TECHNICAL REVIEW
AND DETERMINATION OF COMPLIANCE
FOR:

LITHIUM NEVADA CORPORATION
THACKER PASS PROJECT
Humboldt County, Nevada
HA 30A – Kings River Valley/Rio King
HA 33A – Quinn River Valley/Orovada

Class II Air Quality Operating Permit
AP1479-4334
FIN A1270
Air Case 10677 – New

BY
STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR POLLUTION CONTROL

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FEBRUARY 2022
1.0 INTRODUCTION

On January 26, 2021, Lithium Nevada Corporation (Li NV) submitted an application for a new Class II Air Quality Operating Permit to the Nevada Division of Environmental Protection – Bureau of Air Pollution Control (BAPC). The Class II Air Quality Operating Permit application was deemed administratively complete on February 9, 2021.

Request for Information (RFI) #1, sent February 24, 2021, to request an Insignificant Activity Determination application be submitted for the Laboratory equipment. The application was received by the BAPC on March 31, 2021. This resulted in 35 stop days.

Request for Information (RFI) #2, sent March 9, 2021, the BAPC asked for more information on the scrubber system that will be used for the acid plant. Request for Information (RFI) #3, sent March 31, 2021, the BAPC asked for more information on the scrubber system that will be used for the acid plant. The facility answered RFI #2 and #3 via email on April 4, 2021. This resulted in 24 stop days.

Request for Information (RFI) #4, sent May 13, 2021, the BAPC asked for more information on the neutralization tanks, lithium carbonate dryer, lime silo, and acid plant. The facility answered this RFI via email on May 24, 2021. This resulted in 11 stop days.

Request for Information (RFI) #5, sent August 18, 2021, the BAPC asked for more information on the leach tanks, neutralization filter system, and magnesium precipitation filter system. The facility answered this RFI via email on August 23, 2021. This resulted in 5 stop days.

Total stop days for this permitting action is 75 days.

In accordance with NAC 445B.3457(3)(b) the permit was to be issued 90 days after the official day of submittal (the day the application was deemed administratively complete) with the timeline being extended for any accumulated stop days this regulatory date was July 24, 2021. Based on the regulatory timeline the permit was to be issued on July 24, 2021. The permit is anticipated to be issued on February 25, 2022.

Public notice was required, because the Li NV facility is a new Class II Air Quality Operating Permit (NAC 445B.3457). Public notice started on October 18, 2021 and ended on November 18, 2021.

A public hearing was be held at 6 pm (PST) at the Boys and Girls Club of Winnemucca in Winnemucca, NV on November 18, 2021. Public outreach, the public hearing, and public comments are further discussed in Section 2.5 of this report.

The principal operation at the Li NV facility constitutes a non-metallic mineral mine, as defined by the two-digit SIC code 14. Because the primary mineral recovered is lithium, the facility can be further classified by the SIC code 1479, defined as “establishments primarily engaged in mining, milling, or otherwise preparing chemical or fertilizer mineral raw materials, not elsewhere classified.” The list of minerals under SIC code 1479 includes lithium mineral mining. The NAICS code for the Li NV facility is 212393 for “Lithium mineral mining and/or beneficiating.”
2.0 DESCRIPTION OF FACILITY AND PROCESS

2.1 FACILITY DESCRIPTION

Li NV is proposing to develop an open-pit lithium mining and lithium processing operation located in northern Humboldt County, Nevada. The Li NV facility is located 62 miles north of Winnemucca and about 20 miles west of Orovada, Nevada. The Li NV facility is accessed from Orovada by traveling approximately 19 miles west from the US Route 95 junction on State Route 293, then turning north onto the Li NV facility main access road. The Li NV facility is situated at the southern end of the McDermitt Caldera at an approximate elevation between 4,200 and 5,650 feet above sea level.

The Li NV facility will consist of open-pit lithium mining and lithium processing operations designed to produce a lithium carbonate end product, with the potential to produce other battery-grade lithium products in the future. In the proposed Li NV facility, lithium carbonate is recovered through ore crushing, acid leaching, and lithium processing. The on-site facilities will include a sulfuric acid plant to supply sulfuric acid for leaching. The sulfuric acid plant will also generate steam for energy that will provide power to support the Li NV facility.

2.2 PROPOSED PERMIT ACTION

The purpose of this permitting action is to issue a new Class II Air Quality Operating Permit. During this permitting process an Insignificant Activity (IA) determination was processed. The units included in this IA determination have been added to the IA list at the end of the Operating Permit.

2.3 PROCESS NARRATIVE

2.3.1 Mineral Processing (Systems 1 through 5)

Ore from the ore stockpile is fed by loader into one of two hoppers (PF1.001 and PF1.003) with a combined throughput of 960 tons per hour and transferred to a common conveyor (PF1.002 and PF1.004) feeding a mineral sizer (PF1.005) controlled by water sprays. Sized material is then fed to the attrition scrubbing process (PF.1006) controlled by water sprays.

In the attrition scrubbers and classification circuit, high-grade fine lithium material is separated from the low-grade coarse gangue using agitators and hydro cyclones. Attrition scrubbing is a slurry-based wet process comprised of recycled water and ore, which is intensely agitated to primarily scrub fine particles from large particle surfaces as well as break-up agglomerated particles. The attrition scrubbers require saturated material and have no potential to emit any regulated air pollutant. Particulate emissions from the mineral sizer and transfer into the attrition scrubber are controlled by water sprays. The run-of-mine lithium ore is a non-metallic clay material, and as such, these ore processing sources are subject to 40 CFR Part 60, Subpart OOO.
From the attrition scrubbers the slurry is fed through a wet screen to remove oversize material prior to pumping the undersize slurry to the classification circuit. The oversize material is transferred to the oversize stockpile by a stacker conveyor (PF1.007 and PF1.008) with a maximum throughput of 16 tons per hour. In the classification circuit, coarse gangue material is separated from the fine lithium material using hydro cyclones. The coarse material is then passed through a wet screen at a maximum throughput of 430 tons per hour and conveyed to the gangue stockpile (PF1.009 through PF1.011). Particulate emissions from the oversize and gangue material transfers to the stockpiles are controlled by material moisture content (comparable to transfers after a wet trommel). As these transfer points are downstream of a wet material processing operation, per 40 CFR §60.670(a)(2), Subpart OOO is not applicable.

2.3.1.1 Testing Requirements for Mineral Processing (Systems 1 through 5)
An initial opacity compliance demonstration will be required for each emission unit in Systems 1 through 5. System 4 – PF1.008 and System 5 – PF1.011 will require a moisture content sample that will need to be equal to or exceed 4% moisture content.

2.3.2 Purified Lithium Solution (Systems 6 through 11, 13 and 14)
Following the classification circuit, the ore slurry is thickened and pumped to the leaching process at a maximum throughput of 1,080 tons per hour. In the leach circuit, the lithium-bearing slurry is leached with sulfuric acid in a series of tanks (S2.001 through S2.003). Sulfuric acid mist and particulate (primarily consisting of sulfuric acid mist as condensable particulate matter) emissions from the leach tanks are controlled by a wet scrubber. Following leaching, the lithium-bearing solution is neutralized in a series of agitated tanks. Solids generated during leaching and neutralization are filtered and then conveyed to the clay tailings filter stack (CTFS) at a maximum throughput of 1,000 tons per hour (PF1.012 through PF1.022). Particulate emissions from the material transfers to the CTFS are controlled by material moisture content (comparable to transfers after a wet trommel).

Air pulses are used after the filtration step to push the slurry out of the neutralization filter pipes. These air pulses have the potential to cause particulate emissions as the air pulse follows the slurry out of the pipe, into the tank headspace, and out through one of four mist eliminators, that reduce any mist from the system and the particulate emissions from the filter vents (S2.004 through S2.007). The venting from these four vents is limited to 500 hours per year. The neutralization filter system also includes a filtrate blow vent (S2.008), with the potential for particulate emissions and is limited to 50 hour per year.

After neutralization, the lithium-bearing solution is purified by precipitation of magnesium, followed by ion exchange to remove residual magnesium and other divalent cations. The alkaline solids from the magnesium precipitation system are filtered, re-pulped, and reused in the neutralization tanks. Air pulses are used after the filtration step to push the slurry out of the magnesium precipitation filter pipes. These air pulses have the potential to cause particulate emissions as the air pulse follows the slurry out of the pipe, into the tank headspace, and out through one of two mist eliminators on the filter vents (S2.009 and S2.010). The venting from these two vents is limited to 200 hours per year. The magnesium precipitation filter system also includes a filtrate blow vent (S2.011), with the potential for particulate emissions and is limited to 50 hour per year.
2.3.2.1 Testing Requirements for Purified Lithium Solution (Systems 6 through 11, 13 and 14)
An initial opacity compliance demonstration will be required for each emission unit in Systems 6 through 11, 13 and 14. System 6 has initial and annual testing requirements for PM, PM₁₀, PM₂.₅, and H₂SO₄. System 8 and System 14 will have initial and quarterly sampling requirements for total dissolved solids (TDS) content. System 9- PF1.013, PF1.015, PF1.017, and PF1.019; System 10- PF1.020; System 11- PF1.022 will require a moisture content sample that will need to be equal to or exceed 4% moisture content.

2.3.3 Lime and Soda Ash (Systems 19 and 20)
Slaked lime and soda ash solution are added for the magnesium precipitation process. Lime (S2.016 and S2.017) and soda ash (S2.017) are trucked to site and stored in silos at a maximum throughput rate of 80 tons per hour. The lime silo is limited to 4,380 hours of operation per year. The soda ash silo is limited to an annual throughput of 153,900 tons per year. Particulate emissions from the lime truck unloading and transfer to silo via bucket elevator are controlled by a common baghouse. Particulate emissions from the soda ash silo loading are controlled by a vent filter. Both the lime and soda ash silos discharge through sealed transfers.

2.3.3.1 Testing Requirements for Lime and Soda Ash (Systems 19 and 20)
An initial opacity compliance demonstration will be required for each emission unit in Systems 19 and 20. System 19 will be required to do initial and renewal testing for PM, PM₁₀, and PM₂.₅.

2.3.4 Lithium End Product (Systems 12, 15 through 18)
After the removal of additional cations through ion exchange, lithium carbonate and sulfate salts (sodium sulfate and potassium sulfate) are extracted from the solution via crystallization. The sulfate salts are conveyed to the tailings collections conveyor and then to the CTFS (PF1.023 through PF1.025). Particulate emissions from the sulfate salts centrifuge discharge are controlled by an enclosure and the conveyor transfers are controlled by best operating practices.

The lithium carbonate crystals are dried (S2.012) and transferred via conveying hopper to the lithium carbonate storage bin (S2.013) at a maximum throughput rate of 5 tons per hour. From there, the lithium carbonate product is transferred to the packaging system (S2.014) where it is bagged for shipment to customers (S2.015). The packaging system has a maximum throughput of 16 tons per hour but is limited to 43,800 tons per year and 4,380 hours per year. The lithium carbonate dryer and packaging system are each controlled by a baghouse and the conveying hopper and lithium carbonate storage bin are each controlled by a vent filter.

2.3.4.1 Testing Requirements for Lithium End Product (Systems 12, 15 through 18)
An initial opacity compliance demonstration will be required for each emission unit in Systems 12, 15 and 18. Systems 15 and 18 will be required to do initial and renewal testing for PM, PM₁₀, and PM₂.₅.
2.3.5 Sulfuric Acid Plant (Systems 21 through 24)

The sulfuric acid required for leaching the lithium bearing ore is produced on site in a sulfuric acid plant (S2.023). In the plant, molten sulfur at a maximum consumption rate of 51 tons per hour is reacted with air to produce sulfur dioxide, which is catalytically converted to sulfur trioxide and then absorbed in water to produce sulfuric acid. The process is strongly exothermic and produces a large amount of excess heat that is converted to steam and electricity. The plant is designed to produce 3,307 tons per day (3,000 metric tons per day) of sulfuric acid. In addition, the sulfuric acid plant produces carbon-free electricity that may help support the Li NV facility or may be sold to the grid.

Sulfur dioxide, sulfuric acid mist, and particulate (primarily consisting of sulfuric acid mist as condensable particulate matter) emissions from the sulfuric acid plant are controlled by a tail gas scrubber. The facility’s proposed scrubber will have a Teflon outlet nozzle. Per NDEP’s research, Teflon off-gases toxic particulates at 464°F. The temperature of the outlet is permitted to be approximately 79°F with a maximum temperature of 230°F. Per the facility: the Teflon outlet nozzle is manufactured from “Virgin” grade PTFE; PTFE is chemically inert, weatherable, and high temperature resistance; “Virgin” grade PTFE is FDA approved and is used in high temperature applications including in the food processing and services; Teflon nozzles in the DynaWave application last about 20 years; and the facility only replaces these nozzles due to any damage done to them during maintenance work.

The sulfuric acid plant is subject to 40 CFR Part 60, Subpart H. Given the state-of-the-art scrubber control for the plant tail gas, the sulfur dioxide and acid mist emissions from the sulfuric acid plant are well below the applicable emission standards (4 pounds SO2 per ton of acid produced and 0.15 pounds H2SO4 per ton of acid produced) in Subpart H. The manufacturer guarantee of emissions for SO2 is 7.5 parts per million volume (ppmv) and H2SO4 is 6 milligram per normal cubic meter of air (mg/N m^3). In addition, per Subpart H, the sulfuric acid plant exhaust stack is limited to 10 percent opacity. The sulfuric acid plant also emits nitrogen dioxides from the combustion of sulfur in air, but it is not expected to emit any hazardous air pollutants (HAPs).

Subpart H requires that the Li NV facility install and maintain a SO2 Continuous Emission Monitoring System (CEMS). The BAPC will also require the installation of NOX CEMS pursuant to NAC 445B.3405.

Sulfur for the sulfuric acid plant is delivered to the site and stored in one of two sulfur storage facilities (S2.019 and S2.020) at a maximum throughput of 47 tons per hour for each tank. Sulfur dioxide and hydrogen sulfide emissions from these storage facilities are controlled by caustic scrubbing. The scrubber solution also generates a small amount of particulate emissions.

During the initial startup of the sulfuric acid plant and after any maintenance downs, a propane-fired startup burner (S2.022) is required to heat the system prior to feeding molten sulfur. The startup burner has a maximum consumption rate of 315 gallons per hour with a maximum heat input of 28.82 million British thermal units per hour (MMBtu/hr). In addition, during initial startup and any time the sulfuric acid plant is down, a propane-fired package boiler (S2.021) is required to maintain heat and supply steam to the sulfur storage area and processing plant. The package boiler has a maximum consumption rate of 451 gallons per hour with a maximum heat input of 41.3 MMBtu/hr. The startup burner is limited to 200 hours per year of operation and the package boiler is limited to 550 hours per year. The startup burner and package boiler emit propane combustion products, including HAPs.
The package boiler is subject to 40 CFR Part 60, Subpart Dc as a steam generating unit with a heat input capacity greater than 10 MMBtu/hr and less than 100 MMBtu/hr, that combusts only natural gas fuel (liquefied petroleum gas) as defined in 40 CFR §60.41c.

2.3.5.1 Testing Requirements for Sulfuric Acid Plant (Systems 21 through 24)
An initial opacity compliance demonstration will be required for each emission unit in Systems 21 through 24. System 21 will be required to do initial and renewal testing for PM, PM$_{10}$, PM$_{2.5}$, SO$_2$, and H$_2$S. System 22 will be required to do initial and renewal testing for PM, PM$_{10}$, PM$_{2.5}$, NO$_x$, CO and VOC. System and 23 will be required to do initial testing for PM, PM$_{10}$, PM$_{2.5}$, NO$_x$, CO and VOC. In addition to the CEMs unit mentioned above to monitor SO$_2$ emissions, System 24 will be required to do initial and annual testing for PM, PM$_{10}$, PM$_{2.5}$, SO$_2$, NO$_x$, and H$_2$SO$_4$.

2.3.5.2 Monitoring (System 21)
The sulfur used by Li NV will be source from the fuel energy industry that has the standard to treat the molten sulfur to 1,550 °F. Therefore, Li NV will be required to notify the Director within 72 hours if the molten sulfur is sourced from another source other than the fuel energy industry.

Support Activities
At the Li NV facility, several activities support mining and processing that are potential sources for emissions. These include emergency internal combustion (IC) engines, prill silo, cooling towers, fuel storage tanks, and a laboratory (discussed further below).

2.3.6 IC Engines (Systems 25 and 26)
The Li NV facility will operate two diesel-fired fire pumps (S2.024 and S2.025) that ensures fire water is available if the normal power supply is interrupted. These IC engines are process sources of combustion emissions, including HAPs. The two diesel-fired fire pump engines are rated for 422 horsepower (hp), will combust a maximum of 20.0 gallons, are manufactured on or after January 1, 2015, and are subject to 40 CFR Part 63, Subpart ZZZZ and 40 CFR Part 60, Subpart III.

The Li NV facility will operate two propane-fired emergency generators (S2.026 and S2.027) that supply power to maintain essential operations. These IC engines are process sources of combustion emissions, including HAPs. The two propane-fired emergency generator engines are rated for 168 hp, will combust a maximum of 13.9 gallons, are 4-stroke rich-burn engines manufactured on or after January 1, 2009, and are subject to 40 CFR Part 63, Subpart ZZZZ and 40 CFR Part 60, Subpart JJJJ.

2.3.6.1 Testing Requirements for IC Engines (Systems 25 and 26)
An initial opacity compliance demonstration will be required for each emission unit in Systems 25 and 26.
2.3.7 Gasoline Storage Tank (System 27) and Other Storage Tanks

A tank area with a 1,000-gallon gasoline tank (S2.028), a 25,000 gallons diesel tank (IA1.020), an 8,000 gallon highway diesel tank (IA1.021), a 20,000 gallon bulk oil tank (IA1.022), a 3,000 gallon bulk coolant storage tank (IA1.023), a 3,000 gallon bulk used oil tank (IA1.024), and a 3,000 gallon bulk used coolant tank (IA1.025) are located near the mine warehouse and shop. These storage tanks are potential sources of VOC emissions.

The 1,000-gallon gasoline storage tank is subject to 40 CFR Part 63, Subpart CCCCCC, as a gasoline dispensing facility with a monthly throughput of less than 10,000 gallons of gasoline. The diesel and other bulk storage tanks are insignificant activities per NAC 445B.288.2(d) (VOL tanks less than 40,000 gallons).

2.3.8 Cooling Towers

The Li NV facility includes two cooling towers (IA1.003 and IA1.004) to supply cool water to the sulfuric acid plant and lithium carbonate crystallization process. The cooling towers have the potential to emit particulates from the drift loss.

2.3.9 Laboratory

One small laboratory will be maintained on site for preparing and analyzing ore and waste rock samples. The laboratory may include various analytical instruments and sample preparation equipment, such as splitters/material transfers, crushers, screens, and pulverizers (IA1.005 through IA1.019). The sample preparation equipment has the potential to create particulate emissions. While the laboratory is controlled by a baghouse, this emission control is not considered in estimating potential uncontrolled emissions for the insignificant designation.

2.3.1 Ammonium Nitrate Prill Silo

The ammonium nitrate prill used for blasting is stored onsite in a storage silo (IA1.001 and IA1.002). The 80-ton silo has the potential to emit particulates from the silo loading and unloading.

2.4 PERMITTING DECISIONS

In the initial application for the Sulfuric Acid Plant Li NV requested that the SO₂ emissions be 6.5 ppmv. Based on an RFI response, Li NV requested that the SO₂ emission be increased to 7.5 ppmv. This increased SO₂ emission from 8.8 to 10.2 pounds per hour and 38.6 to 44.6 tons per year. This increase in emissions did not trigger any additional requirements.

12-month rolling averages will be required on Systems 1 and 24. This requirement will be reviewed to ensure its relevance at the next renewal.

Systems 4, 5, 9, 10 and 11 are required to conduct initial testing of the moisture content of the material discharged from these systems. There are no active controls for the transfers. However, Li NV claims that the material is saturated and therefore will be its own control. The BAPC agreed with the controls but requires initial testing with a minimum moisture content of 4%.
Emissions from System 8, 14, 15, 18, and 19 were calculated with an assumed maximum Total Dissolved Solids (TDS) concentration in the exhaust stack. The BAPC requires initial and quarterly sampling of the stack to determine continued compliance with the emission limit.

Due to the uncontrolled potential of sulfur compound emissions annual compliance testing will be required for Systems 6 and 24 (Sulfuric Acid Plant). Although, System 24 is required to operate and maintain a Continuous Emissions Monitoring System (CEMS) annual testing will still be required to serve as an extra protection measure to ensure the emission controls are working.

In addition, we requested that EPA, Region 9 review a draft of the permit. Based on their review we added some clarifying language to the permit if the facility sees visible emissions, some additional monitoring and recordkeeping requirements for their annual hours of operation on a monthly basis for systems with hourly restrictions, and the language “averaged over a daily basis” was added to hourly throughput limits on systems that have recordkeeping requirements averaged on a daily basis unless there was a maximum throughput requirement to not exceed.

### 2.5 PUBLIC OUTREACH, PUBLIC HEARING, AND PUBLIC COMMENT

Due to the public interest about this project NDEP set up a website to keep the public up to date on the permitting process, to alert them to upcoming meetings, and allow access to videos and presentations from past meetings.

Multiple public outreach meetings were held for this project by the NDEP prior to the public comment period. Dates and a summary of what was presented at these meetings is listed below:

- **March 8, 2021**: NDEP presented to the Humboldt County Commissioners. This presentation gave the Commissioners an overview of the State permitting process and gave a general timeline for the applications that have been submitted to the state for the project.
- **April 22, 2021**: NDEP presented to the Thacker Pass Concerned Citizens group. This meeting gave an overview of the permitting process, discussed testing, inspections, reporting, monitoring, and enforcement; how the community could receive public notices and tips on making effective comments.
- **May 25 and June 24, 2021**: On May 25, 2021 NDEP staff traveled to Orovada, NV to give a presentation of concerns/questions that had been received from the Thacker Pass Concerned Citizens group. The Bureau of Mining Regulation and Reclamation presented at this meeting and questions were taken after each slide. It was only possible to get through about half of this presentation so two meeting times were set up on June 24, 2021 for the BAPC to give the rest of the presentation.

As previously discussed, the public notice started on October 18, 2021 and ended on November 18, 2021. A public hearing was held at 6 pm (PST) at the Boys and Girls Club of Winnemucca in Winnemucca, NV on November 18, 2021. It is estimated that between 40 and 60 people attended this hearing. There were many interruptions during this hearing and it was decided to close the meeting after 9 public comments were heard. The meeting attendees were notified that any people that were unable to give spoken comment could submit their comment to the email address set up for the project.

At the start of the public notice period a list of comments and responses, relevant to the air quality and the air quality operating permit, that had been received was put on the NDEP Thacker Pass website and a copy of these comments and responses have been provided in Appendix 3.
The BAPC received many comments during the public notice period. Some were relevant to the AQOP and some were general comments for the project or opposing the project. The BAPC has reviewed and responded to all comments received and this document is part of the public record.

The Public Noticed permit with marked up changes made between Public Notice and Issuance has been provided in Appendix 4.

On June 16, 2021 and November 30, 2021, the NDEP met with members of the Fort McDermitt Paiute Shoshone Tribe to discuss their concerns. On December 9, 2021, the NDEP received formal comments from the tribe. The NDEP responded to the comments.

3.0 APPLICABLE REGULATIONS

3.1 NEVADA REVISED STATUTES

The Nevada Revised Statutes (NRS) are the current codified laws of the State of Nevada. The NRS is the statutory authority for the adoption and implementation of administrative regulations. The statutes relating to the control of air pollution are contained in Title 40, Public Health and Safety, Chapter 445B, Air Pollution, NRS 445B.100 through NRS 445B.640. The NRS specifies that the State Environmental Commission is the governing body given the power to adopt administrative regulations. Since the NRS is the enabling statutory authority, very few specific requirements are contained in the statutes. The NRS provides broad authority for the adoption and implementation of air pollution control regulations. This project will be subject to the NRS and will need to comply with all applicable regulations under the NRS. The NRS may be viewed online.

3.2 NEVADA ADMINISTRATIVE CODE

The Nevada Administrative Code (NAC) contains the regulations adopted by the State Environmental Commission (SEC), pursuant to the authority granted by the Nevada Revised Statutes (NRS), relating to the control of air pollution. The NAC requires, where State regulations are more stringent in comparison to Federal regulations, the State regulations are applicable. The NAC sets forth, by rule, maximum emission standards for visible emissions (opacity), PM₁₀ (particulate matter less than 10 microns in diameter) and sulfur emitting processes. Other requirements are established for incinerators, storage tanks, odors and maximum concentrations of criteria air pollutants in the ambient air. Other NAC regulations specify the requirements for applying for and method of processing applications for operating permits. All the equipment considered in this application must meet, at a minimum, the applicable standards and requirements set forth in the NAC, specifically, the emission standards contained in NAC 445B.22027 through 445B.22033 for particulate matter, 445B.2204 through 445B.22047 for sulfur emissions, 445B.22017 for opacity, and the Nevada Ambient Air Quality Standards (NAAQS) as set forth in NAC 445B.310 through 445B.311. The NAC may be viewed online.

3.3 NEVADA APPLICABLE STATE IMPLEMENTATION PLAN

The Applicable State Implementation Plan (ASIP) is a document prepared by a state or local air regulatory agency and submitted to the United States Environmental Protection Agency (US EPA) for approval. Title I of the Clean Air Act is the statutory authority for the US EPA regulations that require a State to submit an ASIP. The contents of the ASIP are intended to show how a state, through the implementation and enforcement of the regulations contained in the ASIP, will either show how attainment of the NAAQS will be achieved or how a state will continue to maintain compliance with the national ambient air quality standards.
3.4 CODE OF FEDERAL REGULATIONS

The Code of Federal Regulations (CFR) are regulations adopted by the US EPA and published in the Federal Register pursuant to the authority granted by Congress in the Clean Air Act. The CFR addresses multiple aspects, including but not limited to, permitting requirements, performance standards, testing methods, and monitoring requirements. The CFRs may be viewed online.

3.4.1 NEW SOURCE PERFORMANCE STANDARDS

Section 111 of the Clean Air Act, “Standards of Performance for New Stationary Sources,” (NSPS) requires US EPA to establish federal emission standards for source categories which cause or contribute significantly to air pollution. Each NSPS defines the facilities subject to these requirements and prescribes emission limits for specified pollutants, compliance requirements, monitoring requirements, and test methods and procedures. These standards are intended to promote use of the best air pollution control technologies, taking into account the cost of such technology and any other non-air quality, health, and environmental impact and energy requirements. These standards apply to sources which have been constructed or modified since the proposal of the standard. These standards can be found in the CFR at Title 40 (Protection of Environment), Part 60 (Standards of Performance for New Stationary Sources).

Generally, state and local air pollution control agencies are responsible for implementation, compliance assistance, and enforcement of the NSPS. US EPA retains concurrent enforcement authority and is also available to provide technical assistance when a state or local agency seeks help. US EPA also retains a few of the NSPS responsibilities such as the ability to approve alternative monitoring methods to maintain a minimum level of national consistency.

NSPS – 40 CFR Part 60 Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants – Systems 1, 2, and 3, are subject to the provisions of Subpart OOO.

NSPS – 40 CFR Part 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units – System 22, is subject to the provisions of Subpart Dc. System 23 is not subject to this subpart because it does not produce steam.

NSPS – 40 CFR Part 60 Subpart H – Standards of Performance for Sulfuric Acid Plants – System 24, is subject to the provisions of Subpart H.

NSPS – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines – System 25, is subject to the provisions of Subpart IIII.

NSPS – 40 CFR Part 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines – System 26, is subject to the provisions of Subpart JJJJ.
3.4.2 FEDERAL NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

National Emission Standards for Hazardous Air Pollutants (NESHAP) are established in the CFR pursuant to Section 112 of the Clean Air Act Amendments of 1990. These standards regulate air pollutants believed to be detrimental to human health. The NESHAP program applies to all sources, both existing and new. These standards are codified in Title 40 CFR Parts 61 and 63.

Part 61, which predates the Clean Air Act Amendments of 1990, includes specific standards, reporting and recordkeeping requirements, and test methods for the initial eight hazardous air pollutants (HAPs): asbestos, benzene, beryllium, coke oven emissions, inorganic arsenic, mercury, radionuclides, and vinyl chloride. The regulations covering these eight hazardous air pollutants focused on health-based considerations. NESHAPs were established for certain operations that commonly emit the eight hazardous air pollutants.

Other substances were included for consideration due to the serious health effects, including cancer, which may occur from ambient air exposure to those substances. However, no specific restrictions were placed on facilities that used or released these compounds.

Under the Clean Air Act Amendments of 1990, Congress greatly expanded the Air Toxics program, creating a list of 189 substances to be regulated as hazardous air pollutants. Rather than regulating individual pollutants by establishing health-based standards, the new Air Toxics program granted the US EPA the authority to regulate specific industrial major source categories with NESHAPs based on maximum achievable control technology (MACT) for each source category. Thus, a number of NESHAPs have been established to regulate specific categories of stationary sources that emit (or have the potential to emit) one or more hazardous air pollutants.

The standards in 40 CFR Part 63 are independent of the NESHAPs contained in 40 CFR Part 61 which remain in effect until they are amended, if appropriate, and added to this part. More information on NESHAPs from the US EPA Unified Air Toxics Website may be viewed online.

NESHAPs may cover both major sources and area sources in a given source category. Major sources are defined as those facilities emitting, or having the potential to emit, 10 tons per year or more of one Hazardous Air Pollutant (HAP) or 25 tons per year or more of multiple HAPs. Major sources are required to comply with MACT standards. Area sources are defined as those facilities that are not major sources.

The Li NV facility is not a major source with respect to HAPs.


3.4.3 PREVENTION OF SIGNIFICANT DETERIORATION DETERMINATION

The Prevention of Significant Deterioration (PSD) permitting program is a Clean Air Act permitting program for new and modified major stationary sources of air pollution. Implementation of the federal PSD regulations is delegated to the State of Nevada by U.S. EPA and these regulations are contained at 40 CFR Part 52.21. Therefore, BAPC implements the federal PSD regulations directly. These regulations specify federally required permitting procedures for each "major stationary source." The PSD regulations define a "stationary source" as "any building, structure, facility, or installation which emits or may emit any air pollutant subject to regulation under the Act."

A "building structure facility or installation" is defined as "all of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control) except the activities of any vessel. Pollutant-emitting activities shall be considered as part of the same industrial grouping if they belong to the same 'Major Group' (i.e., which have the same first two digit code) as described in the Standard Industrial Classification Manual, 1972, as amended by the 1977 Supplement."

“Major” is defined as the potential to emit of a stationary source, which equals or exceeds a specified threshold (in tons per year) of any air pollutant regulated under the Clean Air Act (40 CFR 52.21(b)(1)). The first threshold is for a stationary source that emits or has the potential to emit 100 tons per year or more of any regulated NSR pollutant and is defined as one of 28 specific categories of sources (see 40 CFR 52.21(b)(1)(i)(a)). The other applicability threshold is for any other stationary source that emits or has the potential to emit 250 tons per year of any regulated NSR pollutant (see 40 CFR 52.21(b)(1)(i)(b)). Li NV is not a major stationary source as defined by 40 CFR Part 52.21, because the facility does not have the potential to emit 100 tons per year or more of any regulated NSR pollutant. Li NV is one of the 28 specific source categories, because there is a sulfuric acid plant at the facility.

4.0 EMISSIONS INVENTORY

4.1 PROPOSED EMISSIONS

The facility-wide emissions inventory for the Li NV facility can be found below in Table 4.1-1. As can be seen, emissions of each criteria pollutant are below the BAPC’s Class I operating permit threshold of 100 tons per year, including Insignificant Activities. As such, the Li NV facility qualifies as a Class II minor source under BAPC regulations. The BAPC has determined that Li NV facility requires controls and/or other limit restrictions to remain a Class II source and therefore qualifies as a Class II synthetic minor source. The detailed emissions inventory for the Li NV facility is included in Appendix 1.

<table>
<thead>
<tr>
<th>Table 4.1-1</th>
<th>Lithium Nevada Corporation - A1270 - AP1479-4334</th>
<th>Annual PTE (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>System</strong></td>
<td><strong>PM</strong></td>
<td><strong>PM10</strong></td>
</tr>
<tr>
<td>Sys Total</td>
<td>83.3</td>
<td>52.4</td>
</tr>
<tr>
<td>1 System 1 - Ore Handling Circuit</td>
<td>25.2</td>
<td>9.25</td>
</tr>
<tr>
<td>2 System 2 - Mineral Sizer</td>
<td>5.68</td>
<td>2.52</td>
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<tr>
<td>3 System 3 - Attrition Scrubber Feed</td>
<td>3.15</td>
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<tr>
<td>4 System 4 - Oversize Material Handling Circuit</td>
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<td>0.023</td>
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### Table 4.1

<table>
<thead>
<tr>
<th>System</th>
<th>PM</th>
<th>PM$_{10}$</th>
<th>PM$_{2.5}$</th>
<th>SO$_2$</th>
<th>NO$_x$</th>
<th>CO</th>
<th>VOC</th>
<th>H$_2$SO$_4$</th>
<th>H$_2$S</th>
<th>HAPs</th>
<th>CO$_{2e}$</th>
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<tbody>
<tr>
<td>Sys</td>
<td>Total</td>
<td>83.3</td>
<td>52.4</td>
<td>36.9</td>
<td>47.8</td>
<td>88.7</td>
<td>2.52</td>
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<td>1.05</td>
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<td>5</td>
<td>System 5 - Gangue Handling Circuit</td>
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<td>6</td>
<td>System 6 - Leach Tanks</td>
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<td>1.33</td>
<td>1.33</td>
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<tr>
<td>7</td>
<td>System 7 - Neutralization Filter Vents</td>
<td>0.22</td>
<td>0.22</td>
<td>0.22</td>
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<td>8</td>
<td>System 8 - Neutralization Filter Filtrate Blow Vent</td>
<td>0.005</td>
<td>0.005</td>
<td>0.005</td>
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<tr>
<td>9</td>
<td>System 9 - Tailings Feed Circuit</td>
<td>3.78</td>
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<td>10</td>
<td>System 10 - Tailings Collection</td>
<td>1.97</td>
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<td>System 11 - Tailings Stacking</td>
<td>3.94</td>
<td>1.45</td>
<td>0.24</td>
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<td>12a</td>
<td>System 12 - Sulfate Tailings Circuit</td>
<td>0.26</td>
<td>0.10</td>
<td>0.016</td>
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<td>12b</td>
<td>System 12 - Sulfate Tailings Circuit</td>
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<td>0.39</td>
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<tr>
<td>13</td>
<td>System 13 - Magnesium Precip. Filter Vents</td>
<td>0.029</td>
<td>0.029</td>
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<tr>
<td>14</td>
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<td>15</td>
<td>System 15 - Lithium Carbonate Dryer</td>
<td>2.18</td>
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<td>16</td>
<td>System 16 - Lithium Carbonate Material Handling</td>
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<td>0.005</td>
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<tr>
<td>17</td>
<td>System 17 - Lithium Carbonate Storage Bin</td>
<td>0.022</td>
<td>0.007</td>
<td>0.001</td>
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<tr>
<td>18</td>
<td>System 18 - Lithium Carbonate Packaging</td>
<td>1.46</td>
<td>1.46</td>
<td>1.46</td>
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<tr>
<td>19</td>
<td>System 19 - Lime Silo</td>
<td>1.16</td>
<td>1.16</td>
<td>1.16</td>
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<tr>
<td>20</td>
<td>System 20 - Soda Ash Silo</td>
<td>0.076</td>
<td>0.026</td>
<td>0.004</td>
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<tr>
<td>21</td>
<td>System 21 - Sulfur Storage</td>
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<td>2.98</td>
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<td>22</td>
<td>System 22 - Package Boiler</td>
<td>0.13</td>
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<td>System 23 - Start-Up Burner</td>
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<td>0.033</td>
<td>0.033</td>
<td>0.050</td>
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<td>24</td>
<td>System 24 - Sulfuric Acid Plant</td>
<td>24.94</td>
<td>24.94</td>
<td>24.94</td>
<td>44.55</td>
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<td>25</td>
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<td>0.010</td>
<td>0.010</td>
<td>0.0004</td>
<td>0.24</td>
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<td>26</td>
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<td>0.007</td>
<td>0.0005</td>
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<td>27</td>
<td>System 27 - Gasoline Tank</td>
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</table>
Table 4.1-1
Lithium Nevada Corporation - A1270 - AP1479-4334
Annual PTE (tons/year)

<table>
<thead>
<tr>
<th>System</th>
<th>PM</th>
<th>PM&lt;sub&gt;10&lt;/sub&gt;</th>
<th>PM&lt;sub&gt;2.5&lt;/sub&gt;</th>
<th>SO&lt;sub&gt;2&lt;/sub&gt;</th>
<th>NO&lt;sub&gt;x&lt;/sub&gt;</th>
<th>CO</th>
<th>VOC</th>
<th>H&lt;sub&gt;2&lt;/sub&gt;SO&lt;sub&gt;4&lt;/sub&gt;</th>
<th>H&lt;sub&gt;2&lt;/sub&gt;S</th>
<th>HAPs</th>
<th>CO&lt;sub&gt;2e&lt;/sub&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sys Total</td>
<td>83.3</td>
<td>52.4</td>
<td>36.9</td>
<td>47.8</td>
<td>88.7</td>
<td>2.52</td>
<td>0.70</td>
<td>25.2</td>
<td>1.05</td>
<td>0.032</td>
<td>2,049.6</td>
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<tr>
<td>IA1 Ammonium Nitrate Prill Silo - Loading</td>
<td>0.58</td>
<td>0.20</td>
<td>0.03</td>
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<tr>
<td>IA2 Sulfuric Acid Plant Cooling Tower</td>
<td>0.51</td>
<td>0.51</td>
<td>0.51</td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>IA3 Lithium Carbonate Cooling Tower</td>
<td>0.99</td>
<td>0.99</td>
<td>0.99</td>
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<td></td>
<td></td>
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<tr>
<td>IA4 Laboratory Equipment</td>
<td>0.99</td>
<td>0.37</td>
<td>0.06</td>
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<tr>
<td>IA5 Diesel Tank, Off Road (Mine), 25,000 gallons</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>0.015</td>
<td></td>
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<tr>
<td>IA6 Diesel Tank, Highway (Mine), 8,000 gallons</td>
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<td></td>
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<td>0.001</td>
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<tr>
<td>IA7 Bulk Oil Tank, 20,000 gallons</td>
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<td></td>
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<td>0.003</td>
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<tr>
<td>IA8 Bulk Coolant Tank, 3,000 gallons</td>
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<td></td>
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<td>0.00003</td>
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<tr>
<td>IA9 Bulk Used Oil Tank, 3,000 gallons</td>
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<td>0.001</td>
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<tr>
<td>IA10 Bulk Used Coolant Tank, 3,000 gallons</td>
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<td>0.00003</td>
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</table>

5.0 AMBIENT AIR IMPACT ANALYSIS

5.1 INTRODUCTION/ PURPOSE
The purpose of this analysis is to determine the likely air quality impacts resulting from operation of the Li NV facility under the conditions specified in their draft Air Quality Operating Permit.

5.2 CLASSIFICATION OF AIR BASIN
The facility is in Hydrographic Basin (HA) 30A – Kings River Valley/Rio King and HA33A – Quinn River/Orovada. HAs 30A and 33A are not triggered for any pollutant.

5.3 AIR QUALITY MODELING ANALYSIS
Nevada Division of Environmental Protection – Bureau of Air Quality Planning (BAQP) performed the air quality modeling analysis. The memo to BAPC from BAQP dated July 8, 2021 presents the results of the air quality analysis. The original results were updated from the original posting and was not updated when this technical review was originally drafted. The results of the latest analysis are presented below in Table 5.3-1 and in the memo is provided in Appendix 2. As can be seen, operation of Li NV will not result in violations of the Nevada AAQS, because the total impacts are less than the applicable AAQS values.
### Table 5.3-1
Lithium Nevada Corporation - A1270 - AP1479-4334
Nevada Ambient Air Quality Impact Analysis

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Averaging Period</th>
<th>Modeled Concentration</th>
<th>Background Concentration e</th>
<th>Total Impact</th>
<th>NAAQS</th>
<th>Percent of Standard</th>
<th>Location (UTM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM$_{2.5}$</td>
<td>24-hr ($\mu g/m^3$) a</td>
<td>7.4</td>
<td>8</td>
<td>15.5</td>
<td>35</td>
<td>44%</td>
<td>4,616,899 411,048</td>
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<tr>
<td></td>
<td>Annual ($\mu g/m^3$) b</td>
<td>1.5</td>
<td>2.3</td>
<td>4.0</td>
<td>12</td>
<td>34%</td>
<td>4,616,645 414,250</td>
</tr>
<tr>
<td>PM$_{10}$</td>
<td>24-hr ($\mu g/m^3$)</td>
<td>67.0</td>
<td>10.2</td>
<td>77.9</td>
<td>150</td>
<td>52%</td>
<td>4,616,765 411,377</td>
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<tr>
<td>SO$_2$</td>
<td>1-hr (ppb) c</td>
<td>41.1</td>
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<td>41.3</td>
<td>75</td>
<td>55%</td>
<td>4,615,266 412,497</td>
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<td></td>
<td>3-hr ($\mu g/m^3$)</td>
<td>81.9</td>
<td></td>
<td>81.9</td>
<td>1,300</td>
<td>6%</td>
<td>4,615,266 412,497</td>
</tr>
<tr>
<td></td>
<td>24-hr ($\mu g/m^3$)</td>
<td>10.3</td>
<td></td>
<td>10.3</td>
<td>365</td>
<td>3%</td>
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<td>Annual ($\mu g/m^3$)</td>
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<td>0.5</td>
<td>80</td>
<td>1%</td>
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<td>NO$_2$</td>
<td>1-hr (ppb) d</td>
<td>57.9</td>
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<td>62.8</td>
<td>100</td>
<td>63%</td>
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<td></td>
<td>Annual ($\mu g/m^3$)</td>
<td>2.4</td>
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<td>4.2</td>
<td>100</td>
<td>4%</td>
<td>4,616,650 414,177</td>
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<td>CO</td>
<td>1-hr ($\mu g/m^3$)</td>
<td>97</td>
<td></td>
<td>130</td>
<td>40,500</td>
<td>0%</td>
<td>4,616,644 414,268</td>
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<td></td>
<td>8-hr ($\mu g/m^3$)</td>
<td>31</td>
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<td>31</td>
<td>7,000</td>
<td>0%</td>
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<td>H$_2$S</td>
<td>1-hr ($\mu g/m^3$)</td>
<td>6.4</td>
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<td>6.4</td>
<td>112</td>
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<td>Ozone</td>
<td>8-hr (ppm)</td>
<td>0.009</td>
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<td>0.009</td>
<td>0.075</td>
<td>12%</td>
<td>4,616,640 414,381</td>
</tr>
</tbody>
</table>

a98th percentile (8th high), averaged over 3 years
bAnnual mean, averaged over 3 years
c99th percentile (4th high) of 1-hr daily maximum concentrations, averaged over 3 years
d98th percentile (8th high) of 1-hr daily maximum concentrations, averaged over 3 years
PM$_{10}$ values are from the Jarbidge Wilderness Area. PM$_{10}$ values are from Lehman Caves (Great Basin NP).

Note: Averaging over years must still follow 40 CFR Part 51 Appendix W concerning 1 year of on-site MET data or 5 years of offsite MET data and must be the specific percentile for each individual year.
6.0 CONCLUSIONS / RECOMMENDATIONS

Based on the above review and supporting data and analyses, operation of the Li NV facility under the draft Class II Air Quality Operating Permit conditions will not result in violations of any applicable ambient air quality standards. Therefore, the BAPC recommends that the draft facility-wide operating permit be formally issued, with those applicable requirements, conditions, and restrictions contained therein:

Appendix 1 – BAPC Detailed Emission Inventory
Appendix 2 – NVAAQS Memo
Appendix 3 – Public Comments and Responses relevant to Air Quality Operating Permit Received Prior to October 18, 2021
Appendix 4 – Public Noticed Permit with Changes Shown

Benjamin Kahue
Ben Kahue, P.E.,
Permit Writer
Bureau of Air Pollution Control

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

2/25/2022
2/25/2022

Date
Date
Appendix 1

BAPC Detailed Emission Inventory
### Unit Description

<table>
<thead>
<tr>
<th>SIC</th>
<th>Location UTM Coordinates</th>
<th>Operating Hours</th>
<th>Heat Input (MMBtu)</th>
<th>Thruput/Fuel Usage</th>
<th>Power Output</th>
<th>Emission Factor</th>
<th>Controls</th>
<th>Found Emission Rate</th>
</tr>
</thead>
<tbody>
<tr>
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### Emission Factor Controls

- Power Output: 100,000 MMBtu
- Temperature Control: 100,000 MMBtu

### References

- AP-42 Table 11.19.2-2 Tertiary Crusher Uncontrolled
- AP-42 Table 11.19.2-2 Conveyor Uncontrolled
- AP-42 Table 11.19.2-2 Tertiary Crusher Uncontrolled
- AP-42 Table 11.19.2-2 Conveyor Uncontrolled
- AP-42 Table 11.19.2-2 Conveyor Uncontrolled
- AP-42 Table 11.19.2-2 Conveyor Uncontrolled
- AP-42 Table 11.19.2-2 Conveyor Uncontrolled
- AP-42 Table 11.19.2-2 Conveyor Uncontrolled
- AP-42 Table 11.19.2-2 Conveyor Uncontrolled
- AP-42 Table 11.19.2-2 Conveyor Uncontrolled
- AP-42 Table 11.19.2-2 Conveyor Uncontrolled
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**References**

- AP-42 Table 11.19.2-2 Conveyor Transfer (Uncontrolled)
- AP-42 Table 11.19.2-2 Stack Transfer (Ducted)
- AP-42 Table 11.19.2-2 Stack Transfer (Uncontrolled)
- AP-42 Table 11.19.2-2 Stack Transfer (Uncontrolled)
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**References**

- AP-42 Table T11-19-2.3 Emission Uncalculated
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<th>Emission Unit (class #)</th>
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**Emission Calculation Spreadsheet**

**Facility Only**

**Nevada Division of Environmental Protection**

**Bureau of Air Pollution Control**

**Emissions Calculation Spreadsheet**

**Kings River Valley/Rio Kin**

**Quinn River Valley/Orovada**

**Air Case Number Application Log**

**Multiple Applications**

**Lithium Nevada Corporation**

**3685 Lakeside Drive, Reno, NV 89509**

**Ben Kahu**

**Date of Approval**

**No Date: 2/2/2022**

---

**References**

**For Each Source or Combined**
### Lithium Carbonate Material Handling

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<th>Throughput/Fuel Usage</th>
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### Emissions Calculation Spreadsheet

#### Section 5 - Sulfuric Acid Plant

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<th>Fuel Usage (HHV)</th>
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<th>Throughput/Power Output</th>
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<th>Emission Factor</th>
<th>Controls</th>
<th>Found Emission Rate</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Generator 1 (Mine)</td>
<td>24</td>
<td>3,685 Lakeside Drive, Reno, NV 89509</td>
<td>1,127,127,127</td>
<td>8,760</td>
<td>103,000</td>
<td>Diesel</td>
<td>168.00</td>
<td>PM 0.054 lb/MMBtu</td>
<td>0.069</td>
<td>0.0034</td>
<td>CARB 1991</td>
</tr>
</tbody>
</table>

#### Section 8 - Gasoline Tank

<table>
<thead>
<tr>
<th>Unit Description</th>
<th>ESC</th>
<th>Location</th>
<th>Stock Pile Parameters</th>
<th>Operating Hours</th>
<th>Heat Input (MMBtu)</th>
<th>Fuel Usage (HHV)</th>
<th>Throughput/Power Output</th>
<th>Emission Factor</th>
<th>Controls</th>
<th>Found Emission Rate</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline Tank, 1,000 gallons</td>
<td>24</td>
<td>3,685 Lakeside Drive, Reno, NV 89509</td>
<td>1,127,127,127</td>
<td>8,760</td>
<td>103,000</td>
<td>Gasoline</td>
<td>9,999 gal/mo</td>
<td>0.030 lb/MMBtu</td>
<td>0.084</td>
<td>0.0042</td>
<td>For each source</td>
</tr>
</tbody>
</table>

---

**Page 7 of 9**
### Emission Calculation Spreadsheet

<table>
<thead>
<tr>
<th>Unit Description</th>
<th>SCC</th>
<th>Location UTM</th>
<th>Operating Hours</th>
<th>Heat Input (MMBtu)</th>
<th>Fuel Usage Power Output</th>
<th>Emission Factor</th>
<th>Controls</th>
<th>Found Emission Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>IA1.001 Ammonium Nitrate Prill Silo - Loading</td>
<td>3-05-027-09 4,618,149 412,174</td>
<td>Daily</td>
<td>0.0030</td>
<td>0.035</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IA1.002 Ammonium Nitrate Prill Silo - Unloading</td>
<td>3-01-027-09 4,618,149 412,174</td>
<td>Daily</td>
<td>6.40</td>
<td>388400.00</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>IA1.003 Sulfuric Acid Plant Cooling Tower</td>
<td>3-85-001-01 4,616,968 414,290</td>
<td>Daily</td>
<td>12.30</td>
<td>752800.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IA1.004 Lithium Carbonate Cooling Tower</td>
<td>3-85-001-01 4,617,045 414,418</td>
<td>Daily</td>
<td>212.20</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>IA1.005 Splitter 1</td>
<td>3-05-020-06 4,617,159 414,334</td>
<td>Daily</td>
<td>40.00</td>
<td>8,760</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IA1.006 Splitter 2</td>
<td>3-05-020-06 4,617,159 414,334</td>
<td>Daily</td>
<td></td>
<td></td>
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<tr>
<td>IA1.007 Splitter 3</td>
<td>3-05-020-06 4,617,159 414,334</td>
<td>Daily</td>
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<tr>
<td>IA1.008 Splitter 4</td>
<td>3-05-020-06 4,617,159 414,334</td>
<td>Daily</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>IA1.009 Splitter 5</td>
<td>3-05-020-06 4,617,159 414,334</td>
<td>Daily</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IA1.010 Pulverizer 1</td>
<td>3-05-020-03 4,617,159 414,334</td>
<td>Daily</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IA1.011 Pulverizer 2</td>
<td>3-05-020-03 4,617,159 414,334</td>
<td>Daily</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IA1.012 Pulverizer 3</td>
<td>3-05-020-03 4,617,159 414,334</td>
<td>Daily</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IA1.013 Pulverizer 4</td>
<td>3-05-020-03 4,617,159 414,334</td>
<td>Daily</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IA1.014 Pulverizer 5</td>
<td>3-05-020-03 4,617,159 414,334</td>
<td>Daily</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IA1.015 Diesel Tank, Off Road (Mine), 25,000 gallons</td>
<td>4-04-003-16 4,617,430 410,867</td>
<td>Daily</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Notes:
- Emissions are combined for each source.
- Request for IA determination status to be granted on October 18, 2021.
## Emission Calculation Spreadsheet

**Location:** 3685 Lakeside Drive, Reno, NV 89509

**Facility Only**

**Nevada Division of Environmental Protection**

**Bureau of Air Pollution Control**

**Emissions Calculation Spreadsheet**

<table>
<thead>
<tr>
<th>No.</th>
<th>SCC</th>
<th>HTR</th>
<th>Unit Description</th>
<th>Stack/Fugitive Parameters</th>
<th>Operating Hours</th>
<th>Heat Input (MMBtu)</th>
<th>Fuel Usage</th>
<th>Power Output</th>
<th>Emission Factor</th>
<th>Controls</th>
<th>Found Emission Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A</td>
<td>IA1.021</td>
<td>21.5</td>
<td>Diesel Tank, Highway (Mine), 8,000 gallons</td>
<td>Vertical</td>
<td>24</td>
<td>8,760</td>
<td>14</td>
<td>120,000</td>
<td>5</td>
<td>40,000 gallons diesel</td>
<td>Controls</td>
</tr>
<tr>
<td>1A</td>
<td>IA1.022</td>
<td>18</td>
<td>Bulk Oil Tank, 20,000 gallons</td>
<td>Vertical</td>
<td>24</td>
<td>8,760</td>
<td>14</td>
<td>120,000</td>
<td>14</td>
<td>120,000 gallons Bulk Oil</td>
<td>Controls</td>
</tr>
<tr>
<td>1A</td>
<td>IA1.023</td>
<td>8</td>
<td>Bulk Coolant Tank, 3,000 gallons</td>
<td>Vertical</td>
<td>8</td>
<td>8,760</td>
<td>24</td>
<td>24,000</td>
<td>3</td>
<td>24,000 gallons Coolant</td>
<td>Controls</td>
</tr>
<tr>
<td>1A</td>
<td>IA1.024</td>
<td>8</td>
<td>Bulk Used Oil Tank, 3,000 gallons</td>
<td>Vertical</td>
<td>8</td>
<td>8,760</td>
<td>24</td>
<td>120,000</td>
<td>14</td>
<td>120,000 gallons Used Oil</td>
<td>Controls</td>
</tr>
<tr>
<td>1A</td>
<td>IA1.025</td>
<td>8</td>
<td>Bulk Used Coolant Tank, 3,000 gallons</td>
<td>Vertical</td>
<td>8</td>
<td>8,760</td>
<td>24</td>
<td>24,000</td>
<td>3</td>
<td>24,000 gallons Used Coolant</td>
<td>Controls</td>
</tr>
</tbody>
</table>
Appendix 2

NVAAQS Memo
The BAQP performed a modeling analysis to show compliance with the Nevada Ambient Air Quality Standards, and the National Ambient Air Quality Standards for aforementioned proposed permitting action. The technical details of the modeling analysis are presented in the table below. Unless otherwise noted, all sources were characterized in accordance with the most recent BAQP policy, EPA Guidance, and regulatory default options as described in 40 CFR Part 51 Appendix W.

<table>
<thead>
<tr>
<th>NvAAQS Applicability Date</th>
<th>05/16/2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrographic Area</td>
<td>HA30A and 33A</td>
</tr>
<tr>
<td>AERMOD Version</td>
<td>v.19191</td>
</tr>
<tr>
<td>Summary</td>
<td>Lithium Nevada applied for a new air permit, AP1479-4334 for their Thacker Pass project.</td>
</tr>
<tr>
<td>Pollutants Analyzed</td>
<td>CO (1-hr, 8-hr), NO₂ (1-hr, Ann.), PM₂.₅ (24-hr, Ann.), PM₁₀ (24-hr), SO₂ (1-hr, 3-hr, 24-hr, Ann.), H₂S (1-hr)</td>
</tr>
<tr>
<td>Met Station Surface</td>
<td>Lithium Nevada Onsite</td>
</tr>
<tr>
<td>Met Station Profile</td>
<td>Lithium Nevada Onsite</td>
</tr>
<tr>
<td>Anemometer Elevation</td>
<td>1597.0 m</td>
</tr>
<tr>
<td>Met Years Used</td>
<td>2012-2013</td>
</tr>
<tr>
<td>AERMET Version</td>
<td>v.19191</td>
</tr>
<tr>
<td>Modeling Datum</td>
<td>NAD83</td>
</tr>
<tr>
<td>Model Source Parameter Notes</td>
<td>Source location, release height, release temperature and flow rates were provided by the applicant and were verified based on the permit writer’s spreadsheet. The emission rates are based on BAPC emissions calculations, which were based on the applicant requested operation parameters.</td>
</tr>
<tr>
<td>Plant Boundary</td>
<td>The plant boundary was specified as was in the submitted model, but with the modification of receptors on roads and corridors that have been publicly accessible.</td>
</tr>
</tbody>
</table>
19,741 receptors were utilized. The receptors were spaced 20 m along the plant boundary. The spacing increased to 500 m and covered an area of 576 km². As noted previously, corridors with possible public access contained receptors. An image of the receptor field is shown below:

<table>
<thead>
<tr>
<th><strong>Modeled Buildings</strong></th>
<th>Buildings were modeled as in the application.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Terrain Processing</strong></td>
<td>AERMAP v.18081 was used to process the terrain within the model boundary, and assign base elevations for all receptors, sources, and buildings.</td>
</tr>
<tr>
<td><strong>Terrain Data Used</strong></td>
<td>USGS DEM 1-degree (30m)</td>
</tr>
<tr>
<td><strong>Background Concentrations</strong></td>
<td>PM₁₀ 24-hr – 10.2 µg/m³</td>
</tr>
<tr>
<td></td>
<td>PM₂.₅ Annual – 2.3 µg/m³</td>
</tr>
<tr>
<td></td>
<td>PM₂.₅ 24-hr – 8.0 µg/m³</td>
</tr>
<tr>
<td><strong>Additional Modeling Analysis Comments</strong></td>
<td>Adjusted ustar was utilized. Also, the ARM 2 ratio method was utilized with the default ratios of a minimum of 0.5 and a maximum of 0.9.</td>
</tr>
<tr>
<td><strong>Analysis Results</strong></td>
<td>The BAQP’s analysis of the impacts of the proposed action to ambient air quality shows that the proposed action will not cause an exceedance of NAAQS/NvAAQS.</td>
</tr>
</tbody>
</table>
Appendix 3

Public Comments and Responses relevant to
Air Quality Operating Permit Received Prior to October 18, 2021
<table>
<thead>
<tr>
<th>DATE</th>
<th>FROM</th>
<th>TOPIC</th>
<th>QUESTION</th>
<th>DIVISION RESPONSE</th>
<th>PERMIT SECTION / REGULATORY CITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/26/2021</td>
<td>GBRW / Basin and Range Watch / Wildlands Defense vs. BLM Lawsuit</td>
<td>Sulfuric Acid Plant</td>
<td>Is technology required to be specified in the permit application? [See GBRW / Basin and Range Watch / Wildlands Defense vs. BLM Lawsuit]</td>
<td>In the submitted application to NDEP, the facility proposes to use a tail gas scrubber manufactured by DuPont Clean Technologies to control sulfur dioxide emissions out of the sulfuric acid plant. The tail gas scrubber will be a required air pollution control device in the air quality operating permit. We reviewed the submitted manufacturer's guarantee for the scrubber, the specifications for the scrubber, and the statistics at other installations which use this scrubber. If you wish to learn more, the information submitted by the facility on the scrubber technology can be found here (the permit number is AP1479-4334): <a href="https://documentviewerpublic.ndep.nv.gov/Co.mspx?ReturnUrl=%2f">https://documentviewerpublic.ndep.nv.gov/Co.mspx?ReturnUrl=%2f</a> Permit Sections V.X (5) and (6)</td>
<td></td>
</tr>
<tr>
<td>2/26/2021</td>
<td>GBRW / Basin and Range Watch / Wildlands Defense vs. BLM Lawsuit</td>
<td>Sulfuric Acid Plant</td>
<td>How will NDEP ensure that the emission controls system yet to be specified will be able to control sulfur dioxide emissions? [See GBRW / Basin and Range Watch / Wildlands Defense vs. BLM Lawsuit]</td>
<td>The facility will ensure sulfur dioxide emissions are under permitted emission limits with initial and annual stack tests and the facility will be required to have a Continuous Emissions Monitoring (CEMS) Unit on the Acid Plant. The CEMS unit will have an initial certification test, daily calibration, and a quarterly audit. In addition, readings from the CEMS unit are transferred every second to a Data Acquisition and Handling System (DAHS) where the reading is recorded and stored. The data can then be reviewed in any time interval that is requested (e.g., 6-minute averages, 30-day rolling averages, etc.). The CEMS unit will allow the facility to be notified quickly if something with the unit is not operating properly. NDEP will ensure that sulfur emissions are under permitted emission limits by reviewing records and the data logged by the CEMS unit, performing onsite inspections, observing testing related to the CEMS unit, and validating testing reports. NDEP will also review source tests to make sure they were done correctly, and no limits were exceeded.</td>
<td>Permit Sections V.X (5) and (6)</td>
</tr>
<tr>
<td>DATE</td>
<td>FROM</td>
<td>TOPIC</td>
<td>QUESTION</td>
<td>DIVISION RESPONSE</td>
<td>PERMIT SECTION / REGULATORY CITATION</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------------------------------------------------------</td>
<td>----------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td>2/26/2021</td>
<td>GBRW / Basin and Range Watch / Wildlands Defense vs. BLM Lawsuit</td>
<td>Sulfuric Acid Plant</td>
<td>How will future emissions be controlled during increases in production? [See GBRW / Basin and Range Watch / Wildlands Defense vs. BLM Lawsuit]</td>
<td>The facility will be required to submit a revision application if they want to increase production. The revision must be approved and issued before any increase in production will occur. It must be verified that all increases in production will meet ambient air quality standards.</td>
<td>Nevada Administrative Code (NAC) 445B.099, NAC 445B.3465</td>
</tr>
<tr>
<td>4/12/2021</td>
<td>Thacker Pass Concerned Citizens (Edward Bartell)</td>
<td>Permitting</td>
<td>BLM has approved Phase 1 and Phase 2. It appears NDEP is going to bifurcate Thacker Pass into Phase 1 and Phase 2. There is concern locally that this bifurcated process will allow the company to imply minimized impacts to the community. The company has already played the Phase 1 and Phase 2 game with the community (where they tout Phase 2 jobs, but only mention Phase 1 water use and sulfur use). If the bifurcated approach continues with NDEP; will all cumulative impacts of the entire mine be considered in a Phase 2 permit? A) There is specific concern about the acid plant and class 1 and class 2 air quality permitting. Can two acid plants avoid class 1 air quality permitting by considering each individually in Phase 1 and Phase 2?</td>
<td>For the facility to move from Phase 1 to Phase 2 will require a revision to the permit and will be looked at cumulatively. So, each acid plant would not be considered individually, and their emissions will all be in conjunction with the overall emissions from the facility. If the facility’s total emissions, including those from both acid plants, go above Class 2 thresholds then the facility will be required to submit a class 1 application. If the facility proposed to increase production or add new units, they will be required to submit an application prior to implementing any of these changes. None of these changes can be implemented until we have evaluated the application and issued a revised permit. In addition, Public Notice is required on Class 2 Applications when one of the following two conditions are met: the facility is located within 1,000 feet of a school, hospital, or residential area; or the revision increases allowable emissions-specific thresholds. For example, it would appear that if the facility wanted to go from what was proposed in the application to emissions proposed in the phase 2 in the EIS public notice would be triggered by the increase in PM_{10} and PM_{2.5}.</td>
<td>NAC 445B.187, NAC 445B.3457</td>
</tr>
<tr>
<td>DATE</td>
<td>FROM</td>
<td>TOPIC</td>
<td>QUESTION</td>
<td>DIVISION RESPONSE</td>
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<td>-------------------------------------</td>
<td>--------------</td>
<td>-------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
</tbody>
</table>
| 4/12/2021  | Thacker Pass Concerned Citizens     | Permitting   | Do you have a list of what NDEP considers Hazardous Air Pollutant and     | There are 8 regulated pollutants and 187 hazardous air pollutants that we take into consideration during our analysis. The 8 regulated pollutants all have either national and/or Nevada air quality standards. Nevada air quality standards are the same as the federal limits with the exception of hydrogen sulfide which is a state only standard.:  
• PM$_{10}$ (particulate matter less than or equal to 10 microns in diameter)  
• PM$_{2.5}$ (particulate matter less than or equal to 2.5 microns in diameter)  
• SO$_2$ (Sulfur Dioxide)  
• NO$_2$ (Nitrogen Dioxide)  
• CO (Carbon Monoxide)  
• Pb (Lead)  
• O$_3$ (Ozone) (emissions calculated as Volatile Organic Compounds)  
• H$_2$S (Hydrogen Sulfide) (State only ambient air quality standard)  
An air quality standard defines the maximum amount of a pollutant averaged over a specified period of time that can be present in outdoor air without harming public health. Secondary standards are set to protect plants, forests, crops and materials from damage due to exposure to the regulated pollutants.  
When we do our analysis of the application that has been submitted, we evaluate whether the applicant has taken into account all stationary equipment that has the potential to emit these pollutants based on the information provided in the application.  
The hazardous air pollutants from the Thacker Pass project are generated from fuel combustion from stationary equipment such as startup burners or boilers. These emissions are calculated utilizing a standardized method developed by the EPA. |
<p>|           | (Edward Bartell)                    |              | and Regulated Air Pollutants for purposes of Class 1 and Class 2        |                                                                                                                                                                                                                      |
|           |                                     |              | permitting?                                                             |                                                                                                                                                                                                                      |</p>
<table>
<thead>
<tr>
<th>DATE</th>
<th>FROM</th>
<th>TOPIC</th>
<th>QUESTION</th>
<th>DIVISION RESPONSE</th>
<th>PERMIT SECTION / REGULATORY CITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/12/2021</td>
<td>Thacker Pass Concerned Citizens (Edward Bartell)</td>
<td>Emergency Planning</td>
<td>Does NDEP consider the potential for mine accidents (i.e. 13,000 tons of molten sulfur, 14,000 tons of sulfuric acid, and 92,000 gallons of diesel (plant+mine) will be stored at the mine)? Or does NDEP assume the plant/mine will operate without accidents?</td>
<td>A) Scheduled maintenance, testing, or scheduled repairs which may result in excess emissions of regulated air pollutants must be approved in advance by the NDEP’s Bureau of Air Pollution Control (BAPC) and performed during a time designated by NDEP as being favorable for atmospheric ventilation. If there is a malfunction or upset of the process equipment or equipment for controlling pollution or during start-up or shutdown of that equipment, the facility must notify BAPC within 24 hours. Within 15 days, the facility must submit additional information so the seriousness of the excess emissions can be determined by BAPC. The facility must estimate the magnitude of emissions and include the time and duration, as well as the steps that were taken to remedy the malfunction or prevent the reoccurrence. The BAPC will make a determination if a violation occurred.</td>
<td>Permit Section I.G</td>
</tr>
<tr>
<td>4/12/2021</td>
<td>Thacker Pass Concerned Citizens (Edward Bartell)</td>
<td>Ambient Air Quality Standards</td>
<td>Has NDEP made any on the ground field observance of Thacker Pass? Specifically:</td>
<td>B) NDEP has a series of ambient air quality monitors throughout the State; the closest monitor is in Elko. Some Title V (Class I Major Sources) facilities are required to monitor background levels prior to commencing construction but this is not a requirement for any Class 2 Facility. NDEP does apply a background concentration for modeling purposes for PM$<em>{2.5}$ and PM$</em>{10}$.</td>
<td>NAC 445B.22097</td>
</tr>
<tr>
<td>DATE</td>
<td>FROM</td>
<td>TOPIC</td>
<td>QUESTION</td>
<td>DIVISION RESPONSE</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>-------------------------------------------</td>
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<td>--------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>4/12/2021</td>
<td>Thacker Pass Concerned Citizens (Edward Bartell)</td>
<td>Compliance</td>
<td>How much staff does NDEP have to independently verify compliance via inspections statewide?</td>
<td>The BAPC has positions for 6 inspectors and 2 supervisors to verify compliance with Air Quality Operating Permits in all counties in Nevada with the exception of Clark and Washoe Counties. One inspector is specifically assigned to oversee all minor source facilities in Humboldt County in order to maintain continuity and institutional knowledge of the area. However, other inspectors and the supervisor may assist with compliance actions and/or investigations should more resources be required.</td>
<td></td>
</tr>
</tbody>
</table>
If my property stinks or has smog as a result of the mine, does NDEP provide any remedy, if the mine is technically meeting air quality standards?

If a property owner detects odors as a result of the mine operation, NDEP will investigate complaints by following applicable regulations.

NAC 445B.22087(1) states, “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.”

Complaints of odors must be investigated pursuant to NAC 445B.22087(2), which states, “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. Possible violations for detected odors must be considered pursuant to NAC 445B.22087(3), which states, “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. The NDEP utilizes a Nasal Ranger, which is a portable odor detecting device capable of measuring odors with various dilutions in real time.

If emissions coming from equipment on site are visible (i.e., smoke from a stack), the NDEP will perform an EPA Reference Method 9 visible emissions observation to determine the level of opacity and determine if a violation has occurred.
<table>
<thead>
<tr>
<th>DATE</th>
<th>FROM</th>
<th>TOPIC</th>
<th>QUESTION</th>
<th>DIVISION RESPONSE</th>
<th>PERMIT SECTION / REGULATORY CITATION</th>
</tr>
</thead>
</table>
| 4/12/2021  | Thacker Pass Concerned Citizens (Edward Bartell) | Sulfuric Acid Plant – Emission Limits / Enforcement | In NDEP permitting, the mine claims Sulfur dioxide emissions will only be 41.9 tons a year (in phase 1). Other sulfuric acid plants of comparable size emit 700-2400 tons of Sulfur Dioxide a year. Hence, the mine’s figures have generated skepticism. A) Will the mine be bound to that 41.9 tons a year? B) What would the penalties be, if the mine had a minor exceedance (i.e. something like 43 tons a year)? C) What would the penalties be if the mine had a major exceedance (i.e. in excess of 100 tons a year)? | A) Yes, the mine will be bound to the limits that are in the permit. The facility will be required to conduct initial and annual performance tests and have a continuous emissions monitoring system to monitor Sulfur Dioxide Emissions. B) The penalty could vary considerably depending on the extent of the violations. If the only condition violated was the annual emissions limit the penalty could be as low as $1,000. If the violation of the annual emission limit was due to other violations such as exceeding the permitted hourly emission limit or annual hours of operation penalties could go as high as $10,000 per day per violation. C) Violations of this magnitude could result in the issuance of either a “Notice of Findings and Order” to limit operating parameters, as necessary, or a “Stop Order”, especially if the facility exceeded the state or federal ambient air quality standards, the excess emissions significantly exceeded the permitted limit, or if the exceedance resulted in the facility not having an appropriate permit to match the actual emissions. Penalties could be up to $10,000 per day per violation. Additionally, if the exceedance is such that the source would be subject to federal permitting requirements (Title V or PSD) the U.S. Environmental Protection Agency could initiate an enforcement action with penalties not limited by NRS 445B.470. | A) Permit Section V.X  
B) Nevada Revised Statutes (NRS) 445B.470.2  
C) NRS 445B.470.2 |
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<th>DATE</th>
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<tbody>
<tr>
<td>4/12/2021</td>
<td>Thacker Pass Concerned Citizens (Edward Bartell)</td>
<td>Stack Testing</td>
<td>Is there any way for citizens to independently verify emissions at Thacker Pass?</td>
<td>The application and subsequent requests for information (RFI) are all public record. Citizens can access this application and RFI’s from the NDEP website and review all the same information that we have been provided. In addition, the technical review and emission spreadsheet will be part of the public record and available for public review during the public notice period. These documents can be found here (the Permit number is AP14794334): <a href="https://documentviewerpublic.ndep.nv.gov/Common/Login.aspx?ReturnUrl=%2f">https://documentviewerpublic.ndep.nv.gov/Common/Login.aspx?ReturnUrl=%2f</a></td>
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<tr>
<td>4/12/2021</td>
<td>Thacker Pass Concerned Citizens (Edward Bartell)</td>
<td>Stack Testing</td>
<td>Does NDEP have any process for citizens hire a qualified professional to verify smokestack emissions (or other pollution problems)? Or can the company just lock everybody, except NDEP, out of this mine on public lands?</td>
<td>The NDEP does not have the authority to require a facility to allow members of the public to conduct third party verifications. The facility is required to submit a “Stack Test Protocol” (a detailed plan of the intended timeline and procedures for testing) for NDEP review prior to conducting any testing. The “Stack Test Protocol”, as well as any related correspondence, are a public record and can be accessed by the public for review at the same location provided in the previous question. NDEP attends as many stack tests as possible to observe testing while it is conducted; prioritizing testing of facilities that may pose a greater risk to human health and the environment. NDEP inspectors also review all final reports of the testing and use our in-house program to verify the calculations and results that are presented. Upon review of all information, staff deems the test valid or invalid. Testing deemed invalid is required to be repeated in a timely manner. As defined in 40 CFR Part 50 – National Primary and Secondary Ambient Air Quality Standards, Ambient air means that portion of the atmosphere, external to buildings, to which the general public has access (40 CFR § 50.1(e)). As such, NDEP verifies the site meets air quality standards at the locations where the public has access. If there are access restriction requirements from the BLM or MSHA then that will need to be discussed with those agencies.</td>
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<tr>
<td>4/12/2021</td>
<td>Thacker Pass Concerned Citizens (Edward Bartell)</td>
<td>Enforcement</td>
<td>It has been asserted that there is billions of dollars’ worth of lithium at Thacker Pass; can the mine just pay fines and keep violating air quality standards?</td>
<td>If a company fails to maintain or return to compliance, the NDEP has authority to issue violations and/or a Stop Order, depending on the severity of non-compliance and other circumstances involved in the specific situation. If a company violates the conditions of a “Stop Order” the NDEP has the ability to pursue an injunction through the courts.</td>
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<tr>
<td>4/12/2021</td>
<td>Thacker Pass Concerned Citizens (Edward Bartell)</td>
<td>Mobile Sources</td>
<td>It is our understanding that NDEP doesn’t consider mobile emissions. LNC will burn over a semi load of diesel a day at the mine site (on mobile equipment). If my property is devalued by poor air quality (or I otherwise suffer injury); can the mine avoid regulation by NDEP by claiming emissions are mobile, instead of fixed emissions?</td>
<td>The facility can only claim that emissions are mobile if they meet the definition of non-road engines. This includes things such as portable generators. If an engine remains stationary for more than 12-months, then we would no longer consider that engine a non-road engine and it may need to be permitted. Even though we do not permit these non-road engines, they are required to meet the emission standards set by EPA.</td>
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<td>4/12/2021</td>
<td>Thacker Pass Concerned Citizens (Edward Bartell)</td>
<td>Tailings Pile</td>
<td>LNC will import roughly 680,000 tons of sulfur each year, which will be burned creating 5,800 tons of sulfuric acid a day, and the resulting sulfur compounds from acid processing will be dumped on the tailings pile (millions of tons over the life of the mine). Sulfur compounds in landfills have been shown to break down into harmful gasses. A) What division of NDEP would regulate gasses emitted from the tailings pile (Air Quality or Water Quality/Mining Divisions)?</td>
<td>A) The BAPC does not include gaseous emissions from tailings piles in our calculations for Class 2 sources. The tailings and gangue piles are not anticipated to have an environment that is both wet and has organic matter for bacteria to thrive to deplete the environment of oxygen to produce H₂S.</td>
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<td>4/12/2021</td>
<td>Thacker Pass Concerned Citizens (Edward Bartell)</td>
<td>Tailings Pile Emissions</td>
<td>LNC will import roughly 680,000 tons of sulfur each year, which will be burned creating 5,800 tons of sulfuric acid a day, and the resulting sulfur compounds from acid processing will be dumped on the tailings pile (millions of tons over the life of the mine). Sulfur compounds in landfills have been shown to break down into harmful gasses.</td>
<td>B) According to an analysis provided in the BLM’s EIS the Clay Tailings Facility for Phase 1 will be made up of 64% Acid leach filter cake (clay material), 17% Neutralization filter cake, 15% Magnesium sulfate salts, and 3% sodium/potassium sulfate salts (Table 4.21). The facility is required to control dust at all times.</td>
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<tr>
<td>4/12/2021</td>
<td>Thacker Pass Concerned Citizens (Edward Bartell)</td>
<td>Odors</td>
<td>The company assures us that this mine/plant will not smell. Is there any way we can hold the company to these promises? Does NDEP have standards for distances away from the mine?</td>
<td>See “Odors” Response Above</td>
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<tr>
<td>4/12/2021</td>
<td>Thacker Pass Concerned Citizens (Edward Bartell)</td>
<td>Odors / Ambient Air Quality Standards</td>
<td>If my property stinks and I can show elevated air pollutants above pre-mine background levels; is this grounds for NDEP regulation?</td>
<td>See “Odors” Response Above</td>
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<tr>
<td>4/12/2021</td>
<td>Thacker Pass Concerned Citizens (Edward Bartell)</td>
<td>Ambient Air Quality Standards</td>
<td>What are the fines if the mine violates air quality standards?</td>
<td>Penalty recommendations to the State Environmental Commission start with base penalties from the penalty matrix found as Attachment 8 of the SEC_Information_Packet_2021.pdf (nv.gov). The base penalties are determined by the Class of permit and the regulatory or permitting condition that has been violated. The base penalties are used in conjunction with the penalty calculation worksheet found as Attachment 9 of the SEC Information Packet. The penalty calculation worksheet considers the number of violations, the severity of the violations, and the facility’s compliance history. If, for example, a facility fails a source test the penalty for a facility the size of the Thacker Pass Mine is $5,000 per “synthetic minor” pollutant or $3,000 for all other pollutants. If an emission unit at a facility was found emitting a synthetic minor pollutant at 150% of the permitted limit the penalty would increase from $5,000 to $7,500. If the facility has been issued any violations within the last 5 years, the recommended penalty increases by 5% for each prior violation and an additional 150% to 300% if a violation was issued for a similar issue (i.e., failed source test). The limit on penalties that can be levied is $10,000 per day per violation pursuant to Nevada Revised Statutes (NRS) 445B.470.</td>
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<td>4/12/2021</td>
<td>Thacker Pass Concerned Citizens (Edward Bartell)</td>
<td>Compliance</td>
<td>What frequency would the mine be checked for air quality compliance, and are NDEP compliance checks of a specific required frequency?</td>
<td>Per our agreement with EPA, NDEP shall conduct a Full Compliance Evaluation (FCE) (includes review of records, all required reports, and an on-site inspection) a minimum once every five years. The NDEP shall also, per the agreement, conduct a Partial Compliance Evaluation (PCE) (includes review of all required reports) on all other years that an FCE is not conducted. We have the discretion to conduct on-site inspections on a more frequent basis. And NDEP may also visit site on the basis of an odor or dust complaint.</td>
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<tr>
<td>4/12/2021</td>
<td>Thacker Pass Concerned Citizens (Edward Bartell)</td>
<td>Compliance</td>
<td>What methods does NDEP use to ensure sensor accuracy on emission smokestacks? Does NDEP use methods of determining smokestack emissions, aside from company provided sensors?</td>
<td>The Facility is required to install Continuous Emissions Monitoring System (CEMS) on the Sulfuric Acid Plant stack for sulfur dioxide (SO₂) emissions. The CEMS will be required to undergo daily calibrations and quarterly audits to ensure they are operating properly. The facility will also be required to have initial testing and annual testing of stack emissions conducted by a third-party vendor as additional comparisons to verify that the CEMS is continuing to produce accurate readings. In addition, there will be initial and annual or renewal stack test requirements.</td>
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<tr>
<td>4/12/2021</td>
<td>Thacker Pass Concerned Citizens (Edward Bartell)</td>
<td>Ambient Air Quality Standards</td>
<td>Will NDEP gather pre-mine background levels of air pollution, in the Kings River, and Orovada Valleys?</td>
<td>See &quot;Ambient Air Quality Standards” Response Above</td>
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<tr>
<td>4/22/2021</td>
<td>Thacker Pass Concerned Citizens Meeting</td>
<td>Mobile Sources</td>
<td>Carl Van Warmerdam @ 7:15 PM – Are trucks servicing the mine taken into consideration for air quality?</td>
<td>See “Mobile Sources&quot; Response Above</td>
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### Bureau of Air Pollution Control

**Responses to Comments related to Air Quality concerning Nevada Lithium Corporation’s Thacker Pass Project**

**FIN: A1270; AP1479-4334**

**October 18, 2021**

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| 4/22/2021  | Thacker Pass Concerned Citizens Meeting (Spoken During Meeting) | Stack Testing                                 | Denise Cerri – You mentioned during the monitoring and compliance phase that there is 3rd party verification.  
- Who chooses the 3rd party verifier and who pays for it?  
- How can we be confident if it is paid for by the mine operator?  
- What confidence can we have in the results of these compliance tests? | Stack testing must follow stringent EPA test procedures. Tests, in many cases, are observed by compliance staff. The results of the tests must be submitted within 60 days after testing and certified as to their truth and accuracy by the testing company. [NAC 445B.252.8, Testing and Sampling. “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.”] The compliance team will audit the results. If test results show EPA test procedures were not followed, the test results can be invalidated. If the test results are invalidated, the facility will have to retest within 60 days. If test results show a system failed, the facility will also have to retest within 60 days. The compliance staff has the same training that stack testers get. We also have an in-house program that recalculates the results to ensure sure we get the same results. We work with 3rd parties stack testers frequently and are familiar with them and their personnel. | Permit Section I.H, NAC 445B.252.8 |
<p>| 4/22/2021  | Thacker Pass Concerned Citizens Meeting (Spoken During Meeting) | BLM EIS Differences with Air Permit Application Submitted to NDEP | Ed Bartell – Phase I acid plant is 2900 tons maximum capacity. In NDEP process, it is roughly 3300 tons. This is 400 tons more than approved in the Phase I EIS. How do you deal with that discrepancy? | NDEP’s reviewed the proposed emissions inventory in the application submitted to us and we verify these emissions by developing and calculating our own emissions inventory. Our analysis also takes into account the location of the equipment. All of these factors will be considered in NDEP’s air dispersion model. This model demonstrated that what the mine has proposed will comply with ambient air quality standards. The facility will be held to the emission limits and throughputs in the Air Quality Operating Permit by NDEP. | Permit Sections V.X (2) and (3) |</p>
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<td>4/22/2021</td>
<td>Thacker Pass Concerned Citizens Meeting</td>
<td>Sulfuric Acid Plant</td>
<td>Karen – Is there a plant similar in size or application and materials to compare this proposed plant to? [From GBRW John Hadder – Kennecott Copper in AZ is the best in the US and LNC is claiming even lower emission levels]</td>
<td>We reviewed the submitted manufacturer's guarantee for the scrubber, the specifications for the scrubber, and the statistics at other installations which use this scrubber. The facility will be required to verify the permitted emissions with initial and annual source tests. They will also be required to have a Continuous Emissions Monitoring System to continuously monitor SO₂ emissions. If the facility violates the limits of the permit, they will be subject to violations and associated fines.</td>
<td>Permit Sections V.X. (5) and (6), Section VI</td>
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<tr>
<td>4/22/2021</td>
<td>Thacker Pass Concerned Citizens Meeting</td>
<td>Sulfuric Acid Plant</td>
<td>Karen – Smaller plants that are similar have a hard time meeting the limits that are set, and their plants are much smaller. If smaller plants are having a hard time meeting their emission limits, how is Thacker pass planning on meeting their limits considering this is a much larger plant?</td>
<td>See “Sulfuric Acid Plant” Response(s) Above</td>
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<tr>
<td>4/22/2021</td>
<td>Thacker Pass Concerned Citizens Meeting</td>
<td>Complaints</td>
<td>Terry Crawforth – If an individual observes a suspected emission violation how can they report that (to NDEP)?</td>
<td>Individuals can report any suspected air emission violation to the BAPC at 775-687-9349.</td>
<td>Permit Section I.G</td>
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<tr>
<td>4/22/2021</td>
<td>Thacker Pass Concerned Citizens Meeting</td>
<td>Complaints</td>
<td>Terry Crawforth – What is the response time if substantial information is provided?</td>
<td>They can report any suspected environmental violation to the 24/7 NDEP Spill Hotline at 775-687-9485, or 888-331-6337. Individuals can remain anonymous. Individuals will communicate with a live person when they call the NDEP Spill Hotline.</td>
<td>Permit Section I.G</td>
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<td>The response time depends on the nature of the event, please note that NDEP is not an emergency response organization. Depending on the nature of the air issue or violation, we would respond according to when we are able and based on severity.</td>
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<td>The facility is also required to report excess emissions within 24 hours and follow up with investigation/findings within 14 days after the initial report (15-day report).</td>
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<tr>
<td>4/22/2021</td>
<td>Thacker Pass Concerned Citizens Meeting (Spoken During Meeting)</td>
<td>Complaints</td>
<td>Terry Crawforth – Different &quot;sections&quot; are issuing their &quot;portions&quot; of the permit. Are these issued as one, can one hold up the whole facility -- one for air, one for water, etc?</td>
<td>There are 3 different permits being issued to this facility from NDEP, 1 from the Air Bureau and 2 from the Mining Bureau. All 3 permits must be issued before the facility can start construction.</td>
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<tr>
<td>4/22/2021</td>
<td>Thacker Pass Concerned Citizens Meeting (Spoken During Meeting)</td>
<td>Complaints</td>
<td>Terry Crawforth – Are technical questions submitted to the facility available for public review?</td>
<td>All technical questions are public records.</td>
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<tr>
<td>5/25/2021</td>
<td>Public Meeting</td>
<td>Coordinating Agencies</td>
<td>Can you communicate with other agencies regulating lithium mines?</td>
<td>Yes, NDEP is actively working with other agencies, and will continue to communicate any concerns that are applicable to the agency.</td>
<td>Permit Section I.G</td>
</tr>
<tr>
<td>5/25/2021</td>
<td>Public Meeting</td>
<td>Spills</td>
<td>Does NDEP anticipate that a number of spills will occur at the mine?</td>
<td>For BAPC, any emissions above those permitted would be considered excess emissions and a violation of the air permit.</td>
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<td>5/25/2021</td>
<td>Public Meeting</td>
<td>Uranium</td>
<td>How is uranium monitored?</td>
<td>Radiation regulations and laws from EPA can be found here: <a href="https://www.epa.gov/radiation/radiation-regulations-and-laws">https://www.epa.gov/radiation/radiation-regulations-and-laws</a>. The Clean Air Act and federal regulations have specific regulations for certain types of radiation sources. This facility is not one of the listed sources. If this were to change, specific monitoring requirements for uranium would be required from the facility.</td>
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<td>5/25/2021</td>
<td>Public Meeting</td>
<td>Citizen Sampling</td>
<td>Would reports from the community or mining staff regarding sampling issues spark an investigation?</td>
<td>Sampling required by the Air Quality Operating Permit will be required to be obtained by companies contracted by the facility or facility staff; and compliance staff will review the reports.</td>
<td>N/A</td>
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<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 6 PM</td>
<td>Enforcement</td>
<td>How is a penalty against the mine assessed?</td>
<td>See “Enforcement” Response(s) Above</td>
<td>NAC 445B.287</td>
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<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 6 PM</td>
<td>Ownership Change</td>
<td>If the mine is sold, how would the air permitting process change?</td>
<td>If the mine is sold the new owner would need to get the Air Quality Operating Permit transferred to them through an Administrative Amendment. The new owner would be required to comply with the requirements in the existing permit. If the new facility wanted to make changes that would increase emissions or add additional equipment the facility would be required to submit an application to revision the permit and will not be able to implement any of the proposed changes until a revised permit has been issued.</td>
<td>Permit Sections V.X (5) and (6)</td>
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<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 6 PM</td>
<td>Sulfuric Acid Plant</td>
<td>Is the volume of gas (and the sensor) accurate; is there a way to measure the volume of gas being emitted?</td>
<td>Exhaust flows will be determined during annual stack testing for particulate matter, sulfur dioxide, nitrogen oxide, and sulfuric acid mist. The emission rates and stack flows were determined by engineer design. There will be a Continuous Emissions Monitoring System (CEMS) that will continuously monitor the SO\textsubscript{2} concentration of the stack and the exhaust flow rate. From those measurements, a total gas flow rate can be calculated. In order for a CEMS to pass annual audits, the unit must meet a confidence level of 95%.</td>
<td>N/A</td>
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<td>6/24/2021</td>
<td>Public Meeting @ 6 PM</td>
<td>Citizen Sampling</td>
<td>Should concerned citizens work with NDEP to do independent monitoring?</td>
<td>See &quot;Citizen Sampling&quot; Response(s) Above</td>
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<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 6 PM</td>
<td>Enforcement</td>
<td>What regulations are these penalties based on?</td>
<td>See &quot;Enforcement&quot; Response(s) Above</td>
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<tr>
<td>6/16/2021</td>
<td>Information Requests</td>
<td>Information Requests</td>
<td>How long does Lithium Nevada have to answer questions posed by NDEP?</td>
<td>For the application process the facility can take as long needed to answer the questions the BAPC asks. The regulatory timeframe is extended for as long as it takes for the facility to submit a complete response.</td>
<td>NRS 445B.210, NAC 445B.297, NRS 445B.300</td>
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<tr>
<td>6/16/2021</td>
<td>Fort McDermitt Paiute and Shoshone Tribe Meeting</td>
<td>Compliance</td>
<td>&quot;Who monitors the monitors?&quot;</td>
<td>See &quot;Compliance&quot; Response(s) Above</td>
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<tr>
<td>6/16/2021</td>
<td>Fort McDermitt Paiute and Shoshone Tribe Meeting</td>
<td>Permitting</td>
<td>Do issues with mines in the past affect the permitting decision for this mine?</td>
<td>No. Each application is evaluated upon it's own merit. However, we do utilize institutional knowledge to update permit language based on previous compliance challenges.</td>
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<tr>
<td>6/16/2021</td>
<td>Fort McDermitt Paiute and Shoshone Tribe Meeting</td>
<td>Permitting</td>
<td>Is the State or the federal government more stringent with environmental protection laws; how does Nevada compare to other States?</td>
<td>No. Each application is evaluated upon it's own merit. However, we do utilize institutional knowledge to update permit language based on previous compliance challenges.</td>
<td>The Air Program uses both State and federal requirements to permit the facility. In cases where the requirements overlap with each other, the facility will need to meet both requirements. If one requirement is more stringent than the other, then less stringent requirement is met by the more stringent requirement. The Clean Air Act guides state permitting programs; however, states can add additional and more stringent requirements based on state specific air quality challenges.</td>
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<tr>
<td>6/16/2021</td>
<td>Fort McDermitt Paiute and Shoshone Tribe</td>
<td>Ambient Air Quality Standards</td>
<td>How often will the site be monitored for impacts to air and water?</td>
<td>For the Air, the facility will be required to monitor hours of operation and throughput on a daily basis. In addition there will be initial and annual or renewal stack testing requirements on many of the systems. The facility will be required to have a Continuous Emissions Monitoring (CEMS) Unit on the Acid Plant for SO\textsubscript{2} emissions. The CEMS unit will have an initial certification test, daily calibration, and a quarterly audit. In addition, Readings from the CEMS unit are transferred every second to a Data Acquisition and Handling System (DAHS) where the reading is recorded and stored. The data can then be reviewed in any time interval that is requested (e.g., 6-minute averages, 30-day rolling averages, etc.). The CEMS unit will allow the facility to be notified quickly.</td>
<td>Permit Sections V and VI</td>
</tr>
<tr>
<td>6/16/2021</td>
<td>Fort McDermitt Paiute and Shoshone Tribe</td>
<td>Permitting</td>
<td>How will people be notified of the public comment period for the intended permit decision?</td>
<td>The Public Notice will be posted to NDEP’s website and NDEP’s Thacker Pass website will be updated with this information as well. If you have signed up on our website to be notified about notices, you will get an email.</td>
<td>NAC 445B.3457</td>
</tr>
<tr>
<td>6/16/2021</td>
<td>Fort McDermitt Paiute and Shoshone Tribe</td>
<td>Permitting</td>
<td>Are the permits for the mine updated?</td>
<td>The Air permit must be renewed by the facility every 5 years. At this time the facility will be required to submit a renewal application and the BAPC will revisit all calculations and will potentially ask more questions if new information has been provided or known; and will address any new standards that may be applicable to the facility.</td>
<td>NAC 445B.315</td>
</tr>
<tr>
<td>6/16/2021</td>
<td>Fort McDermitt Paiute and Shoshone Tribe</td>
<td>Coordinating Agencies</td>
<td>How do the agencies involved coordinate with one another? Where in this process can the tribe voice its concern with the project?</td>
<td>See “Coordinating Agencies” Response Above. The tribe can submit comments and/or request a meeting with NDEP at any time.</td>
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<td>QUESTION</td>
<td>DIVISION RESPONSE</td>
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<tr>
<td>6/16/2021</td>
<td>Fort McDermitt Paiute and Shoshone Tribe Meeting</td>
<td>Permitting</td>
<td>If there is a difference between State and federal decisions, which decision is upheld?</td>
<td>The Air Program uses both State and federal requirements to permit the facility. In cases where the requirements overlap with each other, the facility will need to meet both requirements. If one requirement is more stringent than the other, then less stringent requirement is met by the more stringent requirement.</td>
<td></td>
</tr>
<tr>
<td>6/16/2021</td>
<td>Fort McDermitt Paiute and Shoshone Tribe Meeting</td>
<td>Ambient Air Quality Standards</td>
<td>Is there an increased air pollution risk by having other mining sites nearby?</td>
<td>Each stationary facility is modeled individually and emissions from each site must meet Nevada and National Ambient Air Quality Standards. And, for this facility, the closest mine or significant facility is over 25 miles away.</td>
<td>NAC 445B.310, NAC 445B.311</td>
</tr>
<tr>
<td>6/16/2021</td>
<td>Fort McDermitt Paiute and Shoshone Tribe Meeting</td>
<td>Permitting</td>
<td>What are the steps for all agencies involved to finalize the project?</td>
<td>For the air permit, BAPC will post the documents for Public Notice and will hold a hearing at the end of the 30-day notice period. After this Public Notice period BAPC will review and respond to comments and make any changes to the permit that may be required. Once this review is complete a permit will be issued or denied.</td>
<td>NAV 445B.3457</td>
</tr>
<tr>
<td>6/16/2021</td>
<td>Fort McDermitt Paiute and Shoshone Tribe Meeting</td>
<td>Ambient Air Quality Standards</td>
<td>Where are the nearest air monitors?</td>
<td>The nearest Meteorological site is in Winnemucca (Winnemucca NWS - 24128) and the nearest air monitor is in Elko and monitors PM10.</td>
<td></td>
</tr>
<tr>
<td>6/16/2021</td>
<td>Fort McDermitt Paiute and Shoshone Tribe Meeting</td>
<td>Compliance</td>
<td>Which agency regulates the mine?</td>
<td>For air emissions, this facility is regulated by NDEP’s BAPC.</td>
<td></td>
</tr>
<tr>
<td>6/16/2021</td>
<td>Fort McDermitt Paiute and Shoshone Tribe Meeting</td>
<td>Compliance</td>
<td>How is air pollution monitored?</td>
<td>See &quot;Compliance&quot; Response(s) Above</td>
<td></td>
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<tr>
<td>DATE</td>
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<tr>
<td>6/16/2021</td>
<td>Fort McDermitt Paiute and Shoshone Tribe Meeting</td>
<td>Ambient Air Quality Standards</td>
<td>Will the wind push air pollution into the valley?</td>
<td>Based on the expected emissions from the sources, and the modeling performed for the site, emissions will be below the Nevada and National Ambient Air Quality Standards at the boundary of the project area. The modeling was performed using the highest permitted emission limits and the worst-case weather situation that can produce the highest predicted concentration of pollutants outside the plant boundary.</td>
<td>NAC 445B.22097</td>
</tr>
<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 1 PM</td>
<td>Odors</td>
<td>At the offload site in Winnemucca, while trucks are unloading chemicals, is there a way for residents near the facility to issue an odor complaint?</td>
<td>See “Odors” Response(s) Above</td>
<td></td>
</tr>
<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 1 PM</td>
<td>Odors</td>
<td>Can a household issue an odor complaint if it’s less than 20 people?</td>
<td>Yes. A violation for odors can be issued if the BAPC makes two odor measurements within a one-hour period. The two 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.</td>
<td>Permit Section I.D, NAC 445B.22087</td>
</tr>
<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 1 PM</td>
<td>Stack Testing</td>
<td>For third-party emission testers, does Lithium Nevada hire the testers?</td>
<td>See “Stack Testing” Response(s) Above</td>
<td></td>
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<tr>
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<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 1 PM</td>
<td>Sulfuric Acid Plant</td>
<td>Have you been able to conduct research on the control equipment being used at the facility; is it similar to how the tailpipe of a car works?</td>
<td>See “Sulfuric Acid Plant” Response(s) Above</td>
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<td>Yes, Technically the emission controls work the same as in a car in that the initial emissions from the emission units will be reduced. However, most of the controls will be liquid based in order to control the emission of PM, Sulfur Compounds, and any other water-soluble compound produced. See <a href="https://cleantechnologies.dupont.com/technologies/mecs/technologies-mecs-mecs-processes/mecsr-dynawaver-reverse-jet-wet-gas-scrubber-technology/">https://cleantechnologies.dupont.com/technologies/mecs/technologies-mecs-mecs-processes/mecsr-dynawaver-reverse-jet-wet-gas-scrubber-technology/</a></td>
<td></td>
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<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 1 PM</td>
<td>Dust</td>
<td>How will the dust be controlled?</td>
<td>The facility will use a combination of two water trucks (14,000 gallons and 8,000 gallon), graveling/paving of roadways, dust palliatives, fencing or berming to prevent unauthorized access to disturbed areas, application of water sprays on material storage piles on a regular basis, overhead water spray racks or water hoses, track-out controls, landscape preservation and impact avoidance, pre-watering of areas to be disturbed, and training of equipment operators to recognize fugitive dust generation and having the authority to shut down operations until water truck arrives and sprays water on the disturbed areas.</td>
<td>Permit Section VIII. Surface Area Disturbance Conditions</td>
</tr>
<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 1 PM</td>
<td>Spills / Mobile Source</td>
<td>If sulfur trucks unload sulfuric acid, will the emissions (or spills) from that process be deemed mobile or static?</td>
<td>Emissions from the sulfur trucks will be considered mobile while in transit and staging prior to offloading. Emissions during offloading and into the storage facility will be considered static and regulated by the air permit. The BAPC does not permit spills; however, any emissions above those permitted would be considered excess emissions and a violation of the air permit.</td>
<td>NAC 445B.037, NAC 445B.187</td>
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<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 1 PM</td>
<td>Mobile Sources</td>
<td>If the emissions are classified as mobile, will the odor regulations still apply?</td>
<td>Odor regulations are only regulated at stationary sources.</td>
<td>NAC 445B.22087</td>
</tr>
<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 1 PM</td>
<td>Ambient Air Quality Standards</td>
<td>Is the impact to wildlife considered for air permitting?</td>
<td>Secondary ambient air quality standards have been put into place to provide protection against damage to animals. “The Clean Air Act identifies two types of national ambient air quality standards. Primary standards provide public health protection, including protecting the health of “sensitive” populations such as asthmatics, children, and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.” [<a href="https://www.epa.gov/criteria-air-pollutants/naaqs-table">https://www.epa.gov/criteria-air-pollutants/naaqs-table</a>]</td>
<td>NAC 445B.22097</td>
</tr>
<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 1 PM</td>
<td>Sulfuric Acid Plant</td>
<td>Is there an example of a similar facility operating within emission limits; is this technology being used in the U.S.?</td>
<td>See “Sulfuric Acid Plant” Response(s) Above</td>
<td></td>
</tr>
<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 1 PM</td>
<td>Odors</td>
<td>What will the smell be like from the expected emissions; is there equipment to measure odor/emissions outside of the plant?</td>
<td>Based on expected emissions of H₂S, the maximum 1-hr concentration of H₂S will be 6.4 micrograms/cubic meter. The expected concentration of H₂S will be 0.0052 ppm. Odor detection of H₂S starts at 0.010 ppm. It is anticipated that there shouldn’t be any detectable H₂S odors from the stationary sources.</td>
<td>NAC 445B.22087</td>
</tr>
<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 1 PM</td>
<td>Tailings Pile Emissions</td>
<td>Who regulates the gas coming from the tailings pile?</td>
<td>See “Tailings Pile Emissions” Response(s) Above</td>
<td></td>
</tr>
<tr>
<td>DATE</td>
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<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 1 PM</td>
<td>BLM EIS Differences with Air Permit Application Submitted to NDEP</td>
<td>BLM EIS Differences with Air Permit Application Submitted to NDEP</td>
<td>See &quot;BLM EIS Differences with Air Permit Application Submitted to NDEP&quot; Response Above</td>
<td></td>
</tr>
<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 1 PM</td>
<td>EPA Review</td>
<td>Why is NDEP requesting review from EPA if it's not required; are documents from that review publicly available?</td>
<td>While not required, NDEP can request that EPA review a Class 2 permit. This may be done on projects with new processes with applicable federal requirements and/or a high level of public interest. The EPA provided comments and permit language changes were incorporated; and the draft permit will be available during the public notice process.</td>
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<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 1 PM</td>
<td>Mobile Sources</td>
<td>Will plant at offload site be considered mobile or stationary; will the plant be permitted?</td>
<td>If the offload plant only consists of loading of trains to trucks, then activities at that source would only be considered mobile sources. If the site had units such as boilers or conveyors, then the facility could potentially need to be permitted if the activities met the Class 2 thresholds.</td>
<td>NAC 445B.037, NAC 445B.187</td>
</tr>
<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 1 PM</td>
<td>Sulfuric Acid Plant</td>
<td>Will NDEP be able to constantly review lithium Nevada's continuous monitoring system?</td>
<td>No, NDEP will not be able to constantly review the Continuous Monitoring System. However, the facility is required to submit reports every quarter. The facility's quarterly audit reports are reviewed by the BAPC. Also, the facility is required to self-report when emissions are exceeded. Additionally, a Relative Accuracy Test Audit (RATA) of the CEMS conducted by a source testing company must be performed annually and will also be reviewed by BAPC.</td>
<td>Permit Section VI.A.11</td>
</tr>
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<td>6/24/2021</td>
<td>Public Meeting @ 6 PM</td>
<td>Citizen Sampling</td>
<td>Are there companies that do independent air monitoring; would NDEP accept their submissions?</td>
<td>Information about NDEP Air Quality Monitoring can be found here: <a href="https://ndep.nv.gov/air/air-quality-monitoring">https://ndep.nv.gov/air/air-quality-monitoring</a>. In regard to monitoring a facility's air emissions, the public can review stack test documents and related correspondence including Stack Test Protocols, Stack Test Reports, and Stack Test Report Reviews on NDEP's Document Viewer. Source test invalidation letters and failed source test notifications can also be viewed on-line. If independent air monitoring is conducted and provided to NDEP, BAPC will consider the information and evaluate within the context of the Air Quality Operating Permit.</td>
<td>Permit Section I.H</td>
</tr>
<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 6 PM</td>
<td>Enforcement</td>
<td>Can NDEP stop a facility from operation immediately if there is a serious violation?</td>
<td>If there are serious violations of the Air Quality Operating Permit NDEP does have the authority to stop operations immediately.</td>
<td>NAC 445B.190, NAC 445B.277</td>
</tr>
<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 6 PM</td>
<td>Enforcement</td>
<td>How is a penalty against the mine assessed?</td>
<td>See “Enforcement” Response(s) Above</td>
<td></td>
</tr>
<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 6 PM</td>
<td>Ownership Change</td>
<td>If the mine is sold, how would the air permitting process change?</td>
<td>If the mine is sold the new owner would need to get the Air Quality Operating Permit transferred to them through an Administrative Amendment. The new owner would be required to comply with the requirements in the existing permit. If the new facility wanted to make changes that would increase emissions or add additional equipment the facility would be required to submit an application to revision the permit and will not be able to implement any of the proposed changes until a revised permit has been issued.</td>
<td>NAC 445B.287</td>
</tr>
<tr>
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<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 6 PM</td>
<td>Sulfuric Acid Plant</td>
<td>Is the volume of gas (and the sensor) accurate; is there a way to measure the volume of gas being emitted?</td>
<td>Exhaust flows will be determined during annual stack testing for particulate matter, sulfur dioxide, nitrogen oxide, and sulfuric acid mist. The emission rates and stack flows were determined by engineer design. There will be a Continuous Emissions Monitoring System (CEMS) that will continuously monitor the SO₂ concentration of the stack and the exhaust flow rate. From those measurements, a total gas flow rate can be calculated. In order for a CEMS to pass annual audits, the unit must meet a confidence level of 95%.</td>
<td>Permit Sections V.X (5) and (6)</td>
</tr>
<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 6 PM</td>
<td>Citizen Sampling</td>
<td>Should concerned citizens work with NDEP to do independent monitoring?</td>
<td>See “Citizen Sampling” Response(s) Above</td>
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<tr>
<td>6/24/2021</td>
<td>Public Meeting @ 6 PM</td>
<td>Enforcement</td>
<td>What regulations are these penalties based on?</td>
<td>See “Enforcement” Response(s) Above</td>
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Appendix 4

Public Noticed Permit with Changes Shown
Facility ID No. A1270
Permit No. AP1479-4334
CLASS II AIR QUALITY OPERATING PERMIT

Issued to: LITHIUM NEVADA CORPORATION (hereinafter referred to as Permittee)
Mailing Address: 3685 LAKESIDE DRIVE, RENO, NV 89509
Driving Directions: FROM OROVADA TRAVEL APPROXIMATELY 19 MILES WEST FROM THE US ROUTE 95 JUNCTION ON STATE ROUTE 293, THEN TURN NORTH (RIGHT) ONTO THE PROJECT MAIN ACCESS ROAD.

General Facility Location:
- SECTIONS 1 AND 12, T 44 N, R 34 E, MDB&M
- SECTIONS 2 – 17, T 44 N, R 35 E, MDB&M
- SECTIONS 7, 8, 14 - 23, 29, T 44 N, R 36 E, MDB&M
- HA 30A – KINGS RIVER VALLEY/ROKING
- HA 33A – QUINN RIVER VALLEY/ROVADA
- HUMBOLDT COUNTY
- NORTH 4,616,776 M, EAST 413,910 M, UTM ZONE 11, NAD 83

Emission Unit List:

<table>
<thead>
<tr>
<th>A. System 1 - Ore Handling Circuit</th>
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<tbody>
<tr>
<td>PF1.001</td>
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<tr>
<td>PF1.002</td>
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<td>PF1.003</td>
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<td>PF1.004</td>
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<thead>
<tr>
<th>B. System 2 - Mineral Sizer</th>
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<td>PF1.005</td>
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<tr>
<th>C. System 3 - Attrition Scrubber Feed</th>
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<td>PF1.006</td>
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<tr>
<th>D. System 4 - Oversize Material Handling Circuit</th>
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<tr>
<td>PF1.007</td>
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<td>PF1.008</td>
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<tr>
<th>E. System 5 - Gangue Handling Circuit</th>
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<tr>
<td>PF1.009</td>
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<td>PF1.010</td>
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<td>PF1.011</td>
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<tr>
<th>F. System 6 - Leach Tanks</th>
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<tbody>
<tr>
<td>S2.001</td>
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<tr>
<td>S2.002</td>
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<td>S2.003</td>
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<tr>
<th>G. System 7 - Neutralization Filter Vents</th>
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<tr>
<td>S2.004</td>
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<td>S2.006</td>
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<td>S2.007</td>
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## Emission Unit List: (continued)

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<thead>
<tr>
<th>System</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>H. System 8</strong> - Neutralization Filter Filtrate Blow Vent</td>
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<tr>
<td>S2.008</td>
<td>Neutralization Filter Filtrate Blow Vent</td>
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<tr>
<td><strong>I. System 9</strong> – Tailings Feed Circuit</td>
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<tr>
<td>PF1.012</td>
<td>Neutralization Filter 1 to Discharge Feeder 1</td>
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<tr>
<td>PF1.013</td>
<td>Discharge Feeder 1 to Tailings Collection Conveyor</td>
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<tr>
<td>PF1.014</td>
<td>Neutralization Filter 2 to Discharge Feeder 2</td>
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<tr>
<td>PF1.015</td>
<td>Discharge Feeder 2 to Tailings Collection Conveyor</td>
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<tr>
<td>PF1.016</td>
<td>Neutralization Filter 3 to Discharge Feeder 3</td>
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<tr>
<td>PF1.017</td>
<td>Discharge Feeder 3 to Tailings Collection Conveyor</td>
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<tr>
<td>PF1.018</td>
<td>Neutralization Filter 4 to Discharge Feeder 4</td>
</tr>
<tr>
<td>PF1.019</td>
<td>Discharge Feeder 4 to Tailings Collection Conveyor</td>
</tr>
<tr>
<td><strong>J. System 10</strong> - Tailings Collection</td>
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<tr>
<td>PF1.020</td>
<td>Tailings Collection Conveyor to Tailings Conveyor 1</td>
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<tr>
<td><strong>K. System 11</strong> - Tailings Stacking</td>
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<tr>
<td>PF1.021</td>
<td>Tailings Conveyor 1 to Tailings Stacker</td>
</tr>
<tr>
<td>PF1.022</td>
<td>Tailings Stacker to Clay Tailings Filter Stack</td>
</tr>
<tr>
<td><strong>L. System 12</strong> - Sulfate Tailings Circuit</td>
<td></td>
</tr>
<tr>
<td>PF1.023</td>
<td>Na/K Sulfate Centrifuge discharge to Na/K Conveyor 1 or Lithium Carbonate Dryer</td>
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<tr>
<td>PF1.024</td>
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<td>PF1.025</td>
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<tr>
<td><strong>M. System 13</strong> - Magnesium Precipitation Filter Vents</td>
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<tr>
<td>S2.009</td>
<td>Magnesium Precipitation Filter Vent 1</td>
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<td>S2.010</td>
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<td><strong>N. System 14</strong> - Magnesium Precipitation Filter Filtrate Blow Vent</td>
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<td>S2.011</td>
<td>Magnesium Precipitation Filter Filtrate Blow Vent</td>
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<td><strong>O. System 15</strong> - Lithium Carbonate Dryer</td>
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<td>S2.012</td>
<td>Lithium Carbonate Dryer transfer to Lithium Carbonate Material Handling</td>
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<td><strong>P. System 16</strong> - Lithium Carbonate Material Handling</td>
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<td><strong>Q. System 17</strong> - Lithium Carbonate Storage Bin</td>
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<tr>
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<tr>
<td>S2.017</td>
<td>Underground Hopper and transfer to Silo (silo unloading through sealed transfers)</td>
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</table>
Facility ID No. A1270
Permit No. AP1479-4334
CLASS II AIR QUALITY OPERATING PERMIT

Issued to: LITHIUM NEVADA – THACKER PASS PROJECT (AS PERMITTEE)

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<td><strong>W. System 23 - Start-Up Burner</strong></td>
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<td>S2.023 Sulfuric Acid Plant</td>
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<td>S2.024 Fire Pump 1 (Mine, 422 hp, John Deere, 2015 or newer)</td>
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<td><strong>AA. System 27 - Gasoline Tank</strong></td>
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<tr>
<td>S2.028 Gasoline Tank, 1,000 gallons</td>
</tr>
</tbody>
</table>

****End of Emission Unit List****
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.
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.
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.
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.
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.
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, at the time the operating permit is issued, including:
   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****
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****
Section III. General Construction Conditions

A. Notification (NAC 445B.250; NAC 445B.346(2)) (Federally Enforceable SIP Requirement)
Under the authority of NAC 445B.250 and NAC 445B.346; the Director shall be notified in writing of the following for PF1.001 through PF1.025 and S2.001 through S2.028:
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***
Section IV. Specific Construction Requirements

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

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

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<th>Pollutant To Be Tested</th>
<th>Testing Methods/Procedures</th>
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<tr>
<td>System 4 - Oversize Material Handling Circuit</td>
<td>PF1.007 - PF1.008</td>
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<td>System 5 - Gangue Handling Circuit</td>
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<td>System 6 - Leach Tanks</td>
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<td>System 7 - Neutralization Filter Vents</td>
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<td>System 8 - Neutralization Filter Filtrate Blow Vent</td>
<td>S2.008</td>
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<tr>
<td>System 9 - Tailings Feed Circuit</td>
<td>PF1.012 - PF1.019</td>
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<td>System 10 - Tailings Collection</td>
<td>PF1.020</td>
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<tr>
<td>System 11 - Tailings Stacking</td>
<td>PF1.021 - PF1.022</td>
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<td>System 12 - Sulfate Tailings Circuit</td>
<td>PF1.023 - PF1.025</td>
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<td>System 13 - Magnesium Precipitation Filter Vents</td>
<td>S2.009 – S2.010</td>
<td></td>
<td>Opacity</td>
</tr>
<tr>
<td>System 14 - Magnesium Precipitation Filter Filtrate Blow Vent</td>
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<tr>
<td>System 15 - Lithium Carbonate Dryer</td>
<td>S2.012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System 16 - Lithium Carbonate Material Handling</td>
<td>S2.013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System 17 - Lithium Carbonate Storage Bin</td>
<td>S2.014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System 18 - Lithium Carbonate Packaging</td>
<td>S2.015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System 19 - Lime Silo</td>
<td>S2.016 – S2.017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System 20 - Soda Ash Silo</td>
<td>S2.018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System 21 - Sulfur Storage</td>
<td>S2.019 – S2.020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System 22 - Package Boiler</td>
<td>S2.021</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System 23 - Start-Up Burner</td>
<td>S2.022</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System 24 - Sulfuric Acid Plant</td>
<td>S2.023</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System 25 - Fire Pumps</td>
<td>S2.024 – S2.025</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System 26 - Emergency Generators</td>
<td>S2.026 – S2.027</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.
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)

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

(continued)

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

<table>
<thead>
<tr>
<th>System</th>
<th>Emission Units</th>
<th>Pollutant To Be Tested</th>
<th>Testing Methods/Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>System 1 - Ore Handling Circuit</td>
<td>PF1.002 –and PF1.004</td>
<td>Opacity</td>
<td>Method 9 in Appendix A-4 of 40 CFR Part 60.11 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations must be 30 minutes (five 6-minute averages).</td>
</tr>
<tr>
<td>System 2 - Mineral Sizer</td>
<td>PF1.005</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System 3 - Attrition Scrubber Feed</td>
<td>PF1.006</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table IV-2: Initial Performance Tests

<table>
<thead>
<tr>
<th>System</th>
<th>Emission Units</th>
<th>Pollutants To Be Tested</th>
<th>Testing Methods/Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>System 4 - Oversize Material Handling Circuit</td>
<td>PF1.008</td>
<td>Moisture Content of Material</td>
<td>Material sample to be taken from drop location and analyzed for moisture content. Moisture content shall be equal to or exceed 4% moisture.</td>
</tr>
<tr>
<td>System 5 - Gangue Handling Circuit</td>
<td>PF1.011</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System 9 – Tailings Feed Circuit</td>
<td>PF1.013, PF1.015, PF1.017, and PF1.019</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J. System 10 - Tailings Collection</td>
<td>PF1.020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System 11 - Tailings Stacking</td>
<td>PF1.022</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**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)

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

(continued)

<table>
<thead>
<tr>
<th>System</th>
<th>Emission Units</th>
<th>Pollutants To Be Tested</th>
<th>Testing Methods/Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>System 6 - Leach Tanks</td>
<td>S2.001 – S2.003</td>
<td>PM</td>
<td>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.</td>
</tr>
<tr>
<td>System 7 - Neutralization Filter Vents</td>
<td>S2.004 – S2.007</td>
<td>PM10/PM2.5</td>
<td>Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM10 and PM2.5 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 PM2.5 for determination of compliance.</td>
</tr>
<tr>
<td>System 13 - Magnesium Precipitation Filter Vents</td>
<td>S2.009 – S2.010</td>
<td>H2SO4</td>
<td>Method 8 in Appendix A of 40 CFR Part 60 and Conditional Test Method CTM-013 shall be used to determine the sulfuric acid mist concentration. The sample volume for each test run shall be at least 1.15 dscm (40.6 dscf). Each test will be run for a minimum of one hour.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>System</th>
<th>Emission Units</th>
<th>Pollutants To Be Tested</th>
<th>Testing Methods/Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>System 7 - Neutralization Filter Vents</td>
<td>S2.004 – S2.007</td>
<td>PM</td>
<td>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.</td>
</tr>
<tr>
<td>System 13 - Magnesium Precipitation Filter Vents</td>
<td>S2.009 – S2.010</td>
<td>PM10/PM2.5</td>
<td>Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM10 and PM2.5 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 PM2.5 for determination of compliance.</td>
</tr>
</tbody>
</table>
### 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)

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

**Table IV-2: Initial Performance Tests (continued)**

<table>
<thead>
<tr>
<th>System</th>
<th>Emission Units</th>
<th>Pollutants To Be Tested</th>
<th>Testing Methods/Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>System 8 – Neutralization Filter Filtrate Blow Vent</td>
<td>S2.008</td>
<td>TDS Content</td>
<td>Sample TDS concentration in percent by weight. The TDS shall be determined by sampling methods approved in advance by the director</td>
</tr>
<tr>
<td>System 14 – Magnesium Precipitation Filter Filtration Blow Vents</td>
<td>S2.011</td>
<td>PM</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PM10/PM2.5</td>
<td>The Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM10 and PM2.5 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 PM2.5 for determination of compliance.</td>
</tr>
</tbody>
</table>

**Table IV-2: Initial Performance Tests (continued)**

<table>
<thead>
<tr>
<th>System</th>
<th>Emission Units</th>
<th>Pollutants To Be Tested</th>
<th>Testing Methods/Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>System 15 – Lithium Carbonate Dryer</td>
<td>S2.012</td>
<td>PM</td>
<td>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.</td>
</tr>
<tr>
<td>System 18 – Lithium Carbonate Packaging</td>
<td>S2.015</td>
<td>PM10/PM2.5</td>
<td>Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM10 and PM2.5 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 PM2.5 for determination of compliance.</td>
</tr>
<tr>
<td>System 19 – Lime Silo</td>
<td>S2.016 – S2.017</td>
<td>PM10/PM2.5</td>
<td>Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM10 and PM2.5 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 PM2.5 for determination of compliance.</td>
</tr>
</tbody>
</table>
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)

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

Table IV-2: Initial Performance Tests

<table>
<thead>
<tr>
<th>System</th>
<th>Emission Units</th>
<th>Pollutants To Be Tested</th>
<th>Testing Methods/Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>System 21 – Sulfur Storage</td>
<td>S2.019 – S2.020</td>
<td>PM</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PM&lt;sub&gt;10&lt;/sub&gt;/PM&lt;sub&gt;2.5&lt;/sub&gt;</td>
<td>Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM&lt;sub&gt;10&lt;/sub&gt; and PM&lt;sub&gt;2.5&lt;/sub&gt; 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&lt;sub&gt;2.5&lt;/sub&gt; for determination of compliance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SO&lt;sub&gt;2&lt;/sub&gt;</td>
<td>Method 6C in Appendix A of 40 CFR Part 60 shall be used to determine the sulfur dioxide concentration. Each test will be run for a minimum of one hour.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>H&lt;sub&gt;2&lt;/sub&gt;S</td>
<td>Method 15 in Appendix A of 40 CFR Part 60 shall be used to determine the hydrogen sulfide concentration. Each test will be run for a minimum of one hour.</td>
</tr>
</tbody>
</table>
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)

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

(continued)

<table>
<thead>
<tr>
<th>System</th>
<th>Emission Units</th>
<th>Pollutants To Be Tested</th>
<th>Testing Methods/Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>System 22 – Package Boiler</td>
<td>S2.021</td>
<td>PM</td>
<td>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.</td>
</tr>
<tr>
<td>System 23 – Start-Up Burner</td>
<td>S2.022</td>
<td>PM10/PM2.5</td>
<td>Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM10 and PM2.5 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 PM2.5 for determination of compliance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NOx</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CO</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>VOC</td>
<td>Method 25A in Appendix A of 40 CFR Part 60 shall be used to determine the volatile organic compound concentration. Method 18 in Appendix A of 40 CFR Part 60 or Method 320 in Appendix A of CFR Part 63 may be used in conjunction with Method 25A to break out the organic compounds that are not considered VOC’s by definition per 40 CFR 51.100(s). Each Method 25A test will be run for a minimum of one hour.</td>
</tr>
</tbody>
</table>
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)

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

Table IV-2: Initial Performance Tests

<table>
<thead>
<tr>
<th>System</th>
<th>Emission Unit</th>
<th>Pollutants To Be Tested</th>
<th>Testing Methods/Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>System 24 - Sulfuric Acid Plant</td>
<td>S2.023</td>
<td>PM</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PM10/PM2.5</td>
<td>Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM10 and PM2.5 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 PM2.5 for determination of compliance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SO2</td>
<td>Method 6C in Appendix A of 40 CFR Part 60 shall be used to determine the sulfur dioxide concentration. Each test will be run for a minimum of one hour.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NOX</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>H2SO4</td>
<td>Method 8 in Appendix A of 40 CFR Part 60 and Conditional Test Method CTM-013 shall be used to determine the sulfuric acid mist concentration. The sample volume for each test run shall be at least 1.15 dscm (40.6 dscf). Each test will be run for a minimum of one hour.</td>
</tr>
</tbody>
</table>
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.390, inclusive. (NAC 445B.252(8))

7. Initial opacity compliance demonstrations and initial performance tests required under this section that are conducted below the maximum allowable throughput, shall be subject to the Director’s review to determine if the throughputs during the initial opacity compliance demonstrations and initial performance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the initial opacity compliance demonstrations and initial performance tests do not provide adequate compliance demonstration, the Director may require additional testing.

****End of Specific Construction Requirements****
Section V. Specific Operating Conditions

A. Emission Units PF1.001 through PF1.004

<table>
<thead>
<tr>
<th>System 1 - Ore Handling Circuit</th>
<th>Location UTM (Zone 11, NAD 83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PF1.001</td>
<td>4,617,041  411,344</td>
</tr>
<tr>
<td>PF1.002</td>
<td>4,617,041  411,344</td>
</tr>
<tr>
<td>PF1.003</td>
<td>4,617,034  411,356</td>
</tr>
<tr>
<td>PF1.004</td>
<td>4,617,034  411,356</td>
</tr>
</tbody>
</table>

1. Air Pollution Control Equipment (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   PF1.001 through PF1.004, each, have no add-on controls.

2. Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   a. The maximum allowable throughput rate for PF1.001 through PF1.004, each, shall not exceed 480.0 tons of Ore per any one-hour period averaged over a daily basis.
   b. Hours
      (1) PF1.001 through PF1.004, each, may operate a total of 24 hours per day.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from PF1.001 through PF1.004, each, the following pollutants in excess of the following specified limits:
   a. The discharge of PM (particulate matter) to the atmosphere shall not exceed 1.44 pounds per hour, nor more than 6.31 tons per 12-month rolling period.
   b. The discharge of PM_{10} (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.53 pounds per hour, nor more than 2.31 tons per 12-month rolling period.
   c. The discharge of PM_{2.5} (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.087 pounds per hour, nor more than 0.38 tons per 12-month rolling period.
   d. The opacity from PF1.001 and PF1.003, each, shall not equal or exceed 20 percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.
   a. Monitor and record the throughput for PF1.001 through PF1.004, each, on a daily basis.
   b. Monitor and record the hours of operation for PF1.001 through PF1.004, each, on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. 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))
Section V. Specific Operating Conditions (continued)

A. Emission Units PF1.001 through PF1.004 (continued)

5. Federal Requirements (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)
   a. Emission Limits (40 CFR Part 60.672, Table 3)
      On and after the sixtieth day after achieving the maximum production rate at which PF1.002 and PF1.004 will be operated, but not later than 180 days after initial startup, the Permittee shall not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
      (1) Process fugitive emissions from PF1.002 and PF1.004, each, will not exceed 7 percent opacity. (40 CFR Part 60.672(b))
      (2) The opacity standard set forth in this part shall apply at all times except during period of startup, shutdown, and malfunction, and as otherwise provided in the applicable standard. (40 CFR 60.11(c))
   b. Notifications and reports required under Subpart OOO and under subpart A of 40 CFR Part 60 to demonstrate compliance with Subpart OOO need only to be sent to the Director. (40 CFR 60.676(k))
   c. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate PF1.002 and PF1.004, each, including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
   d. A repeat performance test according to 40 CFR Part 60.11 of this part and 40 CFR Part 60.675 of this subpart within 5 years from the previous performance test for fugitive emissions from affected facilities without water sprays. Affected facilities controlled by water carryover from upstream water sprays that are inspected according to the requirements in 40 CFR Part 60.674(b) and 60.676(b) are exempt from this 5-year repeat testing requirement. (40 CFR 60.672, Table 3)
Section V. Specific Operating Conditions (continued)

B. Emission Units PF1.005

<table>
<thead>
<tr>
<th>System 2 - Mineral Sizer</th>
<th>Location UTM (Zone 11, NAD 83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PF1.005</td>
<td>Mineral Sizer and Associated Transfers (In: Sizer Feed Conveyor, Out: Scrubber Feed Conveyor)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Air Pollution Control Equipment (NAC 445B.346(1)) \(\text{(Federally Enforceable SIP Requirement)}\)
   
   Emissions from PF1.005 shall be controlled by Water Sprays.

2. Operating Parameters (NAC 445B.346(1)) \(\text{(Federally Enforceable SIP Requirement)}\)
   
   a. The maximum allowable throughput rate for PF1.005 shall not exceed 960.0 tons of Ore per any one-hour period *averaged over a daily basis*.
   
   b. Hours
      
      (1) PF1.005 may operate a total of 24 hours per day.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1)) \(\text{(Federally Enforceable SIP Requirement)}\)
   
   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:
   
   a. The discharge of PM (particulate matter) to the atmosphere shall not exceed 1.30 pounds per hour, nor more than 5.68 tons per year per 12-month rolling period.
   
   b. The discharge of PM10 (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.58 pounds per hour, nor more than 2.52 tons per year per 12-month rolling period.
   
   c. The discharge of PM2.5 (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 0.42 tons per year per 12-month rolling period.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) \(\text{(Federally Enforceable SIP Requirement)}\)
   
   The Permittee, upon 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.
   
   a. Monitor and record the throughput for PF1.005 on a daily basis.
   
   b. Monitor and record the hours of operation for PF1.005 on a daily basis.
   
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   
   d. Conduct and record an observation of visible emissions (excluding water vapor) on the Water Sprays controlling 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. If visible emissions are observed, the Permittee shall conduct and record a Method 9 visible emission test and take corrective actions. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. 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 to eliminate visible emissions.
   
   e. The Permittee of any affected facility that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The Permittee must initiate corrective action within 24 hours and complete corrective action as expeditiously as practical if the Permittee finds that water is not flowing properly during an inspection of the water spray nozzles. The Permittee must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken.
   
   f. 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...
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equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))
Section V. Specific Operating Conditions (continued)

B. Emission Units PF1.005 (continued)

5. Federal Requirements (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)
   Mineral Processing Plants (40 CFR Part 60.670)
   a. Emission Limits (40 CFR Part 60.672, Table 3)
      On and after the sixtieth day after achieving the maximum production rate at which PF1.005 will be operated, but not
      later than 180 days after initial startup, the Permittee shall not discharge or cause the discharge into the atmosphere,
      the following pollutants in excess of the following specified limits:
      (1) Process fugitive emissions from PF1.005 will not exceed 12 percent opacity. (40 CFR Part 60.672(b)).
      (2) The opacity standard set forth in this part shall apply at all times except during period of startup, shutdown, and
          malfunction, and as otherwise provided in the applicable standard. (40 CFR 60.11(c))
   b. The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on
      or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform
      monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system.
      The owner or operator must initiate corrective action within 24 hours and complete corrective action as expediently as
      practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray
      nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each
      inspection and any corrective actions taken, in the logbook required under 40 CFR 60.676(b). (40 CFR 60.674(b))
   c. Notifications and reports required under Subpart OOO and under subpart A of 40 CFR Part 60 to demonstrate
      compliance with Subpart OOO need only to be sent to the Director. (40 CFR 60.676(k))
   d. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable,
      maintain and operate PF1.005 including associated air pollution control equipment in a manner consistent with good
      air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
Section V. Specific Operating Conditions (continued)

C. Emission Units PF1.006

<table>
<thead>
<tr>
<th>System 3 - Attrition Scrubber Feed</th>
<th>Location UTM (Zone 11, NAD 83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PF1.006 Scrubber Feed Conveyor to Attrition Scrubber (wet process)</td>
<td>m North</td>
</tr>
<tr>
<td></td>
<td>4,616,998</td>
</tr>
</tbody>
</table>

1. Air Pollution Control Equipment (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   Emissions from PF1.006 shall be controlled by Water Sprays.

2. Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   a. The maximum allowable throughput rate for PF1.006 shall not exceed 960.0 tons of Ore per any one-hour period averaged over a daily basis.
   b. Hours (1) PF1.006 may operate a total of 24 hours per day.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from PF1.006 the following pollutants in excess of the following specified limits:
   a. The discharge of PM (particulate matter) to the atmosphere shall not exceed 0.72 pounds per hour, nor more than 3.15 tons per year per 12-month rolling period.
   b. The discharge of PM10 (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.26 pounds per hour, nor more than 1.16 tons per year per 12-month rolling period.
   c. The discharge of PM2.5 (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.044 pounds per hour, nor more than 0.19 tons per year per 12-month rolling period.

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.
   a. Monitor and record the throughput for PF1.006 on a daily basis.
   b. Monitor and record the hours of operation for PF1.006 on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Conduct and record an observation of visible emissions (excluding water vapor) on the Water Sprays controlling PF1.006 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. If visible emissions are observed, the Permittee shall conduct and record a Method 9 visible emission test and take corrective actions. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. 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 to eliminate visible emissions.
   e. The Permittee of any affected facility that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The Permittee must initiate corrective action within 24 hours and complete corrective action as expeditiously as practical if the Permittee finds that water is not flowing properly during an inspection of the water spray nozzles. The Permittee must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken.
   f. The Permittee, upon issuance of this operating permit, shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))
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Section V. Specific Operating Conditions (continued)

C. Emission Units PF1.006 (continued)

5. Federal Requirements (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)
   a. Emission Limits (40 CFR Part 60.672, Table 3)
      On and after the sixtieth day after achieving the maximum production rate at which PF1.006 will be operated, but not later than 180 days after initial startup, the Permittee shall not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
      (1) Process fugitive emissions from PF1.006 will not exceed 7 percent opacity. (40 CFR Part 60.672(b)).
      (2) The opacity standard set forth in this part shall apply at all times except during period of startup, shutdown, and malfunction, and as otherwise provided in the applicable standard. (40 CFR 60.11(c))
   b. The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under 40 CFR 60.676(b). (40 CFR 60.674(b))
   c. Notifications and reports required under Subpart OOO and under subpart A of 40 CFR Part 60 to demonstrate compliance with Subpart OOO need only to be sent to the Director. (40 CFR 60.676(k))
   d. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate PF1.006 including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
Section V. Specific Operating Conditions (continued)

D. Emission Units PF1.007 and PF1.008

<table>
<thead>
<tr>
<th>System 4 - Oversize Material Handling Circuit</th>
<th>Location UTM (Zone 11, NAD 83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PF1.007 Wet Screen to Oversize Stacker Conveyor</td>
<td>4,617,033</td>
</tr>
<tr>
<td>PF1.008 Oversize Stacker to Oversize Stockpile</td>
<td>4,617,011</td>
</tr>
</tbody>
</table>

1. **Air Pollution Control Equipment (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)**
   Emissions from **PF1.007 and PF1.008, each**, shall be controlled by **Moisture Carryover**.

2. **Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)**
   a. **The maximum allowable throughput rate for PF1.007 and PF1.008, each, shall not exceed 16.0 tons of Gangue per any one-hour period averaged over a daily basis.**
   b. **Hours (1) PF1.007 and PF1.008, each, operate a total of 24 hours per day.**

3. **Emission Limits (NAC 445B.305, NAC 445B.346(1)) (Federally Enforceable SIP Requirement)**
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.007 and PF1.008, each**, the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.0072** pounds per hour, nor more than **0.032** tons per year, per 12-month rolling period.
   b. The discharge of **PM10** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.0026** pounds per hour, nor more than **0.012** tons per year, per 12-month rolling period.
   c. The discharge of **PM2.5** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.00040** pounds per hour, nor more than **0.0018** tons per year, per 12-month rolling period.
   d. The opacity from **PF1.007 and PF1.008, each**, shall not equal or exceed **20** percent.

4. **Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)**
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.
   a. Monitor and record the throughput for **PF1.007 and PF1.008, each**, on a daily basis.
   b. Monitor and record the hours of operation for **PF1.007 and PF1.008, each**, on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Conduct and record an observation of visible emissions (excluding water vapor) on **PF1.007 and PF1.008, 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. If visible emissions are observed, the Permittee shall conduct and record a Method 9 visible emission test and take corrective actions. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. 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 to eliminate visible emissions.
Section V. Specific Operating Conditions (continued)

E. Emission Units PF1.009 through PF1.011

<table>
<thead>
<tr>
<th>System 5—Gangue Handling Circuit</th>
<th>Location UTM (Zone 11, NAD 83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PF1.009  Gangue Dewatering Screen to Gangue Conveyor</td>
<td>4,617,236 m North</td>
</tr>
<tr>
<td>PF1.010  Gangue Conveyor to Gangue Stacker</td>
<td>4,617,280 m North</td>
</tr>
<tr>
<td>PF1.011  Gangue Stacker to Gangue Stockpile</td>
<td>4,617,326 m North</td>
</tr>
</tbody>
</table>

1. Air Pollution Control Equipment (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   Emissions from PF1.009 through PF1.011, each, shall be controlled by Moisture Carryover.

2. Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   a. The maximum allowable throughput rate for PF1.009 through PF1.011, each, shall not exceed 430.0 tons of Gangue per any one-hour period averaged over a daily basis.
   b. Hours (1) PF1.009 through PF1.011, each, may operate a total of 24 hours per day.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from PF1.009 through PF1.011, each, the following pollutants in excess of the following specified limits:
   a. The discharge of PM (particulate matter) to the atmosphere shall not exceed 0.19 pounds per hour, nor more than 0.85 tons per year per 12-month rolling period.
   b. The discharge of PM$_{10}$ (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.071 pounds per hour, nor more than 0.31 tons per year per 12-month rolling period.
   c. The discharge of PM$_{2.5}$ (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.011 pounds per hour, nor more than 0.047 tons per year per 12-month rolling period.
   d. The opacity from PF1.009 through PF1.011, each, shall not equal or exceed 20 percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.
   a. Monitor and record the throughput for PF1.009 through PF1.011, each, on a daily basis.
   b. Monitor and record the hours of operation for PF1.009 through PF1.011, each, on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Conduct and record an observation of visible emissions (excluding water vapor) on PF1.009 through PF1.011, 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. If visible emissions are observed, the Permittee shall conduct and record a Method 9 visible emission test and take corrective actions. Each Method 9 visible emission test shall be conducted by a certified visible emission reader in accordance with 40 CFR Part 60, Appendix A. 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 to eliminate visible emissions.
Section V. Specific Operating Conditions (continued)

F. Emission Units S2.001 through S2.003

<table>
<thead>
<tr>
<th>System 6 - Leach Tanks</th>
<th>Location UTM (Zone 11, NAD 83)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>m North</td>
</tr>
<tr>
<td>S2.001 Leach Tank 1</td>
<td>4,617,186</td>
</tr>
<tr>
<td>S2.002 Leach Tank 2</td>
<td>4,617,186</td>
</tr>
<tr>
<td>S2.003 Leach Tank 3</td>
<td>4,617,186</td>
</tr>
</tbody>
</table>

1. Air Pollution Control Equipment (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   a. Emissions from S2.001 through S2.003, combined, each, shall be controlled by a Wet Scrubber.
   b. Descriptive Stack Parameters
      - Stack Height: 60 feet
      - Stack Diameter: 2.5 feet
      - Stack Temperature: 180 °F
      - Exhaust Flow: 13,869 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   a. The maximum allowable throughput rate for S2.001 through S2.003, each, shall not exceed 1,080.0 tons of Slurry per any one-hour period averaged over a daily basis.
   b. S2.001 through S2.003, each, shall not exceed the following parameters:
      1) The maximum TDS (Total Dissolved Solids) concentration of outlet leach solution shall not exceed 26 percent.
      2) The maximum H₂SO₄ (Sulfuric Acid) concentration of outlet leach solution shall not exceed 5 percent.
   c. Hours
      1) S2.001 through S2.003, each, may operate a total of 24 hours per day.

   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from S2.001 through S2.003, combined, the following pollutants in excess of the following specified limits:
   a. The discharge of PM (particulate matter) to the atmosphere shall not exceed 0.30 pounds per hour, nor more than 1.33 tons per year per 12-month rolling period.
   b. The discharge of PM₁₀ (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.30 pounds per hour, nor more than 1.33 tons per year per 12-month rolling period.
   c. The discharge of PM₂₅ (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.30 pounds per hour, nor more than 1.33 tons per year per 12-month rolling period.
   d. The discharge of H₂SO₄ to the atmosphere shall not exceed 0.058 pounds per hour, nor more than 0.26 tons per year per 12-month rolling period.
   e. The opacity from S2.001 through S2.003, each, shall not equal or exceed 20 percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.
   a. Monitor and record the throughput for S2.001 through S2.003, each, on a daily basis.
   b. Monitor and record the hours of operation for S2.001 through S2.003, each, on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Sample the outlet leach solution of S2.001 through S2.003, each, combined, on a quarterly basis for the TDS concentration in percent. The TDS shall be determined by sampling methods approved in advance by the Director.
Section V. Specific Operating Conditions (continued)

F. Emission Units S2.001 through S2.003 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement) (continued)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.

e. Sample the outlet leach solution of S2.001 through S2.003, combined each, on a quarterly basis for the H₂SO₄ concentration in percent. The H₂SO₄ shall be determined by sampling methods approved in advance by the Director.

f. Conduct and record an observation of visible emissions (excluding water vapor) on the stack of the Wet Scrubber controlling S2.001 through S2.003 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. If visible emissions are observed, the Permittee shall conduct and record a Method 9 visible emission test and take corrective actions. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. 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 to eliminate visible emissions.

g. Inspect the Wet Scrubber installed on S2.001 through S2.003 on a monthly basis 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.

5. Performance and Compliance Testing (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement)

The Permittee, upon issuance of this operating permit, shall conduct annual performance testing within 90 days of the anniversary date of the previous initial performance testing or annual performance testing, and annually thereafter, in accordance with the following:

a. All opacity compliance demonstrations and/or performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of Section I.H. Testing and Sampling (NAC 445B.252) of this operating permit. All performance test results shall be based on the arithmetic average of three valid runs (NAC 445B.252(5)).

b. Testing shall be conducted on the exhaust stack (post controls).

c. Method 5 and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine particulate matter emissions. All particulate captured in the Method 5 and Method 202 test shall be considered PM2.5 for determination of compliance. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.

d. Method 8 in Appendix A of 40 CFR Part 60 shall be used to determine the sulfuric acid mist concentration. The sample volume for each test run shall be at least 1.15 dscm (40.6 dscf). Each test will be run for a minimum of one hour.

e. The Method 8 test required in this section may be replaced by a Conditional Test Method CTM-013 test based on prior approval from the Administrator. The sample volume for each test run shall be at least 1.15 dscm (40.6 dscf). Each test will be run for a minimum of one hour.

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.
Section V. Specific Operating Conditions (continued)

G. Emission Units S2.004 through S2.007

<table>
<thead>
<tr>
<th>System 7 - Neutralization Filter Vents</th>
<th>Location UTM (Zone 11, NAD 83)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>m North</td>
</tr>
<tr>
<td>S2.004 Neutralization Filter Vent 1</td>
<td>4,617,143</td>
</tr>
<tr>
<td>S2.005 Neutralization Filter Vent 2</td>
<td>4,617,145</td>
</tr>
<tr>
<td>S2.006 Neutralization Filter Vent 3</td>
<td>4,617,149</td>
</tr>
<tr>
<td>S2.007 Neutralization Filter Vent 4</td>
<td>4,617,152</td>
</tr>
</tbody>
</table>

1. Air Pollution Control Equipment (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   a. S2.004 through S2.007, each, have no add-on controls shall be controlled by Mist Eliminator.
   b. Descriptive Stack Parameters
      Stack Height: 30 feet
      Stack Diameter: 1.7 feet
      Stack Temperature: 120 °F
      Exhaust Flow: 6,200 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   a. The maximum allowable throughput rate for S2.004 through S2.007, each, shall not exceed 1,080.0 tons of Slurry per any one-hour period, averaged over a daily basis.
   b. The maximum PM (particulate matter) concentration for S2.004 through S2.007, each, shall not exceed 10 ppmw (parts per million by weight).
   c. Hours
      (1) S2.004 through S2.007, each, may operate a total of 24 hours per day.
      (2) S2.004 through S2.007, each, shall not operate in excess of 500 hours per year.

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from S2.004 through S2.007, each, the following pollutants in excess of the following specified limits:
   a. The discharge of PM to the atmosphere shall not exceed 0.22 pounds per hour, nor more than 0.056 tons per year, per 12-month rolling period.
   b. The discharge of PM10 (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.22 pounds per hour, nor more than 0.056 tons per year, per 12-month rolling period.
   c. The discharge of PM2.5 (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.22 pounds per hour, nor more than 0.056 tons per year, per 12-month rolling period.
   d. The opacity from S2.004 through S2.007, each, shall not equal or exceed 20 percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record:
   a. Monitor and record the throughput for S2.004 through S2.007, each, on a daily basis.
   b. Monitor and record the hours of operation for S2.004 through S2.007, each, on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. 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 at the end of each month as the sum of the monthly hours of operation for the year.
Section V. Specific Operating Conditions (continued)

G. Emission Units S2.004 through S2.007 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement) (continued)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. (continued)

e. Conduct and record an observation of visible emissions (excluding water vapor) on the stacks of the Mist Eliminator controlling S2.009 and S2.010, 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 to eliminate visible emissions.

f. Inspect the Mist Eliminator installed on S2.009 and S2.010 on a monthly basis in accordance with the manufacturer’s operation and maintenance manual and record the results, and any corrective actions taken.

g. Maintain documentation onsite showing that the PM concentration at the outlet of the mist eliminators will not exceed the concentration specified in G.2.b of this section.

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/or performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of Section I.H. Testing and Sampling (NAC 445B.252) of this operating permit. All performance test results shall be based on the arithmetic average of three valid runs (NAC 445B.252(5)).

b. Testing shall be conducted on the exhaust stack (post controls).

c. Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.

d. Method 201A in Appendix M of 40 CFR Part 51 shall be used to determine PM10 and PM2.5 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 PM2.5 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.
Section V. Specific Operating Conditions (continued)

H. Emission Units S2.008

<table>
<thead>
<tr>
<th>System 8 - Neutralization Filter Filtrate Blow Vent</th>
<th>Location UTM (Zone 11, NAD 83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S2.008 Neutralization Filter Filtrate Blow Vent</td>
<td>m North</td>
</tr>
<tr>
<td></td>
<td>4,617,147</td>
</tr>
</tbody>
</table>

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
   a. S2.008 has no add-on controls.
   b. Descriptive Stack Parameters
      Stack Height: 20 feet
      Stack Diameter: 1.0 feet
      Stack Temperature: Ambient °F
      Exhaust Flow: 1,355 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
   a. The maximum TDS (Total Dissolved Solids) concentration of S2.008 shall not exceed 40 percent by weight.
   b. Hours
      (1) S2.008 may operate a total of 24 hours per day.
      (2) S2.008 shall not operate in excess of 50 hours per year.

   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from S2.008 the following pollutants in excess of the following specified limits:
   a. The discharge of PM (particulate matter) to the atmosphere shall not exceed 0.20 pounds per hour, nor more than 0.0049 tons per year per 12-month rolling period.
   b. The discharge of PM10 (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.20 pounds per hour, nor more than 0.0049 tons per year per 12-month rolling period.
   c. The discharge of PM2.5 (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.20 pounds per hour, nor more than 0.0049 tons per year per 12-month rolling period.
   d. The opacity from S2.008 shall not equal or exceed 20 percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement*)
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.
   a. Monitor and record the total daily hours of operation for S2.008.
   b. 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 at the end of each month as the sum of the monthly hours of operation for the year.
   c. Conduct and record an observation of visible emissions (excluding water vapor) on the stack for S2.008 on a monthly basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. If visible emissions are observed, the Permittee shall conduct and record a Method 9 visible emission test and take corrective actions. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. 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 to eliminate visible emissions.
   d. Sample S2.008 on a quarterly basis for the TDS concentration in percent by weight. The TDS shall be determined by sampling methods approved in advance by the director.
Section V. Specific Operating Conditions (continued)

I. Emission Units PF1.012 through PF1.019

<table>
<thead>
<tr>
<th>System 9 - Tailings Feed Circuit</th>
<th>Location UTM (Zone 11, NAD 83)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>m North</td>
</tr>
<tr>
<td>PF1.012 Neutralization Filter 1 to Discharge Feeder 1</td>
<td>4,617,139</td>
</tr>
<tr>
<td>PF1.013 Discharge Feeder 1 to Tailings Collection Conveyor</td>
<td>4,617,148</td>
</tr>
<tr>
<td>PF1.014 Neutralization Filter 2 to Discharge Feeder 2</td>
<td>4,617,140</td>
</tr>
<tr>
<td>PF1.015 Discharge Feeder 2 to Tailings Collection Conveyor</td>
<td>4,617,148</td>
</tr>
<tr>
<td>PF1.016 Neutralization Filter 3 to Discharge Feeder 3</td>
<td>4,617,141</td>
</tr>
<tr>
<td>PF1.017 Discharge Feeder 3 to Tailings Collection Conveyor</td>
<td>4,617,149</td>
</tr>
<tr>
<td>PF1.018 Neutralization Filter 4 to Discharge Feeder 4</td>
<td>4,617,142</td>
</tr>
<tr>
<td>PF1.019 Discharge Feeder 4 to Tailings Collection Conveyor</td>
<td>4,617,150</td>
</tr>
</tbody>
</table>

1. Air Pollution Control Equipment (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   Emissions from PF1.012 through PF1.019, each, shall be controlled by Moisture Carryover.

2. Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   a. The maximum allowable throughput rate for PF1.012 through PF1.019, each, shall not exceed 240.0 tons of Clay/Neutral Tailings per any one-hour period averaged over a daily basis.
   b. Hours
      (1) PF1.012 through PF1.019, each, may operate a total of 24 hours per day.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from PF1.012 through PF1.019, each, the following pollutants in excess of the following specified limits:
   a. The discharge of PM (particulate matter) to the atmosphere shall not exceed 0.11 pounds per hour, nor more than 0.47 tons per year per 12-month rolling period.
   b. The discharge of PM<sub>10</sub> (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.040 pounds per hour, nor more than 0.17 tons per year per 12-month rolling period.
   c. The discharge of PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.0065 pounds per hour, nor more than 0.029 tons per year per 12-month rolling period.
   d. The opacity from PF1.012 through PF1.019, each, shall not equal or exceed 20 percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.
   a. Monitor and record the throughput for PF1.012 through PF1.019, each, on a daily basis.
   b. Monitor and record the hours of operation for PF1.012 through PF1.019, each, on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Conduct and record an observation of visible emissions (excluding water vapor) on PF1.012 through PF1.019, 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. If visible emissions are observed, the Permittee shall conduct and record a Method 9 visible emission test and take corrective actions. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. 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 to eliminate visible emissions.
Section V. Specific Operating Conditions (continued)

J. Emission Units PF1.020

<table>
<thead>
<tr>
<th>System 10 - Tailings Collection</th>
<th>Location UTM (Zone 11, NAD 83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PF1.020 Tailings Collection Conveyor to Tailings Conveyor 1</td>
<td>m North</td>
</tr>
<tr>
<td></td>
<td>4,617,151</td>
</tr>
</tbody>
</table>

1. **Air Pollution Control Equipment (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)**  
   Emissions from **PF1.020** shall be controlled by **Moisture Carryover**.

2. **Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)**  
   a. The maximum allowable throughput rate for **PF1.020** shall not exceed **1,000.0** tons of Clay/Neutral Tailings per any one-hour period **averaged over a daily basis**.
   b. Hours  
      (1) **PF1.020** may operate a total of **24** hours per day.

3. **Emission Limits (NAC 445B.305, NAC 445B.346(1)) (Federally Enforceable SIP Requirement)**  
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.020** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.45** pounds per hour, nor more than **1.97** tons per year, per 12-month rolling period.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.17** pounds per hour, nor more than **0.72** tons per year, per 12-month rolling period.
   c. The discharge of **PM_{2.5}** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.027** pounds per hour, nor more than **0.12** tons per year, per 12-month rolling period.
   d. The opacity from **PF1.020** 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.
   a. Monitor and record the throughput for **PF1.020** on a daily basis.
   b. Monitor and record the hours of operation for **PF1.020** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Conduct and record an observation of visible emissions (excluding water vapor) on **PF1.020** 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. If visible emissions are observed, the Permittee shall conduct and record a Method 9 visible emission test and take corrective actions. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A.** 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 to eliminate visible emissions.
Section V. Specific Operating Conditions (continued)

K. Emission Units PF1.021 and PF1.022

<table>
<thead>
<tr>
<th>System 11 — Tailings Stacking</th>
<th>Location UTM (Zone 11, NAD 83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PF1.021 Tailings Conveyor 1 to Tailings Stacker</td>
<td>4,617,251 m North, 414,584 m East</td>
</tr>
<tr>
<td>PF1.022 Tailings Stacker to Clay Tailings Filter Stack</td>
<td>4,617,231 m North, 414,625 m East</td>
</tr>
</tbody>
</table>

1. **Air Pollution Control Equipment** (NAC 445B.346(1)) *(Federally Enforceable SIP Requirement)*
   - Emissions from **PF1.021 and PF1.022, each**, shall be controlled by **Moisture Carryover**.

2. **Operating Parameters** (NAC 445B.346(1)) *(Federally Enforceable SIP Requirement)*
   - The maximum allowable throughput rate for **PF1.021 and PF1.022, each**, shall not exceed **1,000.0** tons of **Clay/Neutral Tailings** per any one-hour period **averaged over a daily basis**.
   - **Hours** *(1) PF1.021 and PF1.022, each*, may operate a total of **24** hours per day.

3. **Emission Limits** (NAC 445B.305, NAC 445B.346(1)) *(Federally Enforceable SIP Requirement)*
   - The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.021 and PF1.022, each**, the following pollutants in excess of the following specified limits:
     - **PM** (particulate matter) to the atmosphere shall not exceed **0.45** pounds per hour, nor more than **1.97** tons **per year** **per 12-month rolling period**.
     - The discharge of **PM10** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.17** pounds per hour, nor more than **0.72** tons **per year** **per 12-month rolling period**.
     - The discharge of **PM2.5** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.027** pounds per hour, nor more than **0.12** tons **per year**, **per 12-month rolling period**.
     - The opacity from **PF1.021 and PF1.022, each**, shall not equal or exceed **20** percent.

4. **Monitoring, Recordkeeping, and Reporting** (NAC 445B.346(2)) *(Federally Enforceable SIP Requirement)*
   - The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.
     - **Monitor and record the throughput for PF1.021 and PF1.022, each**, on a daily basis.
     - **Monitor and record the hours of operation for PF1.021 and PF1.022, each**, on a daily basis.
     - Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
     - Conduct and record an observation of visible emissions (excluding water vapor) on **PF1.021 and PF1.022, 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. If visible emissions are observed, the Permittee shall conduct and record a Method 9 visible emission test and take corrective actions. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. 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 to eliminate visible emissions.
L. Emission Units PF1.023 through PF1.025

<table>
<thead>
<tr>
<th>System 12 - Sulfate Tailings Circuit</th>
<th>Location UTM (Zone 11, NAD 83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PF1.023 Na/K Sulfate Centrifuge discharge to Na/K Conveyor 1 or Lithium Carbonate Dryer</td>
<td>m North</td>
</tr>
<tr>
<td>PF1.024 Na/K Conveyor 1 transfer to Na/K Conveyor 2</td>
<td>4,617,139</td>
</tr>
<tr>
<td>PF1.025 Na/K Conveyor 2 to Tailings Collection Conveyor</td>
<td>4,617,141</td>
</tr>
</tbody>
</table>

1. Air Pollution Control Equipment (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   a. Emissions from PF1.023 shall be controlled by Enclosure.
   b. PF1.024 and PF1.025, each, has no add-on controls.

2. Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   a. The maximum allowable throughput rate for PF1.023 through PF1.025, each, shall not exceed 40.0 tons of Sulfate Tailings per any one-hour period averaged over a daily basis.
   b. Hours
      (1) PF1.023 through PF1.025, each, may operate a total of 24 hours per day.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from PF1.023 the following pollutants in excess of the following specified limits:
      (1) The discharge of PM (particulate matter) to the atmosphere shall not exceed 0.060 pounds per hour, nor more than 0.26 tons per year per 12-month rolling period.
      (2) The discharge of PM10 (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.022 pounds per hour, nor more than 0.096 tons per year per 12-month rolling period.
      (3) The discharge of PM2.5 (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.0036 pounds per hour, nor more than 0.016 tons per year per 12-month rolling period.
      (4) The opacity from PF1.023 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 PF1.024 and PF1.025, each, the following pollutants in excess of the following specified limits:
      (1) The discharge of PM (particulate matter) to the atmosphere shall not exceed 0.12 pounds per hour, nor more than 0.53 tons per year per 12-month rolling period.
      (2) The discharge of PM10 (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.044 pounds per hour, nor more than 0.19 tons per year per 12-month rolling period.
      (3) The discharge of PM2.5 (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.0073 pounds per hour, nor more than 0.032 tons per year per 12-month rolling period.
      (4) The opacity from PF1.024 and PF1.025, each, shall not equal or exceed 20 percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)
The Permittee, upon 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.
   a. Monitor and record the throughput for PF1.023 through PF1.025, each, on a daily basis.
   b. Monitor and record the hours of operation for PF1.023 through PF1.025, each, on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
Issued to: LITHIUM NEVADA – THACKER PASS PROJECT (AS PERMITTEE)

Section V. Specific Operating Conditions (continued)

L. Emission Units PF1.023 through PF1.025 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement) (continued)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.

(continued)

d. Conduct and record an observation of visible emissions (excluding water vapor) on the enclosure controlling PF1.023 on a monthly basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. If visible emissions are observed, the Permittee shall conduct and record a Method 9 visible emission test and take corrective actions. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. 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 to eliminate visible emissions.

e. Inspect the Enclosure installed on PF1.023 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.
Section V. Specific Operating Conditions (continued)

M. Emission Units S2.009 and S2.010

<table>
<thead>
<tr>
<th>System 13 - Magnesium Precipitation Filter Vents</th>
<th>Location UTM (Zone 11, NAD 83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S2.009 Magnesium Precipitation Filter Vent 1</td>
<td>m North</td>
</tr>
<tr>
<td>S2.010 Magnesium Precipitation Filter Vent 2</td>
<td>4,617,145</td>
</tr>
<tr>
<td></td>
<td>4,617,148</td>
</tr>
</tbody>
</table>

1. Air Pollution Control Equipment (NAC 445B.346(1)) *(Federally Enforceable SIP Requirement)*
   a. Emissions from **S2.009 and S2.010, each**, shall be controlled by **Mist Eliminator**.
   b. **Descriptive Stack Parameters**
      - Stack Height: 38 feet
      - Stack Diameter: 1.30 feet
      - Stack Temperature: 120 °F
      - Exhaust Flow: 4,046 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) *(Federally Enforceable SIP Requirement)*
   a. The maximum **PM** (particulate matter) concentration of **S2.009 and S2.010, each**, shall not exceed 10 ppmw (parts per million by weight).
   b. Hours
      1. **S2.009 and S2.010, each**, may operate a total of 24 hours per day.
      2. **S2.009 and S2.010, each**, shall not operate in excess of 200 hours per year.

   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.009 and S2.010, each**, the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed 0.014 pounds per hour, nor more than 0.014 tons per year per 12-month rolling period.
   b. The discharge of **PM10** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.14 pounds per hour, nor more than 0.014 tons per year per 12-month rolling period.
   c. The discharge of **PM2.5** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.14 pounds per hour, nor more than 0.014 tons per year per 12-month rolling period.
   d. The opacity from **S2.009 and S2.010, each**, shall not equal or exceed 20 percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) *(Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.
   a. Monitor and record the total daily hours of operation for **S2.009 and S2.010, each**.
   b. 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 at the end of each month as the sum of the monthly hours of operation for the year.
   c. Conduct and record an observation of visible emissions (excluding water vapor) on the stacks of the **Mist Eliminator** controlling **S2.009 and S2.010, 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. If visible emissions are observed, the Permittee shall conduct and record a Method 9 visible emission test and take corrective actions. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. 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 to eliminate visible emissions.
Issued to: LITHIUM NEVADA – THACKER PASS PROJECT (AS PERMITTEE)

Section V. Specific Operating Conditions (continued)

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

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement) (continued)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. (continued)

d. Inspect the Mist Eliminator installed on S2.009 and S2.010 on a monthly basis in accordance with the manufacturer’s operation and maintenance manual and record the results, and any corrective actions taken.

e. Maintain documentation onsite showing that the PM concentration at the outlet of the mist eliminators will not exceed the concentration specified in M.2.a of this section. Sample S2.009 through S2.010, each, on a quarterly basis for the PM concentration in ppmv. The PM shall be determined by sampling methods approved in advance by the director.
Section V. Specific Operating Conditions (continued)

N. Emission Units S2.011

<table>
<thead>
<tr>
<th>System 14 - Magnesium Precipitation Filter Filtrate Blow Vent</th>
<th>Location UTM (Zone 11, NAD 83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S2.011 Magnesium Precipitation Filtrate Blow Vent</td>
<td>m North</td>
</tr>
<tr>
<td></td>
<td>4,617,147</td>
</tr>
</tbody>
</table>

1. Air Pollution Control Equipment (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   a. **S2.011** has no add-on controls.
   b. **Descriptive Stack Parameters**
      - Stack Height: 20 feet
      - Stack Diameter: 0.5 feet
      - Stack Temperature: Ambient °F
      - Exhaust Flow: 498 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   a. The maximum **TDS** (Total Dissolved Solids) concentration of **S2.011** shall not exceed 8.24 percent by weight.
   b. **Hours**
      - (1) **S2.011** may operate a total of 24 hours per day.
      - (2) **S2.011** shall not operate in excess of 50 hours per year.

   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.011** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed 0.015 pounds per hour, nor more than 0.00037 tons per year per 12-month rolling period.
   b. The discharge of **PM10** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.015 pounds per hour, nor more than 0.00037 tons per year per 12-month rolling period.
   c. The discharge of **PM2.5** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.015 pounds per hour, nor more than 0.00037 tons per year per 12-month rolling period.
   d. The opacity from **S2.011** shall not equal or exceed 20 percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.
   a. Monitor and record the total daily hours of operation for **S2.011**.
   b. 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 at the end of each month as the sum of the monthly hours of operation for the year.
   c. Conduct and record an observation of visible emissions (excluding water vapor) on the **stack** for **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. If visible emissions are observed, the Permittee shall conduct and record a Method 9 visible emission test and take corrective actions. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. 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 to eliminate visible emissions.
   d. Sample **S2.011** on a quarterly basis for **TDS** concentration in percent by weight. The **TDS** shall be determined by sampling methods approved in advance by the director.
Issued to: Lithium Nevada – Thacker Pass Project (As Permittee)
Section V. Specific Operating Conditions (continued)

O. Emission Units S2.012

<table>
<thead>
<tr>
<th>System 15 - Lithium Carbonate Dryer</th>
<th>Location UTM (Zone 11, NAD 83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S2.012 Lithium Carbonate Dryer transfer to Lithium Carbonate Material Handling</td>
<td>m North</td>
</tr>
<tr>
<td></td>
<td>4,617,110</td>
</tr>
</tbody>
</table>

1. Air Pollution Control Equipment (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   a. Emissions from S2.012 shall be controlled by a Baghouse.
   b. Descriptive Stack Parameters
      Stack Height: 60 feet
      Stack Diameter: 1.0 feet
      Stack Temperature: 302 °F
      Exhaust Flow: 2,898 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   a. The maximum allowable throughput rate for S2.012 shall not exceed 5.0 tons of Lithium Carbonate per any one-hour period averaged over a daily basis.
   b. Hours (1) S2.012 may operate a total of 24 hours per day.

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from S2.012 the following pollutants in excess of the following specified limits:
   a. The discharge of PM (particulate matter) to the atmosphere shall not exceed 0.50 pounds per hour, nor more than 2.18 tons per year per 12-month rolling period.
   b. The discharge of PM$_{10}$ (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.50 pounds per hour, nor more than 2.18 tons per year per 12-month rolling period.
   c. The discharge of PM$_{2.5}$ (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.50 pounds per hour, nor more than 2.18 tons per year per 12-month rolling period.
   d. The opacity from S2.012 shall not equal or exceed 20 percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement)
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.
   a. Monitor and record the throughput for S2.012 on a daily basis.
   b. Monitor and record the hours of operation for S2.012 on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Conduct and record an observation of visible emissions (excluding water vapor) on the stack of the Baghouse controlling S2.012 on a monthly basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly observation of visible emissions, and any corrective actions taken. If visible emissions are observed, the Permittee shall conduct and record a Method 9 visible emission test and take corrective actions. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A to eliminate visible emissions.
   e. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly observation of visible emissions, and any corrective actions taken.
f. Inspect the Baghouse installed on S2.012 on a monthly basis in accordance with the manufacturer’s operation and maintenance manual and record the results (e.g. the condition of the Baghouse) and any corrective actions taken.

Section V. Specific Operating Conditions (continued)

O. Emission Units S2.012 (continued)

5. Performance and Compliance Testing (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement)
   The Permittee, upon issuance of this operating permit, shall conduct renewal performance testing at least 90 days prior to the expiration of this operating permit, but no earlier than 365 days from the date of expiration of this operating permit, and every 5 years thereafter, in accordance with the following:
   a. All opacity compliance demonstrations and/or performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of Section I.H. Testing and Sampling (NAC 445B.252) of this operating permit. All performance test results shall be based on the arithmetic average of three valid runs (NAC 445B.252(5)).
   b. Testing shall be conducted on the exhaust stack (post controls).
   c. Method 5 in Appendix A of 40 CFR Part 51 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 PM2.5 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 PM2.5 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.
Section V. Specific Operating Conditions (continued)

P. Emission Units S2.013

<table>
<thead>
<tr>
<th>System 16 – Lithium Carbonate Material Handling</th>
<th>Location UTM (Zone 11, NAD 83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S2.013 Lithium Carbonate Material Handling</td>
<td>m North</td>
</tr>
<tr>
<td>transfer to Lithium Carbonate Storage Bin Loading</td>
<td>4,617,108</td>
</tr>
</tbody>
</table>

1. **Air Pollution Control Equipment** (NAC 445B.346(1)) *(Federally Enforceable SIP Requirement)*
   a. Emissions from S2.013 shall be controlled by a Vent Filter.
   b. **Descriptive Stack Parameters for S2.013**
      - Stack Height: 10 feet
      - Stack Diameter: 0.50 feet
      - Stack Temperature: 101 °F
      - Exhaust Flow: 1,268 actual cubic feet per minute (acfm)

2. **Operating Parameters** (NAC 445B.346(1)) *(Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for S2.013 shall not exceed 5.0 tons of Lithium Carbonate per any one-hour period averaged over a daily basis.
   b. Hours (1) S2.013 may operate a total of 24 hours per day.

   a. The discharge of PM (particulate matter) to the atmosphere shall not exceed 0.012 pounds per hour, nor more than 0.053 tons per year per 12-month rolling period.
   b. The discharge of PM10 (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.0070 pounds per hour, nor more than 0.031 tons per year per 12-month rolling period.
   c. The discharge of PM2.5 (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.0012 pounds per hour, nor more than 0.0051 tons per year per 12-month rolling period.
   d. The opacity from S2.013 shall not equal or exceed 20 percent.

4. **Monitoring, Recordkeeping, and Reporting** (NAC 445B.346(2)) *(Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.
   a. Monitor and record the throughput 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 throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Conduct and record an observation of visible emissions (excluding water vapor) on the Stack of the Vent Filter 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. If visible emissions are observed, the Permittee shall conduct and record a Method 9 visible emission test and take corrective actions. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. 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 to eliminate visible emissions.
   e. Inspect the Vent Filter installed on S2.013 on a monthly basis 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.
Facility ID No. A1270  Permit No. AP1479-4334
CLASS II AIR QUALITY OPERATING PERMIT

Issued to: LITHIUM NEVADA – THACKER PASS PROJECT (AS PERMITTEE)
Section V. Specific Operating Conditions (continued)

Q. Emission Units S2.014

<table>
<thead>
<tr>
<th>System 17 - Lithium Carbonate Storage Bin</th>
<th>Location UTM (Zone 11, NAD 83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S2.014 Lithium Carbonate Storage Bin Loading transfer to Lithium Carbonate Packaging</td>
<td>m North</td>
</tr>
<tr>
<td></td>
<td>4,617,112</td>
</tr>
</tbody>
</table>

1. **Air Pollution Control Equipment (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)**
   - Emissions from S2.014 shall be controlled by a Vent Filter.
   - **Descriptive Stack Parameters for S2.014**
     - Stack Height: 79 feet
     - Stack Diameter: 0.50 feet
     - Stack Temperature: 101 °F
     - Exhaust Flow: 1,268 actual cubic feet per minute (acfm)

2. **Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)**
   - The maximum allowable throughput rate for S2.014 shall not exceed 5.0 tons of Lithium Carbonate per any one-hour period averaged over a daily basis.
   - **Hours**
     - S2.014 may operate a total of 24 hours per day.

   - The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from S2.014 the following pollutants in excess of the following specified limits:
     - The discharge of PM (particulate matter) to the atmosphere shall not exceed 0.0050 pounds per hour, nor more than 0.022 tons per 12-month rolling period.
     - The discharge of PM₁₀ (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.0017 pounds per hour, nor more than 0.0074 tons per 12-month rolling period.
     - The discharge of PM₂.₅ (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.00028 pounds per hour, nor more than 0.0012 tons per 12-month rolling period.
     - The opacity from S2.014 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.
     - Monitor and record the throughput for S2.014 on a daily basis.
     - Monitor and record the hours of operation for S2.014 on a daily basis.
     - Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
     - Conduct and record an observation of visible emissions (excluding water vapor) on the Stack of the Vent Filter controlling S2.014 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. If visible emissions are observed, the Permittee shall conduct and record a Method 9 visible emission test and take corrective actions. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. 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 to eliminate visible emissions.
     - Inspect the Vent Filter installed on S2.014 on a monthly basis 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.
Issued to: LITHIUM NEVADA – THACKER PASS PROJECT (AS PERMITTEE)
Section V. Specific Operating Conditions (continued)

1. **Air Pollution Control Equipment** (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
   a. Emissions from **S2.015** shall be controlled by a **Baghouse**.
   b. **Descriptive Stack Parameters for S2.015**
      - Stack Height: 20 feet
      - Stack Diameter: 1.0 feet
      - Stack Temperature: Ambient °F
      - Exhaust Flow: 3,900 actual cubic feet per minute (acfm)

2. **Operating Parameters** (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
   a. The maximum allowable throughput rate for **S2.015** shall not exceed 16.0 tons of **Lithium Carbonate** per any one-hour period *averaged over a daily basis*, nor more than **43,800** tons *per year per 12-month rolling period*.
   b. **Hours**
      1. **S2.015** may operate a total of **24** hours per day.
      2. **S2.015** shall not operate in excess of **4,380** hours per year.

   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.015** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.67** pounds per hour, nor more than **1.46** tons *per year per 12-month rolling period*.
   b. The discharge of **PM10** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.67** pounds per hour, nor more than **1.46** tons *per year per 12-month rolling period*.
   c. The discharge of **PM2.5** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.67** pounds per hour, nor more than **1.46** tons *per year per 12-month rolling period*.
   d. The opacity from **S2.015** 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.
   a. Monitor and record the throughput for **S2.015** on a daily basis.
   b. Monitor and record the hours of operation for **S2.015** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. **Monitor and record the total yearly throughput rate in tons per year. The annual throughput shall be determined as the sum of the monthly throughput rates for the year for all previous months of that year. Record the throughput rate of material (in tons) on a cumulative monthly basis, for each 12-month rolling period.**
   e. 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 at the end of each month as the sum of the monthly hours of operation for the year.

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### Table: System 18 — Lithium Carbonate Packaging

<table>
<thead>
<tr>
<th>System 18 — Lithium Carbonate Packaging</th>
<th>Location UTM (Zone 11, NAD 83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S2.015</td>
<td>Lithium Carbonate Packaging</td>
</tr>
<tr>
<td></td>
<td>m North</td>
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<tr>
<td></td>
<td>4,617,113</td>
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</tbody>
</table>
Section V. Specific Operating Conditions (continued)

R. Emission Units S2.015 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement) (continued)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.

f. Conduct and record an observation of visible emissions (excluding water vapor) on the Stack of the Baghouse controlling S2.015 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. If visible emissions are observed, the Permittee shall conduct and record a Method 9 visible emission test and take corrective actions. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. 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 to eliminate visible emissions.

g. Inspect the Baghouse installed on S2.015 on a monthly basis 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 and Compliance Testing (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement)

The Permittee, upon issuance of this operating permit, shall conduct renewal performance testing at least 90 days prior to the expiration of this operating permit, but no earlier than 365 days from the date of expiration of this operating permit, and every 5 years thereafter, in accordance with the following:

a. All opacity compliance demonstrations and/or performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of Section I.H. Testing and Sampling (NAC 445B.252) of this operating permit. All performance test results shall be based on the arithmetic average of three valid runs (NAC 445B.252(5)).

b. Testing shall be conducted on the exhaust stack (post controls).

c. Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.

d. Method 201A in Appendix M of 40 CFR Part 51 shall be used to determine PM10 and PM2.5 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 PM2.5 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.
Section V. Specific Operating Conditions (continued)

S. Emission Units S2.016 and S2.017

<table>
<thead>
<tr>
<th>System 19 — Lime Silo</th>
<th>Location UTM (Zone 11, NAD 83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S2.016</td>
<td>4,617,197 414,358</td>
</tr>
<tr>
<td>S2.017</td>
<td>4,617,197 414,358</td>
</tr>
</tbody>
</table>

1. **Air Pollution Control Equipment** (NAC 445B.346(1)) *(Federally Enforceable SIP Requirement)*
   a. Emissions from **S2.016 and S2.017, combined, each**, shall be controlled by a **Baghouse**.
   b. **Descriptive Stack Parameters for S2.016 and S2.017**
      - Stack Height: 100 feet
      - Stack Diameter: 1.0 feet
      - Stack Temperature: Ambient °F
      - Exhaust Flow: 3,100 actual cubic feet per minute (acfm)

2. **Operating Parameters** (NAC 445B.346(1)) *(Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **S2.016 and S2.017, each**, shall not exceed **80.0** tons of **Lime** per any one-hour period, **averaged over a daily basis**, nor more than **350,400** tons per 12-month rolling period.
   b. **Hours**
      1. **S2.016 and S2.017, each**, may operate a total of **24** hours per day.
      2. **S2.016 and S2.017, each**, shall not operate in excess of **4,380** hours per year.

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.016 and S2.017, combined**, the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.53** pounds per hour, nor more than **1.16** tons per 12-month rolling period.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.53** pounds per hour, nor more than **1.16** tons per 12-month rolling period.
   c. The discharge of **PM_{2.5}** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.53** pounds per hour, nor more than **1.16** tons per 12-month rolling period.
   d. The opacity from **S2.016 and S2.017, each**, shall not equal or exceed **20** percent.

4. **Monitoring, Recordkeeping, and Reporting** (NAC 445B.346(2)) *(Federally Enforceable SIP Requirement)*
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.
   a. Monitor and record the throughput for **S2.016 and S2.017, each**, on a daily basis.
   b. Monitor and record the hours of operation for **S2.016 and S2.017, each**, on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. **Monitor and record the total yearly throughput rate in tons per year**. The annual throughput shall be determined as the sum of the monthly throughput rates for the year for all previous months of that year. **Record the throughput rate of material (in tons) on a cumulative monthly basis, for each 12-month rolling period.**
   e. 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 at the end of each month as the sum of the monthly hours of operation for the year.
Section V. Specific Operating Conditions (continued)

S. Emission Units S2.016 and S2.017 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement) (continued)
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.
   (continued)
   f. Conduct and record an observation of visible emissions (excluding water vapor) on the stack of the Baghouse S2.016 and S2.017 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. If visible emissions are observed, the Permittee shall conduct and record a Method 9 visible emission test and take corrective actions. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. 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 to eliminate visible emissions.

   g. Inspect the Baghouse installed on S2.016 and S2.017 on a monthly basis 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 and Compliance Testing (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement)
   The Permittee, upon issuance of this operating permit, shall conduct renewal performance testing at least 90 days prior to the expiration of this operating permit, but no earlier than 365 days from the date of expiration of this operating permit, and every 5 years thereafter, in accordance with the following:
   a. All opacity compliance demonstrations and/or performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of Section I.H. Testing and Sampling (NAC 445B.252) of this operating permit. All performance test results shall be based on the arithmetic average of three valid runs (NAC 445B.252(5)).
   b. Testing shall be conducted on the exhaust stack (post controls).
   c. Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
   d. Method 201A in Appendix M of 40 CFR Part 51 shall be used to determine PM10 and PM2.5 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 PM2.5 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.
T. Emission Units S2.018

<table>
<thead>
<tr>
<th>System 20 - Soda Ash Silo</th>
<th>Location UTM (Zone 11, NAD 83)</th>
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<tr>
<td>S2.018</td>
<td>m North</td>
</tr>
<tr>
<td>Soda Ash Silo loading (silo unloading through sealed transfers)</td>
<td>4,617,088</td>
</tr>
</tbody>
</table>

1. **Air Pollution Control Equipment** (NAC 445B.346(1)) *(Federally Enforceable SIP Requirement)*
   a. Emissions from **S2.018** shall be controlled by a **Vent Filter**.
   b. **Descriptive Stack Parameters for S2.018**
      - Stack Height: 100 feet
      - Stack Diameter: 1.0 feet
      - Stack Temperature: Ambient °F
      - Exhaust Flow: 1,930 actual cubic feet per minute (acfm)

2. **Operating Parameters** (NAC 445B.346(1)) *(Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **S2.018** shall not exceed **80.0 tons of Soda Ash** per any one-hour period averaged over a daily basis, nor more than **153,900 tons per year per 12-month rolling period**.
   b. **Hours**
      - **S2.018** may operate a total of **24 hours per day**.

   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.018** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.079 pounds per hour**, nor more than **0.076 tons per year per 12-month rolling period**.
   b. The discharge of **PM10** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.027 pounds per hour**, nor more than **0.026 tons per year per 12-month rolling period**.
   c. The discharge of **PM2.5** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.0045 pounds per hour**, nor more than **0.0043 tons per year per 12-month rolling period**.
   d. The opacity from **S2.018** shall not equal or exceed **20 percent**.

4. **Monitoring, Recordkeeping, and Reporting** (NAC 445B.346(2)) *(Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.
   a. Monitor and record the throughput for **S2.018** on a daily basis.
   b. Monitor and record the hours of operation for **S2.018** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Record the throughput rate of material (in tons) on a cumulative monthly basis, for each 12-month rolling period.
   e. Conduct and record an observation of visible emissions (excluding water vapor) on the stack of the **Vent Filter** controlling **S2.018** on a monthly basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. If visible emissions are observed, the Permittee shall conduct and record a Method 9 visible emission test and take corrective actions. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain 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 to eliminate visible emissions.
   f. Inspect the **Vent Filter** installed on **S2.018** on a monthly basis in accordance with the manufacturer’s operation and maintenance manual and record the results (e.g. the condition of the vent filter), and any corrective actions taken.
Section V. Specific Operating Conditions (continued)

U. Emission Units S2.019 and S2.020

<table>
<thead>
<tr>
<th>System 21 - Sulfur Storage</th>
<th>Location UTM (Zone 11, NAD 83)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>m North</td>
</tr>
<tr>
<td>S2.019 Sulfur Storage 1</td>
<td>4,616,946</td>
</tr>
<tr>
<td>S2.020 Sulfur Storage 2</td>
<td>4,616,942</td>
</tr>
</tbody>
</table>

1. Air Pollution Control Equipment (NAC 445B.346(1)) *(Federally Enforceable SIP Requirement)*
   a. Emissions from **S2.019 and S2.020, each**, shall be controlled by **Caustic Scrubber**.
   b. **Descriptive Stack Parameters**
      - Stack Height: 30 feet
      - Stack Diameter: 3 feet
      - Stack Temperature: 140 °F
      - Exhaust Flow: 3,100 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) *(Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **S2.019 and S2.020, each**, shall not exceed **47.0** tons of **Sulfur** per any one-hour period, **averaged over a daily basis**.
   b. **Hours**
      - **S2.019 and S2.020, each**, may operate a total of **24** hours per day.

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.019 and S2.020, each**, the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.10** pounds per hour, nor more than **0.44** tons per 12-month rolling period.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.10** pounds per hour, nor more than **0.44** tons per year per 12-month rolling period.
   c. The discharge of **PM_{2.5}** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.10** pounds per hour, nor more than **0.44** tons per year per 12-month rolling period.
   d. The discharge of **SO_{2}** (Sulfur Dioxide) to the atmosphere shall not exceed **0.34** pounds per hour, nor more than **1.49** tons per year per 12-month rolling period.
   e. The discharge of **H_{2}S** (Hydrogen Sulfide) to the atmosphere shall not exceed **0.12** pounds per hour, nor more than **0.53** tons per year per 12-month rolling period.
   f. The opacity from **S2.019 and S2.020, each**, shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) *(Federally Enforceable SIP Requirement)*
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.
   a. Monitor and record the throughput for **S2.019 and S2.020, each**, on a daily basis.
   b. Monitor and record the hours of operation for **S2.019 and S2.020, each**, on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. The Permittee shall notify the Director within 72 hours if sulfur will be sourced from a different supplier than the fuel energy industry.
   d. Monitor and record the total yearly throughput rate in tons per year. The annual throughput shall be determined as the sum of the monthly throughput rates for the year for all previous months of that year.
Section V. Specific Operating Conditions (continued)

U. Emission Units S2.019 and S2.020 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement) (continued)
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.
   e. Conduct and record an observation of visible emissions (excluding water vapor) on the stack of the Caustic Scrubber controlling S2.019 and S2.020 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. If visible emissions are observed, the Permittee shall conduct and record a Method 9 visible emission test and take corrective actions. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. 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 to eliminate visible emissions.

   f. Inspect the Caustic Scrubber installed on S2.019 and S2.020 on a monthly basis 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.

5. Performance and Compliance Testing (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement)
   The Permittee, upon issuance of this operating permit, shall conduct renewal performance testing on S2.019 and S2.020, each, at least 90 days prior to the expiration of this operating permit, but no earlier than 365 days from the date of expiration of this operating permit, and every 5 years thereafter, in accordance with the following:
   a. All opacity compliance demonstrations and/or performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of Section I.H. Testing and Sampling (NAC 445B.252) of this operating permit. All performance test results shall be based on the arithmetic average of three valid runs (NAC 445B.252(5)).
   b. Testing shall be conducted on the exhaust stack (post controls).
   c. Method 5 and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine particulate matter emissions. All particulate captured in the Method 5 and Method 202 test shall be considered PM2.5 for determination of compliance. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
   d. Method 6C in Appendix A of 40 CFR Part 60 shall be used to determine the sulfur dioxide concentration. The sample volume for each test run shall be at least 1.15 dscm (40.6 dscf). Each test will be run for a minimum of one hour.
   e. Method 15 in Appendix A of 40 CFR Part 60 shall be used to determine the hydrogen sulfide concentration. The sample volume for each test run shall be at least 1.15 dscm (40.6 dscf). Each test will be run for a minimum of one hour.
   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.
Section V. Specific Operating Conditions (continued)

V. Emission Unit S2.021

<table>
<thead>
<tr>
<th>System 22 - Package Boiler</th>
<th>Location UTM (Zone 11, NAD 83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S2.021 Package Boiler</td>
<td>m North</td>
</tr>
<tr>
<td></td>
<td>4,616,986</td>
</tr>
</tbody>
</table>

1. **Air Pollution Control Equipment** (NAC 445B.346(1)) *(Federally Enforceable SIP Requirement)*
   a. S2.021 has no add-on controls.
   b. **Descriptive Stack Parameters**
      - Stack Height: 27 feet
      - Stack Diameter: 3.0 feet
      - Stack Temperature: 363 °F
      - Exhaust Flow: 14,832 actual cubic feet per minute (acfm)

2. **Operating Parameters** (NAC 445B.346(1)) *(Federally Enforceable SIP Requirement)*
   a. S2.021 may consume only **Propane**.
   b. The maximum allowable fuel consumption rate for S2.021 shall not exceed **451.0 gallons** per any one-hour period, averaged over a daily basis period, or more than **248,050 gallons per year** per 12-month rolling period.
   c. **Hours**
      (1) S2.021 may operate a total of **24 hours per day**.
      (2) S2.021 shall not operate in excess of **550 hours per year**.

   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from S2.021 the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.47 pounds per hour**, nor more than **0.13 tons per year per 12-month rolling period**.
   b. The discharge of **PM10** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.47 pounds per hour**, nor more than **0.13 tons per year per 12-month rolling period**.
   c. The discharge of **PM2.5** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.47 pounds per hour**, nor more than **0.13 tons per year per 12-month rolling period**.
   d. The discharge of **SO2** (sulfur dioxide) to the atmosphere shall not exceed **0.72 pounds per hour**, nor more than **0.20 tons per year per 12-month rolling period**.
   e. The discharge of **NOx** (oxides of nitrogen) to the atmosphere shall not exceed **8.79 pounds per hour**, nor more than **2.42 tons per year per 12-month rolling period**.
   f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **6.77 pounds per hour**, nor more than **1.86 tons per year per 12-month rolling period**.
   g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **1.08 pounds per hour**, nor more than **0.30 tons per year per 12-month rolling period**.
   h. The opacity from S2.021 shall not equal or exceed **20 percent**.
Section V. Specific Operating Conditions (continued)

V. Emission Unit S2.021 (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.
   a. Monitor and record the hours of operation for S2.021 on a daily basis.
   b. Monitor and record the consumption rate of Propane on a daily basis for S2.021 (in gallons).
   c. Record the corresponding average hourly consumption rate of Propane in gallons per hour. The average hourly consumption rate shall be determined from the total daily consumption and the total daily hours of operation.
   d. Monitor and record the total yearly consumption rate of Propane in gallons per year. The annual consumption shall be determined as the sum of the monthly consumption rates for the year for all previous months of that year. Record the consumption rate of Propane (in gallons) on a cumulative monthly basis, for each 12-month rolling period.
   d.e. 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 at the end of each month as the sum of the monthly hours of operation for the year.

5. Performance and Compliance Testing (NAC 445B.346(2)), (NAC 445B.252(1)) (Federally Enforceable SIP Requirement)
   The Permittee, upon issuance of this operating permit, shall conduct renewal performance testing on S2.021 at least 90 days prior to the expiration of this operating permit, but no earlier than 365 days from the date of expiration of this operating permit, and every 5 years thereafter, in accordance with the following:
   a. All opacity compliance demonstrations and/or performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of Section I.H. Testing and Sampling (NAC 445B.252) of this operating permit. All performance test results shall be based on the arithmetic average of three valid runs (NAC 445B.252(5)).
   b. Testing shall be conducted on the exhaust stack (post controls).
   c. Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
   d. Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM10 and PM2.5 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 PM2.5 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.
   i. Method 25A in Appendix A of 40 CFR Part 60 shall be used to determine the volatile organic compound concentration. Method 18 in Appendix A of 40 CFR Part 60 or Method 320 in Appendix A of CFR Part 63 may be used in conjunction with Method 25A to break out the organic compounds that are not considered VOC’s by definition per 40 CFR 51.100(s). Each Method 25A test will be run for a minimum of one hour.
Section V. Specific Operating Conditions (continued)

V. Emission Unit S2.021 (continued)

6. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement)


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 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 Director and shall be postmarked by the 30th day following the end of the reporting period. (40 CFR Part 60.48c(j))
Section V. Specific Operating Conditions (continued)

W. Emission Unit S2.022

<table>
<thead>
<tr>
<th>System 23 - Start-Up Burner</th>
<th>Location UTM (Zone 11, NAD 83)</th>
<th>m North</th>
<th>m East</th>
</tr>
</thead>
<tbody>
<tr>
<td>S2.022 Start-Up Burner</td>
<td></td>
<td>4,617,002</td>
<td>414,213</td>
</tr>
</tbody>
</table>

1. Air Pollution Control Equipment (NAC 445B.346(1)) *(Federally Enforceable SIP Requirement)*
   a. **S2.022** has no add-on controls.
   b. Descriptive Stack Parameters
      - Stack Height: 50 feet
      - Stack Diameter: 5.0 feet
      - Stack Temperature: 950 °F
      - Exhaust Flow: 206,338 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) *(Federally Enforceable SIP Requirement)*
   a. **S2.022** may consume only **Propane**.
   b. The maximum allowable fuel consumption rate for **S2.022** shall not exceed **315.0 gallons** per any one-hour period averaged over a daily basis period, nor more than **63,000 gallons per year per 12-month rolling period**.
   c. Hours
      1. **S2.022** may operate a total of **24 hours** per day.
      2. **S2.022** shall not operate in excess of **200 hours per 12-month rolling period**.

   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.022** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.33 pounds** per hour, nor more than **0.033 tons per year per 12-month rolling period**.
   b. The discharge of **PM10** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.33 pounds** per hour, nor more than **0.033 tons per year per 12-month rolling period**.
   c. The discharge of **PM2.5** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.33 pounds** per hour, nor more than **0.033 tons per year per 12-month rolling period**.
   d. The discharge of **SO2** (sulfur dioxide) to the atmosphere shall not exceed **0.50 pounds** per hour, nor more than **0.050 tons per year per 12-month rolling period**.
   e. The discharge of **NOx** (oxides of nitrogen) to the atmosphere shall not exceed **6.14 pounds** per hour, nor more than **0.61 tons per year per 12-month rolling period**.
   f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **4.73 pounds** per hour, nor more than **0.47 tons per year per 12-month rolling period**.
   g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.76 pounds** per hour, nor more than **0.076 tons per year per 12-month rolling period**.
   h. The opacity from **S2.022** shall not equal or exceed **20 percent**.
Section V. Specific Operating Conditions (continued)

W. Emission Unit S2.022 (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.

a. Monitor and record the hours of operation for S2.022 on a daily basis.

b. Monitor and record the consumption rate of Propane on a daily basis for S2.022 (in gallons).

c. Record the corresponding average hourly consumption rate of Propane in gallons per hour. The average hourly consumption rate shall be determined from the total daily consumption and the total daily hours of operation.

d. Monitor and record the total yearly consumption rate of Propane in gallons per year. The annual consumption shall be determined as the sum of the monthly consumption rates for the year for all previous months of that year.

e. Record the consumption rate of Propane (in gallons) on a cumulative monthly basis, for each 12-month rolling period.

d. 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 at the end of each month as the sum of the monthly hours of operation for the year.
X. Emission Units S2.023

<table>
<thead>
<tr>
<th>System 24 - Sulfuric Acid Plant</th>
<th>Location UTM (Zone 11, NAD 83)</th>
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<tbody>
<tr>
<td>S2.023 Sulfuric Acid Plant</td>
<td>m North</td>
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<td>4,617,058</td>
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1. **Air Pollution Control Equipment** *(NAC 445B.346(1)) (Federally Enforceable SIP Requirement)*
   a. Emissions from **S2.023** shall be controlled by a **Tail Gas Scrubber**.
   b. **Descriptive Stack Parameters**
      - Stack Height: 199 feet
      - Stack Diameter: 8.5 feet
      - Stack Temperature: 79 °F
      - Exhaust Flow: 165,245 actual cubic feet per minute (acfm)

2. **Operating Parameters** *(NAC 445B.346(1)) (Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **S2.023** shall not exceed **51.0** tons of **Sulfur** per any one-hour period averaged over a daily basis.
   b. **Hours**
      - **S2.023** may operate a total of **24** hours per day.

3. **Emission Limits** *(NAC 445B.305, NAC 445B.346(1), NAC 445B.22017) (Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.023** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **5.69** pounds per hour, nor more than **24.9** tons per 12-month rolling period.
   b. The discharge of **PM10** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **5.69** pounds per hour, nor more than **24.9** tons per 12-month rolling period.
   c. The discharge of **PM2.5** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **5.69** pounds per hour, nor more than **24.9** tons per 12-month rolling period.
   d. The discharge of **SO2** (Sulfur Dioxide) to the atmosphere shall not exceed **10.2** pounds per hour, nor more than **44.6** tons per 12-month rolling period.
   e. The discharge of **NOx** (Oxides of Nitrogen) to the atmosphere shall not exceed **19.5** pounds per hour, nor more than **85.3** tons per 12-month rolling period.
   f. The discharge of **H2SO4** (Sulfuric Acid) to the atmosphere shall not exceed **5.69** pounds per hour, nor more than **24.9** tons per 12-month rolling period.
   g. The opacity from **S2.023** shall not equal or exceed **20** percent.

4. **Monitoring, Recordkeeping, and Reporting** *(NAC 445B.346(2)) (Federally Enforceable SIP Requirement)*
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.
   a. Monitor and record the throughput for **S2.023** on a daily basis.
   b. Monitor and record the hours of operation for **S2.023** on a daily basis.
   c. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
   d. Conduct and record an observation of visible emissions (excluding water vapor) on the **stack** of the **Tail Gas Scrubber** controlling **S2.023** on a monthly basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. If visible emissions are observed, the Permittee shall conduct and record a Method 9 visible emission test and take corrective actions. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. 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 to eliminate visible emissions.

Section V. Specific Operating Conditions (continued)

X. Emission Units S2.023 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (Federally Enforceable SIP Requirement) (continued)
   The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.
   (continued)
   e. Inspect the Tail Gas Scrubber installed on S2.023 on a monthly basis 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.
   f. Monitor and record the pressure drop pH and water flow rate values for the Tail Gas Scrubber, when the Sulfuric Acid Plant is operating, at least once every hour.
      (1) Sulfuric Acid Plant operation is defined as the combustion of Sulfur in air.
      (2) Compare the values to the minimum water flow rate and pressure drop pH established using the most recent performance test data, manufacturer’s recommendations, engineering calculations, and/or historical data.

5. Performance and Compliance Testing (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement)
   The Permittee, upon issuance of this operating permit, shall conduct annual performance testing within 90 days of the anniversary date of the previous initial performance testing or annual performance testing, and annually thereafter, in accordance with the following:
   a. All opacity compliance demonstrations and/or performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of Section I.H. Testing and Sampling (NAC 445B.252) of this operating permit. All performance test results shall be based on the arithmetic average of three valid runs (NAC 445B.252(5)).
   b. Testing shall be conducted on the exhaust stack (post controls).
   c. Method 5 and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine particulate matter emissions. All particulate captured in the Method 5 and Method 202 test shall be considered PM2.5 for determination of compliance. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
   d. Method 6C in Appendix A of 40 CFR Part 60 shall be used to determine the sulfur dioxide concentration. Each test will be run for a minimum of one hour.
   e. Method 7E in Appendix A of 40 CFR Part 60 shall be used to determine the nitrogen oxides concentration. Each test will be run for a minimum of one hour.
   f. Method 8 in Appendix A of 40 CFR Part 60 or Conditional Test Method CTM-013 shall be used to determine the sulfuric acid mist concentration. The sample volume for each test run shall be at least 1.15 dscm (40.6 dscf). Each test will be run for a minimum of one hour.
   g. The Method 8 test required in this section may be replaced by a Conditional Test Method CTM-013 test based on prior approval from the Administrator. The sample volume for each test run shall be at least 1.15 dscm (40.6 dscf). Each test will be run for a minimum of one hour.
   gh. 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.
Section V. Specific Operating Conditions (continued)

X. Emission Units S2.023 (continued)

6. Federal Requirements (NAC 445B.346(2)) (NAC 445B.252.1) (Federally Enforceable SIP Requirement)
   New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart H—Standards of Performance for Sulfuric Acid Plants
   a. Emission Standards (40 CFR 60.82(a) and 60.83(a))
      (1) Standard for sulfur dioxide (40 CFR 60.82(a))
          On and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, no owner or operator subject to the provisions of Subpart H shall cause to be discharged into the atmosphere from any affected facility any gases which contain sulfur dioxide in excess of 2 kg per metric ton of acid produced (4 lb per ton/204 lbs per hour), the production being expressed as 100 percent H₂SO₄.
      (2) Standard for acid mist (40 CFR 60.83(a))
          On and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, no owner or operator subject to the provisions of Subpart H shall cause to be discharged into the atmosphere from any affected facility any gases which:
            (a) Contain acid mist, expressed as H₂SO₄, in excess of 0.075 kg per metric ton of acid produced (0.15 lb per ton/7.65 lbs per hour), the production being expressed as 100 percent H₂SO₄.
            (b) Exhibit 10 percent opacity, or greater.
   b. Emission Monitoring (40 CFR 60.84)
      (1) A continuous monitoring system for the measurement of sulfur dioxide shall be installed, calibrated, maintained, and operated by the owner or operator. The pollutant gas used to prepare calibration gas mixtures under Performance Specification 2 and for calibration checks under 40 CFR 60.13(d), shall be sulfur dioxide (SO₂). Method 8 shall be used for conducting monitoring system performance evaluations under 40 CFR 60.13(c) except that only the sulfur dioxide portion of the Method 8 results shall be used. The span value shall be set at 1000 ppm of sulfur dioxide. (40 CFR 60.84(a))
      (2) The owner or operator shall establish a conversion factor for the purpose of converting monitoring data into units of the applicable standard (kg/metric ton, lb/ton). The conversion factor shall be determined, as a minimum, three times daily by measuring the concentration of sulfur dioxide entering the converter using suitable methods (e.g., the Reich test, National Air Pollution Control Administration Publication No. 999-AP-13) and calculating the appropriate conversion factor for each eight-hour period as follows: (40 CFR 60.84(b))
          \[
          \text{CF} = k[(1.000 - 0.015r)/(r-s)]
          \]
          where:
          \[
          \begin{align*}
          \text{CF} & = \text{conversion factor (kg/metric ton per ppm, lb/ton per ppm).} \\
          k & = \text{constant derived from material balance. For determining CF in metric units, k = 0.0653. For determining CF in English units, k = 0.1306.} \\
          r & = \text{percentage of sulfur dioxide by volume entering the gas converter. Appropriate corrections must be made for air injection plants subject to the Director’s approval.} \\
          s & = \text{percentage of sulfur dioxide by volume in the emissions to the atmosphere determined by the continuous monitoring system required under paragraph (a) of this section.}
          \end{align*}
          \]

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

X. Emission Units S2.023 (continued)

6. Federal Requirements (NAC 445B.346(2)) (NAC 445B.252.1) (Federally Enforceable SIP Requirement)  
   New Source Performance Standards (NSPS) — 40 CFR Part 60 Subpart H—Standards of Performance for Sulfuric Acid Plants (continued)
   b. Emission Monitoring (40 CFR 60.84) (continued)
      (4) Alternatively, a source that processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen may use the following continuous emission monitoring approach and calculation procedures in determining SO$_2$ emission rates in terms of the standard. This procedure is not required, but is an alternative that would alleviate problems encountered in the measurement of gas velocities or production rate. Continuous emission monitoring systems for measuring SO$_2$, O$_2$, and CO$_2$ (if required) shall be installed, calibrated, maintained, and operated by the owner or operator and subjected to the certification procedures in Performance Specifications 2 and 3. The calibration procedure and span value for the SO$_2$ monitor shall be as specified in paragraph (b) of this section. The span value for CO$_2$ (if required) shall be 10 percent and for O$_2$ shall be 20.9 percent (air). A conversion factor based on process rate data is not necessary. Calculate the SO$_2$ emission rate as follows: (40 CFR 60.84(d))

\[
Es = \frac{(Cs S)}{[0.265 - (0.0126 \%O_2) - (A \%CO_2)]}
\]

where:

- $Es$ = emission rate of SO$_2$, kg/metric ton (lb/ton) of 100 percent of H$_2$SO$_4$ produced.
- $Cs$ = concentration of SO$_2$, kg/dscm (lb/dscf).
- $S$ = acid production rate factor, 368 dscm/metric ton (11,800 dscf/ton) of 100 percent H$_2$SO$_4$ produced.
- $\%O_2$ = oxygen concentration, percent dry basis.
- $A$ = auxiliary fuel factor,
  - = 0.00 for no fuel.
  - = 0.0226 for methane.
  - = 0.0217 for natural gas.
  - = 0.0196 for propane.
  - = 0.0172 for No 2 oil.
  - = 0.0161 for No 6 oil.
  - = 0.0148 for coal.
  - = 0.0126 for coke.
- $\%CO_2$ = carbon dioxide concentration, percent dry basis.

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

Use the following table for such conversions:

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Multiply by</th>
</tr>
</thead>
<tbody>
<tr>
<td>g/scm</td>
<td>kg/scm</td>
<td>$10^{-3}$</td>
</tr>
<tr>
<td>mg/scm</td>
<td>kg/scm</td>
<td>$10^{-6}$</td>
</tr>
<tr>
<td>ppm (SO$_2$</td>
<td>ppm (CO$_2$</td>
<td>$2.660 \times 10^{-6}$</td>
</tr>
<tr>
<td>ppm (SO$_2$</td>
<td>lb/scf</td>
<td>$1.660 \times 10^{-7}$</td>
</tr>
</tbody>
</table>

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

X. Emission Units S2.023 (continued)

6. Federal Requirements (NAC 445B.346(2)) (NAC 445B.252.1) (Federally Enforceable SIP Requirement)
   New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart H—Standards of Performance for Sulfuric Acid Plants (continued)
   c. Test Methods and Procedures (40 CFR 60.85)
      (1) In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of 40 CFR Part 60 or other methods and procedures as specified in this section, except as provided in 40 CFR 60.8(b). Acceptable alternative methods and procedures are given in paragraph (c) of this section. (40 CFR 60.85 (a))
      (2) The owner or operator shall determine compliance with the SO2 acid mist, and visible emission standards in X.6.a(1) and (2) of this section or 40 CFR 60.82 and 60.83 as follows: (40 CFR 60.85 (a))
         (a) The emission rate (E) of acid mist or SO2 shall be computed for each run using the following equation:

         \[ E = \frac{(CQ_{sd})}{(PK)} \]

         where:
         \( E \) = emission rate of acid mist or SO2 kg/metric ton (lb/ton) of 100 percent H2SO4 produced.
         \( C \) = concentration of acid mist or SO2, g/dscm (lb/dscf).
         \( Q_{sd} \) = volumetric flow rate of the effluent gas, dscm/hr (dscf/hr).
         \( P \) = production rate of 100 percent H2SO4, metric ton/hr (ton/hr).
         \( K \) = conversion factor, 1000 g/kg (1.0 lb/lb).

         (b) Method 8 shall be used to determine the acid mist and SO2 concentrations (C's) and the volumetric flow rate (Qsd) of the effluent gas. The moisture content may be considered to be zero. The sampling time and sample volume for each run shall be at least 60 minutes and 1.15 dscm (40.6 dscf).
         (c) Suitable methods shall be used to determine the production rate (P) of 100 percent H2SO4 for each run. Material balance over the production system shall be used to confirm the production rate.
         (d) Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity.
         (3) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section: (40 CFR 60.85 (a))
         (a) If a source processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen, the following procedure may be used instead of determining the volumetric flow rate and production rate:
            (i) The integrated technique of Method 3 is used to determine the O2 concentration and, if required, CO2 concentration.
            (ii) The SO2 or acid mist emission rate is calculated as described in X.6.b.(4) of this section or 40 CFR 60.84(d), substituting the acid mist concentration for Cs as appropriate.
Section V. Specific Operating Conditions (continued)

Y. Emission Units S2.024 and S2.025

<table>
<thead>
<tr>
<th>System 25 - Fire Pumps</th>
<th>Location UTM (Zone 11, NAD 83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S2.024 Fire Pump 1</td>
<td>m North</td>
</tr>
<tr>
<td></td>
<td>4,617.714</td>
</tr>
<tr>
<td>S2.025 Fire Pump 2</td>
<td>4,617.087</td>
</tr>
</tbody>
</table>

1. Air Pollution Control Equipment (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   a. **S2.024 and S2.025, each**, have no add-on controls.
   b. Descriptive Stack Parameters
      - Stack Height: 13.0 feet
      - Stack Diameter: 0.50 feet
      - Stack Temperature: 891 °F
      - Exhaust Flow: 2,048 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   a. **S2.024 and S2.025, each**, may consume only diesel.
   b. The maximum allowable fuel consumption rate for **S2.024 and S2.025, each**, shall not exceed **20.0 gallons** per any one-hour period.
   c. Hours
      (1) **S2.024 and S2.025, each**, may operate a total of **24** hours per day.
      (2) **S2.024 and S2.025, each**, may operate a maximum of **100** hours per year of non-emergency use. There is no time limit on operation in emergency situations.

   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.024 and S2.025, each**, the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.10 pounds per hour**, nor more than **0.0051 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 **0.0051 tons** per year.
   c. The discharge of **PM₂.₅** (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 **0.0051 tons** per year.
   d. The discharge of **SO₂** (sulfur dioxide) to the atmosphere shall not exceed **0.0042 pounds per hour**, nor more than **0.00021 tons** per year.
   e. The discharge of **NOₓ** (oxides of nitrogen) to the atmosphere shall not exceed **2.45 pounds per hour**, nor more than **0.12 tons** per year.
   f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **0.63 pounds per hour**, nor more than **0.032 tons** per year.
   g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.084 pounds per hour**, nor more than **0.0042 tons** per year.
   h. The opacity from **S2.024 and S2.025, each**, shall not equal or exceed **20 percent**.
Section V. Specific Operating Conditions (continued)

Y. Emission Units S2.024 and S2.025 (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.
   a. Monitor and record the total daily hours of operation for S2.024 and S2.025, each, for each day of operation. The Permittee shall note which hours of operation are emergency hours, and which hours of operation are hours for non-emergency use.
   b. Monitor and record the consumption rate of diesel on a daily basis for S2.024 and S2.025, each, (in gallons) by multiplying the maximum hourly fuel consumption rate as stated in Y.2.b of this section and the total daily hours of operation.
   c. Monitor and record the total yearly hours of operation of S2.024 and S2.025, each, per year. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for all previous months of that year.
   d. The Permittee, upon issuance of this operating permit, shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement)
   a. Emissions Standards (40 CFR 60.4202, 40 CFR 60.4205)
      The Permittee must comply with the emission standards in Table 4 of 40 CFR Part 60 Subpart III, for all pollutants, for the same model year and National Fire Protection Association (NFPA) maximum engine power. (40 CFR 60.4202(d), 40 CFR 60.4205(c))
      (1) For a 2009 model year and later stationary fire pump engine with a maximum engine power of 225≤KW<450 (300≤HP<600) and less than 30 liters per cylinder: (40 CFR 60.4202(d), 40 CFR 60.4205(c), Table 4)
         (a) The discharge of PM to the atmosphere shall not exceed 0.20 gram/kW-hr (0.15 gram/hp-hr) (0.14 pounds per hour).
         (b) The discharge of non-methane hydrocarbon (NMHC) + NOX to the atmosphere shall not exceed 4.0 grams/kW-hr (3.0 grams/hp-hr) (2.79 pounds per hour).
   b. Fuel Requirements (40 CFR 60.4207)
      The Permittee must meet the following diesel requirements for non-road engine: (40 CFR 60.4207(b), 40 CFR 80.510(b))
      (1) Sulfur content to be 15 parts per million (ppm) maximum.
      (2) A minimum cetane index of 40; or
      (3) A maximum aromatic content of 35 volume percent.
   c. Monitoring Requirements (40 CFR 60.4209)
      If the CI ICE does not meet the standards applicable to non-emergency engines, the Permittee must install a non-resettable hour meter prior to startup of the engine. (40 CFR 60.4209(a))
   d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211)
      (1) The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. (40 CFR 60.4206)
      (2) Except as permitted in 40 CFR 60.4211(g), The Permittee must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR Part 89. (40 CFR 60.4211(a))
Y. Emission Units S2.024 and S2.025 (continued)

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement) (continued)


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

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

(4) In order for the engine to be considered an emergency stationary ICE under Subpart III, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs Y.5.d.(4)(a) through (c) of this section, is prohibited. If the Permittee do not operate the engine according to the requirements in paragraphs Y.5.d.(4)(a) through (c) of this section, the engine will not be considered an emergency engine under Subpart III and must meet all requirements for non-emergency engines. (40 CFR 60.4211(f))

(a) There is no time limit on the use of emergency stationary ICE in emergency situations. (40 CFR 60.4211(f)(1))

(b) The Permittee may operate the Permittee’s emergency stationary ICE for any combination of the purposes specified in paragraphs Y.5.d.(4)(b) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph Y.5.d.(4)(c) of this section counts as part of the 100 hours per calendar year. (40 CFR 60.4211(f)(2))

i. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. (40 CFR 60.4211(f)(2)(i))

(c) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph Y.5.d.(4)(b) of this section. Except as provided in paragraph Y.5.d.(4)(c) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. (40 CFR 60.4211(f)(3))

i. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the conditions in 40 CFR 60.4211(f)(3)(i)(A) through (E) are met. (40 CFR 60.4211(f)(3)(i))

(5) If the Permittee does not install, configure, operate, and maintain the Permittee’s engine and control device according to the manufacturer's emission-related written instructions, or the Permittee change emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance as follows: (40 CFR 4211(g))

(a) For CI ICE greater than or equal to 100 HP and less than or equal to 500 hp, the Permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee change emission-related settings in a way that is not permitted by the manufacturer. (40 CFR 60.4211(g)(2))
Section V. Specific Operating Conditions (continued)

Y. Emission Units S2.024 and S2.025 (continued)

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement) (continued)
   Compression Ignition Internal Combustion Engines (continued)
      Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:
      If the compression ignition engine meets the requirements of 40 CFR Part 60 Subpart IIII, 40 CFR Part 63 Subpart
      ZZZZ requirements are also met. (40 CFR Part 63.6590(c))
Section V. Specific Operating Conditions (continued)

Z. Emission Units S2.026 and S2.027

<table>
<thead>
<tr>
<th>System 26 - Emergency Generators</th>
<th>Location UTM (Zone 11, NAD 83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S2.026 Emergency Generator 1 (Mine, 168 hp, Generac, 2009 or newer)</td>
<td>4,617,211 410,977</td>
</tr>
<tr>
<td>S2.027 Emergency Generator 2 (Mine, 168 hp, Generac, 2009 or newer)</td>
<td>4,617,211 410,979</td>
</tr>
</tbody>
</table>

1. Air Pollution Control Equipment (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   a. S2.026 and S2.027, each, have no add-on controls.
   b. Descriptive Stack Parameters
      Stack Height: 5.0 feet
      Stack Diameter: 0.30 feet
      Stack Temperature: 960 °F

2. Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   a. S2.026 and S2.027, each, may consume only Propane.
   b. The maximum allowable fuel consumption rate for S2.026 and S2.027, each, shall not exceed 13.9 gallons per any one-hour period.
   c. Hours
      (1) S2.026 and S2.027, each, may operate a total of 24 hours per day.
      (2) S2.026 and S2.027, each, may operate a total of 100 hours per year of non-emergency use. There is no time limit on operation in emergency situations.

   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from S2.026 and S2.027, each, the following pollutants in excess of the following specified limits:
   a. The discharge of PM (particulate matter) to the atmosphere shall not exceed 0.069 pounds per hour, nor more than 0.0034 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 0.069 pounds per hour, nor more than 0.0034 tons per year.
   c. The discharge of PM2.5 (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.069 pounds per hour, nor more than 0.0034 tons per year.
   d. The discharge of SO2 (sulfur dioxide) to the atmosphere shall not exceed 0.0049 pounds per hour, nor more than 0.00024 tons per year.
   e. The discharge of NOx (oxides of nitrogen) to the atmosphere shall not exceed 0.74 pounds per hour, nor more than 0.037 tons per year.
   f. The discharge of CO (carbon monoxide) to the atmosphere shall not exceed 1.21 pounds per hour, nor more than 0.060 tons per year.
   g. The discharge of VOCs (volatile organic compounds) to the atmosphere shall not exceed 0.74 pounds per hour, nor more than 0.037 tons per year.
   h. The opacity from S2.026 and S2.027, each, shall not equal or exceed 20 percent.
Section V. Specific Operating Conditions (continued)

Z. Emission Units S2.026 and S2.027 (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.
   a. Monitor and record the total daily hours of operation for S2.026 and S2.027, each, for each day of operation. The Permittee shall note which hours of operation are emergency hours, and which hours of operation are hours for non-emergency use.
   b. Monitor and record the consumption rate of Propane on a daily basis for S2.026 and S2.027, each, (in gallons) by multiplying the maximum hourly fuel consumption rate as stated in Z.2.b of this section and the total daily hours of operation.
   c. Monitor and record the total yearly hours of operation of S2.026 and S2.027, each, per year. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for all previous months of that year.
   d. The Permittee, upon issuance of this operating permit, shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative (40 CFR 60.7(b)).

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement)
   a. Emissions Standards (40 CFR 60.4231, 40 CFR 60.4233, 40 CFR 60.4234, and 40 CFR 90.1031048.101(1))
      (1) The Permittee of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) manufactured on or after the applicable date in 40 CFR 60.4230(a)(4) (January 1, 2009) that are rich burn engines that use LPG must comply with the emission standards in 40 CFR 60.4231(c) for their stationary SI ICE. (40 CFR 60.4233(c))
      (2) Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are rich burn engines that use LPG and that are manufactured on or after the applicable date in 40 CFR 60.4230(a)(2), or manufactured on or after the applicable date in 40 CFR 60.4230(a)(4) for emergency stationary ICE with a maximum engine power greater than or equal to 130 HP, to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 1048. Stationary SI internal combustion engine manufacturers must certify their emergency stationary SI ICE greater than 25 HP and less than 130 HP that are rich burn engines that use LPG and that are manufactured on or after the applicable date in 40 CFR 60.4230(a)(3) to the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, and other requirements for new nonroad SI engines in 40 CFR part 90. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc that are rich burn engines that use LPG to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 1048, as appropriate. (40 CFR 60.4231(c))
         (a) For a 2007 model year and later (40 CFR 1048.101(bc)(3), Table 240 CFR 1048.101(a)(2)):
            (i) The discharge of HC + NOx to the atmosphere shall not exceed 5.427 grams/kw-hr (1.490.74 pounds/hr).
            (ii) The discharge of CO to the atmosphere shall not exceed 50.4.4 grams/kw-hr (1381.21 pounds/hr).
      (3) The Permittee of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in 40 CFR 60.4233 over the entire life of the engine. (40 CFR 60.4234)
   b. Other Requirements (40 CFR 60.4237)
      (1) Starting on January 1, 2011, if the emergency stationary SI internal combustion engine that is greater than or equal to 130 HP and less than 500 HP that was built on or after January 1, 2011, does not meet the standards applicable to non-emergency engines, the Permittee must install a non-resettable hour meter. The Permittee of
an emergency stationary SI internal combustion engine that is less than 130 HP, was built on or after July 1, 2008, and does not meet the standards applicable to non-emergency engines, must install a non-resettable hour meter upon startup of the emergency engine. (40 CFR 60.4237(c))
Section V. Specific Operating Conditions (continued)

Z. Emission Units S2.026 and S2.027 (continued)

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement)


c. Compliance Requirements (40 CFR 60.4243)

(1) The Permittee of a stationary SI internal combustion engine that is manufactured after July 1, 2008, and must comply with the emission standards specified in 40 CFR 60.4233(a) through (c), must comply by purchasing an engine certified to the emission standards in 40 CFR 60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. In addition, the Permittee must meet one of the requirements specified in (a)(1) and (2) of 40 CFR 60.4243. (40 CFR 60.4243(a))

(a) If the Permittee operates and maintains the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the Permittee must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if the Permittee is an owner or operator. The Permittee must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to the Permittee. If the Permittee adjusts engine settings according to and consistent with the manufacturer's instructions, the Permittee’s stationary SI internal combustion engine will not be considered out of compliance. (40 CFR 60.4243(a)(1))

(b) If the Permittee does not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the Permittee’s engine will be considered a non-certified engine, and the Permittee must demonstrate compliance according to 40 CFR 60.4243(a)(2)(ii). (40 CFR 60.4243(a)(2))

(i) The Permittee of a stationary SI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test within 1 year of engine startup to demonstrate compliance. The Permittee of a stationary SI internal combustion engine less than 100 HP, the must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions, but no performance testing is required. (40 CFR 60.4243(a)(2)(ii))

(2) If the Permittee owns or operates an emergency stationary ICE, the Permittee must operate the emergency stationary ICE according to the requirements in paragraphs 40 CFR 60.4243(d)(1) through 40 CFR 60.4243(d)(3). In order for the engine to be considered an emergency stationary ICE under 40 CFR Part 60 Subpart JJJJ, 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 40 CFR 60.4243(d)(1) through 40 CFR 60.4243(d)(3), is prohibited. If the Permittee does not operate the engine according to the requirements in paragraphs 40 CFR 60.4243(d)(1) through 40 CFR 60.4243(d)(3), the engine will not be considered an emergency engine under 40 CFR Part 60 Subpart JJJJ 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 their emergency stationary ICE for any combination of the purposes specified in paragraph 40 CFR 60.4243(d)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph 40 CFR 60.4243(d)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR 60.4243(d)(2). (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 Permittee 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 Permittee 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)(2)(i))
Section V. Specific Operating Conditions (continued)

Z. Emission Units S2.026 and S2.027 (continued)

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement)
   c. Compliance Requirements (40 CFR 60.4243) (continued)
      (2) If the Permittee owns or operates an emergency stationary ICE, the Permittee must operate the emergency stationary ICE according to the requirements in paragraphs 40 CFR 60.4243(d)(1) through 40 CFR 60.4243(d)(3). In order for the engine to be considered an emergency stationary ICE under 40 CFR Part 60 Subpart JJJJ, 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 40 CFR 60.4243(d)(1) through 40 CFR 60.4243(d)(3), is prohibited. If the Permittee does not operate the engine according to the requirements in paragraphs 40 CFR 60.4243(d)(1) through 40 CFR 60.4243(d)(3), the engine will not be considered an emergency engine under 40 CFR Part 60 Subpart JJJJ and must meet all requirements for non-emergency engines. (40 CFR 60.4243(d))
      (c) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph 40 CFR 60.4243(d)(2). (40 CFR 60.4243(d)(3))
   d. Notification, Reports, and Records (40 CFR 60.4245)
      (1) The Permittee of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements: (40 CFR 60.4245)
         (a) The Permittee of all stationary SI ICE must keep records of the information in paragraphs 40 CFR 60.4245(a)(1) through 40 CFR 60.4245(a)(4). (40 CFR 60.4245(a))
            (i) All notifications submitted to comply with this subpart and all documentation supporting any notification. (40 CFR 60.4245(a)(1))
            (ii) Maintenance conducted on the engine. (40 CFR 60.4245(a)(2))
            (iii) 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))
            (iv) 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) For all stationary SI emergency ICE greater than 25-130 HP and less than 430-500 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the Permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. (40 CFR 60.4245(b))
      (3) The Permittee of an emergency stationary SI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 60.4243(d)(2)(ii) and (iii) or that operates for the purposes specified in 40 CFR 60.4243(d)(3)(i), must submit an annual report according to the requirements in paragraphs (e)(1) through (3) of this section. (40 CFR 60.4245(e))
         (a) The report must contain the following information: (40 CFR 60.4245(e)(1))
            (i) Company name and address where the engine is located. (40 CFR 60.4245(e)(1)(ii))
            (ii) Date of the report and beginning and ending dates of the reporting period. (40 CFR 60.4245(e)(1)(ii))
            (iii) Engine site rating and model year. (40 CFR 60.4245(e)(1)(iii))
Section V. Specific Operating Conditions (continued)

Z. Emission Units S2.026 and S2.027 (continued)

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement)


d. Notification, Reports, and Records (40 CFR 60.4245) (continued)

(3) The Permittee of an emergency stationary SI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 60.4243(d)(2)(ii) and (iii) or that operates for the purposes specified in 40 CFR 60.4243(d)(3)(i), must submit an annual report according to the requirements in paragraphs (e)(1) through (3) of this section. (40 CFR 60.4245(e)) (continued)

(a) The report must contain the following information: (40 CFR 60.4245(e)(1))

(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place. (40 CFR 60.4245(e)(1)(iv))

(v) Hours operated for the purposes specified in 40 CFR 60.4243(d)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR 60.4243(d)(2)(ii) and (iii). (40 CFR 60.4245(e)(1)(v))

(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in 40 CFR 60.4243(d)(2)(ii) and (iii). (40 CFR 60.4245(e)(1)(vi))

(vii) Hours spent for operation for the purposes specified in 40 CFR 60.4243(d)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR 60.4243(d)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine. (40 CFR 60.4245(e)(1)(vii))

(b) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. (40 CFR 60.4245(e)(2))

(c) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in 40 CFR 60.4. (40 CFR 60.4245(e)(3))


If the spark 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))
Section V. Specific Operating Conditions (continued)

AA. Emission Unit S2.028

<table>
<thead>
<tr>
<th>System 27 - Gasoline Tank</th>
<th>Location UTM (Zone 11, NAD 83)</th>
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<tbody>
<tr>
<td>S2.028</td>
<td>m North</td>
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<tr>
<td></td>
<td>4,617,430</td>
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</table>

1. Air Pollution Control Equipment (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   a. S2.028 shall be controlled by submerged fill.
   b. Descriptive Tank Parameters
      Shell Diameter: 5.5 feet
      Shell Height: 6 feet
      Capacity: 1,000 gallons

2. Operating Parameters (NAC 445B.346(1)) (Federally Enforceable SIP Requirement)
   a. S2.028 shall only be used to store gasoline.
   b. The maximum allowable throughput rate for S2.028 shall not exceed 9,999 gallons per month, nor more than 103,000 gallons per year.
   c. Hours S2.028 may operate a total of 24 hours per day.

   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from S2.028 the following pollutants in excess of the following specified limits:
   a. The discharge of VOCs (volatile organic compounds) to the atmosphere shall not exceed 0.22 tons per year.
   b. The opacity from S2.028 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.
   a. Monitor and record the throughput of gasoline, in gallons, loaded into, or dispensed from, S2.028, on a monthly basis, as determined from vendor invoices for tank loading or fuel pump non-resettable meter for tank dispensing.
   b. Monitor and record the total yearly throughput rate in gallons per year. The annual throughput shall be determined at the end of each month as the sum of the monthly throughput rates for the year for all previous months of that year.

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement)
   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 Director 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)
Section V. Specific Operating Conditions (continued)

AA. Emission Unit S2.028 (continued)

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (Federally Enforceable SIP Requirement)
   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 Director to document your gasoline throughput. (40 CFR 63.111126(db))

****End of Specific Operating Conditions****
Section VI. Continuous Emissions Monitoring System (CEMS) Conditions

A. Continuous Emissions Monitoring System (CEMS) Requirements for S2.023 (NAC 445B.3405)

1. On or before the date of start-up of S2.023, the Permittee shall install, calibrate, operate, and maintain an \(SO_2\) and \(NO_x\) CEMS in the exhaust stacks of S2.023. The CEMS sampling probe must be installed at an appropriate location in the exhaust stacks to accurately and continuously measure the concentration of \(SO_2\) and \(NO_x\) (in input appropriate concentration unit) from S2.023, in accordance with the requirements prescribed in Nevada Administrative Code (NAC) 445B.256 to NAC 445B.267, applicable subparts 40 CFR Part 60 Appendix B and Appendix F. Verification of the operational status shall, as a minimum, include completion of the manufacturer’s written requirements or recommendations for installation, operation, and calibration of the devices.

2. The Permittee shall install CEMS as specified under 40 CFR Part 60 Appendix B Performance Specification (PS) 2 Section 8.1. (40 CFR Part 60 Appendix B PS-2 Section 8.1)

3. The Permittee shall conduct Calibration Drift (CD) tests for 7 consecutive calendar days according to the procedure given in 40 CFR Part 60 Appendix B PS-2 Sections 8.3.2 through 8.3.4. Alternatively, the CD test may be conducted over 7 consecutive unit operating days. (40 CFR Part 60 Appendix B PS-2 Section 8.3.1)

4. The Permittee shall conduct a Relative Accuracy (RA) test according to the procedure given in 40 CFR Part 60 Appendix B PS-2 Sections 8.4.2 through 8.4.6. (40 CFR Part 60 Appendix B PS-2 Section 8.4.1)

5. At a minimum, the Permittee shall summarize in tabular form the results of the CD tests and the RA tests or alternative RA procedure, as appropriate. Include all data sheets, calculations, charts (records of CEMS responses), cylinder gas concentration certifications, and calibration cell response certifications (if applicable) necessary to confirm that the performance of the CEMS met the performance specifications. (40 CFR Part 60 Appendix B PS-2 Section 8.5)

6. The Permittee shall comply with the following method performance specifications (40 CFR Part 60 Appendix B PS-2 Section 13.0):
   a. Calibration Drift
   b. Relative Accuracy

7. The Permittee shall develop and implement a Quality Control (QC) program. As a minimum, each QC program must include written procedures which should describe in detail, complete, step-by-step procedures and operations for each of the following activities (40 CFR Part 60 Appendix F Procedure 1 Section 3.0):
   a. Calibration of CEMS
   b. CD determination and adjustment of CEMS
   c. Preventative maintenance of CEMS (including spare parts inventory)
   d. Data recording, calculations, and reporting
   e. Accuracy audit procedures including sampling and analysis methods
   f. Program of corrective action for malfunctioning CEMS

8. The written procedures under A.7, of this section, must be kept on record and available for inspection by the Director. (40 CFR Part 60 Appendix F Procedure 1 Section 3.0)

9. The Permittee shall conduct a Calibration Drift Assessment according to 40 CFR Part 60 Appendix F Procedure 1 Sections 4.1 and 4.2. (40 CFR Part 60 Appendix F Procedure 1 Sections 4.1 and 4.2)

10. The Permittee shall record and report all CEMS data according to 40 CFR Part 60 Appendix F Procedure 1 Section 4.4. All measurements from the CEMS must be retained on file by the Permittee for at least 2 years. (40 CFR Part 60 Appendix F Procedure 1 Section 4.4)

11. Each CEMS must be audited at least once each calendar quarter. Successive quarterly audits shall occur no closer than 2 months. The audits shall be conducted as follows (40 CFR Part 60 Appendix F Procedure 1 Section 5.1):
   a. The Relative Accuracy Test (RATA) shall be conducted once every four calendar quarters. (40 CFR Part 60 Appendix F Procedure 1 Section 5.1.1)
   b. The Cylinder Gas Audit (CGA) shall be conducted every quarter except when a RATA is conducted. (40 CFR Part 60 Appendix F Procedure 1 Section 5.1.2)
A. Continuous Emissions Monitoring System (CEMS) Requirements for §2.023 (NAC 445B.3405) (continued)

12. Unless specified otherwise in the applicable subpart, the Permittee shall comply with the relative accuracy criteria:
   a. For RATA (40 CFR Part 60 Appendix F Procedure 1 Section 5.2.3(1)):
      (1) For SO2 and NOx emissions, RA shall be less than or equal to 20% (if the value determined by the Reference Method (RM) is greater than 50% of the emission limit) or RA shall be less than or equal to 10% (if the value determined by the RM is less than 50% of the emission limit). (40 CFR Part 60 Appendix B PS-2 Section 13.2)

<table>
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<tr>
<th>13.2 Relative Accuracy Performance Specification.</th>
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<tbody>
<tr>
<td>Calculate . . .</td>
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<tr>
<td>RA criteria (%)</td>
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</table>


<table>
<thead>
<tr>
<th>Condition</th>
<th>Calculate . . .</th>
<th>RA criteria (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>If average emissions during the RATA are ≥50% of emission standard</td>
<td>Use Eq. 2-6, with RM in the denominator</td>
<td>≤20.0</td>
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<td>If average emissions during the RATA are &lt;50% of emission standard</td>
<td>Use Eq. 2-6, emission standard in the denominator</td>
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<td>For SO2 emission standards ≤130 but ≥86 ng/J (0.30 and 0.20 lb/million Btu)</td>
<td>Use Eq. 2-6, emission standard in the denominator</td>
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<tr>
<td>For SO2 emission standards &lt;86 ng/J (0.20 lb/million Btu)</td>
<td>Use Eq. 2-6, emission standard in the denominator</td>
<td>≤20.0</td>
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</table>

b. For CGA ±15 percent of the average audit value for or ±5 ppm, whichever is greater. (40 CFR Part 60 Appendix F Procedure 1 Section 5.2.3(2))

13. The Permittee shall conduct and report to the Director a quarterly audit as specified under 40 CFR Part 60 Appendix F Procedure 1 Section 7.0. (40 CFR Part 60 Appendix F Procedure 1 Section 7.0)

B. NAC 445B.265

Monitoring systems: Records; Reports

1. The Permittee subject to the provisions of NAC 445B.256 to 445B.267, inclusive, shall maintain records of the occurrence and duration of any start-up, shutdown or malfunction in the operation of an affected facility and any malfunction of the air pollution control equipment or any periods during which a continuous monitoring system or monitoring device is inoperative.

2. The Permittee required to install a continuous monitoring system shall submit a written report of excess emissions to the Director for every calendar quarter. All quarterly reports must be postmarked by the 30th day following the end of each calendar quarter and must include the following information:
   a. The magnitude of excess emissions computed in accordance with NAC 445B.256 to 445B.267, inclusive, any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.
   b. Specific identification of each period of excess emissions that occurs during start-ups, shutdowns and malfunctions of the affected facility.
   c. The nature and cause of any malfunction, if known, the corrective action taken or preventative measures adopted.
   d. Specific identification of each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of any repairs or adjustments that were made.

   (1) When no excess emissions have occurred and the continuous monitoring system has not been inoperative, repaired or adjusted, such information shall be included in the report.
Section VI. Continuous Emissions Monitoring System (CEMS) Conditions (continued)

B. NAC 445B.265 (continued)

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

(1) The file shall be retained for at least 2 years following the date of the measurements, maintenance, reports and records.

****End of Continuous Emissions Monitoring System (CEMS) Conditions****
Section VII. Emission Caps

A. Not Applicable

****End of Emission Caps****
Section VIII. Surface Area Disturbance Conditions

The surface area disturbance for the Thacker Pass Project is 5,545 acres.

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

1. No person may cause or permit the handling, transporting or storing of any material in a manner which allows or may allow controllable particulate matter to become airborne.

2. Except as otherwise provided in subsection 4, no person may cause or permit the construction, repair, demolition, or use of unpaved or untreated areas without first putting into effect an ongoing program using the best practical methods to prevent particulate matter from becoming airborne. As used in this subsection, “best practical methods” includes, but is not limited to, paving, chemical stabilization, watering, phased construction and revegetation.

3. Except as otherwise provided in subsection 4, no person may disturb or cover 5 acres or more of land or its topsoil until he has obtained an operating permit for surface area disturbance to clear, excavate, or level the land or to deposit any foreign material to fill or cover the land.

4. The provisions of subsections 2 and 3 do not apply to:
   a. Agricultural activities occurring on agricultural land; or
   b. Surface disturbances authorized by a permit issued pursuant to NRS 519A.180 which occur on land which is not less than 5 acres or more than 20 acres.

****End of Surface Area Disturbance Conditions****
Issued to: LITHIUM NEVADA – THACKER PASS PROJECT (AS PERMITTEE)

Section IX. Schedules of Compliance

A. Not Applicable

****End of Schedule of Compliance****
Section X. Amendments

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: ______________ MM DD, 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: ______________ MM DD, 2021

Signature: ____________________________

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

Phone: ____________________________ Date: ______________ MM DD, 2021
## Class II Insignificant Activities List

Appended to Permit #AP1479-4334

<table>
<thead>
<tr>
<th>Emission Unit #</th>
<th>Emission Unit Description</th>
</tr>
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<tbody>
<tr>
<td>IA1.001</td>
<td>Ammonium Nitrate Prill Silo - Loading</td>
</tr>
<tr>
<td>IA1.002</td>
<td>Ammonium Nitrate Prill Silo - Unloading</td>
</tr>
<tr>
<td>IA1.003</td>
<td>Sulfuric Acid Plant Cooling Tower</td>
</tr>
<tr>
<td>IA1.004</td>
<td>Lithium Carbonate Cooling Tower</td>
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<tr>
<td>IA1.005</td>
<td>Splitter 1</td>
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<tr>
<td>IA1.017</td>
<td>Pulverizer 1</td>
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<td>Pulverizer 2</td>
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<td>IA1.019</td>
<td>Pulverizer 3</td>
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<tr>
<td>IA1.020</td>
<td>Diesel Tank, Off Road (Mine), 25,000 gallons</td>
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<tr>
<td>IA1.021</td>
<td>Diesel Tank, Highway (Mine), 8,000 gallons</td>
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<tr>
<td>IA1.022</td>
<td>Bulk Oil Tank, 20,000 gallons</td>
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<tr>
<td>IA1.023</td>
<td>Bulk Coolant Tank, 3,000 gallons</td>
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<tr>
<td>IA1.024</td>
<td>Bulk Used Oil Tank, 3,000 gallons</td>
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<tr>
<td>IA1.025</td>
<td>Bulk Used Coolant Tank, 3,000 gallons</td>
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