



Bureau of Air Pollution Control

901 SOUTH STEWART STREET SUITE 4001

CARSON CITY, NEVADA 89701-5249

p: 775-687-9349 • ndep.nv.gov/air

Facility ID No. A0452

Draft Permit No. AP2819-0050.05

CLASS II AIR QUALITY OPERATING PERMIT

Issued to: ALBEMARLE U.S., INC. (HEREINAFTER REFERRED TO AS PERMITTEE)

Mailing Address: P.O. BOX 98, SILVER PEAK, NEVADA 89407

Physical Address: END OF STATE HIGHWAY 265, SILVER PEAK, NEVADA

Driving Directions: FROM SILVER PEAK, NEVADA, 1 MILE TO END OF STATE HIGHWAY 265

General Facility Location: SECTION 22, T2S, R39E, MDB&M

HA 143 – CLAYTON VALLEY / ESMERALDA COUNTY

NORTH 4,178,423 M, EAST 443,735 M, UTM ZONE 11, NAD 83

Emission Unit List:

A. System 1 – Ponds Liming Silo (Revised – Air Case 11467, March 2023)

S2.001 ~~Lime Silo Loading by Pneumatic Conveyor from Bulk Lime Trucks~~ (Removed – Air Case 11467, March 2023)

PF1.001 ~~Lime Silo Discharge to Slaker via Variable Speed Screw Feeder~~ (Removed – Air Case 11467, March 2023)

S2.040 Lime Silo Loading by Pneumatic Conveyor from Bulk Lime Trucks (Added – Air Case 11467, March 2023)

S2.041 Lime Silo Discharge to Lime Slaker via Screw Conveyor (Added – Air Case 11467, March 2023)

PF1.005 Lime Slaker Discharge to Grit Pile via Screw Conveyor (Added – Air Case 11467, March 2023)

B. System 2 – Soda Ash Conveying System

S2.002 #3 Soda Ash Silo Loading by Truck via Mounted Pneumatic Conveyor and Discharge to #1 Soda Ash Silo (S2.004) or Soda Ash Receiving Hopper (S2.005) via Pneumatic Conveyor

S2.003 #2 Soda Ash Silo Loading by Truck via Mounted Pneumatic Conveyor and Discharge to #1 Soda Ash Silo (S2.004) or Soda Ash Receiving Hopper (S2.005) via Pneumatic Conveyor

S2.004 #1 Soda Ash Silo Loading by Truck via Mounted Pneumatic Conveyor

S2.005 Soda Ash Receiving Hopper and Discharge to Soda Ash Slurry Tanks via Gravity Chute

PF1.002 #1 Soda Ash Silo Discharge to Lithium Carbonate Process via Weigh Belt Feeder

C. System 3 – Mix Tank Lime Silo

S2.006 Lime Silo Loading Pneumatically from Lime Trucks

PF1.003 Lime Silo Discharge to Mixing Tank via Metering Bin

D. System 4 – Rotary Dryer

S2.007a 2.29 MMBtu/hr Propane Fired Rotary Dryer and Discharge to Pneumatic Conveyor (S2.008), Fine Particles and Combustion Emissions Discharge through Top Mikro Pulsaire Baghouse

S2.007b 2.29 MMBtu/hr Propane Fired Rotary Dryer and Discharge to Pneumatic Conveyor (S2.008), Coarse Particles Discharge through Bottom Mikro Pulsaire Baghouse

E. System 6 – Lithium Carbonate System – Mill Bin

S2.008 Pneumatic Conveyor which conveys Lithium Carbonate from System 4 (S2.007) Rotary Dryer to Mill Bin (S2.009) or System 7 Warehouse Bin (S2.011)

S2.009 Mill Bin Loading from Pneumatic Conveyor (S2.008) and discharge to System 7 Pneumatic Conveyor (S2.010)

PF1.004 Mill Bin discharge to Bulk Sack Filling or Truck Filling

F. System 7 – Lithium Carbonate Packaging – Transfers and Warehouse Bin

S2.008 Pneumatic Conveyor which conveys Lithium Carbonate from System 4 (S2.007) Rotary Dryer to the System 6 Mill Bin (S2.009) or Warehouse Bin (S2.011)

S2.010 Pneumatic Conveyor which conveys Lithium Carbonate from System 6 Mill Bin (S2.009) to Warehouse Bin (S2.011)

S2.011 Warehouse Bin, Bin Loading from Pneumatic Conveyor (S2.008) or Pneumatic Conveyor (S2.010) and Discharge to System 8 via Pneumatic Conveyor (S2.013) and/or System 10 via Pneumatic Conveyor (S2.014)



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Emission Unit List (continued):

G. System 8 – Lithium Carbonate Packaging – Packaging Bin or Bulk Sack Filler

S2.013 Pneumatic Conveyor transfer of Lithium Carbonate from the System 7 Warehouse Bin (S2.011) to Packaging Bin or Bulk Sack Filler

H. System 10 – Milled Lithium Carbonate Air Classifier System

S2.012 Bulk Bag Bin and discharge to Pneumatic Conveyor (S2.014)

S2.014 Pneumatic Conveyor transfer of Lithium Carbonate from System 7 Warehouse Bin (S2.011) to Classifier Feed Bin (S2.015)

S2.015 Classifier Feed Bin loading by Pneumatic Conveyor (S2.014) and discharge to Feeder/Grinder; transfer from Feeder/Grinder to Air Classifier (S2.016) via Flexible Bag

S2.016 Air Classifier and discharge to Milled Lithium Carbonate Bin (S2.018)

S2.017 Air Classifier Oversize Recycle back to Classifier Feed Bin (S2.015) via Pneumatic Conveyor in Closed System

S2.018 Milled Lithium Carbonate Bin and discharge to Bag Filler or Bulk Sack Filler via Packaging Storage Bin

I. System 14 – Lithium Hydroxide Monohydrate Packaging

S2.022 Lithium Hydroxide Monohydrate Bulk Bag transfer to Davis Ribbon Blender via Screw Conveyors and Bucket Elevator followed by transfer to Packaging Line via Screw Conveyors and Bucket Elevator that includes a Smurfit Stone Bagger, W.T. Durant Drummer, and Bulk Bagger

J. System 16 – Lithium Hydroxide Anhydrous System I

S2.024 Loading of Compactor and discharge to Granulator

S2.025 Granulator and discharge to Screen via Screw Feeder

S2.026 Screen and discharge to Anhydrous Dryer I (Steam Heated)

S2.027 Anhydrous Dryer I and discharge to Screen

S2.028 Screen and discharge to Drum Storage for Packaging

K. System 16A – Lithium Hydroxide Anhydrous System II

S2.031 Blender and discharge to Compactor via Feed Bin

S2.032 Compactor and discharge to Granulator via Dragline Conveyor

S2.033 Granulator and discharge to Screen via Screw Feeder

S2.034 Screen and discharge to Anhydrous Dryer II (Steam Heated)

S2.035 Anhydrous Dryer II and discharge to Screen

S2.036 Screen and discharge to Drum Storage for Packaging

L. System 17 – Propane Fired Superior Boiler Works, Inc. Boiler (Added – Air Case 11467, March 2023)

S2.042 33.475 MMBtu/hr Propane Fired Superior Boiler Works, Inc. Boiler (mdl # 7-X-4000, s/n 19945, mfd 2022)

~~L. System 17A – Propane Fired York Shipley Boiler (Removed – Air Case 11467, March 2023)~~

~~S2.029A 45.4 MMBtu/hr Propane Fired York Shipley Boiler (mdl # 400 SHP 88-5, s/n B48 188W, mfd 1995) (Replaced by S2.042)~~

M. System 19 – 6.3 MMBtu/hr Propane Fired Johnston Boiler

S2.037 Propane Fired Johnston Boiler (mdl # PFTA150-4GP150S, s/n 9685-01, mfd 1997)

N. System 20 – 5,000 Gallon Gasoline Tank

S2.038 5,000 Gallon Gasoline Tank

O. System 21 – Generac Emergency Propane Generator

S2.039 240 HP Generac Emergency Propane Generator (mdl # SG150, mfd January 2019)

******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.



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Section I. General Provisions (continued)

M. Operating permits: Assertion of emergency as affirmative defense to action for noncompliance (NAC 445B.326) (State Only Requirement)

1. A holder of an operating permit may assert an affirmative defense to an action brought for noncompliance with a technology-based emission limitation contained in the operating permit if the holder of the operating permit demonstrates through signed, contemporaneous operating logs or other relevant evidence, that:
 - a. An emergency occurred and the holder of the operating permit can identify the cause of the emergency;
 - b. The facility was being properly operated at the time of the emergency;
 - c. During the emergency, the holder of the operating permit took all reasonable steps to minimize excess emissions; and
 - d. The holder of the operating permit submitted notice of the emergency to the Director within 2 working days after the emergency. The notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken to restore the normal operation of the facility.
2. In any action for noncompliance, the holder of an operating permit who asserts the affirmative defense of an emergency has the burden of proof.

N. 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.

O. 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******



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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: eenotify@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, and emissions. These reports will be submitted on the form provided by the Bureau of Air Pollution Control for all emission units/systems specified on the form. The completed form must be submitted to the Bureau of Air Pollution Control no later than March 1 annually for the preceding calendar year.

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



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CLASS II AIR QUALITY OPERATING PERMIT

Issued to: ALBEMARLE U.S., INC. – SILVER PEAK LITHIUM FACILITY (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 **S2.040, S2.041, S2.042, and PF1.005**:

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******

**Bureau of Air Pollution Control****Facility ID No. A0452****Draft Permit No. AP2819-0050.05****CLASS II AIR QUALITY OPERATING PERMIT****Issued to:** ALBEMARLE U.S., INC. – SILVER PEAK LITHIUM FACILITY (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)**

- 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

System	Emission Unit(s)	Pollutant To Be Tested	Testing Methods/Procedures
System 1 – Ponds Liming Silo	S2.040 S2.041 PF1.005	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 17 – Propane Fired Superior Boiler	S2.042	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 21 – Generac Emergency Propane Generator	S2.039	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.

Table IV-2: Initial Performance Tests

System	Emission Unit(s)	Pollutants To Be Tested	Testing Methods/Procedures
System 1 – Ponds Liming Silo	PF1.005	Moisture	Monitor and record the moisture content of the hydrated lime grit .
System 17 – Propane Fired Superior Boiler	S2.042	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.
		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.



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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)
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.3689, 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******

**Bureau of Air Pollution Control****Facility ID No. A0452****Draft Permit No. AP2819-0050.05****CLASS II AIR QUALITY OPERATING PERMIT****Issued to:** ALBEMARLE U.S., INC. – SILVER PEAK LITHIUM FACILITY (AS PERMITTEE)**Section V. Specific Operating Conditions****A. Emission Units S2.040, S2.041, and PF1.005**

System 1 – Ponds Liming Silo (Revised – Air Case 11467, March 2023)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.001	Lime Silo Loading by Pneumatic Conveyor from Bulk Lime Trucks (Removed – Air Case 11467, March 2023)		
PF1.001	Lime Silo Discharge to Slaker via Variable Speed Screw Feeder (Removed – Air Case 11467, March 2023)		
S2.040	Lime Silo Loading by Pneumatic Conveyor from Bulk Lime Trucks (Added – Air Case 11467, March 2023)	4,180,120	447,937
S2.041	Lime Silo Discharge to Lime Slaker via Screw Conveyor (Added – Air Case 11467, March 2023)	4,180,122	447,938
PF1.005	Lime Slaker Discharge to Grit Pile via Screw Conveyor (Added – Air Case 11467, March 2023)	4,180,122	447,938

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. Emissions from **S2.040** shall be controlled by a **WAM Bin Vent**.
 - b. Descriptive Stack Parameters for WAM Bin Vent
Stack Height: 77.0 feet
Stack Diameter: 3.25 feet
Stack Temperature: ambient
Exhaust Flow: 1,106 dry standard cubic feet per minute (dscfm)
 - c. Emissions from **S2.041** shall be controlled by a **Westpro Wet Scrubber**.
 - d. Descriptive Stack Parameters for Westpro Wet Scrubber
Stack Height: 13.0 feet
Stack Diameter: 0.96 feet
Stack Temperature: ambient
Exhaust Flow: 350 actual cubic feet per minute (acfm)
 - e. Emissions from **PF1.005** shall be controlled by the **hydrated lime grit containing no less than 10% moisture**.
2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. The maximum allowable loading rate for **S2.040** shall not exceed **20.0** tons of **lime** per any one-hour period averaged over a daily basis.
 - b. The maximum allowable discharge rate for **S2.041** shall not exceed **20.0** tons of **lime** per any one-hour period averaged over a daily basis.
 - c. The maximum allowable throughput rate for **PF1.005** shall not exceed **2.0** tons of **hydrated lime grit** per any one-hour period averaged over a daily basis.
 - d. The moisture content of the **hydrated lime grit for PF1.005** shall not be less than **10%**.
 - e. Hours
 - (1) **S2.040, S2.041, and PF1.005, each**, may operate a total of **24** hours per day.



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Section V. Specific Operating Conditions (continued)

A. Emission Units S2.040, S2.041, and PF1.005 (continued)

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 the exhaust stack of the **WAM Bin Vent** for **S2.040** the following pollutants in excess of the following specified limits:
 - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.020** pound per hour, nor more than **0.087** tons per year.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.0068** pound per hour, nor more than **0.030** 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 **0.0010** pound per hour, nor more than **0.0045** tons per year.
 - (4) The opacity from the stack discharge of the **WAM Bin Vent** that controls **S2.040** 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 the exhaust stack of the **Westpro Wet Scrubber** for **S2.041** the following pollutants in excess of the following specified limits:
 - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.0048** pound per hour, nor more than **0.021** tons per year.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.0028** pound per hour, nor more than **0.012** 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** pound per hour, nor more than **0.0019** tons per year.
 - (4) The opacity from the stack discharge of the **Westpro Wet Scrubber** that controls **S2.041** shall not equal or exceed **20** percent.
- c. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.005** the following pollutants in excess of the following specified limits:
 - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.00053** pound per hour, nor more than **0.0023** ton per year.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.00018** pound per hour, nor more than **0.00081** ton 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 **0.000028** pound per hour, nor more than **0.00012** ton per year.
 - (4) The opacity from **PF1.005** shall not equal or exceed **20** percent.



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Section V. Specific Operating Conditions (continued)

A. Emission Units S2.040, S2.041, and PF1.005 (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 loading and discharge in tons for **S2.040 and S2.041, each**, on a daily basis.
- b. Monitor and record the throughput in tons for **PF1.005** on a daily basis.
- c. Monitor and record the hours of operation for **S2.040, S2.041, and PF1.005, each**, on a daily basis.
- d. Record the corresponding average hourly loading, discharge, and throughput rates in tons per hour. The average hourly loading, discharge, and throughput rates shall be determined from the total daily loading, discharge, and throughput in tons and the total daily hours of operation.
- e. Conduct and record an observation of visible emissions (excluding water vapor) on the **WAM Bin Vent** controlling **S2.040** 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 **WAM Bin Vent** installed on **S2.040** 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.
- g. Conduct and record an observation of visible emissions (excluding water vapor) on the **Westpro Wet Scrubber** controlling **S2.041** 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.
- h. Inspect the **Westpro Wet Scrubber** installed on **S2.041** 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.
- i. Conduct and record an observation of visible emissions (excluding water vapor) on **PF1.005** 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.
- j. Monitor and record the moisture content of the **hydrated lime grit on a quarterly basis for PF1.005**.

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System 2 – Soda Ash Conveying System		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.002	#3 Soda Ash Silo Loading by Truck via Mounted Pneumatic Conveyor and Discharge to #1 Soda Ash Silo (S2.004) or Soda Ash Receiving Hopper (S2.005) via Pneumatic Conveyor	4,178,583	443,636
S2.003	#2 Soda Ash Silo Loading by Truck via Mounted Pneumatic Conveyor and Discharge to #1 Soda Ash Silo (S2.004) or Soda Ash Receiving Hopper (S2.005) via Pneumatic Conveyor	4,178,591	443,640
S2.004	#1 Soda Ash Silo Loading by Truck via Mounted Pneumatic Conveyor	4,178,591	443,643
S2.005	Soda Ash Receiving Hopper and Discharge to Soda Ash Slurry Tanks via Gravity Chute	4,178,605	443,626
PF1.002	#1 Soda Ash Silo Discharge to Lithium Carbonate Process via Weigh Belt Feeder	4,178,591	443,643

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. Emissions from **S2.002** shall be controlled by the **Griffin Baghouse SA3**.
 - b. Descriptive Stack Parameters for Griffin Baghouse SA3
Stack Height: 49 feet
Stack Diameter: 0.93 feet
Stack Temperature: ambient
Exhaust Flow: 1,162 dry standard cubic feet per minute (dscfm)
 - c. Emissions from **S2.003** shall be controlled by the **Griffin Baghouse SA2**.
 - d. Descriptive Stack Parameters for Griffin Baghouse SA2
Stack Height: 49 feet
Stack Diameter: 0.93 feet
Stack Temperature: ambient
Exhaust Flow: 1,162 dry standard cubic feet per minute (dscfm)
 - e. Emissions from **S2.004** shall be controlled by the **Griffin Baghouse SA1**.
 - f. Descriptive Stack Parameters for Griffin Baghouse SA1
Stack Height: 49 feet
Stack Diameter: 0.93 feet
Stack Temperature: ambient
Exhaust Flow: 1,162 dry standard cubic feet per minute (dscfm)
 - g. Emissions from **S2.005** are controlled by the **Griffin Baghouse SA3** (that also controls **S2.002**) and/or the **Griffin Baghouse SA2** (that also controls **S2.003**) and/or the **Griffin Baghouse SA1** (that also controls **S2.004**).
 - h. Emissions from **PF1.002** shall be controlled by an **enclosure**.
2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. The maximum allowable loading rate for **S2.002, S2.003, and S2.004, each**, shall not exceed **30.0** tons of **soda ash** per any one-hour period averaged over a daily basis, nor more than **30,000.0** tons per year.
 - b. The maximum allowable discharge rate for **S2.002, S2.003, and S2.004, each**, shall not exceed **30.0** tons of **soda ash** per any one-hour period averaged over a daily basis, nor more than **30,000.0** tons per year.
 - c. The maximum allowable discharge rate for **S2.005** shall not exceed **7.0** tons of **soda ash** per any one-hour period averaged over a daily basis, nor more than **12,000.0** tons per year.
 - d. The maximum allowable discharge rate for **PF1.002** shall not exceed **3.0** tons of **soda ash** per any one-hour period averaged over a daily basis, nor more than **30,000.0** tons per year.
 - e. Hours
 - (1) **S2.002, S2.003, S2.004, S2.005, and PF1.002, each**, may operate a total of **24** hours per day.



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Section V. Specific Operating Conditions (continued)

B. Emission Units S2.002, S2.003, S2.004, S2.005, and PF1.002 (continued)

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 the exhaust stack of the **Griffin Baghouse SA3** for **S2.002 and S2.005** the following pollutants in excess of the following specified limits:
 - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.20** pound per hour, nor more than **0.87** ton per year, **combined**.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.20** pound per hour, nor more than **0.87** ton per year, **combined**.
 - (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 **0.20** pound per hour, nor more than **0.87** ton per year, **combined**.
 - (4) The opacity from the stack discharge of the **Griffin Baghouse SA3** that controls **S2.002 and S2.005** 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 the exhaust stack of the **Griffin Baghouse SA2** for **S2.003 and S2.005** the following pollutants in excess of the following specified limits:
 - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.20** pound per hour, nor more than **0.87** ton per year, **combined**.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.20** pound per hour, nor more than **0.87** ton per year, **combined**.
 - (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 **0.20** pound per hour, nor more than **0.87** ton per year, **combined**.
 - (4) The opacity from the stack discharge of the **Griffin Baghouse SA2** that controls **S2.003 and S2.005** shall not equal or exceed **20** percent.
 - c. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from the exhaust stack of the **Griffin Baghouse SA1** for **S2.004 and S2.005** the following pollutants in excess of the following specified limits:
 - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.20** pound per hour, nor more than **0.87** ton per year, **combined**.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.20** pound per hour, nor more than **0.87** ton per year, **combined**.
 - (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 **0.20** pound per hour, nor more than **0.87** ton per year, **combined**.
 - (4) The opacity from the stack discharge of the **Griffin Baghouse SA1** that controls **S2.004 and S2.005** shall not equal or exceed **20** percent.
 - d. 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:
 - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.13** pound per hour, nor more than **0.65** ton per year.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.046** pound per hour, nor more than **0.23** ton 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 **0.0069** pound per hour, nor more than **0.035** ton per year.
 - (4) The opacity from **PF1.002** shall not equal or exceed **20** percent.



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Section V. Specific Operating Conditions (continued)

B. Emission Units S2.002, S2.003, S2.004, S2.005, and 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.

- a. Monitor and record the loading and discharge in tons for **S2.002, S2.003, S2.004, S2.005, and PF1.002, each**, on a daily basis.
- b. Monitor and record the hours of operation for **S2.002, S2.003, S2.004, S2.005, and PF1.002, each**, on a daily basis.
- c. Record the corresponding average hourly loading and discharge rates in tons per hour. The average hourly loading and discharge rates shall be determined from the total daily loading and discharge in tons and the total daily hours of operation.
- d. Monitor and record the total yearly loading and discharge rates in tons per year. The annual loading and discharge rates shall be determined as the sum of the monthly loading and discharge 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 **Griffin Baghouses SA1, SA2, and SA3**, controlling **S2.002, S2.003, S2.004, and S2.005, 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 **Griffin Baghouses SA1, SA2, and SA3**, installed on **S2.002, S2.003, S2.004, and S2.005, 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.
- g. Conduct and record an observation of visible emissions (excluding water vapor) on the enclosure 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 the following recordkeeping: the calendar date of any required monitoring, results of the monthly observation of visible emissions, and any corrective actions taken.
- h. Inspect the enclosure installed on **PF1.002** 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 expeditiously 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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System 3 – Mix Tank Lime Silo		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.006	Lime Silo Loading Pneumatically from Lime Trucks	4,178,604	443,623
PF1.003	Lime Silo Discharge to Mixing Tank via Metering Bin	4,178,604	443,623

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. Emissions from **S2.006** shall be controlled by the **Griffin Baghouse**.
 - b. Descriptive Stack Parameters for Griffin Baghouse
Stack Height: 40 feet
Stack Diameter: 0.93 feet
Stack Temperature: ambient
Exhaust Flow: 798 dry standard cubic feet per minute (dscfm)
 - c. Emissions from **PF1.003** shall be controlled by an **enclosure**.
2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. The maximum allowable loading rate for **S2.006** shall not exceed **40.0** tons of **lime** per any one-hour period averaged over a daily basis, nor more than **750.0** tons per year.
 - b. The maximum allowable discharge rate for **PF1.003** shall not exceed **3.0** tons of **lime** per any one-hour period averaged over a daily basis, nor more than **750.0** tons per year.
 - c. Hours
 - (1) **S2.006 and PF1.003, 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 the exhaust stack of the **Griffin Baghouse** for **S2.006** the following pollutants in excess of the following specified limits:
 - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.14** pound per hour, nor more than **0.60** ton per year.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.14** pound per hour, nor more than **0.60** ton 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 **0.14** pound per hour, nor more than **0.60** ton per year.
 - (4) The opacity from the stack discharge of the **Griffin Baghouse** that controls **S2.006** 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 **PF1.003** the following pollutants in excess of the following specified limits:
 - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.13** pound per hour, nor more than **0.016** ton per year.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.046** pound per hour, nor more than **0.0057** ton 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 **0.0069** pound per hour, nor more than **0.00087** ton per year.
 - (4) The opacity from **PF1.003** shall not equal or exceed **20** percent.



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Section V. Specific Operating Conditions (continued)

C. Emission Units S2.006 and PF1.003 (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 loading and discharge in tons for **S2.006 and PF1.003, each**, on a daily basis.
- b. Monitor and record the hours of operation for **S2.006 and PF1.003, each**, on a daily basis.
- c. Record the corresponding average hourly loading and discharge rates in tons per hour. The average hourly loading and discharge rates shall be determined from the total daily loading and discharge in tons and the total daily hours of operation.
- d. Monitor and record the total yearly loading and discharge rates in tons per year. The annual loading and discharge rates shall be determined as the sum of the monthly loading and discharge 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 **Griffin Baghouse** controlling **S2.006** 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 **Griffin Baghouse** installed on **S2.006** 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.
- g. Conduct and record an observation of visible emissions (excluding water vapor) on the enclosure controlling **PF1.003** 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.
- h. Inspect the enclosure installed on **PF1.003** 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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System 4 – Rotary Dryer		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.007a	2.29 MMBtu/hr Propane Fired Rotary Dryer and Discharge to Pneumatic Conveyor (S2.008), Fine Particles and Combustion Emissions Discharge through Top Mikro Pulsaire Baghouse	4,178,554	443,642
S2.007b	2.29 MMBtu/hr Propane Fired Rotary Dryer and Discharge to Pneumatic Conveyor (S2.008), Coarse Particles Discharge through Bottom Mikro Pulsaire Baghouse	4,178,554	443,642

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. Fine particulate and propane combustion emissions from **S2.007a** shall be controlled by the **Top Mikro Pulsaire Baghouse**. Coarse particulate emissions from **S2.007b** shall be controlled by the **Bottom Mikro Pulsaire Baghouse**.
 - b. Descriptive Stack Parameters for Top Mikro Pulsaire Baghouse
Stack Height: 43 feet
Stack Diameter: 0.83 feet
Stack Temperature: 380 °F
Exhaust Flow: 3,307 dry standard cubic feet per minute (dscfm)
 - c. Descriptive Stack Parameters for Bottom Mikro Pulsaire Baghouse
Stack Height: 35 feet
Stack Diameter: 0.25 feet
Stack Temperature: 205 °F
Exhaust Flow: 156 dry standard cubic feet per minute (dscfm)
2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. **S2.007a and S2.007b** may consume only **propane**.
 - b. The maximum allowable fuel consumption rate for **S2.007a and S2.007b** shall not exceed **25.0 gallons** per any one-hour period, **combined**.
 - c. The maximum allowable throughput rate for **S2.007a and S2.007b** shall not exceed **1.6 tons** of **lithium carbonate** per any one-hour period averaged over a daily basis, nor more than **10,950.0 tons** per year, **combined**.
 - d. Hours
 - (1) **S2.007a and S2.007b, 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 the exhaust stack of the **Top Mikro Pulsaire Baghouse** for **S2.007a** the following pollutants in excess of the following specified limits:
 - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **1.30 pounds** per hour, nor more than **5.71 tons** per year.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **1.30 pounds** per hour, nor more than **5.71 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 **1.30 pounds** per hour, nor more than **5.71 tons** per year.
 - (4) The discharge of **SO₂** (sulfur dioxide) to the atmosphere shall not exceed **0.025 pound** per hour, nor more than **0.11 ton** per year.
 - (5) The discharge of **NO_x** (oxides of nitrogen) to the atmosphere shall not exceed **0.33 pound** per hour, nor more than **1.42 tons** per year.
 - (6) The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **0.19 pound** per hour, nor more than **0.82 ton** per year.
 - (7) The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.020 pound** per hour, nor more than **0.088 ton** per year.
 - (8) The opacity from the exhaust stack of the **Top Mikro Pulsaire Baghouse** that controls **S2.007a** shall not equal or exceed **20 percent**.



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Section V. Specific Operating Conditions (continued)

D. Emission Units S2.007a and S2.007b (continued)

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement*) (continued)

- b. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from the exhaust stack of the **Bottom Mikro Pulsaire Baghouse** for **S2.007b** the following pollutants in excess of the following specified limits:
- (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.027** pound per hour, nor more than **0.12** ton per year.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.027** pound per hour, nor more than **0.12** ton 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 **0.027** pound per hour, nor more than **0.12** ton per year.
 - (4) The opacity from the exhaust stack of the **Bottom Mikro Pulsaire Baghouse** that controls **S2.007b** shall not equal or exceed **20** percent.

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 **S2.007a and S2.007b**, each, on a daily basis.
- b. Monitor and record the consumption rate of **propane** on a daily basis for **S2.007a and S2.007b** (in **gallons**) by multiplying the maximum hourly fuel consumption rate as stated in **D.2.b** of this section and the total daily hours of operation.
- c. Monitor and record the throughput of lithium carbonate in tons for **S2.007a and S2.007b, combined**, on a daily basis.
- d. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput in tons and the total daily hours of operation.
- e. Monitor and record the total yearly throughput rate in tons per year. The annual throughput rate shall be determined as the sum of the monthly throughput rate for the year for all previous months of that year.
- f. Conduct and record an observation of visible emissions (excluding water vapor) on the **Top Mikro Pulsaire Baghouse** controlling **S2.007a** and the **Bottom Mikro Pulsaire Baghouse** controlling **S2.007b** 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.
- g. Inspect the **Top Mikro Pulsaire Baghouse** installed on **S2.007a** and **Bottom Mikro Pulsaire Baghouse** installed on **S2.007b** 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)

D. Emission Units S2.007a and S2.007b (continued)

5. Performance Testing (NAC 445B.346(2))

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 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 of the Top Mikro Pulsaire Baghouse installed on S2.007a** (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 PM₁₀ 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 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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System 6 – Lithium Carbonate System – Mill Bin		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.008	Pneumatic Conveyor which conveys Lithium Carbonate from System 4 (S2.007) Rotary Dryer to the Mill Bin (S2.009) or System 7 Warehouse Bin (S2.011)	4,178,529	443,636
S2.009	Mill Bin Loading from Pneumatic Conveyor (S2.008) and discharge to System 7 Pneumatic Conveyor (S2.010)	4,178,529	443,638
PF1.004	Mill Bin discharge to Bulk Sack Filling or Truck Filling	4,178,529	443,638

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. Emissions from **S2.008 and S2.009, combined**, shall be controlled by the **Griffin Baghouse**.
 - b. Descriptive Stack Parameters for Griffin Baghouse
Stack Height: 40 feet
Stack Diameter: 0.93 feet
Stack Temperature: ambient
Exhaust Flow: 598 dry standard cubic feet per minute (dscfm)
 - c. Emissions from **PF1.004** shall be controlled by an **enclosure**.
2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. The maximum allowable loading rate for **S2.008 and S2.009, each**, shall not exceed **1.6** tons of **lithium carbonate** per any one-hour period averaged over a daily basis, nor more than **10,950.0** tons per year.
 - b. The maximum allowable discharge rate for **PF1.004** shall not exceed **10.0** tons of **lithium carbonate** per any one-hour period averaged over a daily basis, nor more than **10,950.0** tons per year.
 - c. Hours
 - (1) **S2.008, S2.009, and PF1.004, 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 the exhaust stack of the **Griffin Baghouse** for **S2.008 and S2.009** the following pollutants in excess of the following specified limits:
 - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.10** pound per hour, nor more than **0.45** ton per year, **combined**.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.10** pound per hour, nor more than **0.45** ton per year, **combined**.
 - (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 **0.10** pound per hour, nor more than **0.45** ton per year, **combined**.
 - (4) The opacity from the stack discharge of the **Griffin Baghouse** that controls **S2.008 and S2.009** 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 **PF1.004** the following pollutants in excess of the following specified limits:
 - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.44** pound per hour, nor more than **0.24** ton per year.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.15** pound per hour, nor more than **0.084** ton 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 **0.023** pound per hour, nor more than **0.013** ton per year.
 - (4) The opacity from **PF1.004** shall not equal or exceed **20** percent.



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Section V. Specific Operating Conditions (continued)

E. Emission Units S2.008, S2.009, and PF1.004 (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 loading and discharge in tons for **S2.008, S2.009, and PF1.004, each**, on a daily basis.
- b. Monitor and record the hours of operation for **S2.008, S2.009, and PF1.004, each**, on a daily basis.
- c. Record the corresponding average hourly loading and discharge rates in tons per hour. The average hourly loading and discharge rates shall be determined from the total daily loading and discharge in tons and the total daily hours of operation.
- d. Monitor and record the total yearly loading and discharge rates in tons per year. The annual loading and discharge rates shall be determined as the sum of the monthly loading and discharge 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 **Griffin Baghouse** controlling **S2.008 and S2.009** 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 **Griffin Baghouse** installed on **S2.008 and S2.009** 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.
- g. Conduct and record an observation of visible emissions (excluding water vapor) on the enclosure controlling **PF1.004** 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.
- h. Inspect the enclosure installed on **PF1.004** 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 expeditiously 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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System 7 – Lithium Carbonate Packaging – Transfers and Warehouse Bin		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.011	Warehouse Bin, Bin Loading from Pneumatic Conveyor (S2.008) or Pneumatic Conveyor (S2.010) and Discharge to System 8 via Pneumatic Conveyor (S2.013) and/or System 10 via Pneumatic Conveyor (S2.014)	4,178,515	443,653
S2.008	Pneumatic Conveyor which conveys Lithium Carbonate from System 4 (S2.007) Rotary Dryer to the System 6 Mill Bin (S2.009) or Warehouse Bin (S2.011)	4,178,529	443,636
S2.010	Pneumatic Conveyor which conveys Lithium Carbonate from System 6 Mill Bin (S2.009) to Warehouse Bin (S2.011)	4,178,515	443,653

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. Emissions from **S2.008, S2.010, and S2.011, combined**, shall be controlled by the **Griffin Baghouse**.
 - b. Descriptive Stack Parameters for Griffin Baghouse
Stack Height: 65 feet
Stack Diameter: 0.93 feet
Stack Temperature: ambient
Exhaust Flow: 598 dry standard cubic feet per minute (dscfm)
2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. The maximum allowable loading rate for **S2.010 and S2.011, each**, shall not exceed **12.0** tons of **lithium carbonate** per any one-hour period averaged over a daily basis, nor more than **10,950.0** tons per year.
 - b. The maximum allowable discharge rate for **S2.008** shall not exceed **1.6** tons of **lithium carbonate** per any one-hour period averaged over a daily basis, nor more than **10,950.0** tons per year.
 - c. The maximum allowable discharge rate for **S2.011** shall not exceed **12.0** tons of **lithium carbonate** per any one-hour period averaged over a daily basis, nor more than **10,950.0** tons per year.
 - d. Hours
(1) **S2.008, S2.010, and S2.011, 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 the exhaust stack of the **Griffin Baghouse** for **S2.008, S2.010, and S2.011** the following pollutants in excess of the following specified limits:
 - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.10** pound per hour, nor more than **0.45** ton per year, **combined**.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.10** pound per hour, nor more than **0.45** ton per year, **combined**.
 - (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 **0.10** pound per hour, nor more than **0.45** ton per year, **combined**.
 - (4) The opacity from the stack discharge of the **Griffin Baghouse** that controls **S2.008, S2.010, and S2.011** shall not equal or exceed **20** percent.



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Section V. Specific Operating Conditions (continued)

F. Emission Units S2.008, S2.010, and S2.011 (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 loading and discharge in tons for **S2.008, S2.010, and S2.011, each**, on a daily basis.
- b. Monitor and record the hours of operation for **S2.008, S2.010, and S2.011, each**, on a daily basis.
- c. Record the corresponding average hourly loading and discharge rates in tons per hour. The average hourly loading and discharge rates shall be determined from the total daily loading and discharge in tons and the total daily hours of operation.
- d. Monitor and record the total yearly loading and discharge rates in tons per year. The annual loading and discharge rates shall be determined as the sum of the monthly loading and discharge 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 **Griffin Baghouse** controlling **S2.008, S2.010, and S2.011** 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 **Griffin Baghouse** installed on **S2.008, S2.010, and S2.011** 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.

**Bureau of Air Pollution Control****Facility ID No. A0452****Draft Permit No. AP2819-0050.05****CLASS II AIR QUALITY OPERATING PERMIT****Issued to:** ALBEMARLE U.S., INC. – SILVER PEAK LITHIUM FACILITY (AS PERMITTEE)**Section V. Specific Operating Conditions (continued)****G. Emission Unit S2.013**

System 8 – Lithium Carbonate Packaging – Packaging Bin or Bulk Sack Filler		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.013	Pneumatic Conveyor transfer of Lithium Carbonate from the System 7 Warehouse Bin (S2.011) to Packaging Bin or Bulk Sack Filler	4,178,515	443,653

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. Emissions from **S2.013** shall be controlled by the **CAMCORP Baghouse**.
 - b. Descriptive Stack Parameters for CAMCORP Baghouse
Stack Height: 20 feet
Stack Diameter: 0.67 feet
Stack Temperature: ambient
Exhaust Flow: 1,923 dry standard cubic feet per minute (dscfm)
2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. The maximum allowable loading rate for **S2.013** shall not exceed **12.0** tons of **lithium carbonate** per any one-hour period averaged over a daily basis, nor more than **10,950.0** tons per year.
 - b. 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*)
 - a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from the exhaust stack of the **CAMCORP Baghouse** for **S2.013** the following pollutants in excess of the following specified limits:
 - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.33** pound per hour, nor more than **1.44** tons per year.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.28** pound per hour, nor more than **1.23** 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 **0.10** pound per hour, nor more than **0.43** ton per year.
 - (4) The opacity from the stack discharge of the **CAMCORP Baghouse** that controls **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 loading and discharge in tons for **S2.013** on a daily basis.
 - b. Monitor and record the hours of operation for **S2.013** on a daily basis.
 - c. Record the corresponding average hourly loading and discharge rates in tons per hour. The average hourly loading and discharge rates shall be determined from the total daily loading and discharge in tons and the total daily hours of operation.
 - d. Monitor and record the total yearly loading and discharge rates in tons per year. The annual loading and discharge rates shall be determined as the sum of the monthly loading and discharge 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 **CAMCORP Baghouse** controlling **S2.013** 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 **CAMCORP Baghouse** installed on **S2.013** 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)

G. Emission Unit S2.013 (continued)

5. Performance Testing (NAC 445B.346(2))

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 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 of the CAMCORP Baghouse installed on S2.013** (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 PM₁₀ 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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System 10 – Milled Lithium Carbonate Air Classifier System		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.012	Bulk Bag Bin and discharge to Pneumatic Conveyor (S2.014)	4,178,515	443,653
S2.014	Pneumatic Conveyor transfer of Lithium Carbonate from System 7 Warehouse Bin (S2.011) to Classifier Feed Bin (S2.015)	4,178,511	443,650
S2.015	Classifier Feed Bin loading by Pneumatic Conveyor (S2.014) and discharge to Feeder/Grinder; transfer from Feeder/Grinder to Air Classifier (S2.016) via Flexible Bag	4,178,511	443,650
S2.016	Air Classifier and discharge to Milled Lithium Carbonate Bin (S2.018)	4,178,511	443,650
S2.017	Air Classifier Oversize Recycle back to Classifier Feed Bin (S2.015) via Pneumatic Conveyor in Closed System	4,178,511	443,650
S2.018	Milled Lithium Carbonate Bin and discharge to Bag Filler or Bulk Sack Filler via Packaging Storage Bin	4,178,511	443,650

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. Emissions from **S2.012 and S2.014 through S2.018**, combined, shall be controlled by the **Sly Baghouse**.
 - b. Descriptive Stack Parameters for Sly Baghouse
Stack Height: 25 feet
Stack Diameter: 0.67 feet
Stack Temperature: ambient
Exhaust Flow: 2,828 dry standard cubic feet per minute (dscfm)
2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. The maximum allowable discharge rate for **S2.012** shall not exceed **12.0** tons of **lithium carbonate** per any one-hour period averaged over a daily basis, nor more than **2,000.0** tons per year.
 - b. The maximum allowable discharge rate for **S2.014 and S2.016**, each, shall not exceed **5.5** tons of **lithium carbonate** per any one-hour period averaged over a daily basis, nor more than **2,000.0** tons per year.
 - c. The maximum allowable loading rate for **S2.015** shall not exceed **5.5** tons of **lithium carbonate** per any one-hour period averaged over a daily basis, nor more than **2,000.0** tons per year.
 - d. The maximum allowable discharge rate for **S2.017** shall not exceed **5.5** tons of **lithium carbonate** per any one-hour period averaged over a daily basis, nor more than **500.0** tons per year.
 - e. The maximum allowable discharge rate for **S2.018** shall not exceed **12.0** tons of **lithium carbonate** per any one-hour period averaged over a daily basis, nor more than **2,000.0** tons per year.
 - f. Hours
S2.012 and S2.014 through S2.018, 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 the exhaust stack of the **Sly Baghouse** for **S2.012 and S2.014 through 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 **0.48** pound per hour, nor more than **2.12** tons per year, **combined**.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.41** pound per hour, nor more than **1.80** tons per year, **combined**.
 - (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 **0.15** pound per hour, nor more than **0.64** ton per year, **combined**.
 - (4) The opacity from the stack discharge of the **Sly Baghouse** that controls **S2.012 and S2.014 through S2.018** shall not equal or exceed **20** percent.



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Section V. Specific Operating Conditions (continued)

H. Emission Units S2.012 and S2.014 through S2.018 (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 loading and discharge in tons for **S2.012 and S2.014 through S2.018, each** on a daily basis.
- b. Monitor and record the hours of operation for **S2.012 and S2.014 through S2.018, each**, on a daily basis.
- c. Record the corresponding average hourly loading and discharge rates in tons per hour. The average hourly loading and discharge rates shall be determined from the total daily loading and discharge in tons and the total daily hours of operation.
- d. Monitor and record the total yearly loading and discharge rates in tons per year. The annual loading and discharge rates shall be determined as the sum of the monthly loading and discharge 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 **Sly Baghouse** controlling **S2.012 and S2.014 through 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 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 **Sly Baghouse** installed on **S2.012 and S2.014 through 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.

5. Performance Testing (NAC 445B.346(2))

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 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 of the Sly Baghouse installed on S2.012 and S2.014 through S2.018** (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 PM₁₀ 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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System 14 – Lithium Hydroxide Monohydrate Packaging		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.022	Lithium Hydroxide Monohydrate Bulk Bag transfer to Davis Ribbon Blender via Screw Conveyors and Bucket Elevator followed by transfer to Packaging Line via Screw Conveyors and Bucket Elevator that includes a Smurfit Stone Bagger, W.T. Durant Drummer, and Bulk Bagger	4,178,497	443,696

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. Emissions from **S2.022** shall be controlled by the **Sly Wet Gas Scrubber**.
 - b. Descriptive Stack Parameters for Sly Wet Gas Scrubber
Stack Height: 30 feet
Stack Diameter: 1.0 feet
Stack Temperature: 160 °F
Exhaust Flow: 1,700 dry standard cubic feet per minute (dscfm)
2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. The maximum allowable loading rate for **S2.022** shall not exceed **1.5** tons of **lithium hydroxide monohydrate** per any one-hour period averaged over a daily basis, nor more than **3,500.0** tons per year.
 - 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 the exhaust stack of the **Sly Wet Gas Scrubber** for **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 **0.29** pound per hour, nor more than **1.28** tons per year.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.25** pound per hour, nor more than **1.08** 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 **0.087** pound per hour, nor more than **0.38** ton per year.
 - (4) The opacity from the stack discharge of the **Sly Wet Gas Scrubber** for **S2.022** shall not equal or exceed **20** percent.



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Section V. Specific Operating Conditions (continued)

I. Emission Unit S2.022 (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 loading and discharge in tons 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 loading and discharge rates in tons per hour. The average hourly loading and discharge rates shall be determined from the total daily loading and discharge in tons and the total daily hours of operation.
- d. Monitor and record the total yearly loading and discharge rates in tons per year. The annual loading and discharge rates shall be determined as the sum of the monthly loading and discharge 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 **Sly Wet Gas Scrubber** 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.
- f. Inspect the **Sly Wet Gas Scrubber** installed on **S2.022** in accordance with the manufacturer's operation and maintenance manual and record the results and any corrective actions taken.

5. Performance Testing (NAC 445B.346(2))

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 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 of the Sly Wet Gas Scrubber installed on S2.022** (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 PM₁₀ 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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System 16 – Lithium Hydroxide Anhydrous System I		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.024	Loading of Compactor and discharge to Granulator	4,178,491	443,698
S2.025	Granulator and discharge to Screen via Screw Feeder	4,178,491	443,698
S2.026	Screen and discharge to Anhydrous Dryer I (Steam Heated)	4,178,491	443,698
S2.027	Anhydrous Dryer I and discharge to Screen	4,178,491	443,698
S2.028	Screen and discharge to Drum Storage for Packaging	4,178,491	443,698

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. Emissions from **S2.024 through S2.028, combined**, shall be controlled by the **Sly Wet Gas Scrubber**.
 - b. Descriptive Stack Parameters for Sly Wet Gas Scrubber
Stack Height: 27.5 feet
Stack Diameter: 1.0 feet
Stack Temperature: ambient
Exhaust Flow: 2,305 dry standard cubic feet per minute (dscfm)
2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. The maximum allowable loading and discharge rate for **S2.024 through S2.028, each**, shall not exceed **1.0** tons of **anhydrous lithium hydroxide** per any one-hour period averaged over a daily basis, nor more than **1,000.0** tons per year.
 - b. Hours
 - (1) **S2.024 through 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 the exhaust stack of the **Sly Wet Gas Scrubber** for **S2.024 through S2.028** the following pollutants in excess of the following specified limits:
 - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.40** pound per hour, nor more than **1.73** tons per year, **combined**.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.34** pound per hour, nor more than **1.47** tons per year, **combined**.
 - (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 **0.12** pound per hour, nor more than **0.52** ton per year, **combined**.
 - (4) The opacity from the stack discharge of the **Sly Wet Gas Scrubber** for **S2.024 through S2.028** shall not equal or exceed **20** percent.



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Section V. Specific Operating Conditions (continued)

J. Emission Units S2.024 through S2.028 (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 loading and discharge in tons for **S2.024 through S2.028, each**, on a daily basis.
- b. Monitor and record the hours of operation for **S2.024 through S2.028, each**, on a daily basis.
- c. Record the corresponding average hourly loading and discharge rates in tons per hour. The average hourly loading and discharge rates shall be determined from the total daily loading and discharge in tons and the total daily hours of operation.
- d. Monitor and record the total yearly loading and discharge rates in tons per year. The annual loading and discharge rates shall be determined as the sum of the monthly loading and discharge 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 **Sly Wet Gas Scrubber** controlling **S2.024 through S2.028** 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 **Sly Wet Gas Scrubber** installed on **S2.024 through S2.028** in accordance with the manufacturer's operation and maintenance manual and record the results and any corrective actions taken.

5. Performance Testing (NAC 445B.346(2))

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 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 of the Sly Wet Gas Scrubber installed on S2.024 through S2.028** (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 PM₁₀ 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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System 16A – Lithium Hydroxide Anhydrous System II		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.031	Blender and discharge to Compactor via Feed Bin	4,178,491	443,698
S2.032	Compactor and discharge to Granulator via Dragline Conveyor	4,178,491	443,698
S2.033	Granulator and discharge to Screen via Screw Feeder	4,178,491	443,698
S2.034	Screen and discharge to Anhydrous Dryer II (Steam Heated)	4,178,491	443,698
S2.035	Anhydrous Dryer II and discharge to Screen	4,178,491	443,698
S2.036	Screen and discharge to Drum Storage for Packaging	4,178,491	443,698

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. Emissions from **S2.031 through S2.036, combined**, shall be controlled by the **Sly Wet Gas Scrubber**.
 - b. Descriptive Stack Parameters for Sly Wet Gas Scrubber
Stack Height: 27.5 feet
Stack Diameter: 1.0 feet
Stack Temperature: ambient
Exhaust Flow: 2,305 dry standard cubic feet per minute (dscfm)
2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. The maximum allowable loading and discharge rate for **S2.031 through S2.036, each**, shall not exceed **1.0** tons of **anhydrous lithium hydroxide** per any one-hour period averaged over a daily basis, nor more than **1,000.0** tons per year.
 - b. Hours
 - (1) **S2.031 through S2.036, 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 the exhaust stack of the **Sly Wet Gas Scrubber** for **S2.031 through S2.036** the following pollutants in excess of the following specified limits:
 - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.40** pound per hour, nor more than **1.73** tons per year, **combined**.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.34** pound per hour, nor more than **1.47** tons per year, **combined**.
 - (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 **0.12** pound per hour, nor more than **0.52** ton per year, **combined**.
 - (4) The opacity from the stack discharge of the **Sly Wet Gas Scrubber** for **S2.031 through S2.036** shall not equal or exceed **20** percent.



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Section V. Specific Operating Conditions (continued)

K. Emission Units S2.031 through S2.036 (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 loading and discharge in tons for **S2.031 through S2.036, each**, on a daily basis.
- b. Monitor and record the hours of operation for **S2.031 through S2.036, each**, on a daily basis.
- c. Record the corresponding average hourly loading and discharge rates in tons per hour. The average hourly loading and discharge rates shall be determined from the total daily loading and discharge in tons and the total daily hours of operation.
- d. Monitor and record the total yearly loading and discharge rates in tons per year. The annual loading and discharge rates shall be determined as the sum of the monthly loading and discharge 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 **Sly Wet Gas Scrubber** controlling **S2.031 through S2.036** 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 **Sly Wet Gas Scrubber** installed on **S2.031 through S2.036** in accordance with the manufacturer's operation and maintenance manual and record the results and any corrective actions taken.

5. Performance Testing (NAC 445B.346(2))

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 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 of the Sly Wet Gas Scrubber installed on S2.031 through S2.036** (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 PM₁₀ 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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System 17 – Propane Fired Superior Boiler Works, Inc. Boiler (Added – Air Case 11467, March 2023)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.042	33.475 MMBtu/hr Propane Fired Superior Boiler Works, Inc. Boiler (mdl # 7-X-4000, s/n 19945, mfd 2022)	4,178,531	443,673

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. **S2.042** has no add-on controls. **S2.042** is equipped with a low NO_x burner.
 - b. Descriptive Stack Parameters
Stack Height: 25.0 feet
Stack Diameter: 2.17 feet
Stack Temperature: 379.4 °F
Exhaust Flow: 3,540 actual cubic feet per minute (acfm)
2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. **S2.042** may consume only **propane**.
 - b. The maximum allowable fuel consumption rate for **S2.042** shall not exceed **365.8 gallons** per any one-hour period.
 - c. Hours
(1) **S2.042** may operate a total of **24** hours per day, but no more than **8,496** 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 the **exhaust stack** of **S2.042** the following pollutants in excess of the following specified limits:
 - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.26** pound per hour, nor more than **1.09** tons per year.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.26** pound per hour, nor more than **1.09** 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 **0.26** pound per hour, nor more than **1.09** tons per year.
 - (4) The discharge of **SO₂** (sulfur dioxide) to the atmosphere shall not exceed **0.37** pound per hour, nor more than **1.57** tons per year.
 - (5) The discharge of **NO_x** (oxides of nitrogen) to the atmosphere shall not exceed **0.49** pounds per hour, nor more than **2.07** tons per year.
 - (6) The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **2.74** pounds per hour, nor more than **11.7** tons per year.
 - (7) The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.29** pound per hour, nor more than **1.24** tons per year.
 - (8) The opacity from the **exhaust stack** of **S2.042** shall not equal or exceed **20** percent.



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Section V. Specific Operating Conditions (continued)

L. Emission Unit S2.042 (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 **S2.042** on a daily basis.
- b. Monitor and record the consumption rate of **propane** on a daily basis for **S2.042** (in **gallons**) by multiplying the maximum hourly fuel consumption rate as stated in **L.2.b** of this section and the total daily hours of operation.
- c. Record the monthly hours of operation, and the corresponding annual hours of operation for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined as the sum of the monthly hours of operation for the year.
- d. Monitor and record the consumption rate of **propane** in gallons per calendar month and the corresponding consumption rate of **propane** in gallons per year for **S2.042**.

5. Performance Testing (NAC 445B.346(2))

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 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** of **S2.042** (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 PM₁₀ 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 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.
- 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.
- h. 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.



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Section V. Specific Operating Conditions (continued)

L. Emission Unit S2.042 (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 Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
 - a. Reporting and Recordkeeping Requirements (40 CFR Part 60.48c)
 - (1) The Permittee shall submit notification of the date of construction or reconstruction and actual startup, as provided by 40 CFR 60.7. This notification shall include: (40 CFR Part 60.48c(a))
 - (a) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility. (40 CFR 60.48c(a)(1))
 - (b) The annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired. (40 CFR 60.48c(a)(3))
 - (2) Except as provided under 40 CFR 60.48(g)(2) and (g)(3), the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day. (40 CFR Part 60.48c(g))
 - (a) As an alternative to meeting the requirements of 40 CFR Part 60.48c (g)(1), the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in 40 CFR 60.48c(f) to demonstrate compliance with the SO₂ standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month. (40 CFR 60.48c(g)(2))
 - (b) As an alternative to meeting the requirements of 40 CFR 60.48c (g)(1) of this section, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in 40 CFR 60.42c to use fuel certification to demonstrate compliance with the SO₂ standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month. (40 CFR Part 60.48c(g)(3))
 - (3) All records required under 40 CFR Part 60.48c shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record. (40 CFR Part 60.48c(i))
 - (4) The reporting period for the reports required under 40 CFR Part 60, Subpart Dc, is each six-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 Part 60.48c(j))



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Section V. Specific Operating Conditions (continued)

L. Emission Unit S2.029A

System 17A – Propane Fired York Shipley Boiler, Primary Operating Scenario (Removed – Air Case 11467, March 2023)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.029A	45.4 MMBtu/hr Propane Fired York Shipley Boiler (mdl # 400 SHP 88-5, s/n B48-188W, mfd 1995) (Replaced by S2.042, System 17)		

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System 19 – Propane Fired Johnston Boiler		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.037	6.3 MMBtu/hr Propane Fired Johnston Boiler (mdl # PFTA150-4GP150S, s/n 9685-01, mfd 1997)	4,178,506	443,631

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. **S2.037** has no add-on controls.
 - b. Descriptive Stack Parameters
Stack Height: 20 feet
Stack Diameter: 1.17 feet
Stack Temperature: 426 °F
Exhaust Flow: 2,470 actual cubic feet per minute (acfm)
2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. **S2.037** may consume only **propane**.
 - b. The maximum allowable fuel consumption rate for **S2.037** shall not exceed **68.4 gallons** per any one-hour period.
 - c. Hours
(1) **S2.037** 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 the exhaust stack of **S2.037** the following pollutants in excess of the following specified limits:
 - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.048** pound per hour, nor more than **0.21** ton per year.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.048** pound per hour, nor more than **0.21** ton 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 **0.048** pound per hour, nor more than **0.21** ton per year.
 - (4) The discharge of **SO₂** (sulfur dioxide) to the atmosphere shall not exceed **0.069** pound per hour, nor more than **0.30** ton per year.
 - (5) The discharge of **NO_x** (oxides of nitrogen) to the atmosphere shall not exceed **0.89** pound per hour, nor more than **3.89** tons per year.
 - (6) The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **0.51** pound per hour, nor more than **2.25** tons per year.
 - (7) The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.055** pound per hour, nor more than **0.24** ton per year.
 - (8) The opacity from the exhaust stack of **S2.037** shall not equal or exceed **20** percent.
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 **S2.037** on a daily basis.
 - b. Monitor and record the consumption rate of **propane** on a daily basis for **S2.037** (in **gallons**) by multiplying the maximum hourly fuel consumption rate as stated in **M.2.b** of this section and the total daily hours of operation.
 - c. Record the monthly hours of operation, and the corresponding annual hours of operation for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined as the sum of the monthly hours of operation for the year.
 - d. Monitor and record the consumption rate of **propane** in gallons per calendar month and the corresponding consumption rate of **propane** in gallons per year for **S2.037**.

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System 20 – 5,000 Gallon Gasoline Tank		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.038	5,000 Gallon Gasoline Storage Tank	4,178,347	443,798

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. Emissions from **S2.038** shall have no add-on controls.
 - b. Descriptive Tank Parameters
Shell Diameter: 7 feet
Shell Height: 17.7 feet
Maximum Capacity: 5,000 gallons
2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. **S2.038** shall only be used to store **gasoline**.
 - b. The maximum allowable throughput rate for **S2.038** shall not exceed **8,333.3** gallons per month, nor more than **100,000.0** gallons per year.
 - c. Hours
S2.038 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 **S2.038** the following pollutants in excess of the following specified limits:

 - a. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.63** ton per year.
 - b. The opacity from **S2.038** 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, **S2.038**, 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 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)

N. Emission Unit S2.038 (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 with Monthly Throughputs of less than 10,000 Gallons
 - 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)
 - 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. Permittee must have records available within 24 hours of a request by the Administrator to document your **gasoline** throughput. (40 CFR 63.11116(b))

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System 21 – Generac Emergency Propane Generator		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.039	240 HP Generac Emergency Propane Generator (mdl # SG150, mfd January 2019)	4,178,624	443,641

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. **S2.039** has no add-on controls.
 - b. Descriptive Stack Parameters
Stack Height: 10.0 feet
Stack Diameter: 0.3 feet
Stack Temperature: 1,350 °F
2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
 - a. **S2.039** may consume only **liquefied petroleum gas (LPG)**.
 - b. The maximum allowable fuel consumption rate for **S2.039** shall not exceed **20.0 gallons** per any one-hour period.
 - c. Hours
 - (1) **S2.039** may operate from **8 AM to 1 PM, Monday through Friday**, for non-emergency use.
 - (2) **S2.039** 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 **S2.039** 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 **PM₁₀** (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 **SO₂** (sulfur dioxide) to the atmosphere shall not exceed **0.0070** pounds per hour, nor more than **0.00035** tons per year.
 - e. The discharge of **NO_x** (oxides of nitrogen) to the atmosphere shall not exceed **1.06** pounds per hour, nor more than **0.053** tons per year.
 - f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **1.74** pounds per hour, nor more than **0.087** tons per year.
 - g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.53** pounds per hour, nor more than **0.026** tons per year.
 - h. The opacity from **S2.039** shall not equal or exceed **20** percent.



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CLASS II AIR QUALITY OPERATING PERMIT

Issued to: ALBEMARLE U.S., INC. – SILVER PEAK LITHIUM FACILITY (AS PERMITTEE)

Section V. Specific Operating Conditions (continued)

O. Emission Unit S2.039 (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 **S2.039** 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. Also note the times at which operations start and stop for non-emergency use.
- b. Monitor and record the consumption rate of **LPG** on a daily basis for **S2.039** (in **gallons**) by multiplying the maximum hourly fuel consumption rate as state in **O.2.b** of this section and the total daily hours of operation.
- c. Monitor and record the total yearly hours of operation of **S2.039** per year for emergency and non-emergency use. 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 JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

a. Emissions Standards (40 CFR 60.4233(b))

The Permittee must comply with the emission standards for new non-road SI (spark ignition) ICE (internal combustion engine) in 40 CFR 60.4233(e), for all pollutants, for the same model year and maximum engine power for their 2011 model year and later emergency stationary SI ICE (except for gasoline and rich burn engines that use LPG). (40 CFR 60.4233(e))

- (1) For a 2009 model year and later emergency engine with a rate power of greater than or equal to 130 hp: (40 CFR 60.4233(e), Table 1)

- (a) The discharge of NO_x to the atmosphere shall not exceed 2.0 grams/hp-hr (**1.06** pounds per hour)
- (b) The discharge of CO to the atmosphere shall not exceed 4.0 grams/hp-hr (**2.12** pounds per hour).
- (c) The discharge of VOC to the atmosphere shall not exceed 1.0 gram/hp-hr (**0.53** pounds per hour).

b. Monitoring, Operation and Maintenance Requirements (40 CFR 60.4237)

The Permittee must install a non-resettable hour meter if the SI ICE greater than or equal to 130 hp and does not meet the emission standards in **O.5.a.(1)** of this section. (40 CFR 60.4237(b))



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Section V. Specific Operating Conditions (continued)

O. Emission Unit S2.039 (continued)

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 JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (continued)
 - c. Compliance Requirements (40 CFR 60.4234, 60.4243(d))
 - (1) The Permittee must operate and maintain the SI ICE over the entire life of the engine (40 CFR 60.4234).
 - (2) In order for the engine to be considered an emergency stationary ICE under this subpart, 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 **O.5.c.(2)(a) through (c)** of this section, is prohibited. If the Permittee do not operate the engine according to the requirements in paragraphs **O.5.c.(2)(a) through (c)** of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. (40 CFR 60.4243(d))
 - (a) There is no time limit on the use of emergency stationary ICE in emergency situations. (40 CFR 60.4243(d)(1))
 - (b) The Permittee may operate the emergency stationary ICE for any combination of the purposes specified in paragraph **O.5.c.(2)(b)** of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph **O.5.c.(2)(c)** of this section counts as part of the 100 hours per calendar year. (40 CFR 60.4243(d)(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 60.4243(d)(1)(i))
 - (c) Emergency stationary ICE may be operated for up to 50 hours per calendar year in nonemergency 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 **O.5.c.(2)** of this section. Except as provided in paragraph **O.5.c.(2)(c)(i)** of this section, the 50 hours per 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 60.4243(d)(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 following conditions of 40 CFR 60.4243(d)(3)(i)(A) through (E) are met. (40 CFR 60.4243(d)(3)(i))
 - d. Air-to-Fuel Ratio (40 CFR 60.4243(g))
 - (1) It is expected that air-to-fuel ratio controllers will be used with the operation of three way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. (40 CFR 60.4243(g))
 - (2) Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in 40 CFR 60.4243(a). (40 CFR 60.4243(b)(1))
 - e. Performance Testing (40 CFR 60.4243)
The Permittee of a stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of 40 CFR 60.4233. (40 CFR 60.4243(e))



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Section V. Specific Operating Conditions (continued)

O. Emission Unit S2.039 (continued)

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 JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (continued)
 - f. Notifications, Reports, and Records Requirement (40 CFR 60.4245)
 - (1) The Permittee must keep records of the following information: (40 CFR 60.4245(a))
 - (a) All notifications submitted to comply with this subpart and all documentation supporting any notification. (40 CFR 60.4245(a)(1))
 - (b) Maintenance conducted on the engine. (40 CFR 60.4245(a)(2))
 - (c) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable. (40 CFR 60.4245(a)(3))
 - (d) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation that the engine meets the emission standards. (40 CFR 60.4245(a)(4))
 - (2) The Permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter if the engine does not meet the standards applicable to non-emergency engines. (40 CFR 60.4245(b))
 - g. 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 JJJJ, 40 CFR Part 63 Subpart ZZZZ requirements are also met. (40 CFR Part 63.6590(c))

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



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Section VI. Emission Caps

A. Not Applicable

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



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Section VII. Surface Area Disturbance Conditions

The surface area disturbance for **Silver Peak Lithium Facility** is **7,233** acres. This includes 4,023 acres of active evaporation pond areas, 2,919 acres of out of service pond areas, 10 acres of production plant, 68 acres of office areas, and 213 acres of maintained roads and salt piles.

Township 2 South, Range 39 East, Sections 13, 24, 25, and Portions of 12, 14, 22, 23

Township 2 South, Range 40 East, Sections 3 through 9, 17, 18, 19, 30, and Portions of 2, 10, 16, 20

Township 1 South, Range 40 East, Sections 32 through 35, and Portions of 26, 27, 31

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******



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Section VIII. Schedules of Compliance

A. Not Applicable

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



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Section IX. Amendments

March XX, 2023 – Air Case 11467

- Revise System 1 by removing S2.001, PF1.001 and adding S2.040, S2.041, PF1.005.
- Replace System 17A Boiler (S2.029A) with System 17 Boiler (S2.042).

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: November 13, 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: November 13, 2026

Signature: Electronic Draft Copy

Issued by: Ashley Taylor, P.E.
Supervisor, Permitting Branch
Bureau of Air Pollution Control

Phone: (775) 687- 9330 **Date:** TBD

rp 12/2022 rp 03/2023

Class II Insignificant Activities List

Appended to Permit #AP2819-0050.05

Emission Unit #	Emission Unit Description
IA1.001	20,000 Gallon Fuel Oil Tank
IA1.002	Lithium Metal Processing Reactor (Approved April 14, 2017)
IA1.003	Hydrochloric Acid Storage and Equipment Cleaning Process (Approved May 30, 2017)