **PF1.026 through PF1.032, each,** may operate a total of **24** hours per day.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B.22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.026 through PF1.032, each,** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.000020** pounds per hour, nor more than **0.000089** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.000020** pounds per hour, nor more than **0.000089** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.000020** pounds per hour, nor more than **0.000089** tons per year.
   d. The discharge of **H_2SO_4** (Sulfuric Acid) to the atmosphere shall not exceed **0.000020** pounds per hour, nor more than **0.000089** tons per year.
   e. The opacity from **PF1.026 through PF1.032, each,** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **PF1.026 through PF1.032, each,** on a daily basis.
   b. Monitor and record the hours of operation for **PF1.026 through PF1.032, each,** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Monitor and record the total yearly throughput rate in tons per year. The annual throughput shall be determined as the sum of the monthly throughput rates for the year for all previous months of that year.

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Section V. Specific Operating Conditions (continued)

L. Emission Unit S2.001

System 12 - Sulphuric Acid Plant (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.001	Sulphur Storage Tank (477,706 gallons)	4,187,246	421,789

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.001** has no add-on controls.
   b. Descriptive Stack Parameters
      Stack Height: 40.0 feet
      Stack Diameter: 2.0 feet
      Exhaust Flow: 245 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **S2.001** shall not exceed **120.0** tons of **Molten Sulfur** per any one-hour period averaged over a daily basis.
   b. Hours
      (1) **S2.001** may operate a total of **24** hours per day.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B.22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.001** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.0037** pounds per hour, nor more than **0.016** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.0037** pounds per hour, nor more than **0.016** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.0037** pounds per hour, nor more than **0.016** tons per year.
   d. The discharge of **SO_2** (Sulfur Dioxide) to the atmosphere shall not exceed **0.92** pounds per hour, nor more than **4.01** tons per year.
   e. The discharge of **H_2S** (Hydrogen Sulfide) to the atmosphere shall not exceed **0.49** pounds per hour, nor more than **2.13** tons per year.
   f. The opacity from **S2.001** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **S2.001** on a daily basis.
   b. Monitor and record the hours of operation for **S2.001** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.

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Section V. Specific Operating Conditions (continued)

L. Emission Unit S2.001 (continued)

5. Performance and Compliance Testing (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
The Permittee, upon issuance of this operating permit, shall conduct renewal performance testing at least 90 days prior to the expiration of this operating permit, but no earlier than 365 days from the date of expiration of this operating permit, and every 5 years thereafter, in accordance with the following:
   a. All opacity compliance demonstrations and/or performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of **Section I.H.** Testing and Sampling (NAC 445B.252) of this operating permit. All performance test results shall be based on the arithmetic average of three valid runs (NAC 445B.252(5)).
   b. Testing shall be conducted on the exhaust stack (post controls).
   c. Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
   d. Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM_{10} and $PM_{2.5}$ emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately.
   e. The Method 201A and 202 test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 and Method 202 in Appendix M of 40 CFR Part 51 test. All particulate captured in the Method 5 and Method 202 test performed under this provision shall be considered $PM_{2.5}$ for determination of compliance.
   f. Method 6C in Appendix A of 40 CFR Part 60 shall be used to determine the sulfur dioxide concentration. Each test will be run for a minimum of one hour.
   g. Method 15 in Appendix A of 40 CFR Part 60 shall be used to determine the hydrogen sulfide concentration. Each test will be run for a minimum of one hour.
   h. Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.

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Section V. Specific Operating Conditions (continued)

M. Emission Unit S2.002

System 13 - Sulphuric Acid Plant (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.002	Precoat Pit	4,187,260	421,761

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.002** has no add-on controls.
   b. Descriptive Stack Parameters
      Stack Height: 25.5 feet
      Stack Diameter: 2.00 feet
      Stack Temperature: 195 °F
      Exhaust Flow: 1,010 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **S2.002** shall not exceed **160.8** tons of **Molten Sulfur** per any one-hour period averaged over a daily basis.
   b. Hours
      (1) **S2.002** may operate a total of **24** hours per day.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B.22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.002** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.0037** pounds per hour, nor more than **0.016** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.0037** pounds per hour, nor more than **0.016** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.0037** pounds per hour, nor more than **0.016** tons per year.
   d. The discharge of **SO_2** (Sulfur Dioxide) to the atmosphere shall not exceed **0.15** pounds per hour, nor more than **0.67** tons per year.
   e. The discharge of **H_2S** (Hydrogen Sulfide) to the atmosphere shall not exceed **0.081** pounds per hour, nor more than **0.35** tons per year.
   f. The opacity from **S2.002** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **S2.002** on a daily basis.
   b. Monitor and record the hours of operation for **S2.002** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.

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Section V. Specific Operating Conditions (continued)

M. Emission Unit S2.002 (continued)

5. Performance and Compliance Testing (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
The Permittee, upon issuance of this operating permit, shall conduct renewal performance testing at least 90 days prior to the expiration of this operating permit, but no earlier than 365 days from the date of expiration of this operating permit, and every 5 years thereafter, in accordance with the following:
   a. All opacity compliance demonstrations and/or performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of **Section I.H.** Testing and Sampling (NAC 445B.252) of this operating permit. All performance test results shall be based on the arithmetic average of three valid runs (NAC 445B.252(5)).
   b. Testing shall be conducted on the exhaust stack (post controls).
   c. Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
   d. Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM_{10} and $PM_{2.5}$ emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately.
   e. The Method 201A and 202 test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 and Method 202 in Appendix M of 40 CFR Part 51 test. All particulate captured in the Method 5 and Method 202 test performed under this provision shall be considered $PM_{2.5}$ for determination of compliance.
   f. Method 6C in Appendix A of 40 CFR Part 60 shall be used to determine the sulfur dioxide concentration. Each test will be run for a minimum of one hour.
   g. Method 15 in Appendix A of 40 CFR Part 60 shall be used to determine the hydrogen sulfide concentration. Each test will be run for a minimum of one hour.
   h. Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.

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Section V. Specific Operating Conditions (continued)

N. Emission Unit S2.003

System 14 - Sulphuric Acid Plant (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.003	Clean Sulphur Pit	4,187,259	421,759

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.003** has no add-on controls.
   b. Descriptive Stack Parameters
      Stack Height: 53.8 feet
      Stack Diameter: 1.66 feet
      Stack Temperature: 195 °F
      Exhaust Flow: 171.6 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **S2.003** shall not exceed **160.8** tons of **Molten Sulfur** per any one-hour period averaged over a daily basis.
   b. Hours
      (1) **S2.003** may operate a total of **24** hours per day.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B.22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.003** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.0037** pounds per hour, nor more than **0.016** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.0037** pounds per hour, nor more than **0.016** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.0037** pounds per hour, nor more than **0.016** tons per year.
   d. The discharge of **SO_2** (Sulfur Dioxide) to the atmosphere shall not exceed **0.15** pounds per hour, nor more than **0.67** tons per year.
   e. The discharge of **H_2S** (Hydrogen Sulfide) to the atmosphere shall not exceed **0.081** pounds per hour, nor more than **0.35** tons per year.
   f. The opacity from **S2.003** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **S2.003** on a daily basis.
   b. Monitor and record the hours of operation for **S2.003** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.

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Section V. Specific Operating Conditions (continued)

N. Emission Unit S2.003 (continued)

5. Performance and Compliance Testing (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
The Permittee, upon issuance of this operating permit, shall conduct renewal performance testing at least 90 days prior to the expiration of this operating permit, but no earlier than 365 days from the date of expiration of this operating permit, and every 5 years thereafter, in accordance with the following:
   a. All opacity compliance demonstrations and/or performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of **Section I.H.** Testing and Sampling (NAC 445B.252) of this operating permit. All performance test results shall be based on the arithmetic average of three valid runs (NAC 445B.252(5)).
   b. Testing shall be conducted on the exhaust stack (post controls).
   c. Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
   d. Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM_{10} and $PM_{2.5}$ emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately.
   e. The Method 201A and 202 test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 and Method 202 in Appendix M of 40 CFR Part 51 test. All particulate captured in the Method 5 and Method 202 test performed under this provision shall be considered $PM_{2.5}$ for determination of compliance.
   f. Method 6C in Appendix A of 40 CFR Part 60 shall be used to determine the sulfur dioxide concentration. Each test will be run for a minimum of one hour.
   g. Method 15 in Appendix A of 40 CFR Part 60 shall be used to determine the hydrogen sulfide concentration. Each test will be run for a minimum of one hour.
   h. Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.

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Section V. Specific Operating Conditions (continued)

O. Emission Unit S2.004

System 15 - Sulphuric Acid Plant (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.004	Sulphuric Acid Plant Stack	4,187,285	421,895

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. Emissions from **S2.004** shall be controlled by a **Wet Scrubber**.
   b. Descriptive Stack Parameters
      Stack Height: 197.9 feet
      Stack Diameter: 11.0 feet
      Stack Temperature: 75 °F
      Exhaust Flow: 148,800.0 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **S2.004** shall not exceed **160.8** tons of **Sulphuric Acid** per any one-hour period averaged over a daily basis, nor more than **1,408,170.0** tons per 12-month rolling period.
   b. Hours
      (1) **S2.004** may operate a total of **24** hours per day.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B.22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.004** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **6.21** pounds per hour, nor more than **27.2** tons per 12-month rolling period.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **6.21** pounds per hour, nor more than **27.2** tons per 12-month rolling period.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **6.21** pounds per hour, nor more than **27.2** tons per 12-month rolling period.
   d. The discharge of **SO_2** (Sulfur Dioxide) to the atmosphere shall not exceed **16.8** pounds per hour, nor more than **73.7** tons per 12-month rolling period.
   e. The discharge of **NO_X** (Oxides of Nitrogen) to the atmosphere shall not exceed **17.1** pounds per hour, nor more than **75.0** tons per 12-month rolling period.
   f. The discharge of **H_2SO_4** (Sulfuric Acid) to the atmosphere shall not exceed **5.57** pounds per hour, nor more than **24.4** tons per 12-month rolling period.
   g. The opacity from **S2.004** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **S2.004** on a daily basis.
   b. Monitor and record the hours of operation for **S2.004** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.

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Section V. Specific Operating Conditions (continued)

O. Emission Unit S2.004 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)* (continued)
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
(continued)
   e. Conduct and record an observation of visible emissions (excluding water vapor) on the **Wet Scrubber** controlling **S2.004** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly observation of visible emissions, and any corrective actions taken.
   f. Inspect the **Wet Scrubber** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the water spray nozzles), and any corrective actions taken.
   g. Monitor and record the pressure drop and water flow rate values for the **Wet Scrubber**, when the Sulphuric Acid Plant is operating, at least once every hour.
      (1) Sulphuric Acid Plant operation is defined as the combustion of Sulphur in air.
      (2) Compare the values to the minimum water flow rate and pressure drop established using the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data.
      (3) During hours when the monitoring system is not available due to unplanned events, the permittee shall substitute the missing values with those obtained during the most recent source test at the Wet Scrubber.

5. Performance and Compliance Testing (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
The Permittee, upon issuance of this operating permit, shall conduct annual performance testing within 90 days of the anniversary date of the previous initial performance testing or annual performance testing, and annually thereafter, in accordance with the following:
   a. All opacity compliance demonstrations and/or performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of **Section I.H.** Testing and Sampling (NAC 445B.252) of this operating permit. All performance test results shall be based on the arithmetic average of three valid runs (NAC 445B.252(5)).
   b. Testing shall be conducted on the exhaust stack (post controls).
   c. Method 5 and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine particulate matter emissions. All particulate captured in the Method 5 and Method 202 test shall be considered PM2.5 for determination of compliance. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
   d. Method 6C in Appendix A of 40 CFR Part 60 shall be used to determine the sulfur dioxide concentration. Each test will be run for a minimum of one hour.
   e. Method 7E in Appendix A of 40 CFR Part 60 shall be used to determine the nitrogen oxides concentration. Each test will be run for a minimum of one hour.
   f. Method 8 in Appendix A of 40 CFR Part 60 shall be used to determine the sulfuric acid mist concentration. The sample volume for each test run shall be at least 1.15 dscm (40.6 dscf). Each test will be run for a minimum of one hour.
   g. Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.

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Section V. Specific Operating Conditions (continued)

O. Emission Unit S2.004 (continued)

6. Federal Requirements (NAC 445B.346(2)) (NAC 445B.252.1) (*Federally Enforceable SIP Requirement)*
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart H—Standards of Performance for Sulfuric Acid Plants

a. Emission Standards (40 CFR 60.82(a) and 60.83(a))

(1) Standard for sulfur dioxide (40 CFR 60.82(a))
On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of Subpart H shall cause to be discharged into the atmosphere from any affected facility any gases which contain sulfur dioxide in excess of 2 kg per metric ton of acid produced (4 lb per ton/ 643.0 lbs per hour), the production being expressed as 100 percent H_2SO_4.

(2) Standard for acid mist (40 CFR 60.83(a))
On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of Subpart H shall cause to be discharged into the atmosphere from any affected facility any gases which:

(a) Contain acid mist, expressed as H_2SO_4, in excess of 0.075 kg per metric ton of acid produced (0.15 lb per ton/ 24.11 lbs per hour), the production being expressed as 100 percent H_2SO_4.

(b) Exhibit 10 percent opacity, or greater.

b. Emission Monitoring (40 CFR 60.84)

(1) A continuous monitoring system for the measurement of sulfur dioxide shall be installed, calibrated, maintained, and operated by the owner or operator. The pollutant gas used to prepare calibration gas mixtures under Performance Specification 2 and for calibration checks under §60.13(d), shall be sulfur dioxide (SO_2). Method 8 shall be used for conducting monitoring system performance evaluations under §60.13(c) except that only the sulfur dioxide portion of the Method 8 results shall be used. The span value shall be set at 1000 ppm of sulfur dioxide. (40 CFR 60.84(a))

(2) The owner or operator shall establish a conversion factor for the purpose of converting monitoring data into units of the applicable standard (kg/metric ton, lb/ton). The conversion factor shall be determined, as a minimum, three times daily by measuring the concentration of sulfur dioxide entering the converter using suitable methods (e.g., the Reich test, National Air Pollution Control Administration Publication No. 999-AP-13) and calculating the appropriate conversion factor for each eight-hour period as follows: (40 CFR 60.84(b))

$$CF = k[(1.000-0.015r)/(r-s)]$$

where:

CF = conversion factor (kg/metric ton per ppm, lb/ton per ppm).

k = constant derived from material balance. For determining CF in metric units, k = 0.0653. For determining CF in English units, k = 0.1306.

r = percentage of sulfur dioxide by volume entering the gas converter. Appropriate corrections must be made for air injection plants subject to the Administrator's approval.

s = percentage of sulfur dioxide by volume in the emissions to the atmosphere determined by the continuous monitoring system required under paragraph (a) of this section.

(3) The owner or operator shall record all conversion factors and values under paragraph (b) of this section from which they were computed (i.e., CF, r, and s). (40 CFR 60.84(c))

Issued to: IONEER USA CORPORATION – RHYOLITE RIDGE (AS PERMITTEE)

Section V. Specific Operating Conditions (continued)

O. Emission Unit S2.004 (continued)

6. Federal Requirements (NAC 445B.346(2)) (NAC 445B.252.1) (*Federally Enforceable SIP Requirement)*
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart H—Standards of Performance for Sulfuric Acid Plants (continued)

b. Emission Monitoring (40 CFR 60.84) (continued)

(4) Alternatively, a source that processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen may use the following continuous emission monitoring approach and calculation procedures in determining SO_2 emission rates in terms of the standard. This procedure is not required, but is an alternative that would alleviate problems encountered in the measurement of gas velocities or production rate. Continuous emission monitoring systems for measuring SO_2, O_2, and CO_2 (if required) shall be installed, calibrated, maintained, and operated by the owner or operator and subjected to the certification procedures in Performance Specifications 2 and 3. The calibration procedure and span value for the SO_2 monitor shall be as specified in paragraph (b) of this section. The span value for CO_2 (if required) shall be 10 percent and for O_2 shall be 20.9 percent (air). A conversion factor based on process rate data is not necessary. Calculate the SO_2 emission rate as follows: (40 CFR 60.84(d))

$$Es = (Cs\ S)/[0.265 - (0.0126\ \%O_2) - (A\ \%CO_2)]$$

where:

Es = emission rate of SO_2, kg/metric ton (lb/ton) of 100 percent of H_2SO_4 produced.
Cs = concentration of SO_2, kg/dscm (lb/dscf).
S = acid production rate factor, 368 dscm/metric ton (11,800 dscf/ton) of 100 percent H_2SO_4 produced.
$\%O_2$ = oxygen concentration, percent dry basis.
A = auxiliary fuel factor,
= 0.00 for no fuel.
= 0.0226 for methane.
= 0.0217 for natural gas.
= 0.0196 for propane.
= 0.0172 for No 2 oil.
= 0.0161 for No 6 oil.
= 0.0148 for coal.
= 0.0126 for coke.
$\%CO_2$ = carbon dioxide concentration, percent dry basis.

Note: It is necessary in some cases to convert measured concentration units to other units for these calculations:

Use the following table for such conversions:

From	To	Multiply by
g/scm	kg/scm	10^{-3}
mg/scm	kg/scm	10^{-6}
ppm (SO_2)	kg/scm	2.660×10^{-6}
ppm (SO_2)	lb/scf	1.660×10^{-7}

(5) For the purpose of reports under §60.7(c), periods of excess emissions shall be all three-hour periods (or the arithmetic average of three consecutive one-hour periods) during which the integrated average sulfur dioxide emissions exceed the applicable standards under **O.6.a.(1)** of this section or §60.82. (40 CFR 60.84(e))

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Section V. Specific Operating Conditions (continued)

O. Emission Unit S2.004 (continued)

6. Federal Requirements (NAC 445B.346(2)) (NAC 445B.252.1) (*Federally Enforceable SIP Requirement)*
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart H—Standards of Performance for Sulfuric Acid Plants (continued)

c. Test Methods and Procedures (40 CFR 60.85)

(1) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of 40 CFR Part 60 or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (c) of this section. (40 CFR 60.85 (a))

(2) The owner or operator shall determine compliance with the SO_2 acid mist, and visible emission standards in **O.6.a.(1) and (2)** of this section or §§60.82 and 60.83 as follows: (40 CFR 60.85 (a))

(a) The emission rate (E) of acid mist or SO_2 shall be computed for each run using the following equation:

E = (CQsd) / (PK)
where:
E = emission rate of acid mist or SO_2 kg/metric ton (lb/ton) of 100 percent H_2SO_4 produced.
C = concentration of acid mist or SO_2, g/dscm (lb/dscf).
Qsd = volumetric flow rate of the effluent gas, dscm/hr (dscf/hr).
P = production rate of 100 percent H_2SO_4, metric ton/hr (ton/hr).
K = conversion factor, 1000 g/kg (1.0 lb/lb).

(b) Method 8 shall be used to determine the acid mist and SO_2 concentrations (C's) and the volumetric flow rate (Qsd) of the effluent gas. The moisture content may be considered to be zero. The sampling time and sample volume for each run shall be at least 60 minutes and 1.15 dscm (40.6 dscf).

(c) Suitable methods shall be used to determine the production rate (P) of 100 percent H_2SO_4 for each run. Material balance over the production system shall be used to confirm the production rate.

(d) Method 9 and the procedures in §60.11 shall be used to determine opacity.

(3) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section: (40 CFR 60.85 (a))

(a) If a source processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen, the following procedure may be used instead of determining the volumetric flow rate and production rate:

(i) The integrated technique of Method 3 is used to determine the O_2 concentration and, if required, CO_2 concentration.

(ii) The SO_2 or acid mist emission rate is calculated as described in **O.6.b.(4)** of this section or §60.84(d), substituting the acid mist concentration for Cs as appropriate.

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Section V. Specific Operating Conditions (continued)

P. Emission Units PF1.033 and PF1.034

System 16 - Sulphuric Acid Plant Tanks (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.033	Sulphuric Acid Tank 1 (508,006 gallon)	4,187,299	421,937
PF1.034	Sulphuric Acid Tank 2 (508,006 gallon)	4,187,283	421,949

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **PF1.033 and PF1.034, each,** have no add-on controls.

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **PF1.033 and PF1.034, each,** shall not exceed **160.0** tons of **Sulphuric Acid** per any one-hour period averaged over a daily basis.
   b. Hours
      (1) **PF1.033 and PF1.034, each,** may operate a total of **24** hours per day.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B.22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.033 and PF1.034, each,** the following pollutants in excess of the following specified limits:
   a. The discharge of **SO_2** (Sulfur Dioxide) to the atmosphere shall not exceed **0.0000023** pounds per hour, nor more than **0.000010** tons per year.
   b. The discharge of **H_2SO_4** (Sulfuric Acid) to the atmosphere shall not exceed **0.00010** pounds per hour, nor more than **0.00045** tons per year.
   c. The opacity from **PF1.033 and PF1.034, each,** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **PF1.033 and PF1.034, each,** on a daily basis.
   b. Monitor and record the hours of operation for **PF1.033 and PF1.034, each,** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.

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Section V. Specific Operating Conditions (continued)

Q. Emission Unit S2.005

System 17 - Acid Plant Start-Up Burner (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.005	Acid Plant Start-Up Burner (Diesel-Fired, 120 MMBtu/hr)	4,187,255	421,814

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.005** has no add-on controls.
   b. Descriptive Stack Parameters
      Stack Height: 56.0 feet
      Stack Diameter: 4.33 feet
      Stack Temperature: 2,100 °F
      Exhaust Flow: 43,480 dry standard cubic feet per minute (dscfm)

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.005** may consume only **Diesel.**
   b. The maximum allowable fuel consumption rate for **S2.005** shall not exceed **876.0 gallons** per any one-hour period averaged over a daily basis, nor more than **93,541.0 gallons** per any year.
   c. The sulfur content shall not exceed **0.0015** percent.
   d. Hours
      (1) **S2.005** may operate a total of **24** hours per day**.**

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.005** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **6.00** pounds per hour, nor more than **0.32** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **6.00** pounds per hour, nor more than **0.32** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **6.00** pounds per hour, nor more than **0.32** tons per year.
   d. The discharge of **SO_2** (sulfur dioxide) to the atmosphere shall not exceed **0.093** pounds per hour, nor more than **0.0050** tons per year.
   e. The discharge of **NOx** (oxides of nitrogen) to the atmosphere shall not exceed **18.0** pounds per hour, nor more than **0.96** tons per year.
   f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **4.80** pounds per hour, nor more than **0.26** tons per year.
   g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **7.20** pounds per hour, nor more than **0.38** tons per year.
   h. The opacity from **S2.005** shall not equal or exceed **20** percent.

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Section V. Specific Operating Conditions (continued)

Q. Emission Unit S2.005 (continued)

4. Monitoring and Recordkeeping (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
The Permittee, upon issuance of this operating permit, shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b)
   a. Monitor and record the hours of operation for **S2.005** on a daily basis.
   b. Monitor and record the consumption rate of **Diesel** on a daily basis for **S2.005** (in **gallons**) by use of a fuel flow meter.
   c. Record the corresponding average hourly consumption rate in gallons per hour. The average hourly consumption rate shall be determined from the total daily consumption and the total daily hours of operation.
   d. Keep on site, and make available upon request, documentation demonstrating that the sulfur content of the **Diesel** consumed in **S2.005** shall not exceed the limit set forth in **Q.2.b** of this section.

5. Performance and Compliance Testing (NAC 445B.346(2)), (NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
The Permittee, upon issuance of this operating permit, shall conduct annual performance testing within 90 days of the anniversary date of the previous initial performance testing or annual performance testing, and annually thereafter, in accordance with the following:
   a. All opacity compliance demonstrations and/or performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of **Section I.H.** Testing and Sampling (NAC 445B.252) of this operating permit. All performance test results shall be based on the arithmetic average of three valid runs (NAC 445B.252(5)).
   b. Testing shall be conducted on the exhaust stack (post controls).
   c. Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
   d. Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM_{10} and $PM_{2.5}$ emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately.
   e. The Method 201A and 202 test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 and Method 202 in Appendix M of 40 CFR Part 51 test. All particulate captured in the Method 5 and Method 202 test performed under this provision shall be considered $PM_{2.5}$ for determination of compliance.
   f. Method 6C in Appendix A of 40 CFR Part 60 shall be used to determine the sulfur dioxide concentration. Each test will be run for a minimum of one hour.
   g. Method 7E in Appendix A of 40 CFR Part 60 shall be used to determine the nitrogen oxides concentration. Each test will be run for a minimum of one hour.
   h. Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.
   i. Method 10 in Appendix A of 40 CFR Part 60 shall be used to determine the carbon monoxide concentration. Each test will be run for a minimum of one hour.
   j. Method 25A in Appendix A of 40 CFR Part 60 shall be used to determine the volatile organic compound concentration. Method 18 in Appendix A of 40 CFR Part 60 or Method 320 in Appendix A of CFR Part 63 may be used in conjunction with Method 25A to break out the organic compounds that are not considered VOC's by definition per 40 CFR 51.100(s). Each Method 25A test will be run for a minimum of one hour.

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Section V. Specific Operating Conditions (continued)

R. Emission Unit S2.006

System 18 - Auxiliary Boiler (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.006	Auxiliary Boiler (Diesel-Fired, 148 MMBtu)	4,187,301	421,811

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.006** has no add-on controls.
   b. Descriptive Stack Parameters
      Stack Height: 50 feet
      Stack Diameter: 3.83 feet
      Stack Temperature: 311 °F
      Exhaust Flow: 52,052 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.006** may consume only **Diesel.**
   b. The maximum allowable fuel consumption rate for **S2.006** shall not exceed **1,080.0 gallons** per any one-hour period averaged over a daily basis, nor more than **2,120,427.0 gallons** per year.
   c. The sulfur content shall not exceed **0.0015** percent.
   d. Hours
      (1) **S2.006** may operate a total of **24** hours per day**.**

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.006** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **7.40** pounds per hour, nor more than **7.26** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **7.40** pounds per hour, nor more than **7.26** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **7.40** pounds per hour, nor more than **7.26** tons per year.
   d. The discharge of **SO_2** (sulfur dioxide) to the atmosphere shall not exceed **0.11** pounds per hour, nor more than **0.11** tons per year.
   e. The discharge of **NOx** (oxides of nitrogen) to the atmosphere shall not exceed **8.29** pounds per hour, nor more than **10.37** tons per year.
   f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **5.62** pounds per hour, nor more than **5.52** tons per year.
   g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.59** pounds per hour, nor more than **0.58** tons per year.
   h. The opacity from **S2.006** shall not equal or exceed **20** percent.

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Section V. Specific Operating Conditions (continued)

R. Emission Unit S2.006 (continued)

4. Monitoring and Recordkeeping (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the hours of operation for **S2.006** on a daily basis.
   b. Monitor and record the consumption rate of **Diesel** on a daily basis for **S2.006** (in **gallons**) by use of a fuel flow meter.
   c. Record the corresponding average hourly consumption rate in gallons per hour. The average hourly consumption rate shall be determined from the total daily consumption and the total daily hours of operation.
   d. Keep on site, and make available upon request, documentation demonstrating that the sulfur content of the **Diesel** consumed in **S2.006** shall not exceed the limit set forth in **R.2.b** of this section.

5. Performance and Compliance Testing (NAC 445B.346(2)), (NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
The Permittee, upon issuance of this operating permit, shall conduct annual performance testing within 90 days of the anniversary date of the previous initial performance testing or annual performance testing, and annually thereafter, in accordance with the following:
   a. All opacity compliance demonstrations and/or performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of **Section I.H.** Testing and Sampling (NAC 445B.252) of this operating permit. All performance test results shall be based on the arithmetic average of three valid runs (NAC 445B.252(5)).
   b. Testing shall be conducted on the exhaust stack (post controls).
   c. Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
   d. Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM_{10} and $PM_{2.5}$ emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately.
   e. The Method 201A and 202 test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 and Method 202 in Appendix M of 40 CFR Part 51 test. All particulate captured in the Method 5 and Method 202 test performed under this provision shall be considered $PM_{2.5}$ for determination of compliance.
   f. Method 6C in Appendix A of 40 CFR Part 60 shall be used to determine the sulfur dioxide concentration. Each test will be run for a minimum of one hour.
   g. Method 7E in Appendix A of 40 CFR Part 60 shall be used to determine the nitrogen oxides concentration. Each test will be run for a minimum of one hour.
   h. Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.
   i. Method 10 in Appendix A of 40 CFR Part 60 shall be used to determine the carbon monoxide concentration. Each test will be run for a minimum of one hour.
   j. Method 25A in Appendix A of 40 CFR Part 60 shall be used to determine the volatile organic compound concentration. Method 18 in Appendix A of 40 CFR Part 60 or Method 320 in Appendix A of CFR Part 63 may be used in conjunction with Method 25A to break out the organic compounds that are not considered VOC's by definition per 40 CFR 51.100(s). Each Method 25A test will be run for a minimum of one hour.

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Section V. Specific Operating Conditions (continued)

R. Emission Unit S2.006 (continued)

6. Federal Requirements (NAC 445B.346(2)) (NAC 445B.252.1) (*Federally Enforceable SIP Requirement)*
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart Db—Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

a. Emission Standards (40 CFR 60.42b. 60.43b, and 60.44b)

(1) Standard for sulfur dioxide (40 CFR 60.42b)

(a) Percent reduction requirements are not applicable to affected facilities combusting only very low sulfur oil. The owner or operator of an affected facility combusting very low sulfur oil shall demonstrate that the oil meets the definition of very low sulfur oil by: (40 CFR 60.42b(j))

(i) maintaining fuel records as described under **R.6.d.(4)** of this section or in §60.49b(r). (40 CFR 60.42b(j)(2))

(b) Units firing only very low sulfur oil, gaseous fuel, a mixture of these fuels, or a mixture of these fuels with any other fuels with a potential SO_2 emission rate of **140** ng/J (**0.32** lb/MMBtu, **47.4** lbs/hr) heat input or less are exempt from the SO_2 emissions limit in §60.42b(k)(1). (40 CFR 60.42b(k)(2))

(2) Standard for particulate matter (40 CFR 60.43b)

(a) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, wood, or mixtures of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. An owner or operator of an affected facility that elects to install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring PM emissions according to the requirements of Subpart Db and is subject to a federally enforceable PM limit of **0.030** lb/MMBtu (**4.44** lbs/hr) or less is exempt from the opacity standard specified in this paragraph. (40 CFR 60.43b(f))

(b) The PM and opacity standards apply at all times, except during periods of startup, shutdown, or malfunction. (40 CFR 60.43b(g))

(3) Standard for nitrogen oxides (40 CFR 60.44b)

(a) Except as provided under 40 CFR 60.44b(k) and (l), on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that is subject to the provisions of this section and that combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO_X (expressed as NO_2) in excess of the following emission limits, (40 CFR 60.44b(a))

	Nitrogen oxide emission limits (expressed as NO_2) heat input		
Fuel/steam generating unit type	ng/J	lb/MMBtu	lbs/hr
(1) Natural gas and distillate oil, except (4):			
(ii) High heat release rate	**86**	**0.20**	**29.6**

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Section V. Specific Operating Conditions (continued)

R. Emission Unit S2.006 (continued)

6. Federal Requirements (NAC 445B.346(2)) (NAC 445B.252.1) (*Federally Enforceable SIP Requirement)* (continued)
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart Db—Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (continued)
   a. Emission Standards (40 CFR 60.42b. 60.43b, and 60.44b) (continued)
      (3) Standard for nitrogen oxides (40 CFR 60.44b) (continued)
         (b) Compliance with the emission limits under this section is determined on a 24-hour average basis for the initial performance test and on a 3-hour average basis for subsequent performance tests for any affected facilities that: (40 CFR 60.44b(j))
            (i) Combust, alone or in combination, only natural gas, distillate oil, or residual oil with a nitrogen content of 0.30 weight percent or less; (40 CFR 60.44b(j)(1))
            (ii) Have a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil with a nitrogen content of 0.30 weight percent or less; and(40 CFR 60.44b(j)(2))
            (iii) Are subject to a federally enforceable requirement limiting operation of the affected facility to the firing of natural gas, distillate oil, and/or residual oil with a nitrogen content of 0.30 weight percent or less and limiting operation of the affected facility to a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil with a nitrogen content of 0.30 weight percent or less. (40 CFR 60.44b(j)(3))
         (c) For purposes of **R.6.a.(3)(d)** of this section or in §60.44b(i), the NO_X standards under this section apply at all times including periods of startup, shutdown, or malfunction. (40 CFR 60.44b(h))
         (d) Except as provided under **R.6.a.(3)(c)** of this section or in §60.44b(j), compliance with the emission limits under this section is determined on a 30-day rolling average basis. (40 CFR 60.44b(i))
   b. Compliance and performance test methods and procedures (40 CFR 60.45b and 60.46b)
      (1) Sulfur dioxide (40 CFR 60.45b)
         (a) The owner or operator of an affected facility that only combusts very low sulfur oil, natural gas, or a mixture of these fuels with any other fuels not subject to an SO_2 standard is not subject to the compliance and performance testing requirements of this section if the owner or operator obtains fuel receipts as described under **R.6.d.(4)** of this section or in §60.49b(r). (40 CFR 60.45b(j))
      (2) Particulate matter and nitrogen oxides (40 CFR 60.46b)
         (a) The PM emission standards and opacity limits under **R.6.a.(2)** of this section or §60.43b apply at all times except during periods of startup, shutdown, or malfunction. The NO_X emission standards under **R.6.a.(3)** of this section or §60.44b apply at all times. (40 CFR 60.46b(a))
         (b) Compliance with the NO_X emission standards under **R.6.a.(3)** of this section or §60.44b shall be determined through performance testing under **R.6.b.(2)(d)** of this section or 40 CFR 60.46b(g), as applicable. (40 CFR 60.46b(c))
         (c) To determine compliance with the PM emission limits and opacity limits under **R.6.a.(2)** of this section or §60.43b, the owner or operator of an affected facility shall conduct an initial performance test as required under §60.8, and shall conduct subsequent performance tests as requested by the Administrator, using the following procedures and reference methods: (40 CFR 60.46b(d))
            (i) Method 9 of appendix A of 40 CFR Part 60 is used for determining the opacity of stack emissions. (40 CFR 60.46b(d)(7))

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Section V. Specific Operating Conditions (continued)

R. Emission Unit S2.006 (continued)

6. Federal Requirements (NAC 445B.346(2)) (NAC 445B.252.1) (*Federally Enforceable SIP Requirement)* (continued)
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart Db—Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (continued)

b. Compliance and performance test methods and procedures (40 CFR 60.45b and 60.46b) (continued)

(2) Particulate matter and nitrogen oxides (40 CFR 60.46b) (continued)

(d) The owner or operator of an affected facility described in **R.6.a.(3)(b)** of this section or in §60.44b(j) shall demonstrate the maximum heat input capacity of the steam generating unit by operating the facility at maximum capacity for 24 hours. The owner or operator of an affected facility shall determine the maximum heat input capacity using the heat loss method or the heat input method described in sections 5 and 7.3 of the ASME Power Test Codes 4.1 (incorporated by reference, see §60.17). This demonstration of maximum heat input capacity shall be made during the initial performance test for affected facilities that meet the criteria of **R.6.a.(3)(b)** of this section or §60.44b(j). Subsequent demonstrations may be required by the Administrator at any other time. If this demonstration indicates that the maximum heat input capacity of the affected facility is less than that stated by the manufacturer of the affected facility, the maximum heat input capacity determined during this demonstration shall be used to determine the capacity utilization rate for the affected facility. Otherwise, the maximum heat input capacity provided by the manufacturer is used. (40 CFR 60.46b(g))

c. Emission Monitoring (40 CFR 60.47b and 60.48b)

(1) Sulfur dioxide (40 CFR 60.47b)

(a) The owner or operator of an affected facility that combusts very low sulfur oil or is demonstrating compliance under §60.45b(k) is not subject to the emission monitoring requirements under 40 CFR 60.47b(a) of this section if the owner or operator maintains fuel records as described under **R.6.d.(4)** of this section or in §60.49b(r). (40 CFR 60.47b(f))

(2) Particulate matter and nitrogen oxides (40 CFR 60.48b)

(a) The owner or operator of an affected facility described in **R.6.a.(3)(b)** of this section or §60.44b(j) is not required to install or operate a CEMS for measuring NO_X emissions. (40 CFR 60.48b(i))

(b) An owner or operator of an affected facility that is subject to an opacity standard under **R.6.a.(2)(a)** of this section or §60.43b(f) is not required to operate a COMS provided that the unit burns only gaseous fuels and/or liquid fuels (excluding residue oil) with a potential SO_2 emissions rate no greater than **26** ng/J (**0.060** lb/MMBtu, **8.88** lbs/hr), and the unit operates according to a written site-specific monitoring plan approved by the permitting authority is not required to operate a COMS. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard. For testing performed as part of this site-specific monitoring plan, the permitting authority may require as an alternative to the notification and reporting requirements specified in §§60.8 and 60.11 that the owner or operator submit any deviations with the excess emissions report required under §60.49b(h). (40 CFR 60.48b(l))

d. Recordkeeping (40 CFR 60.49b)

(1) Except as provided in **R.6.d.(1)(b)** of this section or §60.49b(d)(2), the owner or operator of an affected facility shall record and maintain records as specified in **R.6.d.(1)(a)** of this section or §60.49b(d)(1). (40 CFR 60.49b(d))

(a) The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, distillate oil, residual oil, natural gas, wood, and municipal-type solid waste for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. (40 CFR 60.49b(d)(1))

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Section V. Specific Operating Conditions (continued)

R. Emission Unit S2.006 (continued)

6. Federal Requirements (NAC 445B.346(2)) (NAC 445B.252.1) (*Federally Enforceable SIP Requirement)* (continued)
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart Db—Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (continued)
   d. Recordkeeping (40 CFR 60.49b) (continued)
      (1) Except as provided in **R.6.d.(1)(b)** of this section or §60.49b(d)(2), the owner or operator of an affected facility shall record and maintain records as specified in **R.6.d.(1)(a)** of this section or §60.49b(d)(1). (40 CFR 60.49b(d)) (continued)
         (b) As an alternative to meeting the requirements of **R.6.d.(1)(a)** of this section or §60.49b(d)(1), the owner or operator of an affected facility that is subject to a federally enforceable permit restricting fuel use to a single fuel such that the facility is not required to continuously monitor any emissions (excluding opacity) or parameters indicative of emissions may elect to record and maintain records of the amount of each fuel combusted during each calendar month. (40 CFR 60.49b(d)(2))
      (2) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of 2 years following the date of such record. (40 CFR 60.49b(o))
      (3) The owner or operator of an affected facility described in **R.6.a.(3)(b)** of this section or §60.44b(j) or (k) shall maintain records of the following information for each steam generating unit operating day: (40 CFR 60.49b(p))
         (a) Calendar date; (40 CFR 60.49b(p)(1))
         (b) The number of hours of operation; and (40 CFR 60.49b(p)(2))
         (c) A record of the hourly steam load. (40 CFR 60.49b(p)(3))
      (4) The owner or operator of an affected facility who elects to use the fuel based compliance alternatives in **R.6.a.(1) or (2)** or §60.42b or §60.43b shall either: (40 CFR 60.49b(r))
         (a) The owner or operator of an affected facility who elects to demonstrate that the affected facility combusts only very low sulfur oil, natural gas, wood, a mixture of these fuels, or any of these fuels (or a mixture of these fuels) in combination with other fuels that are known to contain an insignificant amount of sulfur in **R.6.a.(1)(a) or (b)** or §60.42b(j) or §60.42b(k) shall obtain and maintain at the affected facility fuel receipts (such as a current, valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the oil meets the definition of distillate oil and gaseous fuel meets the definition of natural gas as defined in §60.41b and the applicable sulfur limit. For the purposes of this section, the distillate oil need not meet the fuel nitrogen content specification in the definition of distillate oil. Reports shall be submitted to the Administrator certifying that only very low sulfur oil meeting this definition, natural gas, wood, and/or other fuels that are known to contain insignificant amounts of sulfur were combusted in the affected facility during the reporting period; or (40 CFR 60.49b(r)(1))
         (b) The owner or operator of an affected facility who elects to demonstrate compliance based on fuel analysis in **R.6.a.(1) or (2)** or §60.42b or §60.43b shall develop and submit a site-specific fuel analysis plan to the Administrator for review and approval no later than 60 days before the date you intend to demonstrate compliance. Each fuel analysis plan shall include a minimum initial requirement of weekly testing and each analysis report shall contain, at a minimum, the following information: (40 CFR 60.49b(r)(2))
            (i) The potential sulfur emissions rate of the representative fuel mixture in ng/J heat input; (40 CFR 60.49b(r)(2)(i))
            (ii) The method used to determine the potential sulfur emissions rate of each constituent of the mixture. For distillate oil and natural gas a fuel receipt or tariff sheet is acceptable; (40 CFR 60.49b(r)(2)(ii))
            (iii) The ratio of different fuels in the mixture; and (40 CFR 60.49b(r)(2)(iii))
            (iv) The owner or operator can petition the Administrator to approve monthly or quarterly sampling in place of weekly sampling. (40 CFR 60.49b(r)(2)(iv))

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Section V. Specific Operating Conditions (continued)

R. Emission Unit S2.006 (continued)

6. Federal Requirements (NAC 445B.346(2)) (NAC 445B.252.1) (*Federally Enforceable SIP Requirement)* (continued)
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart Db—Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (continued)

e. Reporting (40 CFR 60.49b)

(1) The owner or operator of each affected facility shall submit notification of the date of initial startup, as provided by §60.7. This notification shall include: (40 CFR 60.49b(a))

(a) The design heat input capacity of the affected facility and identification of the fuels to be combusted in the affected facility; (40 CFR 60.49b(a)(1))

(b) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under **R.6.a.(3) or R.6.c.(2)(a)** of this section or §60.44b(j) or §60.48b(i); (40 CFR 60.49b(a)(2))

(c) The annual capacity factor at which the owner or operator anticipates operating the facility based on all fuels fired and based on each individual fuel fired; and (40 CFR 60.49b(a)(3))

(d) Notification that an emerging technology will be used for controlling emissions of SO_2. The Administrator will examine the description of the emerging technology and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of §60.42b(a) unless and until this determination is made by the Administrator. (40 CFR 60.49b(a)(4))

(2) The owner or operator of each affected facility subject to the SO_2, PM, and/or NO_X emission limits under **R.6.a.(1), (2) and (3)** of this section or §§60.42b, 60.43b, and 60.44b shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in appendix B of 40 CFR Part 60. The owner or operator of each affected facility described in **R.6.a.(3)(b)** of this section or §60.44b(j) shall submit to the Administrator the maximum heat input capacity data from the demonstration of the maximum heat input capacity of the affected facility. (40 CFR 60.49b(b))

(3) The owner or operator of an affected facility described in **R.6.a.(3)(b)** of this section or §60.44b(j) shall submit to the Administrator a report containing: (40 CFR 60.49b(q))

(a) The annual capacity factor over the previous 12 months; (40 CFR 60.49b(q)(1))

(b) The average fuel nitrogen content during the reporting period, if residual oil was fired; and (40 CFR 60.49b(q)(2))

(c) If the affected facility meets the criteria described in **R.6.a.(3)(b)** of this section or §60.44b(j), the results of any NO_X emission tests required during the reporting period, the hours of operation during the reporting period, and the hours of operation since the last NO_X emission test. (40 CFR 60.49b(q)(3))

(4) The reporting period for the reports required under Subpart Db is each 6 month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period. (40 CFR 60.49b(w))

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Section V. Specific Operating Conditions (continued)

R. Emission Unit S2.006 (continued)

7. Federal Requirements (NAC 445B.346(2)) (NAC 445B.252.1) (*Federally Enforceable SIP Requirement)*
National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources
   a. Standards (40 CFR 63.11201)
      (1) Emission Standards (40 CFR 63.11201(a))
         (a) Standard for particulate matter (Table 1 to Subpart JJJJJJ)
         New oil-fired boilers with heat input capacity of 10 MMBtu/hr or greater that do not meet the definition of seasonal boiler or limited-use boiler must achieve PM (filterable) emissions less than or equal to the following emission limits, except during periods of startup and shutdown of **0.030** lb per MMBtu of heat input (**4.44** lbs/hr).
      (2) Work Practice Standards (40 CFR 63.11201(b), 40 CFR 63.11223, Table 2 to Subpart JJJJJJ)
      The Permittee must comply with the following applicable work practice standards, emission reduction measures, and management practices:
         (a) For existing or new coal-fired, new biomass-fired, or new oil-fired boilers (units with heat input capacity of 10 MMBtu/hr or greater), the Permittee must minimize the boiler's startup and shutdown periods and conduct startups and shutdowns according to the manufacturer's recommended procedures. If manufacturer's recommended procedures are not available, the Permittee must follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available. (Table 2 to Subpart JJJJJJ)
         (b) New oil-fired boilers with heat input capacity greater than 5 MMBtu/hr that do not meet the definition of seasonal boiler or limited-use boiler, or use an oxygen trim system that maintains an optimum air-to-fuel ratio the Permittee must conduct a tune-up of the boiler biennially as specified in §63.11223. (Table 2 to Subpart JJJJJJ)
         (c) New coal-fired, biomass-fired, or oil-fired boilers with an oxygen trim system that maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune-up must conduct a tune-up of the boiler every 5 years as specified in §63.11223. (Table 2 to Subpart JJJJJJ)
         (d) For affected sources subject to the work practice standard or the management practices of a tune-up, you must conduct a performance tune-up according to 40 CFR 63.11223(b) and keep records as required in §63.11225(c) to demonstrate continuous compliance. You must conduct the tune-up while burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up. (40 CFR 63.11223(a))
         (e) Except as specified in 40 CFR 63.11223(c) and (f), you must conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified in 40 CFR 63.11223(b)(1) through (7). Each biennial tune-up must be conducted no more than 25 months after the previous tune-up. For a new or reconstructed boiler, the first biennial tune-up must be no later than 25 months after the initial startup of the new or reconstructed boiler. (40 CFR 63.11223(b))
            (i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. (40 CFR 63.11223(b)(1))
            (ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. (40 CFR 63.11223(b)(2))

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Section V. Specific Operating Conditions (continued)

R. Emission Unit S2.006 (continued)

7. Federal Requirements (NAC 445B.346(2)) (NAC 445B.252.1) (*Federally Enforceable SIP Requirement)*
National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources (continued)
   a. Standards (40 CFR 63.11201) (continued)
      (2) Work Practice Standards (40 CFR 63.11201(b), 40 CFR 63.11223, Table 2 to Subpart JJJJJJ) (continued)
      The Permittee must comply with the following applicable work practice standards, emission reduction measures, and management practices: (continued)
         (e) Except as specified in 40 CFR 63.11223(c) and (f), you must conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified in 40 CFR 63.11223(b)(1) through (7). Each biennial tune-up must be conducted no more than 25 months after the previous tune-up. For a new or reconstructed boiler, the first biennial tune-up must be no later than 25 months after the initial startup of the new or reconstructed boiler. (40 CFR 63.11223(b)) (continued)
            (iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection. (40 CFR 63.11223(b)(3))
            (iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject. (40 CFR 63.11223(b)(4))
            (v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. (40 CFR 63.11223(b)(5))
            (vi) Maintain on-site and submit, if requested by the Administrator, a report containing the information in 40 CFR 63.11223(b)(6)(i) through (iii). (40 CFR 63.11223(b)(6))
               (A) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler. (40 CFR 63.11223(b)(6)(i))
            (vi) Maintain on-site and submit, if requested by the Administrator, a report containing the information in 40 CFR 63.11223(b)(6)(i) through (iii). (40 CFR 63.11223(b)(6)) (continued)
               (B) A description of any corrective actions taken as a part of the tune-up of the boiler. (40 CFR 63.11223(b)(6)(ii))
               (C) The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit. (40 CFR 63.11223(b)(6)(iii))
            (vii) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup. (40 CFR 63.11223(b)(7))

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Section V. Specific Operating Conditions (continued)

R. Emission Unit S2.006 (continued)

7. Federal Requirements (NAC 445B.346(2)) (NAC 445B.252.1) (*Federally Enforceable SIP Requirement)*
National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources (continued)

a. Standards (40 CFR 63.11201) (continued)

(2) Work Practice Standards (40 CFR 63.11201(b), 40 CFR 63.11223, Table 2 to Subpart JJJJJJ) (continued)
The Permittee must comply with the following applicable work practice standards, emission reduction measures, and management practices: (continued)

(f) Boilers with an oxygen trim system that maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune-up must conduct a tune-up of the boiler every 5 years as specified in 40 CFR 63.11223(b)(1) through (7). Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed boiler with an oxygen trim system, the first 5-year tune-up must be no later than 61 months after the initial startup. You may delay the burner inspection specified in 40 CFR 63.11223(b)(1) and inspection of the system controlling the air-to-fuel ratio specified in 40 CFR 63.11223(b)(3) until the next scheduled unit shutdown, but you must inspect each burner and system controlling the air-to-fuel ratio at least once every 72 months. If an oxygen trim system is utilized on a unit without emission standards to reduce the tune-up frequency to once every 5 years, set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up. (40 CFR 63.11223(c))

(g) If you own or operate a boiler subject to emission limits in Table 1 of Subpart JJJJJJ, you must minimize the boiler's startup and shutdown periods following the manufacturer's recommended procedures, if available. If manufacturer's recommended procedures are not available, you must follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available. You must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available. (40 CFR 63.11223(g))

(3) Operating limits (40 CFR 63.11201(c), Table 3 to Subpart JJJJJJ)
The Permittee must meet these operating limits except during periods of startup and shutdown:

(a) For boilers that demonstrate compliance with a performance stack test, maintain the operating load of each unit such that it does not exceed 110 percent of the average operating load recorded during the most recent performance stack test.

(4) These standards apply at all times the affected boiler is operating, except during periods of startup and shutdown as defined in §63.11237, during which time the Permittee must comply only with Table 2 to Subpart JJJJJJ. (40 CFR 63.11201(d))

b. General Requirements (40 CFR 63.11205)

(1) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. (40 CFR 63.11205(a))

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Section V. Specific Operating Conditions (continued)

R. Emission Unit S2.006 (continued)

7. Federal Requirements (NAC 445B.346(2)) (NAC 445B.252.1) (*Federally Enforceable SIP Requirement)*
National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources (continued)
   c. Initial Compliance (40 CFR 63.11210, 40 CFR 63.11211 and 40 CFR 63.11214)
      (1) You must demonstrate initial compliance with each emission limit specified in Table 1 to Subpart JJJJJJ that applies to you by either conducting performance (stack) tests, as applicable, according to §63.11212 and Table 4 to Subpart JJJJJJ or, for mercury, conducting fuel analyses, as applicable, according to §63.11213 and Table 5 to Subpart JJJJJJ. (40 CFR 63.11210(a))
      (2) For new or reconstructed affected boilers that have applicable emission limits, you must demonstrate initial compliance with the applicable emission limits no later than 180 days after March 21, 2011 or within 180 days after startup of the source, whichever is later, according to §63.7(a)(2)(ix). (40 CFR 63.11210(d))
      (3) For new or reconstructed boilers that combust only ultra-low-sulfur liquid fuel as defined in §63.11237, you are not subject to the PM emission limit in Table 1 of Subpart JJJJJJ providing you monitor and record on a monthly basis the type of fuel combusted. If you intend to burn a fuel other than ultra-low-sulfur liquid fuel or gaseous fuels as defined in §63.11237, you must conduct a performance test within 60 days of burning the new fuel. (40 CFR 63.11210(f))
      (4) For new or reconstructed affected boilers that have applicable work practice standards or management practices, you are not required to complete an initial performance tune-up, but you are required to complete the applicable biennial or 5-year tune-up as specified in §63.11223 no later than 25 months or 61 months, respectively, after the initial startup of the new or reconstructed affected source. (40 CFR 63.11210(g))
      (5) For affected boilers that demonstrate compliance with any of the emission limits of Subpart JJJJJJ through performance (stack) testing, your initial compliance requirements include conducting performance tests according to §63.11212 and Table 4 to Subpart JJJJJJ, conducting a fuel analysis for each type of fuel burned in your boiler according to §63.11213 and Table 5 to Subpart JJJJJJ, establishing operating limits according to §63.11222, Table 6 to Subpart JJJJJJ and 40 CFR 63.11211(b), as applicable, and conducting CMS performance evaluations according to §63.11224. For affected boilers that burn a single type of fuel, you are exempted from the compliance requirements of conducting a fuel analysis for each type of fuel burned in your boiler. For purposes of Subpart JJJJJJ, boilers that use a supplemental fuel only for startup, unit shutdown, and transient flame stability purposes still qualify as affected boilers that burn a single type of fuel, and the supplemental fuel is not subject to the fuel analysis requirements under §63.11213 and Table 5 to Subpart JJJJJJ. (40 CFR 63.11211(a))
      (6) If you own or operate a boiler subject to emission limits in Table 1 of Subpart JJJJJJ, you must minimize the boiler's startup and shutdown periods following the manufacturer's recommended procedures, if available. If manufacturer's recommended procedures are not available, you must follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available. You must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available. (40 CFR 63.11214(d))

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Section V. Specific Operating Conditions (continued)

R. Emission Unit S2.006 (continued)

7. Federal Requirements (NAC 445B.346(2)) (NAC 445B.252.1) (*Federally Enforceable SIP Requirement)*
National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources (continued)
   d. Compliance Test (40 CFR 63.11212 and 40 CFR 63.11220)
      (1) You must conduct all performance tests according to §63.7(c), (d), (f), and (h). You must also develop a site-specific test plan according to the requirements in §63.7(c). (40 CFR 63.11212(a))
      (2) You must conduct each stack test according to the requirements in Table 4 to Subpart JJJJJJ. Boilers that use a CEMS for carbon monoxide (CO) are exempt from the initial CO performance testing in Table 4 to Subpart JJJJJJ and the oxygen concentration operating limit requirement specified in Table 3 to Subpart JJJJJJ. (40 CFR 63.11212(b))
      (3) You must conduct performance stack tests at the representative operating load conditions while burning the type of fuel or mixture of fuels that have the highest emissions potential for each regulated pollutant, and you must demonstrate initial compliance and establish your operating limits based on these performance stack tests. For subcategories with more than one emission limit, these requirements could result in the need to conduct more than one performance stack test. Following each performance stack test and until the next performance stack test, you must comply with the operating limit for operating load conditions specified in Table 3 to Subpart JJJJJJ. (40 CFR 63.11212(c))
      (4) You must conduct a minimum of three separate test runs for each performance stack test required in this section, as specified in §63.7(e)(3) and in accordance with the provisions in Table 4 to Subpart JJJJJJ. (40 CFR 63.11212(d))
      (5) To determine compliance with the emission limits, you must use the F-Factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 of appendix A-7 to part 60 of this chapter to convert the measured PM concentrations and the measured mercury concentrations that result from the performance test to pounds per million Btu heat input emission rates. (40 CFR 63.11212(e))
      (6) For new or reconstructed boilers that commenced construction or reconstruction after September 14, 2016, when demonstrating initial compliance with the PM emission limit, if your boiler's performance test results show that your PM emissions are equal to or less than half of the PM emission limit, you may choose to conduct performance tests for PM every fifth year, but must continue to comply with all applicable operating limits and monitoring requirements and must comply with the provisions as specified in 40 CFR 63.11220(c)(1) through (3). (40 CFR 63.11220(c))
         (a) Each such performance test must be conducted no more than 61 months after the previous performance test. (40 CFR 63.11220(c)(1))
         (b) If you intend to burn a new type of fuel other than ultra-low-sulfur liquid fuel or gaseous fuels as defined in §63.11237, you must conduct a performance test within 60 days of burning the new fuel type. (40 CFR 63.11220(c)(2))
         (c) If your performance test results show that your PM emissions are greater than half of the PM emission limit, you must conduct subsequent performance tests on a triennial basis as specified in 40 CFR 63.11220(a). (40 CFR 63.11220(c)(3))
   e. Notification, reporting, and recordkeeping (40 CFR 63.11225)
      (1) You must submit the notifications specified in 40 CFR 63.11225 (a)(1) through (5) to the administrator. (40 CFR 63.11225(a))
         (a) You must submit all of the notifications in §§63.7(b); 63.8(e) and (f); and 63.9(b) through (e), (g), and (h) that apply to you by the dates specified in those sections except as specified in 40 CFR 63.11225 (a)(2) and (4). (40 CFR 63.11225(a)(1))
         (b) An Initial Notification must be submitted no later than January 20, 2014 or within 120 days after the source becomes subject to the standard. (40 CFR 63.11225(a)(2))

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Section V. Specific Operating Conditions (continued)

R. Emission Unit S2.006 (continued)

7. Federal Requirements (NAC 445B.346(2)) (NAC 445B.252.1) (*Federally Enforceable SIP Requirement)*
National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources (continued)
   e. Notification, reporting, and recordkeeping (40 CFR 63.11225) (continued)
      (1) You must submit the notifications specified in 40 CFR 63.11225 (a)(1) through (5) to the administrator. (40 CFR 63.11225(a)) (continued)
         (c) If you are required to conduct a performance stack test you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance stack test is scheduled to begin. (40 CFR 63.11225(a)(3))
         (d) You must submit the Notification of Compliance Status no later than 120 days after the applicable compliance date specified in §63.11196 unless you own or operate a new boiler subject only to a requirement to conduct a biennial or 5-year tune-up or you must conduct a performance stack test. If you own or operate a new boiler subject to a requirement to conduct a tune-up, you are not required to prepare and submit a Notification of Compliance Status for the tune-up. If you must conduct a performance stack test, you must submit the Notification of Compliance Status within 60 days of completing the performance stack test. You must submit the Notification of Compliance Status in accordance with 40 CFR 63.11225 (a)(4)(i) and (vi). The Notification of Compliance Status must include the information and certification(s) of compliance in 40 CFR 63.11225(a)(4)(i) through (v), as applicable, and signed by a responsible official. (40 CFR 63.11225(a)(4))
            (i) You must submit the information required in §63.9(h)(2), except the information listed in §63.9(h)(2)(i)(B), (D), (E), and (F). If you conduct any performance tests or CMS performance evaluations, you must submit that data as specified in 40 CFR 63.11225(e). If you conduct any opacity or visible emission observations, or other monitoring procedures or methods, you must submit that data to the Administrator at the appropriate address listed in §63.13. (40 CFR 63.11225(a)(4)(i))
            (ii) "This facility complies with the requirements in §63.11214 to conduct an initial tune-up of the boiler." (40 CFR 63.11225(a)(4)(ii))
            (iii) "This facility has had an energy assessment performed according to §63.11214(c)." (40 CFR 63.11225(a)(4)(iii))
            (iv) For units that install bag leak detection systems: "This facility complies with the requirements in §63.11224(f)." (40 CFR 63.11225(a)(4)(iv))
            (v) For units that do not qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act: "No secondary materials that are solid waste were combusted in any affected unit." (40 CFR 63.11225(a)(4)(v))
            (vi) The notification must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to Subpart JJJJJJ is not available in CEDRI at the time that the report is due, the written Notification of Compliance Status must be submitted to the Administrator at the appropriate address listed in §63.13. (40 CFR 63.11225(a)(4)(vi))
         (e) If you are using data from a previously conducted emission test to serve as documentation of conformance with the emission standards and operating limits of Subpart JJJJJJ, you must include in the Notification of Compliance Status the date of the test and a summary of the results, not a complete test report, relative to Subpart JJJJJJ. (40 CFR 63.11225(a)(5))

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Section V. Specific Operating Conditions (continued)

R. Emission Unit S2.006 (continued)

7. Federal Requirements (NAC 445B.346(2)) (NAC 445B.252.1) (*Federally Enforceable SIP Requirement)*
National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources (continued)
   e. Notification, reporting, and recordkeeping (40 CFR 63.11225) (continued)
      (2) You must prepare, by March 1 of each year, and submit to the delegated authority upon request, an annual compliance certification report for the previous calendar year containing the information specified in 40 CFR 63.11225(b)(1) through (4). You must submit the report by March 15 if you had any instance described by 40 CFR 63.11225(b)(3). For boilers that are subject only to the energy assessment requirement and/or a requirement to conduct a biennial or 5-year tune-up according to §63.11223(a) and not subject to emission limits or operating limits, you may prepare only a biennial or 5-year compliance report as specified in 40 CFR 63.11225(b)(1) and (2). (40 CFR 63.11225(b))
         (a) Company name and address. (40 CFR 63.11225(b)(1))
         (b) Statement by a responsible official, with the official's name, title, phone number, email address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of Subpart JJJJJJ. Your notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official: (40 CFR 63.11225(b)(2))
            (i) "This facility complies with the requirements in §63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler." (40 CFR 63.11225(b)(2)(i))
            (ii) For units that do not qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act: "No secondary materials that are solid waste were combusted in any affected unit." (40 CFR 63.11225(b)(2)(ii))
            (iii) "This facility complies with the requirement in §§63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available." (40 CFR 63.11225(b)(2)(iii))
         (c) If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken. (40 CFR 63.11225(b)(3))
         (d) The total fuel use by each affected boiler subject to an emission limit, for each calendar month within the reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by you or EPA through a petition process to be a non-waste under §241.3(c), whether the fuel(s) were processed from discarded non-hazardous secondary materials within the meaning of §241.3, and the total fuel usage amount with units of measure. (40 CFR 63.11225(b)(4))

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Section V. Specific Operating Conditions (continued)

R. Emission Unit S2.006 (continued)

7. Federal Requirements (NAC 445B.346(2)) (NAC 445B.252.1) (*Federally Enforceable SIP Requirement)*
National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources (continued)
   e. Notification, reporting, and recordkeeping (40 CFR 63.11225) (continued)
      (3) You must maintain the records specified in 40 CFR 63.11225(c)(1) through (7). (40 CFR 63.11225(c))
         (a) As required in §63.10(b)(2)(xiv), you must keep a copy of each notification and report that you submitted to comply with Subpart JJJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted. (40 CFR 63.11225(c)(1))
         (b) You must keep records to document conformance with the work practices, emission reduction measures, and management practices required by §63.11214 and §63.11223 as specified in 40 CFR 63.11225(c)(2)(i) through (vi). (40 CFR 63.11225(c)(2))
            (i) Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned. (40 CFR 63.11225(c)(2)(i))
            (ii) For operating units that combust non-hazardous secondary materials that have been determined not to be solid waste pursuant to §241.3(b)(1) of this chapter, you must keep a record which documents how the secondary material meets each of the legitimacy criteria under §241.3(d)(1). If you combust a fuel that has been processed from a discarded non-hazardous secondary material pursuant to §241.3(b)(4) of this chapter, you must keep records as to how the operations that produced the fuel satisfies the definition of processing in §241.2 and each of the legitimacy criteria in §241.3(d)(1) of this chapter. If the fuel received a non-waste determination pursuant to the petition process submitted under §241.3(c) of this chapter, you must keep a record that documents how the fuel satisfies the requirements of the petition process. For operating units that combust non-hazardous secondary materials as fuel per §241.4, you must keep records documenting that the material is a listed non-waste under §241.4(a). (40 CFR 63.11225(c)(2)(ii))
            (iii) For each boiler required to conduct an energy assessment, you must keep a copy of the energy assessment report. (40 CFR 63.11225(c)(2)(iii))
            (iv) For each boiler subject to an emission limit in Table 1 to Subpart JJJJJJ, you must keep records of monthly fuel use by each boiler, including the type(s) of fuel and amount(s) used. For each new oil-fired boiler that meets the requirements of §63.11210(e) or (f), you must keep records, on a monthly basis, of the type of fuel combusted. (40 CFR 63.11225(c)(2)(iv))
            (v) For each boiler that meets the definition of seasonal boiler, you must keep records of days of operation per year. (40 CFR 63.11225(c)(2)(v))
            (vi) For each boiler that meets the definition of limited-use boiler, you must keep a copy of the federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent and records of fuel use for the days the boiler is operating. (40 CFR 63.11225(c)(2)(vi))
         (c) For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation that were done to demonstrate compliance with the mercury emission limits. Supporting documentation should include results of any fuel analyses. You can use the results from one fuel analysis for multiple boilers provided they are all burning the same fuel type. (40 CFR 63.11225(c)(3))
         (d) Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment. (40 CFR 63.11225(c)(4))
         (e) Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in §63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation. (40 CFR 63.11225(c)(5))

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Section V. Specific Operating Conditions (continued)

R. Emission Unit S2.006 (continued)

7. Federal Requirements (NAC 445B.346(2)) (NAC 445B.252.1) (*Federally Enforceable SIP Requirement)*
National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources (continued)
   e. Notification, reporting, and recordkeeping (40 CFR 63.11225) (continued)
      (3) You must maintain the records specified in 40 CFR 63.11225(c)(1) through (7). (40 CFR 63.11225(c)) (continued)
         (f) You must keep the records of all inspection and monitoring data required by §§63.11221 and 63.11222, and the information identified in 40 CFR 63.11225(c)(6)(i) through (vi) for each required inspection or monitoring. (40 CFR 63.11225(c)(6))
            (i) The date, place, and time of the monitoring event. (40 CFR 63.11225(c)(6)(i))
            (ii) Person conducting the monitoring. (40 CFR 63.11225(c)(6)(ii))
            (iii) Technique or method used. (40 CFR 63.11225(c)(6)(iii))
            (iv) Operating conditions during the activity. (40 CFR 63.11225(c)(6)(iv))
            (v) Results, including the date, time, and duration of the period from the time the monitoring indicated a problem to the time that monitoring indicated proper operation. (40 CFR 63.11225(c)(6)(v))
            (vi) Maintenance or corrective action taken (if applicable). (40 CFR 63.11225(c)(6)(vi))
      (4) Your records must be in a form suitable and readily available for expeditious review. You must keep each record for 5 years following the date of each recorded action. You must keep each record on-site or be accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after the date of each recorded action. You may keep the records off site for the remaining 3 years. (40 CFR 63.11225(d))
      (5) Within 60 days after the date of completing each performance test (as defined in §63.2) required by Subpart JJJJJJ, you must submit the results of the performance tests, including any associated fuel analyses, following the procedure specified in either 40 CFR 63.11225(e)(1)(i) or (ii). (40 CFR 63.11225(e)(1))
         (a) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (https://www3.epa.gov/ttn/chief/ert/ert_info.html) at the time of the test, you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/).) Performance test data must be submitted in a file format generated through the use of the EPA's ERT or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph. (40 CFR 63.11225(e)(1)(i))
         (b) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, you must submit the results of the performance test to the Administrator at the appropriate address listed in §63.13. (40 CFR 63.11225(e)(1)(ii))

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Section V. Specific Operating Conditions (continued)

S. Emission Unit S2.007

System 19 - Boric Acid Dryer (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.007	Boric Acid Dryer (Electric Heater)	4,187,034	421,877

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. Emissions from **S2.007** shall be controlled by a **Wet Scrubber.**
   b. Descriptive Stack Parameters
      Stack Height: 59.1 feet
      Stack Diameter: 1.00 feet
      Stack Temperature: 212 °F
      Exhaust Flow: 9,772.7 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **S2.007** shall not exceed **46.9** tons of **Boric Acid** per any one-hour period averaged over a daily basis, nor more than **194,138.0** tons per year.
   b. Hours
      (1) **S2.007** may operate a total of **24** hours per day**.**

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.007** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **1.46** pounds per hour, nor more than **6.40** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **1.46** pounds per hour, nor more than **6.40** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **1.46** pounds per hour, nor more than **6.40** tons per year.
   d. The opacity from **S2.007** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **S2.007** on a daily basis.
   b. Monitor and record the hours of operation for **S2.007** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Monitor and record the total yearly throughput rate in tons per year. The annual throughput shall be determined as the sum of the monthly throughput rates for the year for all previous months of that year.
   e. Conduct and record an observation of visible emissions (excluding water vapor) on the **Wet Scrubber** controlling **S2.007** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly observation of visible emissions, and any corrective actions taken.
   f. Inspect the **Wet Scrubber** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the water spray nozzles), and any corrective actions taken.

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Section V. Specific Operating Conditions (continued)

S. Emission Unit S2.007 (continued)

5. Performance and Compliance Testing (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
The Permittee, upon issuance of this operating permit, shall conduct renewal performance testing at least 90 days prior to the expiration of this operating permit, but no earlier than 365 days from the date of expiration of this operating permit, and every 5 years thereafter, in accordance with the following:
   a. All opacity compliance demonstrations and/or performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of **Section I.H.** Testing and Sampling (NAC 445B.252) of this operating permit. All performance test results shall be based on the arithmetic average of three valid runs (NAC 445B.252(5)).
   b. Testing shall be conducted on the exhaust stack (post controls).
   c. Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
   d. Method 201A in Appendix M of 40 CFR Part 51 shall be used to determine PM_{10} and $PM_{2.5}$ emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately.
   e. The Method 201A test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60. All particulate captured in the Method 5 test performed under this provision shall be considered $PM_{2.5}$ for determination of compliance.
   f. Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.

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Section V. Specific Operating Conditions (continued)

T. Emission Unit S2.008

System 20 - Lithium Carbonate Dryer (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.008	Lithium Carbonate Dryer (Electric Heater)	4,186,974	422,052

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. Emissions from **S2.008** shall be controlled by a **Baghouse.**
   b. Descriptive Stack Parameters
      Stack Height: 59.1 feet
      Stack Diameter: 2.50 feet
      Stack Temperature: 320 °F
      Exhaust Flow: 12,148 dry standard cubic feet per minute (dscfm)

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **S2.008** shall not exceed **5.87** tons of **Lithium Carbonate** per any one-hour period averaged over a daily basis, nor more than **24,313.0** tons per year.
   b. Hours
      (1) **S2.008** may operate a total of **24** hours per day**.**

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.008** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **1.04** pounds per hour, nor more than **4.56** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **1.04** pounds per hour, nor more than **4.56** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **1.04** pounds per hour, nor more than **4.56** tons per year.
   d. The opacity from **S2.008** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **S2.008** on a daily basis.
   b. Monitor and record the hours of operation for **S2.008** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Monitor and record the total yearly throughput rate in tons per year. The annual throughput shall be determined as the sum of the monthly throughput rates for the year for all previous months of that year.
   e. Conduct and record an observation of visible emissions (excluding water vapor) on the **Baghouse** controlling **S2.008** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly observation of visible emissions, and any corrective actions taken.
   f. Inspect the **Baghouse** installed on **S2.008** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter fabric) and any corrective actions taken.

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Section V. Specific Operating Conditions (continued)

T. Emission Unit S2.008 (continued)

5. Performance and Compliance Testing (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
The Permittee, upon issuance of this operating permit, shall conduct renewal performance testing at least 90 days prior to the expiration of this operating permit, but no earlier than 365 days from the date of expiration of this operating permit, and every 5 years thereafter, in accordance with the following:
   a. All opacity compliance demonstrations and/or performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of **Section I.H.** Testing and Sampling (NAC 445B.252) of this operating permit. All performance test results shall be based on the arithmetic average of three valid runs (NAC 445B.252(5)).
   b. Testing shall be conducted on the exhaust stack (post controls).
   c. Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
   d. Method 201A in Appendix M of 40 CFR Part 51 shall be used to determine PM_{10} and $PM_{2.5}$ emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately.
   e. The Method 201A test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60. All particulate captured in the Method 5 test performed under this provision shall be considered $PM_{2.5}$ for determination of compliance.
   f. Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.

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Section V. Specific Operating Conditions (continued)

U. Emission Units S2.009 and S2.010

System 21 - Acid Plant Generators (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.009	Black Start Generator 1 (4,693 HP, mfd. after 2020)	4,187,183	421,824
S2.010	Black Start Generator 2 (4,693 HP, mfd. after 2020)	4,187,178	421,824

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.009 and S2.010, each,** has no add-on controls.
   b. Descriptive Stack Parameters for **S2.009 and S2.010, each**
      Stack Height: 11.86 feet
      Stack Diameter: 1.17 feet
      Stack Temperature: 882.2 °F
      Exhaust Flow: 23,575.7 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.009 and S2.010, each,** may consume only **diesel**.
   b. The maximum allowable fuel consumption rate for **S2.009 and S2.010, each,** shall not exceed **208.8 gallons** per any one-hour period averaged over a daily basis, nor more than **150,336.0** gallons per year.
   c. Hours
      (1) **S2.009 and S2.010, each,** may operate a total of **24** hours per day.
      (2) **S2.009 and S2.010, each,** may operate a total of **720** hours per year.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.009 and S2.010, each,** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.23** pounds per hour, nor more than **0.083** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.23** pounds per hour, nor more than **0.083** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.23** pounds per hour, nor more than **0.083** tons per year.
   d. The discharge of **SO_2** (sulfur dioxide) to the atmosphere shall not exceed **0.057** pounds per hour, nor more than **0.021** tons per year.
   e. The discharge of **NO_X** (oxides of nitrogen) to the atmosphere shall not exceed **5.17** pounds per hour, nor more than **1.86** tons per year.
   f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **27.0** pounds per hour, nor more than **9.72** tons per year.
   g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **1.47** pounds per hour, nor more than **0.53** tons per year.
   h. The opacity from **S2.009 and S2.010, each,** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the total daily hours of operation for **S2.009 and S2.010, each,** for each day of operation.
   b. Monitor and record the consumption rate of **diesel** on a daily basis for **S2.009 and S2.010, each,** (in **gallons**) by use of a fuel flow meter.

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Section V. Specific Operating Conditions (continued)

U. Emission Units S2.009 and S2.010 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)* (continued)
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
(continued)
   c. Record the corresponding average hourly consumption rate in gallons per hour. The average hourly consumption rate shall be determined from the total daily consumption and the total daily hours of operation.
   d. Monitor and record the total yearly hours of operation of **S2.009 and S2.010, each,** per year. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for all previous months of that year.
   e. The Permittee, upon issuance of this operating permit, shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
   a. Emissions Standards (40 CFR 60.4204)
   The Permittee must comply with the emission standards for new non-road CI (compression ignition) ICE (internal combustion engine) in 40 CFR 60.4201, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later non-emergency stationary CI ICE. (40 CFR 60.4204(b))
      (1) For a 2011 model year or later Tier 4 non-road engine with a rated power greater than 2,237 kW (3,000 hp) and less than 10 liters per cylinder: (40 CFR 60.4201(c), 40 CFR 1039.101)
         (a) The discharge of PM to the atmosphere shall not exceed **0.030** gram/kW-hr (**0.23** pounds per hour).
         (b) The discharge of NO_X to the atmosphere shall not exceed **0.67** grams/kW-hr (**5.17** pounds per hour).
         (c) The discharge of CO to the atmosphere shall not exceed **3.50** grams/kW-hr (**27.0** pounds per hour).
         (d) The discharge of NMHC (non-methane hydrocarbon) to the atmosphere shall not exceed **0.19** grams/kW-hr (**1.47** pounds per hour).
      (2) Exhaust opacity from CI non-road engines must not exceed: (40 CFR 1039.105(b))
         (a) 20 percent during the acceleration mode.
         (b) 15 percent during the lugging mode.
         (c) 50 percent during the peaks in either the acceleration or lugging modes.
   b. Fuel requirements (40 CFR 60.4207)
   The Permittee must meet the following diesel requirements for non-road engine: (40 CFR 60.4207, 40 CFR 1090.305)
      (1) Sulfur content to be 15 parts per million (ppm) maximum.
      (2) A minimum cetane index of 40; or
      (3) A maximum aromatic content of 35 volume percent.
   c. Monitoring requirements (40 CFR 60.4209(b))
   If your engine is equipped with a diesel particulate filter:
      (1) The Permittee of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

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Section V. Specific Operating Conditions (continued)

U. Emission Units S2.009 and S2.010 (continued)

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)* (continued)
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)
   d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211)
      (1) The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4204 over the entire life of the engine. (40 CFR 60.4206)
      (2) The Permittee must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; change only those emission-related
      (3) The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in **U.5.d.(4)** of this section paragraph. (40 CFR 60.4211(c))
      (4) If the Permittee does not install, configure, operate, and maintain the Permittee's engine and control device according to the manufacturer's emission-related written instructions, or the Permittee change emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance as follows: (40 CFR 60.4211(g))
         (a) The Permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee change emission-related settings in a way that is not permitted by the manufacturer. The Permittee must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards. (40 CFR 60.4211(g)(3))
   e. National Emission Standards for Hazardous Air Pollutants for Source Categories – 40 CFR Part 63, Subpart ZZZZ – Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:
   If the compression ignition engine meets the requirements of 40 CFR Part 60 Subpart IIII, 40 CFR Part 63 Subpart ZZZZ requirements are also met. (40 CFR Part 63.6590(c))

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Section V. Specific Operating Conditions (continued)

V. Emission Unit S2.011

System 22 - Admin Trailer Generator (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.011	Emergency Generator (100 HP, 2020)	4,187,220	421,866

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.011** has no add-on controls.
   b. Descriptive Stack Parameters
      Stack Height: 7.23 feet
      Stack Diameter: 1.00 feet
      Stack Temperature: 852 °F
      Exhaust Flow: 2,245 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.011** may consume only **diesel**.
   b. The maximum allowable fuel consumption rate for **S2.011** shall not exceed **5.11 gallons** per any one-hour period.
   c. Hours
      (1) **S2.011** may operate a total of **24** hours per day**.**
      (2) **S2.011** may operate a maximum of **100** hours per year of non-emergency use. There is no time limit on operation in emergency situations.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.011** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.066** pounds per hour, nor more than **0.0033** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.066** pounds per hour, nor more than **0.0033** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.066** pounds per hour, nor more than **0.0033** tons per year.
   d. The discharge of **SO_2** (sulfur dioxide) to the atmosphere shall not exceed **0.0012** pounds per hour, nor more than **0.000061** tons per year.
   e. The discharge of **NO_X** (oxides of nitrogen) to the atmosphere shall not exceed **0.77** pounds per hour, nor more than **0.039** tons per year.
   f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **0.82** pounds per hour, nor more than **0.041** tons per year.
   g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.25** pounds per hour, nor more than **0.013** tons per year.
   h. The opacity from **S2.011** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the total daily hours of operation for **S2.011** for each day of operation. The Permittee shall note which hours of operation are emergency hours, and which hours of operation are hours for non-emergency use.
   b. Monitor and record the consumption rate of **diesel** on a daily basis for **S2.011** (in **gallons**) by use of a fuel flow meter.

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Section V. Specific Operating Conditions (continued)

V. Emission Unit S2.011 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)* (continued)
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
(continued)
   c. Monitor and record the total yearly hours of operation of **S2.011** per year. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for all previous months of that year.
   d. The Permittee, upon issuance of this operating permit, shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
   a. Emissions Standards (40 CFR 60.4205)
   The Permittee must comply with the emission standards for new non-road CI (compression ignition) ICE (internal combustion engine) in 40 CR 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. (40 CFR 60.4205(b))
      (1) For a 2007 model year and later Tier **3** non-road engine with a rated power greater than or equal to 37 kW (50 hp) and less than 75 kW (100 hp): (40 CFR 60.4202(a), 40 CFR 89.112 Table 1)
         (a) The discharge of PM to the atmosphere shall not exceed **0.40** grams/kW-hr (**0.066** pounds per hour).
         (b) The discharge of CO to the atmosphere shall not exceed **5.0** grams/kW-hr (**0.82** pounds per hour).
         (c) The discharge of NO_X to the atmosphere shall not exceed **4.7** gram/kW-hr (**0.77** pounds per hour).
      (2) Exhaust opacity must not exceed: (40 CFR 60.4202(a)(1)(i), 40 CFR 89.113(a))
         (a) 20 percent during acceleration mode;
         (b) 15 percent during the lugging mode; and
         (c) 50 percent during the peaks in either the acceleration or lugging modes.
   b. Fuel Requirements (40 CFR 60.4207)
   The Permittee must meet the following diesel requirements for non-road engine: (40 CFR 60.4207(b), 40 CFR 80.510(b))
      (1) Sulfur content to be 15 parts per million (ppm) maximum.
      (2) A minimum cetane index of 40; or
      (3) A maximum aromatic content of 35 volume percent.
   c. Monitoring Requirements (40 CFR 60.4209)
   If the CI ICE does not meet the standards applicable to non-emergency engines, the Permittee must install a non-resettable hour meter prior to startup of the engine. (40 CFR 60.4209(a))
   d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211)
      (1) The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. (40 CFR 60.4206)
      (2) The Permittee must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR Part 89. (40 CFR 60.4211(a))
      (3) The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in **V.5.d.(5)** of this section. (40 CFR 60.4211(c))

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Section V. Specific Operating Conditions (continued)

V. Emission Unit S2.011 (continued)

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)* (continued)
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)
   d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211)
      (4) In order for the engine to be considered an emergency stationary ICE under Subpart IIII, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs **V.5.d.(4)(a) through (c)** of this section, is prohibited. If the Permittee do not operate the engine according to the requirements in paragraphs **V.5.d.(4)(a) through (c)** of this section, the engine will not be considered an emergency engine under Subpart IIII and must meet all requirements for non-emergency engines. (40 CFR 60.4211(f))
         (a) There is no time limit on the use of emergency stationary ICE in emergency situations. (40 CFR 60.4211(f)(1))
         (b) The Permittee may operate the Permittee's emergency stationary ICE for any combination of the purposes specified in paragraphs **V.5.d.(4)(b)** of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph **V.5.d.(4)(c)** of this section counts as part of the 100 hours per calendar year. (40 CFR 60.4211(f)(2))
            i. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. (40 CFR 60.4211(f)(2)(i))
         (c) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph **V.5.d.(4)(b)** of this section. Except as provided in paragraph **V.5.d.(4)(c)** of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. (40 CFR 60.4211(f)(3))
            i. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the conditions in 40 CFR 60.4211(f)(3)(i)(A) through (E) are met. (40 CFR 60.4211(f)(3)(i))
      (5) If the Permittee does not install, configure, operate, and maintain the Permittee's engine and control device according to the manufacturer's emission-related written instructions, or the Permittee change emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance as follows: (40 CFR 4211(g))
         (a) The Permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee change emission-related settings in a way that is not permitted by the manufacturer. (40 CFR 60.4211(g)(2))

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Section V. Specific Operating Conditions (continued)

V. Emission Unit S2.011 (continued)

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)* (continued)
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)
   e. National Emission Standards for Hazardous Air Pollutants for Source Categories – 40 CFR Part 63, Subpart ZZZZ – Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:
   If the compression ignition engine meets the requirements of 40 CFR Part 60 Subpart IIII, 40 CFR Part 63 Subpart ZZZZ requirements are also met. (40 CFR Part 63.6590(c))

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Section V. Specific Operating Conditions (continued)

W. Emission Unit S2.012

System 23 - Spent Ore Area Water Pump		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.012	Spent Ore Area Water Pump (62 HP, mfd. 2020)	4,186,289	421,269

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.012** has no add-on controls.
   b. Descriptive Stack Parameters
      Stack Height: 5.58 feet
      Stack Diameter: 0.67 feet
      Stack Temperature: 810 °F
      Exhaust Flow: 346 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.012** may consume only **diesel**.
   b. The maximum allowable fuel consumption rate for **S2.012** shall not exceed **2.60 gallons** per any one-hour period.
   c. Hours
      (1) **S2.012** may operate a total of **24** hours per day**.**

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.012** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.0030** pounds per hour, nor more than **0.013** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.0030** pounds per hour, nor more than **0.013** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.0030** pounds per hour, nor more than **0.013** tons per year.
   d. The discharge of **SO_2** (sulfur dioxide) to the atmosphere shall not exceed **0.00075** pounds per hour, nor more than **0.0033** tons per year.
   e. The discharge of **NO**x (oxides of nitrogen) to the atmosphere shall not exceed **0.48** pounds per hour, nor more than **2.09** tons per year.
   f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **0.51** pounds per hour, nor more than **2.22** tons per year.
   g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.16** pounds per hour, nor more than **0.68** tons per year.
   h. The opacity from S2.012 shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the total daily hours of operation for **S2.012** for each day of operation.
   b. Monitor and record the consumption rate of **diesel** on a daily basis for **S2.012** (in **gallons**) by multiplying the maximum hourly fuel consumption rate as stated in **W.2.b** of this section and the total daily hours of operation.

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Section V. Specific Operating Conditions (continued)

W. Emission Unit S2.012 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)* (continued)
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
(continued)
   c. Monitor and record the total yearly hours of operation of **S2.012** per year. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for all previous months of that year.
   d. The Permittee, upon issuance of this operating permit, shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
   a. Emissions Standards (40 CFR 60.4204)
   The Permittee must comply with the emission standards for new non-road CI (compression ignition) ICE (internal combustion engine) in 40 CFR 60.4201, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later non-emergency stationary CI ICE. (40 CFR 60.4204(b))
      (1) For a 2014 model year and later Tier **4** non-road engine with a rated power greater than or equal to 19 kW and less than 56 kW: (40 CFR 60.4201(a), 40 CFR 1039.101 Table 1)
         (a) The discharge of PM to the atmosphere shall not exceed **0.030** grams/kW-hr (**0.0030** pounds per hour).
         (b) The discharge of CO to the atmosphere shall not exceed **5.0** grams/kW-hr (**0.51** pounds per hour).
         (c) The discharge of NO_X to the atmosphere shall not exceed **4.7** grams/kW-hr (**0.48** pounds per hour).
      (2) Exhaust opacity from CI non-road engines must not exceed: (40 CFR 60.4201(a), 40 CFR 89.113)
         (a) 20 percent during the acceleration mode;
         (b) 15 percent during the lugging mode; and
         (c) 50 percent during the peaks in either the acceleration or lugging modes.
   b. Fuel requirements (40 CFR 60.4207)
   The Permittee must meet the following diesel requirements for non-road engine: (40 CFR 60.4207, 40 CFR 80.510(b))
      (1) Sulfur content to be 15 parts per million (ppm) maximum.
      (2) A minimum cetane index of 40; or
      (3) A maximum aromatic content of 35 volume percent.
   c. Monitoring requirements (40 CFR 60.4209(b))
   If your engine is equipped with a diesel particulate filter:
      (1) The Permittee of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.
   d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211)
      (1) The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4204 over the entire life of the engine. (40 CFR 60.4206)
      (2) The Permittee must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR Part 89 except as permitted in **W.5.d.(4)** of this section. (40 CFR 60.4211(a))

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Section V. Specific Operating Conditions (continued)

W. Emission Unit S2.012 (continued)

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)* (continued)
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)

d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211) (continued)

(3) The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in **W.5.d.(4)** of this section paragraph. (40 CFR 60.4211(c))

(4) If the Permittee does not install, configure, operate, and maintain the Permittee's engine and control device according to the manufacturer's emission-related written instructions, or the Permittee change emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance as follows: (40 CFR 60.4211(g))

(a) The Permittee must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if the Permittee do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or the Permittee change the emission-related settings in a way that is not permitted by the manufacturer, the Permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action. (40 CFR 60.4211(g)(1))

e. National Emission Standards for Hazardous Air Pollutants for Source Categories – 40 CFR Part 63, Subpart ZZZZ – Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:
If the compression ignition engine meets the requirements of 40 CFR Part 60 Subpart IIII, 40 CFR Part 63 Subpart ZZZZ requirements are also met. (40 CFR Part 63.6590(c))

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Section V. Specific Operating Conditions (continued)

X. Emission Unit S2.013

System 24 - Explosive Area Generator		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.013	Explosive Area Generator (49 HP, mfd. 2020)	4,184,397	423,993

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.013** has no add-on controls.
   b. Descriptive Stack Parameters
      Stack Height: 5.58 feet
      Stack Diameter: 0.67 feet
      Stack Temperature: 810 °F
      Exhaust Flow: 346 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.013** may consume only **diesel**.
   b. The maximum allowable fuel consumption rate for **S2.013** shall not exceed **2.43 gallons** per any one-hour period.
   c. Hours
      (1) **S2.013** may operate a total of **24** hours per day**.**

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.013** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.0024** pounds per hour, nor more than **0.011** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.0024** pounds per hour, nor more than **0.011** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.0024** pounds per hour, nor more than **0.011** tons per year.
   d. The discharge of **SO_2** (sulfur dioxide) to the atmosphere shall not exceed **0.00059** pounds per hour, nor more than **0.0026** tons per year.
   e. The discharge of **NOx** (oxides of nitrogen) to the atmosphere shall not exceed **0.38** pounds per hour, nor more than **1.68** tons per year.
   f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **0.41** pounds per hour, nor more than **1.79** tons per year.
   g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.12** pounds per hour, nor more than **0.54** tons per year.
   h. The opacity from **S2.013** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the total daily hours of operation for **S2.013** for each day of operation.
   b. Monitor and record the consumption rate of **diesel** on a daily basis for **S2.013** (in **gallons**) by use of a fuel flow meter.

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Section V. Specific Operating Conditions (continued)

X. Emission Unit S2.013 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)* (continued)
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
(continued)
   c. Monitor and record the total yearly hours of operation of **S2.013** per year. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for all previous months of that year.
   d. The Permittee, upon issuance of this operating permit, shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
   a. Emissions Standards (40 CFR 60.4204)
   The Permittee must comply with the emission standards for new non-road CI (compression ignition) ICE (internal combustion engine) in 40 CFR 60.4201, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later non-emergency stationary CI ICE. (40 CFR 60.4204(b))
      (1) For a 2014 model year and later Tier **4** non-road engine with a rated power greater than or equal to 19 kW and less than 56 kW: (40 CFR 60.4201(a), 40 CFR 1039.101 Table 1)
         (a) The discharge of PM to the atmosphere shall not exceed **0.030** grams/kW-hr (**0.0024** pounds per hour).
         (b) The discharge of CO to the atmosphere shall not exceed **5.0** grams/kW-hr (**0.41** pounds per hour).
         (c) The discharge of NO_X to the atmosphere shall not exceed **4.7** grams/kW-hr (**0.38** pounds per hour).
      (2) Exhaust opacity from CI non-road engines must not exceed: (40 CFR 60.4201(a), 40 CFR 89.113)
         (a) 20 percent during the acceleration mode;
         (b) 15 percent during the lugging mode; and
         (c) 50 percent during the peaks in either the acceleration or lugging modes.
   b. Fuel requirements (40 CFR 60.4207)
   The Permittee must meet the following diesel requirements for non-road engine: (40 CFR 60.4207, 40 CFR 80.510(b))
      (1) Sulfur content to be 15 parts per million (ppm) maximum.
      (2) A minimum cetane index of 40; or
      (3) A maximum aromatic content of 35 volume percent.
   c. Monitoring requirements (40 CFR 60.4209(b))
   If your engine is equipped with a diesel particulate filter:
      (1) The Permittee of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.
   d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211)
      (1) The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4204 over the entire life of the engine. (40 CFR 60.4206)
      (2) The Permittee must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR Part 89 except as permitted in **X.5.d.(4)** of this section. (40 CFR 60.4211(a))

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Section V. Specific Operating Conditions (continued)

X. Emission Unit S2.013 (continued)

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)* (continued)
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)

d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211) (continued)

(3) The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in **X.5.d.(4)** of this section paragraph. (40 CFR 60.4211(c))

(4) If the Permittee does not install, configure, operate, and maintain the Permittee's engine and control device according to the manufacturer's emission-related written instructions, or the Permittee change emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance as follows: (40 CFR 60.4211(g))

(a) The Permittee must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if the Permittee do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or the Permittee change the emission-related settings in a way that is not permitted by the manufacturer, the Permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action. (40 CFR 60.4211(g)(1))

e. National Emission Standards for Hazardous Air Pollutants for Source Categories – 40 CFR Part 63, Subpart ZZZZ – Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:
If the compression ignition engine meets the requirements of 40 CFR Part 60 Subpart IIII, 40 CFR Part 63 Subpart ZZZZ requirements are also met. (40 CFR Part 63.6590(c))

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Section V. Specific Operating Conditions (continued)

Y. Emission Units S2.014 and S2.015

System 25 - Lithium Boron Processing Fire Water Pumps (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.014	Fire Water Pump FP1 (305 HP, mfd. 2020)	4,187,119	421,798
S2.015	Fire Water Pump FP2 (305 HP, mfd. 2020)	4,187,117	421,795

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.014 and S2.015, each,** have no add-on controls.
   b. Descriptive Stack Parameters
      Stack Height: 4.00 feet
      Stack Diameter: 0.50 feet
      Stack Temperature: 960.5 °F
      Exhaust Flow: 1,400 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.014 and S2.015, each,** may consume only **diesel**.
   b. The maximum allowable fuel consumption rate for **S2.014 and S2.015, each,** shall not exceed **14.6 gallons** per any one-hour period.
   c. Hours
      (1) **S2.014 and S2.015, each,** may operate a total of **24** hours per day**.**
      (2) **S2.014 and S2.015, each,** may operate a maximum of **100** hours per year of non-emergency use. There is no time limit on operation in emergency situations.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.014 and S2.015, each,** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.10** pounds per hour, nor more than **0.0050** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.10** pounds per hour, nor more than **0.0050** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.10** pounds per hour, nor more than **0.0050** tons per year.
   d. The discharge of **SO_2** (sulfur dioxide) to the atmosphere shall not exceed **0.0037** pounds per hour, nor more than **0.00018** tons per year.
   e. The discharge of **NO_X** (oxides of nitrogen) to the atmosphere shall not exceed **2.01** pounds per hour, nor more than **0.10** tons per year.
   f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **1.75** pounds per hour, nor more than **0.088** tons per year.
   g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.77** pounds per hour, nor more than **0.038** tons per year.
   h. The opacity from **S2.014 and S2.015, each,** shall not equal or exceed **20** percent.

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Section V. Specific Operating Conditions (continued)

Y. Emission Units S2.014 and S2.015 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the total daily hours of operation for **S2.014 and S2.015, each,** for each day of operation. The Permittee shall note which hours of operation are emergency hours, and which hours of operation are hours for non-emergency use.
   b. Monitor and record the consumption rate of **diesel** on a daily basis for **S2.014 and S2.015, each,** (in **gallons**) by use of a fuel flow meter.
   c. Monitor and record the total yearly hours of operation of **S2.014 and S2.015, each,** per year. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for all previous months of that year.
   d. The Permittee, upon issuance of this operating permit, shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
   a. Emissions Standards (40 CFR 60.4202, 40 CFR 60.4205)
   The Permittee must comply with the emission standards in Table 4 of 40 CFR Part 60 Subpart IIII, for all pollutants, for the same model year and National Fire Protection Association (NFPA) maximum engine power. (40 CFR 60.4202(d), 40 CFR 60.4205(c))
      (1) For a 2009 model year and later stationary fire pump engine with a maximum engine power of 225≤KW<450 (300≤HP<600) and less than 30 liters per cylinder: (40 CFR 60.4202(d), 40 CFR 60.4205(c), Table 4)
         (a) The discharge of PM to the atmosphere shall not exceed **0.20** gram/kW-hr (0.15 gram/hp-hr) (**0.10** pounds per hour).
         (b) The discharge of non-methane hydrocarbon (NMHC) + NO_X to the atmosphere shall not exceed **4.00** grams/kW-hr (3.0 grams/hp-hr) (**2.01** pounds per hour).
         (c) The discharge of CO to the atmosphere shall not exceed **3.50** grams/kW-hr (2.6 gram/hp-hr) (**1.75** pounds per hour).
   b. Fuel Requirements (40 CFR 60.4207)
   The Permittee must meet the following diesel requirements for non-road engine: (40 CFR 60.4207(b), 40 CFR 80.510(b))
      (1) Sulfur content to be 15 parts per million (ppm) maximum.
      (2) A minimum cetane index of 40; or
      (3) A maximum aromatic content of 35 volume percent.
   c. Monitoring Requirements (40 CFR 60.4209)
   If the CI ICE does not meet the standards applicable to non-emergency engines, the Permittee must install a non-resettable hour meter prior to startup of the engine. (40 CFR 60.4209(a))
   d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211)
      (1) The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. (40 CFR 60.4206)
      (2) The Permittee must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR Part 89. (40 CFR 60.4211(a))

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Section V. Specific Operating Conditions (continued)

Y. Emission Units S2.014 and S2.015 (continued)

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)* (continued)
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)
   d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211) (continued)
      (3) The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in **Y.5.d.(5)** of this section. (40 CFR 60.4211(c))
      (4) In order for the engine to be considered an emergency stationary ICE under Subpart IIII, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs **Y.5.d.(4)(a) through (c)** of this section, is prohibited. If the Permittee do not operate the engine according to the requirements in paragraphs **Y.5.d.(4)(a) through (c)** of this section, the engine will not be considered an emergency engine under Subpart IIII and must meet all requirements for non-emergency engines. (40 CFR 60.4211(f))
         (a) There is no time limit on the use of emergency stationary ICE in emergency situations. (40 CFR 60.4211(f)(1))
         (b) The Permittee may operate the Permittee's emergency stationary ICE for any combination of the purposes specified in paragraphs **Y.5.d.(4)(b)** of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph **Y.5.d.(4)(c)** of this section counts as part of the 100 hours per calendar year. (40 CFR 60.4211(f)(2))
            i. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. (40 CFR 60.4211(f)(2)(i))
         (c) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph **Y.5.d.(4)(b)** of this section. Except as provided in paragraph **Y.5.d.(4)(c)** of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. (40 CFR 60.4211(f)(3))
            i. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the conditions in 40 CFR 60.4211(f)(3)(i)(A) through (E) are met. (40 CFR 60.4211(f)(3)(i))
      (5) If the Permittee does not install, configure, operate, and maintain the Permittee's engine and control device according to the manufacturer's emission-related written instructions, or the Permittee change emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance as follows: (40 CFR 4211(g))
         (a) For CI ICE greater than or equal to 100 HP and less than or equal to 500 hp, the Permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee change emission-related settings in a way that is not permitted by the manufacturer. (40 CFR 60.4211(g)(2))

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Section V. Specific Operating Conditions (continued)

Y. Emission Units S2.014 and S2.015 (continued)

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)* (continued)
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)
   e. National Emission Standards for Hazardous Air Pollutants for Source Categories – 40 CFR Part 63, Subpart ZZZZ – Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:
   If the compression ignition engine meets the requirements of 40 CFR Part 60 Subpart IIII, 40 CFR Part 63 Subpart ZZZZ requirements are also met. (40 CFR Part 63.6590(c))

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Section V. Specific Operating Conditions

Z. Emission Unit S2.016

System 26 - Cooling Towers (Revised DATE, 2025 Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.016	Cooling Tower 1 (2 Cells)	Cell 1: 4,187,156	421,809
		Cell 2: 4,187,161	421,817

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. Emissions from **S2.016** shall be controlled by drift eliminators to reduce the cooling tower drift losses to the manufacturer's specification of **0.002%** or less.
   b. Descriptive Stack Parameters
   Stack Height: 27.0 feet
   Stack Diameter: 28.0 feet
   Stack Temperature: Ambient
   Exhaust Flow: 738,903 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum circulating water flow rate for **S2.016** will not exceed **30,000.0** gallons per minute.
   b. The maximum Total Dissolved Solids (TDS) content for **S2.016** will not exceed **2,800.0** milligrams per liter (ppm).
   c. The use of chromium-based water treatment chemicals is prohibited.
   d. Hours
      (1) **S2.016** may operate a total of **24** hours per day.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017, NAC 445B.22033) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.016** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.84** pounds per hour, nor more than **3.68** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.84** pounds per hour, nor more than **3.68** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.84** pounds per hour, nor more than **3.68** tons per year.
   d. The opacity from the **S2.016** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the **volume flow rate** of circulating feed water (in gallons per minute) for **S2.016** on a daily basis.
   b. Monitor and record the hours of operation for **S2.016** on a daily basis.
   c. Sample the cooling tower water from **S2.016** on a calendar quarterly basis for the TDS concentration in parts per million (ppm). The TDS shall be determined in accordance with **Z.5.a.** of this section.

5. Performance and Compliance Testing (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
   a. The Permittee shall sample the cooling tower circulating feed water and determine the total dissolved solids (TDS, reported in mg per liter, or ppm by weight), on a quarterly basis. The TDS concentration will be determined using Standard Method 2540 C-2011 or ASTM Method D5907-13, or alternative methods approved in advance by the Director.

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Section V. Specific Operating Conditions (continued)

AA. Emission Unit S2.017

System 27 - Cooling Tower (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.017	Cooling Tower 2 (5 Cells)	Cell 1: 4,187,164	421,850
		Cell 2: 4,187,157	421,840
		Cell 3: 4,187,149	421,829
		Cell 4: 4,187,142	421,819
		Cell 5: 4,187,135	421,808

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. Emissions from **S2.017** shall be controlled by drift eliminators to reduce the cooling tower drift losses to the manufacturer's specification of **0.002%** or less.
   b. Descriptive Stack Parameters
   Stack Heigh: 31.0 feet
   Stack Diameter: 28.0 feet
   Stack Temperature: Ambient
   Exhaust Flow: 738,903 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum circulating water flow rate for **S2.017** will not exceed **80,000.0** gallons per minute.
   b. The maximum Total Dissolved Solids (TDS) content for **S2.017** will not exceed **2,800.0** milligrams per liter (ppm).
   c. The use of chromium-based water treatment chemicals is prohibited.
   d. Hours
      (1) **S2.017** may operate a total of **24** hours per day.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017, NAC 445B.22033) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.017** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **2.24** pounds per hour, nor more than **9.82** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **2.24** pounds per hour, nor more than **9.82** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **2.24** pounds per hour, nor more than **9.82** tons per year.
   d. The opacity from the **S2.017** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the **volume flow rate** of circulating feed water (in gallons per minute) for **S2.017** on a daily basis.
   b. Monitor and record the hours of operation for **S2.017** on a daily basis.
   c. Sample the cooling tower water from **S2.017** on a calendar quarterly basis for the TDS concentration in parts per million (ppm). The TDS shall be determined in accordance with **AA.5.a.** of this section.

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Section V. Specific Operating Conditions (continued)

AA. Emission Unit S2.017 (continued)

5. Performance and Compliance Testing (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
   a. The Permittee shall sample the cooling tower circulating feed water and determine the total dissolved solids (TDS, reported in mg per liter, or ppm by weight), on a quarterly basis. The TDS concentration will be determined using Standard Method 2540 C-2011 or ASTM Method D5907-13, or alternative methods approved in advance by the Director.

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Section V. Specific Operating Conditions (continued)

AB. Emission Unit S2.018

System 28 - Lime Silo (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.018	Lime Silo #1 Loading (Discharge is Fully Enclosed)	4,187,008	421,964
S2.019	Lime Silo #2 Loading to Fully Enclosed Discharge **(Removed DATE 2025, Air Case 12253)**	4,187,015	421,971
S2.020	Lime Silo #3 Loading to Fully Enclosed Discharge **(Removed DATE 2025, Air Case 12253)**	4,187,021	421,960
S2.021	Lime Silo #4 Loading to Fully Enclosed Discharge **(Removed DATE 2025, Air Case 12253)**	4,187,012	421,966

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. Emissions from **S2.018** shall be controlled by a **Bin Vent.**
   b. Descriptive Stack Parameters
      Stack Height: 109.0 feet
      Stack Diameter: 0.33 feet
      Stack Temperature: Ambient
      Exhaust Flow: 0.15 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **S2.018** shall not exceed **15.0** tons of **Lime** per any one-hour period averaged over a daily basis.
   b. Hours
      (1) **S2.018** may operate a total of **24** hours per day**.**

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.018** the following pollutants in excess of the following specified limits:
      (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.015** pounds per hour, nor more than **0.065** tons per year.
      (2) The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.0051** pounds per hour, nor more than **0.022** tons per year.
      (3) The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.00075** pounds per hour, nor more than **0.0033** tons per year.
      (4) The opacity from **S2.018** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **S2.018** on a daily basis.
   b. Monitor and record the hours of operation for **S2.018** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.

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Section V. Specific Operating Conditions (continued)

AB. Emission Unit S2.018 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)* (continued)
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
(continued)
   d. Conduct and record an observation of visible emissions (excluding water vapor) on the **Bin Vent** controlling **S2.018** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log
   e. Inspect the Bin Vent installed on **S2.018** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter fabric), and any corrective actions taken.

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Section V. Specific Operating Conditions (continued)

AC. Emission Unit S2.022

System 29 - Soda Ash Silo (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.022	Soda Ash Silo Loading (Discharge is Fully Enclosed)	4,186,964	421,996

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. Emissions from **S2.022** shall be controlled by a **Bin Vent.**
   b. Descriptive Stack Parameters
      Stack Height: 84.0 feet
      Stack Diameter: 0.33 feet
      Stack Temperature: Ambient

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **S2.022** shall not exceed **15.0** tons of **Soda Ash** per any one-hour period averaged over a daily basis.
   b. Hours
      (1) **S2.022** may operate a total of **24** hours per day**.**

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.022** the following pollutants in excess of the following specified limits:
      (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.015** pounds per hour, nor more than **0.065** tons per year.
      (2) The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.0051** pounds per hour, nor more than **0.022** tons per year.
      (3) The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.00075** pounds per hour, nor more than **0.0033** tons per year.
      (4) The opacity from **S2.022** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **S2.022** on a daily basis.
   b. Monitor and record the hours of operation for **S2.022** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Conduct and record an observation of visible emissions (excluding water vapor) on the **Bin Vent** controlling **S2.022** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly observation of visible emissions, and any corrective actions taken.
   e. Inspect the **bin vent** installed on **S2.022** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter fabric), and any corrective actions taken.

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Section V. Specific Operating Conditions (continued)

AD. Emission Unit S2.023

System 30 - Dry Lithium Carbonate Silo (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.023	Dry Lithium Carbonate Silo Loading (Discharge is Fully Enclosed)	4,186,975	422,045

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. Emissions from **S2.023** shall be controlled by a **Bin Vent.**
   b. Descriptive Stack Parameters
      Stack Height: 36.0 feet
      Stack Diameter: 0.50 feet
      Stack Temperature: Ambient

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **S2.023** shall not exceed **6.80** tons of **Dry Lithium Carbonate** per any one-hour period averaged over a daily basis, nor more than **28,200.0** tons per year.
   b. Hours
      (1) **S2.023** may operate a total of **24** hours per day**.**

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.023** the following pollutants in excess of the following specified limits:
      (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.0067** pounds per hour, nor more than **0.014** tons per year.
      (2) The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.0023** pounds per hour, nor more than **0.0048** tons per year.
      (3) The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.00034** pounds per hour, nor more than **0.00071** tons per year.
      (4) The opacity from **S2.023** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **S2.023** on a daily basis.
   b. Monitor and record the hours of operation for **S2.023** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Monitor and record the total yearly throughput rate in tons per year. The annual throughput shall be determined as the sum of the monthly throughput rates for the year for all previous months of that year.
   e. Conduct and record an observation of visible emissions (excluding water vapor) on the **Bin Vent** controlling **S2.023** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly observation of visible emissions, and any corrective actions taken.
   f. Inspect the **bin vent** installed on **S2.023** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter fabric), and any corrective actions taken.

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Section V. Specific Operating Conditions (continued)

AE. Emission Units S2.024 and S2.028

System 31 - Boric Acid Silo (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.024	Boric Acid Silo #1 Loading (Discharge is Fully Enclosed)	4,187,029	421,882
S2.028	Boric Acid Silo #2 Loading (Discharge is Fully Enclosed) (ADDED DATE 2025, Air Case 12253)	4,187,032	421,886

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. Emissions from **S2.024 and S2.028, each,** shall be controlled by a **Bin Vent.**
   b. Descriptive Stack Parameters for **S2.024 and S2.028, each**
      Stack Height: 66.0 feet
      Stack Diameter: 0.33 feet
      Stack Temperature: Ambient

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **S2.024 and S2.028, each,** shall not exceed **46.9** tons of **Boric Acid** per any one-hour period averaged over a daily basis, nor more than **194,138.0** tons per year.
   b. Hours
      (1) **S2.024 and S2.028, each,** may operate a total of **24** hours per day**.**

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.024 and S2.028, each,** the following pollutants in excess of the following specified limits:
      (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.046** pounds per hour, nor more than **0.096** tons per year.
      (2) The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.016** pounds per hour, nor more than **0.033** tons per year.
      (3) The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.0023** pounds per hour, nor more than **0.0049** tons per year.
      (4) The opacity from **S2.024** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **S2.024 and S2.028, each,** on a daily basis.
   b. Monitor and record the hours of operation for **S2.024 and S2.028, each,** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Monitor and record the total yearly throughput rate in tons per year. The annual throughput shall be determined as the sum of the monthly throughput rates for the year for all previous months of that year.
   e. Conduct and record an observation of visible emissions (excluding water vapor) on the **Bin Vent** controlling **S2.024 and S2.028, each,** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly observation of visible emissions, and any corrective actions taken.
   f. Inspect the **bin vent** installed on **S2.024 and S2.028, each,** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter fabric), and any corrective actions taken.

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Section V. Specific Operating Conditions (continued)

AF. Emission Units S2.025 and S2.029

System 32 - Boric Acid Product Work Bins (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.025	Boric Acid Product Work Bin #1 Loading (Discharge is Fully Enclosed)	4,187,029	421,882
S2.029	Boric Acid Product Work Bin #2 Loading (Discharge is Fully Enclosed) (ADDED DATE 2025, Air Case 12253)	4,187,032	421,886
	Boric Acid Product Bagging Systems #1 and 2 - Fully Enclosed		

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. Emissions from **S2.025 and S2.029, each,** shall be controlled by a **Baghouse.**
   b. Descriptive Stack Parameters for **S2.025 and S2.029, each**
      Stack Height: 66.0 feet
      Stack Diameter: 0.33 feet
      Stack Temperature: Ambient
      Exhaust Flow: 9.78 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **S2.025 and S2.029, each,** shall not exceed **46.9** tons of **Boric Acid** per any one-hour period averaged over a daily basis, nor more than **194,138.0** tons per year.
   b. Hours
      (1) **S2.025 and S2.029, each,** may operate a total of **24** hours per day.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.025 and S2.029, each,** the following pollutants in excess of the following specified limits:
      (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.00042** pounds per hour, nor more than **0.00087** tons per year.
      (2) The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.00042** pounds per hour, nor more than **0.00087** tons per year.
      (3) The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.00042** pounds per hour, nor more than **0.00087** tons per year.
      (4) The opacity from **S2.025 and S2.029, each,** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **S2.025 and S2.029, each,** on a daily basis.
   b. Monitor and record the hours of operation for **S2.025 and S2.029, each,** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Monitor and record the total yearly throughput rate in tons per year. The annual throughput shall be determined as the sum of the monthly throughput rates for the year for all previous months of that year.
   e. Conduct and record an observation of visible emissions (excluding water vapor) on the **Baghouse** controlling **S2.025 and S2.029, each,** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly observation of visible emissions, and any corrective actions taken.

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Section V. Specific Operating Conditions (continued)

AF. Emission Units S2.025 and S2.029 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)* (continued)
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
(continued)
   f. Inspect the **Baghouse** installed on **S2.025 and S2.029, each,** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter fabric), and any corrective actions taken.

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Section V. Specific Operating Conditions (continued)

AG. Emission Unit S2.026

System 33 - Dry Lithium Carbonate Transfer Bin (Revised DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.026	Dry Lithium Carbonate Transfer Bin Loading (Discharge is Fully Enclosed)	4,186,979	422,043
	Lithium Carbonate Product Bagging System - Fully Enclosed		

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. Emissions from **S2.026** shall be controlled by a **Baghouse.**
   b. Descriptive Stack Parameters
      Stack Height: 40.0 feet
      Stack Diameter: 0.33 feet
      Stack Temperature: Ambient
      Exhaust Flow: 0.81 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **S2.026** shall not exceed **5.90** tons of **Dry Lithium Carbonate** per any one-hour period averaged over a daily basis, nor more than **28,200.0** tons per year.
   b. Hours
      (1) **S2.026** may operate a total of **24** hours per day**.**
      (2) **S2.026** may operate a total of **4,143** hours per year**.**

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.026** the following pollutants in excess of the following specified limits:
      (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.000035** pounds per hour, nor more than **0.000072** tons per year.
      (2) The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.000035** pounds per hour, nor more than **0.000072** tons per year.
      (3) The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.000035** pounds per hour, nor more than **0.000072** tons per year.
      (4) The opacity from **S2.026** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **S2.026** on a daily basis.
   b. Monitor and record the hours of operation for **S2.026** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Monitor and record the total yearly throughput rate in tons per year. The annual throughput shall be determined as the sum of the monthly throughput rates for the year for all previous months of that year.
   e. Conduct and record an observation of visible emissions (excluding water vapor) on the **Baghouse** controlling **S2.026** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly observation of visible emissions, and any corrective actions taken.

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Section V. Specific Operating Conditions (continued)

AG. Emission Unit S2.026 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)* (continued)
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
(continued)
   f. Inspect the **Baghouse** installed on **S2.026** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter fabric), and any corrective actions taken.

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Section V. Specific Operating Conditions (continued)

AH. Emission Unit S2.027

System 34 - Gasoline Storage Tank		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.027	Gasoline Tank, 5,000 gallon	4,186,918	422,073

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.027** shall be controlled by submerged fill.
   b. Descriptive Tank Parameters
      Shell Diameter: 6.00 feet
      Shell Length: 24 feet
      Capacity: 5,000 gallons

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.027** shall only be used to store **gasoline**.
   b. The maximum allowable throughput rate for **S2.027** shall not exceed **15,416.7** gallons per month, nor more than **185,000** gallons per year.
   c. Hours
      S2.027 may operate a total of **24** hours per day.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.027** the following pollutants in excess of the following specified limits:
   a. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **1.60** tons per year.
   b. The opacity from **S2.027** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput of **gasoline**, in gallons, loaded into, or dispensed from, **S2.027**, on a monthly basis, as determined from vendor invoices for tank loading or fuel pump non-resettable meter for tank dispensing.
   b. Monitor and record the total yearly throughput rate in gallons per year. The annual throughput shall be determined at the end of each month as the sum of the monthly throughput rates for the year for all previous months of that year.

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
   National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart CCCCCC – for Gasoline Dispensing Facilities
   a. Permittee must, at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. (40 CFR 63.11115)

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Section V. Specific Operating Conditions (continued)

AH. Emission Unit S2.027 (continued)

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart CCCCCC – for Gasoline Dispensing Facilities (continued)
   b. Permittee must not allow **gasoline** to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:
      (1) Minimize **gasoline** spills. (40 CFR 63.11116(a)(1))
      (2) Clean up spills as expeditiously as practicable. (40 CFR 63.11116(a)(2))
      (3) Cover all open **gasoline** containers and all **gasoline** storage tank fill-pipes with a gasketed seal when not in use. (40 CFR 63.11116(a)(3))
      (4) Minimize **gasoline** sent to open waste collection systems that collect and transport **gasoline** to reclamation and recycling devices, such as oil/water separators. (40 CFR 63.11116(a)(4))
   c. Except as specified in 40 CFR 63.11117(c), the Permittee must only load **gasoline** into storage tanks at your facility by utilizing submerged filling, as defined in §63.11132, and as specified in 40 CFR 63.11117(b)(1), (b)(2), or (b)(3). The applicable distances in 40 CFR 63.11117(b)(1) and (2) shall be measured from the point in the opening of the submerged fill pipe that is the greatest distance from the bottom of the storage tank. (40 CFR 63.11117(b))
      (1) Submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the tank. (40 CFR 63.11117(b)(1))
      (2) Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the tank. (40 CFR 63.11117(b)(2))
      (3) Submerged fill pipes not meeting the specifications of 40 CFR 63.11117(b)(1) or (b)(2) are allowed if the owner or operator can demonstrate that the liquid level in the tank is always above the entire opening of the fill pipe. Documentation providing such demonstration must be made available for inspection by the Administrator's delegated representative during the course of a site visit. (40 CFR 63.11117(b)(3))
   d. Permittee must have records available within 24 hours of a request by the Administrator to document your **gasoline** throughput. (40 CFR 63.11117(d))

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Section V. Specific Operating Conditions (continued)

AI. Emission Unit S2.030

System 35 – Sulphuric Acid Plant (Added DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.030	Molten Sulphur Unloading Pit	4,187,222	421,761

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.030** has no add-on controls.
   b. Descriptive Stack Parameters
      Stack Height: 17.4 feet
      Stack Diameter: 1.67 feet
      Stack Temperature: 195 °F

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **S2.030** shall not exceed **51.5** tons of **Molten Sulphur** per any one-hour period averaged over a daily basis.
   b. Hours
      (1) **S2.030** may operate a total of **24** hours per day**.**

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.030** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.0037** pounds per hour, nor more than **0.016** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.0037** pounds per hour, nor more than **0.016** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.0037** pounds per hour, nor more than **0.016** tons per year.
   d. The discharge of **SO_2** (sulfur dioxide) to the atmosphere shall not exceed **0.15** pounds per hour, nor more than **0.66** tons per year.
   e. The discharge of **H_2S** (hydrogen sulfide) to the atmosphere shall not exceed **0.080** pounds per hour, nor more than **0.35** tons per year.
   f. The opacity from **S2.030** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **S2.030** on a daily basis.
   b. Monitor and record the hours of operation for **S2.030** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.

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Section V. Specific Operating Conditions (continued)

AI. Emission Unit S2.030 (continued)

5. Performance and Compliance Testing (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
The Permittee, upon issuance of this operating permit, shall conduct renewal performance testing at least 90 days prior to the expiration of this operating permit, but no earlier than 365 days from the date of expiration of this operating permit, and every 5 years thereafter, in accordance with the following:
   a. All opacity compliance demonstrations and/or performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of **Section I.H.** Testing and Sampling (NAC 445B.252) of this operating permit. All performance test results shall be based on the arithmetic average of three valid runs (NAC 445B.252(5)).
   b. Testing shall be conducted on the exhaust stack (post controls).
   c. Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
   d. Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM_{10} and $PM_{2.5}$ emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately.
   e. The Method 201A and 202 test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 and Method 202 in Appendix M of 40 CFR Part 51 test. All particulate captured in the Method 5 and Method 202 test performed under this provision shall be considered $PM_{2.5}$ for determination of compliance.
   f. Method 6C in Appendix A of 40 CFR Part 60 shall be used to determine the sulfur dioxide concentration. Each test will be run for a minimum of one hour.
   g. Method 15 in Appendix A of 40 CFR Part 60 shall be used to determine the hydrogen sulfide concentration. Each test will be run for a minimum of one hour.
   h. Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.

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Section V. Specific Operating Conditions (continued)

AJ. Emission Unit S2.031

System 36 – Sulphuric Acid Plant (Added DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.031	Prilled Sulphur Melting Pit	4,187,288	421,773

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.031** has no add-on controls.
   b. Descriptive Stack Parameters
      Stack Height: 17.4 feet
      Stack Diameter: 1.67 feet
      Stack Temperature: 195 °F

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **S2.031** shall not exceed **7,108.9** tons of **Prilled Sulphur** per any one-hour period averaged over a daily basis.
   b. Hours
      (1) **S2.031** may operate a total of **24** hours per day**.**

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.031** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.0037** pounds per hour, nor more than **0.016** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.0037** pounds per hour, nor more than **0.016** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.0037** pounds per hour, nor more than **0.016** tons per year.
   d. The discharge of **SO_2** (sulfur dioxide) to the atmosphere shall not exceed **0.15** pounds per hour, nor more than **0.66** tons per year.
   e. The discharge of **H_2S** (hydrogen sulfide) to the atmosphere shall not exceed **0.080** pounds per hour, nor more than **0.35** tons per year.
   f. The opacity from **S2.031** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **S2.031** on a daily basis.
   b. Monitor and record the hours of operation for **S2.031** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.

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Section V. Specific Operating Conditions (continued)

AJ. Emission Unit S2.031 (continued)

5. Performance and Compliance Testing (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
The Permittee, upon issuance of this operating permit, shall conduct renewal performance testing at least 90 days prior to the expiration of this operating permit, but no earlier than 365 days from the date of expiration of this operating permit, and every 5 years thereafter, in accordance with the following:
   a. All opacity compliance demonstrations and/or performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of **Section I.H.** Testing and Sampling (NAC 445B.252) of this operating permit. All performance test results shall be based on the arithmetic average of three valid runs (NAC 445B.252(5)).
   b. Testing shall be conducted on the exhaust stack (post controls).
   c. Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
   d. Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM_{10} and $PM_{2.5}$ emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately.
   e. The Method 201A and 202 test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 and Method 202 in Appendix M of 40 CFR Part 51 test. All particulate captured in the Method 5 and Method 202 test performed under this provision shall be considered $PM_{2.5}$ for determination of compliance.
   f. Method 6C in Appendix A of 40 CFR Part 60 shall be used to determine the sulfur dioxide concentration. Each test will be run for a minimum of one hour.
   g. Method 15 in Appendix A of 40 CFR Part 60 shall be used to determine the hydrogen sulfide concentration. Each test will be run for a minimum of one hour.
   h. Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.

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Section V. Specific Operating Conditions (continued)

AK. Emission Unit S2.032

System 37 – Sulphuric Acid Plant (Added DATE 2025, Air Case 12253)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.032	Dirty Sulphur Pit	4,187,272	421,750

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.032** has no add-on controls.
   b. Descriptive Stack Parameters
      Stack Height: 25.5 feet
      Stack Diameter: 2.67 feet
      Stack Temperature: 195 °F

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **S2.032** shall not exceed **7,108.9** tons of **Molten Sulphur** per any one-hour period averaged over a daily basis.
   b. Hours
      (1) **S2.032** may operate a total of **24** hours per day**.**

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.032** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.053** pounds per hour, nor more than **0.23** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.053** pounds per hour, nor more than **0.23** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.053** pounds per hour, nor more than **0.23** tons per year.
   d. The discharge of **SO_2** (sulfur dioxide) to the atmosphere shall not exceed **1.83** pounds per hour, nor more than **8.00** tons per year.
   e. The discharge of **H_2S** (hydrogen sulfide) to the atmosphere shall not exceed **0.97** pounds per hour, nor more than **4.25** tons per year.
   f. The opacity from **S2.032** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the throughput for **S2.032** on a daily basis.
   b. Monitor and record the hours of operation for **S2.032** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.

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Section V. Specific Operating Conditions (continued)

AK. Emission Unit S2.032 (continued)

5. Performance and Compliance Testing (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
The Permittee, upon issuance of this operating permit, shall conduct renewal performance testing at least 90 days prior to the expiration of this operating permit, but no earlier than 365 days from the date of expiration of this operating permit, and every 5 years thereafter, in accordance with the following:
   a. All opacity compliance demonstrations and/or performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of **Section I.H.** Testing and Sampling (NAC 445B.252) of this operating permit. All performance test results shall be based on the arithmetic average of three valid runs (NAC 445B.252(5)).
   b. Testing shall be conducted on the exhaust stack (post controls).
   c. Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
   d. Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM_{10} and $PM_{2.5}$ emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately.
   e. The Method 201A and 202 test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 and Method 202 in Appendix M of 40 CFR Part 51 test. All particulate captured in the Method 5 and Method 202 test performed under this provision shall be considered $PM_{2.5}$ for determination of compliance.
   f. Method 6C in Appendix A of 40 CFR Part 60 shall be used to determine the sulfur dioxide concentration. Each test will be run for a minimum of one hour.
   g. Method 15 in Appendix A of 40 CFR Part 60 shall be used to determine the hydrogen sulfide concentration. Each test will be run for a minimum of one hour.
   h. Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart

******End of Specific Operating Conditions******

Issued to: IONEER USA CORPORATION – RHYOLITE RIDGE (AS PERMITTEE)

Section VI. Continuous Emissions Monitoring System (CEMS) Conditions

A. Continuous Emissions Monitoring System (CEMS) Requirements for **S2.004** (NAC 445B.3405)

1. On or before the date of start-up of **S2.004**, the Permittee shall install, calibrate, operate, and maintain an SO_2 CEMS in the exhaust stacks of **S2.004**. The CEMS sampling probe must be installed at an appropriate location in the exhaust stacks to accurately and continuously measure the concentration of SO_2 (in input appropriate concentration unit) from **S2.004**, in accordance with the requirements prescribed in Nevada Administrative Code (NAC) 445B.256 to NAC 445B.267, applicable subparts 40 CFR Part 60 Appendix B and Appendix F. Verification of the operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the devices.
2. The Permittee shall install CEMS as specified under 40 CFR Part 60 Appendix B Performance Specification (PS) 2 Section 8.1. (40 CFR Part 60 Appendix B PS-2 Section 8.1)
3. The Permittee shall conduct Calibration Drift (CD) tests for 7 consecutive calendar days according to the procedure given in 40 CFR Part 60 Appendix B PS-2 Sections 8.3.2 through 8.3.4. Alternatively, the CD test may be conducted over 7 consecutive unit operating days. (40 CFR Part 60 Appendix B PS-2 Section 8.3.1)
4. The Permittee shall conduct a Relative Accuracy (RA) test according to the procedure given in 40 CFR Part 60 Appendix B PS-2 Sections 8.4.2 through 8.4.6. (40 CFR Part 60 Appendix B PS-2 Section 8.4.1)
5. At a minimum, the Permittee shall summarize in tabular form the results of the CD tests and the RA tests or alternative RA procedure, as appropriate. Include all data sheets, calculations, charts (records of CEMS responses), cylinder gas concentration certifications, and calibration cell response certifications (if applicable) necessary to confirm that the performance of the CEMS met the performance specifications. (40 CFR Part 60 Appendix B PS-2 Section 8.5)
6. The Permittee shall comply with the following method performance specifications (40 CFR Part 60 Appendix B PS-2 Section 13.0):
   a. Calibration Drift
   b. Relative Accuracy
7. The Permittee shall develop and implement a Quality Control (QC) program. As a minimum, each QC program must include written procedures which should describe in detail, complete, step-by-step procedures and operations for each of the following activities (40 CFR Part 60 Appendix F Procedure 1 Section 3.0):
   a. Calibration of CEMS
   b. CD determination and adjustment of CEMS
   c. Preventative maintenance of CEMS (including spare parts inventory)
   d. Data recording, calculations, and reporting
   e. Accuracy audit procedures including sampling and analysis methods
   f. Program of corrective action for malfunctioning CEMS
8. The written procedures under **A.7.** of this section, must be kept on record and available for inspection by the Director. (40 CFR Part 60 Appendix F Procedure 1 Section 3.0)
9. The Permittee shall conduct a Calibration Drift Assessment according to 40 CFR Part 60 Appendix F Procedure 1 Sections 4.1 and 4.2. (40 CFR Part 60 Appendix F Procedure 1 Sections 4.1 and 4.2).
10. The Permittee shall record and report all CEMS data according to 40 CFR Part 60 Appendix F Procedure 1 Section 4.4. All measurements from the CEMS must be retained on file by the Permittee for at least 2 years. (40 CFR Part 60 Appendix F Procedure 1 Section 4.4)
11. Each CEMS must be audited at least once each calendar quarter. Successive quarterly audits shall occur no closer than 2 months. The audits shall be conducted as follows (40 CFR Part 60 Appendix F Procedure 1 Section 5.1):
    a. The Relative Accuracy Test (RATA) shall be conducted once every four calendar quarters. (40 CFR Part 60 Appendix F Procedure 1 Section 5.1.1)
    b. The Cylinder Gas Audit (CGA) shall be conducted every quarter except when a RATA is conducted. (40 CFR Part 60 Appendix F Procedure 1 Section 5.1.2)

Issued to: IONEER USA CORPORATION – RHYOLITE RIDGE (AS PERMITTEE)

Section VI. Continuous Emissions Monitoring System (CEMS) Conditions (continued)

A. Continuous Emissions Monitoring System (CEMS) Requirements for **S2.004** (NAC 445B.3405) (continued)

12. Unless specified otherwise in the applicable subpart, the Permittee shall comply with the relative accuracy criteria:
    a. For RATA (40 CFR Part 60 Appendix F Procedure 1 Section 5.2.3(1)):
        (1) For SO_2 emissions, RA shall be less than or equal to 20% (if the value determined by the Reference Method (RM) is greater than 50% of the emission limit) or RA shall be less than or equal to 10% (if the value determined by the RM is less than 50% of the emission limit). (40 CFR Part 60 Appendix B PS-2 Section 13.2)

13.2 Relative Accuracy Performance Specification.

	Calculate . . .	RA criteria (%)
If average emissions during the RATA are ≥50% of emission standard	Use Eq. 2-6, with RM in the denominator	≤20.0
If average emissions during the RATA are <50% of emission standard	Use Eq. 2-6, emission standard in the denominator	≤10.0
For SO2 emission standards ≤130 but ≥86 ng/J (0.30 and 0.20 lb/million Btu)	Use Eq. 2-6, emission standard in the denominator	≤15.0
For SO2 emission standards <86 ng/J (0.20 lb/million Btu)	Use Eq. 2-6, emission standard in the denominator	≤20.0

    b. For CGA ±15 percent of the average audit value for ±5 ppm, whichever is greater. (40 CFR Part 60 Appendix F Procedure 1 Section 5.2.3(2))
13. The Permittee shall conduct and report to the Director a quarterly audit as specified under 40 CFR Part 60 Appendix F Procedure 1 Section 7.0. (40 CFR Part 60 Appendix F Procedure 1 Section 7.0)

B. NAC 445B.265

Monitoring systems; Records; Reports

1. The Permittee subject to the provisions of NAC 445B.256 to 445B.267, inclusive, shall maintain records of the occurrence and duration of any start-up, shutdown or malfunction in the operation of an affected facility and any malfunction of the air pollution control equipment or any periods during which a continuous monitoring system or monitoring device is inoperative.
2. The Permittee required to install a continuous monitoring system shall submit a written report of excess emissions to the Director for every calendar quarter. All quarterly reports must be postmarked by the 30th day following the end of each calendar quarter and must include the following information:
    a. The magnitude of excess emissions computed in accordance with NAC 445B.256 to 445B.267, inclusive, any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.
    b. Specific identification of each period of excess emissions that occurs during start-ups, shutdowns and malfunctions of the affected facility.
    c. The nature and cause of any malfunction, if known, the corrective action taken or preventative measures adopted.
    d. Specific identification of each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of any repairs or adjustments that were made.
        (1) When no excess emissions have occurred and the continuous monitoring system has not been inoperative, repaired or adjusted, such information shall be included in the report.

Issued to: IONEER USA CORPORATION – RHYOLITE RIDGE (AS PERMITTEE)

Section VI. Continuous Emissions Monitoring System (CEMS) Conditions (continued)

B. NAC 445B.265 (continued)

3. The Permittee subject to the provisions of NAC 445B.256 to 445B.267, inclusive, shall maintain a file of all measurements, including:
   a. Continuous monitoring systems, monitoring devices and performance testing measurements;
   b. All continuous monitoring system performance evaluations;
   c. All continuous monitoring systems or monitoring device calibration checks;
   d. Adjustments and maintenance performed on these systems or devices; and
   e. All other information required by NAC 445B.256 to 445B.267, inclusive, recorded in a permanent form suitable for inspection.
      (1) The file shall be retained for at least 2 years following the date of the measurements, maintenance, reports and records.

******End of Continuous Emissions Monitoring System (CEMS) Conditions******

Issued to: IONEER USA CORPORATION – RHYOLITE RIDGE (AS PERMITTEE)

Section VII. Emission Caps

A. Not Applicable

******End of Emission Caps******

Issued to: IONEER USA CORPORATION – RHYOLITE RIDGE (AS PERMITTEE)

Section VIII. Surface Area Disturbance Conditions

The surface area disturbance for **the Rhyolite Ridge Project** is **2,266** acres.

A. Fugitive Dust (NAC 445B.22037) (*Federally Enforceable SIP Requirement)*

1. No person may cause or permit the handling, transporting or storing of any material in a manner which allows or may allow controllable particulate matter to become airborne.
2. Except as otherwise provided in subsection 4, no person may cause or permit the construction, repair, demolition, or use of unpaved or untreated areas without first putting into effect an ongoing program using the best practical methods to prevent particulate matter from becoming airborne. As used in this subsection, "best practical methods" includes, but is not limited to, paving, chemical stabilization, watering, phased construction and revegetation.
3. Except as otherwise provided in subsection 4, no person may disturb or cover 5 acres or more of land or its topsoil until he has obtained an operating permit for surface area disturbance to clear, excavate, or level the land or to deposit any foreign material to fill or cover the land.
4. The provisions of subsections 2 and 3 do not apply to:
   a. Agricultural activities occurring on agricultural land; or
   b. Surface disturbances authorized by a permit issued pursuant to NRS 519A.180 which occur on land which is not less than 5 acres or more than 20 acres.

******End of Surface Area Disturbance Conditions******

Issued to: IONEER USA CORPORATION – RHYOLITE RIDGE (AS PERMITTEE)

Section IX. Schedules of Compliance

A. Not Applicable

******End of Schedule of Compliance ******

Issued to: IONEER USA CORPORATION – RHYOLITE RIDGE (AS PERMITTEE)

Section X. Amendments

March 28, 2022 (Air Case 11118 – Reopen and Revision)

- System 01 (Section V.A.2.a) through System 20 (Section V.T.2.a) and System 28 (Section V.AB.2.a) through System 33 (Section V.AG.2.a): The phrase in reference to hourly throughputs, "per any one-hour period" will be revised to read, "per any one-hour period averaged over a daily basis."
- System 01 (Section V.A.3) and System 15 (Section V.0.3): The phrase in reference to annual emission limits, "tons per year" will be revised to read, "per 12-month rolling period."
- System 09: The following emission units were missing in the original issuance of the permit and will be added to the permit.
  - PF1.021 - Sulphate Salts Stockpile transfer to Haul Truck
  - PF1.022 - Haul Truck transfer to Spent Ore Storage Facility
- Section VI. Continuous Emissions Monitoring System (CEMS) Conditions: References to NOx will be removed from this section

DRAFT, 2025 (Air Case 12253 – Revision)

- Updated throughput/flowrate for Systems 1 - 3, 6 - 8, 12, 16 - 18, 26 - 30, and 33
- Updated UTM coordinates for Systems 1, 2, 6 - 8, 11 - 14, 16 - 21, and 25 - 33
- Updated Stack Parameters for Systems 12 - 15, 19 - 22, 28 – 31, and 33
- Updated unit descriptions for PF1.012, PF1.014 – PF1.016, and PF1.024
- Added units PF1.0035 (System 3), PF1.036 (System 7), PF1.037 (System 8), PF1.038 – PF1.055 (System 9), PF1.056 and PF1.057 (System 10), S2.028 (System 31), and S2.029 (System 32)
- Removed units PF1.004 (System 2), PF1.005, PF1.007, and PF1.008 (System 3), PF1.013 (System 6), PF1.017 (System 7), PF1.019 (System 9), PF1.023 (System 10), and S2.019 – S2.021 (System 28)
- Incorporated Systems 4 and 5 into System 3
- Added Systems 35 through 37 (Sulphuric Acid Plant – emission units S2.030 through S2.032)
- Emission unit numbers PF1.003 (System 2), PF1.006, and PF1.009 - PF1.011(System 3) were removed as they are fully enclosed
- System 15: updated SO_2 value to 11.5 ppm resulting in decreased SO_2 emissions
- System 21: Updated engine horsepower from 4,376 to 4,693 hp
- Systems 26 and 27 (Cooling Towers): Increased TDS values

Issued to: IONEER USA CORPORATION – RHYOLITE RIDGE (AS PERMITTEE)

Section X. Amendments (continued)

This permit:

1. **Is non-transferable. (NAC 445B.287.3) (*Federally Enforceable SIP Requirement)***
2. **Will be posted conspicuously at or near the stationary source. (NAC 445B.318.5) (*Federally Enforceable SIP Requirement)***
3. **Will expire and be subject to renewal five (5) years from: June 14, 2021 . (NAC 445B.315) (*Federally Enforceable SIP Requirement)***
4. **A completed application for renewal of an operating permit must be submitted to the Director on the form provided by him with the appropriate fee at least 70 calendar days before the expiration date of this operating permit. (NAC 445B.3473.2) (*Federally Enforceable SIP Requirement)***
5. **Any person aggrieved by a final decision of the Department may, not later than 10 days after notice of the action of the Department, appeal the decision by filing a request for a hearing before the Commission on a form 3* with the State Environmental Commission, 901 South Stewart Street, Suite 4001, Carson City, Nevada 89701-5249. *(See adopting agency for form.) (NAC 445B.890) *(State Only Requirement)***

THIS PERMIT EXPIRES ON: June 14, 2026

Signature: _____

Issued by: Jaimie Mara
Supervisor, Permitting Branch
Bureau of Air Pollution Control

Phone: (775) 687- 9343 **Date:** DRAFT

bkk 06/21 bkk 03/22 dr xx/25

Class II Insignificant Activities List

Appended to Permit #AP1099-4256

Emission Unit #	Emission Unit Description
IA1.001	PP Diesel 1 (25,000 gallons)
IA1.002	PP Diesel 2 (25,000 gallons)
IA1.003	SAP Diesel 2 (23,190 gallons)
IA1.004	Laboratory - Electric Dryer Oven
IA1.005	Laboratory - Jaw Crusher
IA1.006	Laboratory - Cone Crusher
IA1.007	Laboratory - Pulverizer
IA1.008	Laboratory - AAS Machine
IA1.009	Laboratory - ICP Machine
IA1.010	Laboratory - Baghouse