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

Bureau of Air Pollution Control

901 SOUTH STEWART STREET SUITE 4001
CARSON CITY, NEVADA 89701-5249
p: 775-687-9349 • ndep.nv.gov/air

Facility ID No. A2238 *Permit No.* AP3499-4249

CLASS II AIR QUALITY OPERATING PERMIT

Issued to: REDWOOD MATERIALS, INC. (HEREINAFTER REFERRED TO AS PERMITTEE)
Mailing Address: 2801 LOCKHEED WAY, CARSON CITY, NV 89706
Physical Address: 2401 CONESTOGA DRIVE, CARSON CITY, NV 89706
Driving Directions: HEAD NORTH ON N. CARSON STREET AND TURN RIGHT ONTO HOT SPRINGS ROAD. TURN LEFT ONTO N. ROOP STREET. CONTINUE ONTO EMERSON DRIVE. TURN RIGHT ONTO ARROWHEAD DRIVE. TURN LEFT ONTO GONI ROAD. TURN RIGHT ONTO CONESTOGA DRIVE. FACILITY IS ON THE RIGHT.
General Facility Location: SECTION 33, T 16N, R 20E, MDB&M
HA 104 – EAGLE VALLEY / CARSON CITY COUNTY
NORTH 4,343,052 M, EAST 263,256 M, UTM ZONE 11, NAD 83

Emission Unit List:

A. System 01a – Mechanical Separation 1 (Revised April 2021, Air Case # 10604) (Revised Month Year, Air Case # 11221)

S2.018	Vibratory Table (IN: Box Tipper; OUT: Feed Conveyor (w/ Plate Magnet))
S2.001	Granulator 1 (IN: Feed Conveyor (w/ Plate Magnet); OUT: Cyclone Stage 1)
S2.019	Screener Stage 1 (IN: Cyclone Stage 1 via Rotary Airlock; OUT: Powder Screw Conveyor 1, Powder Screw Conveyor 2, and Oversize Bailing Station)
S2.020	Powder Screw Conveyor 1 to Dosing Hopper
S2.021	Dosing Hopper to Turbo Mill via Dosing Hopper Rotary Airlock
S2.006	Turbo Mill
S2.022	Turbo Mill to Cyclone 2
S2.023	Screener Stage 2 (IN: Cyclone Stage 2 via Rotary Airlock; OUT: Air Table and Powder Screw Conveyor 2)
S2.024	MS1 Dust Collector 1 to Dust Collector Screw Conveyor via Dust Collector Rotary Airlock #1
S2.025	MS1 Dust Collector 2 to Dust Collector Screw Conveyor via Dust Collector Rotary Airlock #2
S2.026	Dust Collector Screw Conveyor to Powder Screw Conveyor 2
S2.027	Powder Screw Conveyor 2 to Powder Bagging Station
S2.007	Air Table (IN: Screener Stage 2; OUT: Oversize Copper Bagging Station or Oversize Aluminum Bagging Station)

B. System 01b – Mechanical Separation 1 (Added April 2021, Air Case # 10604) (Revised Month Year, Air Case # 11221)

S2.028	Cyclone Stage 1 (IN: Granulator; OUT: Screener Stage 1)
S2.029	Cyclone Stage 2 (IN: Turbo Mill; OUT: Screener Stage 2)

C. System 02a – Converter 3 – Primary Operating Scenario (Revised Month Year, Air Case # 11221)

S2.003a	Converter 3
S2.004	Converter 3 Burner (Natural Gas)
S2.005	Post-Burner (C3) (Natural Gas) **(Removed Month Year, Air Case # 11221)**

D. System 02b – Converters 3-6 – Alternative Operating Scenario (Removed Month Year, Air Case # 11221)

S2.003b	Converter 3
S2.004	Converter 3 Burner (Natural Gas)
S2.005	Post-Burner (C3) (Natural Gas)
S2.008b	Converter 4
S2.009b	Converter 5
S2.010b	Converter 6
S2.011	Converter 4 Burner (Natural Gas)
S2.009b	Converter 5
S2.010b	Converter 6
S2.011	Converter 4 Burner (Natural Gas)

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Emission Unit List (continued):

E. System 02c – Converters 4-6 – Primary Operating Scenario (Revised Month Year, Air Case # 11221)
S2.008a Converter 4
S2.009a Converter 5
S2.010a Converter 6
S2.011 Converter 4 Burner (Natural Gas)
S2.012 Converter 5 Burner (Natural Gas)
S2.013 Converter 6 Burner (Natural Gas)
S2.014 Post-Burner (C4-C6) (Natural Gas) **(Removed Month Year, Air Case # 11221)**

F. System 03 – Lithium Carbonate Dryer (Added April 2021, Air Case # 10604) (Removed Month Year, Air Case # 11221)
S2.015 Lithium Carbonate Dryer (Electric)

G. System 04 – Jaw Crusher & Ball Mill (Added April 2021, Air Case # 10604) (Removed Month Year, Air Case # 11221)
S2.016 Jaw Crusher
S2.017 Ball Mill

H. System 05 – Converter Screening & Product Loadout (Added Month Year, Air Case # 11221)
S2.030 Cooling Vessel/Super Sack to Loading System (via Forklift)

I. System 06 – Emergency Diesel Generator (Added Month Year, Air Case # 11221)
S2.031 Emergency Diesel Generator G1 (Kohler, 200 kW, Model: 200ROZJ, Serial: 712643, manufactured: 2001)

J. System 07 – Emergency Diesel Generator (Added Month Year, Air Case # 11221)
S2.032 Emergency Diesel Generator G2 (WhisperWatt, 110 kW, Model: DCA125SSIU4F, Serial: TBD, manufactured: 2020)

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

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Section I. General Provisions

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

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

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

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

C. Visible emissions: Exceptions for stationary sources (NAC 445B.2202) (*Federally Enforceable SIP Requirement)*
The provisions of NAC 445B.22017 do not apply to:

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

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Section I. General Provisions (continued)

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

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

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

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

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

Except as otherwise provided in NAC 445B.001 to 445B.3497, inclusive, [NAC adopted as of October 2016 includes 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.3689, inclusive, must be approved in advance by the Director and performed during a time designated by the Director as being favorable for atmospheric ventilation.
2. Each owner or operator shall notify the Director of the proposed time and expected duration at least 30 days before any scheduled maintenance or testing which may result in excess emissions of regulated air pollutants prohibited by NAC 445B.001 to 445B.390, inclusive. The scheduled maintenance or testing must not be conducted unless the scheduled maintenance or testing is approved pursuant to subsection 1.
3. Each owner or operator shall notify the Director of the proposed time and expected duration at least 24 hours before any scheduled repairs which may result in excess emissions of regulated air pollutants prohibited by NAC 445B.001 to 445B.390, inclusive. The scheduled repairs must not be conducted unless the scheduled repairs are approved pursuant to subsection 1.
4. Each owner or operator shall notify the Director of any excess emissions within 24 hours after any malfunction or upset of the process equipment or equipment for controlling pollution or during start-up or shutdown of that equipment.

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Section I. General Provisions (continued)

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

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

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

1. To determine compliance with NAC 445B.001 to 445B.3497, inclusive, [NAC adopted as of October 2016 includes NAC 445B.001 to 445B.390, inclusive], before the approval or the continuance of an operating permit or similar class of permits, the Director may either conduct or order the owner of any stationary source to conduct or have conducted such testing and sampling as the Director determines necessary. Testing and sampling or either of them must be conducted and the results submitted to the Director within 60 days after achieving the maximum rate of production at which the affected facility will be operated, but not later than 180 days after initial start-up of the facility and at such other times as may be required by the Director.
2. Tests of performance must be conducted and data reduced in accordance with the methods and procedures of the test contained in each applicable subsection of this section unless the Director:
   a. Specifies or approves, in specific cases, the use of a method of reference with minor changes in methodology;
   b. Approves the use of an equivalent method;
   c. Approves the use of an alternative method, the results of which the Director has determined to be adequate for indicating whether a specific stationary source is in compliance; or
   d. Waives the requirement for tests of performance because the owner or operator of a stationary source has demonstrated by other means to the director's satisfaction that the affected facility is in compliance with the standard.
3. Tests of performance must be conducted under such conditions as the Director specifies to the operator of the plant based on representative performance of the affected facility. The owner or operator shall make available to the Director such records as may be necessary to determine the conditions of the performance test. Operations during periods of startup, shutdown and malfunction must not constitute representative conditions of a performance test unless otherwise specified in the applicable standard.
4. The owner or operator of an affected facility shall give notice to the Director 30 days before the test of performance to allow the Director to have an observer present. A written testing procedure for the test of performance must be submitted to the Director at least 30 days before the test of performance to allow the Director to review the proposed testing procedures.
5. Each test of performance must consist of at least three separate runs using the applicable method for that test. Each run must be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the runs apply. In the event of forced shutdown, failure of an irreplaceable portion of the sampling train, extreme meteorological conditions or other circumstances with less than three valid samples being obtained, compliance may be determined using the arithmetic mean of the results of the other two runs upon the Director's approval.
6. All testing and sampling will be performed in accordance with recognized methods and as specified by the Director.

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Section I. General Provisions (continued)

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

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

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

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

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

1. Failure to comply with any requirement of NAC 445B.001 to 445B.3791, inclusive, [NAC adopted as of October 2016 includes 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.3497, inclusive, [NAC adopted as of October 2016 includes 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.3791, inclusive, [NAC adopted as of October 2016 includes 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.3689, inclusive, [NAC adopted as of October 2016 includes NAC 445B.001 to 445B.390, inclusive], as a condition of approving an operating permit for the proposed stationary source.

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Section I. General Provisions (continued)

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

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

Issued to: REDWOOD MATERIALS, INC. (AS PERMITTEE)

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.3689, inclusive, [NAC adopted as of October 2016 includes 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******

Issued to: REDWOOD MATERIALS, INC. (AS PERMITTEE)

Section II. General Monitoring, Recordkeeping, and Reporting Conditions

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

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

C. Yearly Reports (NAC 445B.315(3)(h), NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
Under the authority of NAC 445B.315(3)(h) and NAC 445B.346(2), the Permittee will submit yearly reports including, but not limited to, throughput, production, fuel consumption, hours of operation, 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******

Issued to: REDWOOD MATERIALS, INC. (AS PERMITTEE)

Section III. General Construction Conditions

A. Notification (NAC 445B.250; NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*

Under the authority of NAC 445B.250 and NAC 445B.346; the Director shall be notified in writing of the following for **S2.001, S2.003a, S2.004, S2.006, S2.007, S2.008a through S2.010a, S2.011 through S2.013 and S2.018 through S2.032** :

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

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

Issued to: REDWOOD MATERIALS, INC. (AS PERMITTEE)

Section IV. Specific Construction Requirements

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

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

2. The Permittee, upon issuance of this operating permit, shall conduct initial performance tests for **System 02a (Revised** Month/Year, **Air Case # 11221**) within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after **System 02a exceeds 0.67 battery material production units** per any one-hour period averaged over a daily basis. The Permittee shall follow the test methods and procedures referenced in Table IV-2 of this section.

Table IV-1: Initial Opacity Compliance Demonstration

System	Emission Unit(s)	Pollutant To Be Tested	Testing Methods/Procedures
System 01a – Mechanical Separation 1	S2.001, S2.006, S2.007 and S2.018 through S2.027	Opacity	Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.
System 01b – Mechanical Separation 1	S2.028 and S2.029	Opacity	Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.
System 05 – Converter Screening & Product Loadout	S2.030	Opacity	Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.
System 06 – Emergency Diesel Generator	S2.031	Opacity	Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.
System 07 – Emergency Diesel Generator	S2.032	Opacity	Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.

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Section IV. Specific Construction Requirements (continued)

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

Table IV-2: Initial Performance Tests

System	Emission Unit(s)	Pollutants To Be Tested	Testing Methods/Procedures
System 01a – Mechanical Separation 1	S2.001, S2.006, S2.007 and S2.018 through S2.027	PM	Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions**.** The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
		$PM_{10}/PM_{2.5}$	Method 201A in Appendix M of 40 CFR Part 51 shall be used to determine PM_{10} and $PM_{2.5}$ emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately. The Method 201A test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 test. All particulate captured in the Method 5 test performed under this provision shall be considered $PM_{2.5}$ for determination of compliance.
		Metals	Reference Method 29 test in Appendix A of 40 CFR Part 60 to determine the antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium emissions. The minimum sample volume must be 2.0 dscm (70 dscf) for each run.
System 01b – Granulation System	S2.028 and S2.029	PM	Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions**.** The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
		$PM_{10}/PM_{2.5}$	Method 201A in Appendix M of 40 CFR Part 51 shall be used to determine PM_{10} and $PM_{2.5}$ emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately. The Method 201A test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 test. All particulate captured in the Method 5 test performed under this provision shall be considered $PM_{2.5}$ for determination of compliance.
		Metals	Reference Method 29 test in Appendix A of 40 CFR Part 60 to determine the antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium emissions. The minimum sample volume must be 2.0 dscm (70 dscf) for each run.

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Section IV. Specific Construction Requirements (continued)

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

Table IV-2: Initial Performance Tests

System	Emission Unit(s)	Pollutants To Be Tested	Testing Methods/Procedures
System 02a – Converter 3 – Primary Operating Scenario	S2.003a and S2.004	PM	Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions**.** The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
		$PM_{10}/PM_{2.5}$	Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM_{10} and $PM_{2.5}$ emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately. The Method 201A and 202 test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 and Method 202 in Appendix M of 40 CFR Part 51 test. All particulate captured in the Method 5 and Method 202 test performed under this provision shall be considered $PM_{2.5}$ for determination of compliance.
		SO_2	Method 6C in Appendix A of 40 CFR Part 60 shall be used to determine the sulfur dioxide concentration. Each test will be run for a minimum of one hour.
		NO_X	Method 7E in Appendix A of 40 CFR Part 60 shall be used to determine the nitrogen oxides concentration. Each test will be run for a minimum of one hour.
		CO	Method 10 in Appendix A of 40 CFR Part 60 shall be used to determine the carbon monoxide concentration. Each test will be run for a minimum of one hour.
		VOC	Method 25A in Appendix A of 40 CFR Part 60 shall be used to determine the volatile organic compound concentration. Method 18 in Appendix A of 40 CFR Part 60 or Method 320 in Appendix A of CFR Part 63 may be used in conjunction with Method 25A to break out the organic compounds that are not considered VOC's by definition per 40 CFR 51.100(s). Each Method 25A test will be run for a minimum of one hour.
		Metals	Reference Method 29 test in Appendix A of 40 CFR Part 60 to determine the antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium emissions. The minimum sample volume must be 2.0 dscm (70 dscf) for each run.
		Dioxins and Furans	Reference Method 23 test in Appendix A of 40 CFR Part 60 shall be used to determine the dioxin and furan concentration. 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.
		HF	Method 26A in Appendix A of 40 CFR Part 60 shall be used to determine the hydrogen fluoride concentration. Each test will be run for a minimum of one hour.

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Section IV. Specific Construction Requirements (continued)

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

Table IV-2: Initial Performance Tests

System	Emission Unit(s)	Pollutants To Be Tested	Testing Methods/Procedures
System 05 – Converter Screening & Product Loadout	S2.030	PM	Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions**.** The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
		$PM_{10}/PM_{2.5}$	Method 201A in Appendix M of 40 CFR Part 51 shall be used to determine PM_{10} and $PM_{2.5}$ emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately. The Method 201A test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 test. All particulate captured in the Method 5 test performed under this provision shall be considered $PM_{2.5}$ for determination of compliance.
		Metals	Reference Method 29 test in Appendix A of 40 CFR Part 60 to determine the antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium emissions. The minimum sample volume must be 2.0 dscm (70 dscf) for each run.

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Section IV. Specific Construction Requirements (continued)

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

3. 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))
4. Testing shall be conducted on the exhaust stack (post controls).
5. 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))
6. 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))
7. Within 60 days after completing the initial opacity compliance demonstrations and initial performance tests contained in Table IV-1 and Table IV-2 of this section, the Permittee shall furnish the Director a written report of the results. All information and analytical results of testing and sampling must be certified as to the truth and accuracy and as to their compliance with NAC 445B.001 to 445B.3689, inclusive. (NAC 445B.252(8))
8. 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******

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Section V. Specific Operating Conditions

A. Emission Units S2.001, S2.006, S2.007 and S2.018 through S2.027

System 01a – Mechanical Separation 1 (Revised April/2021, Air Case # 10604) (Revised Month/Year, Air Case # 11221)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.018	Vibratory Table (IN: Box Tipper; OUT: Feed Conveyor (w/ Plate Magnet))	4,343,012	263,384
S2.001	Granulator 1 (IN: Feed Conveyor (w/ Plate Magnet); OUT: Cyclone Stage 1)	4,343,012	263,384
S2.019	Screener Stage 1 (IN: Cyclone Stage 1 via Rotary Airlock; OUT: Powder Screw Conveyor 1, Powder Screw Conveyor 2, and Oversize Bailing Station)	4,343,012	263,384
S2.020	Powder Screw Conveyor 1 to Dosing Hopper	4,343,012	263,384
S2.021	Dosing Hopper to Turbo Mill via Dosing Hopper Rotary Airlock	4,343,012	263,384
S2.006	Turbo Mill	4,343,012	263,384
S2.022	Turbo Mill to Cyclone 2	4,343,012	263,384
S2.023	Screener Stage 2 (IN: Cyclone Stage 2 via Rotary Airlock; OUT: Air Table and Powder Screw Conveyor 2)	4,343,012	263,384
S2.024	MS1 Dust Collector 1 to Dust Collector Screw Conveyor via Dust Collector Rotary Airlock #1	4,343,012	263,384
S2.025	MS1 Dust Collector 2 to Dust Collector Screw Conveyor via Dust Collector Rotary Airlock #2	4,343,012	263,384
S2.026	Dust Collector Screw Conveyor to Powder Screw Conveyor 2	4,343,012	263,384
S2.027	Powder Screw Conveyor 2 to Powder Bagging Station	4,343,012	263,384
S2.007	Air Table (IN: Screener Stage 2; OUT: Oversize Copper Bagging Station or Oversize Aluminum Bagging Station)	4,343,012	263,384

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. Emissions from **S2.001, S2.006, S2.007 and S2.018 through S2.027, combined,** shall be controlled by **a baghouse (MS1 Dust Collector #1).**
   b. Descriptive Stack Parameters
      Stack Height: 35 feet
      Stack Diameter: 2.0
      Stack Temperature: 41 °F

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable exhaust flow for **baghouse (MS1 Dust Collector #1)** shall not exceed **11,500.0** dry standard cubic feet per minute averaged over a daily basis.
   b. **S2.001, S2.006, S2.007 and S2.018 through S2.027, each,** may process only **Lithium-Ion Batteries and Lithium-Ion Battery Materials.**
   c. Hours
      (1) **S2.001, S2.006, S2.007 and S2.018 through S2.027, each,** may operate a total of **24** hours per day**.**

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Section V. Specific Operating Conditions (continued)

A. Emission Units S2.001, S2.006, S2.007 and S2.018 through S2.027

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 **the exhaust stack of the baghouse controlling S2.001, S2.006, S2.007 and S2.018 through S2.027, combined,** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.15** pounds per hour, nor more than **0.65** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.15** pounds per hour, nor more than **0.65** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.15** pounds per hour, nor more than **0.65** tons per year.
   d. The discharge of **MHAP** (metallic hazardous air pollutants) to the atmosphere shall not exceed **0.15** pounds per hour, nor more than **0.65** tons per year.
   e. The opacity from **the exhaust stack of the baghouse controlling S2.001, S2.006, S2.007 and S2.018 through S2.027, combined,** 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 exhaust flow for **baghouse (MS1 Dust Collector #1)** on a daily basis.
   b. Monitor and record the hours of operation for **S2.001, S2.006, S2.007 and S2.018 through S2.027, each,** on a daily basis.
   c. Conduct and record an observation of visible emissions (excluding water vapor) on the baghouse controlling **S2.001, S2.006, S2.007 and S2.018 through S2.027, 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.
   d. Inspect the baghouse installed on **S2.001, S2.006, S2.007 and S2.018 through S2.027, each,** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter fabric) and any corrective actions taken.

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Section V. Specific Operating Conditions (continued)

A. Emission Units S2.001, S2.006, S2.007 and S2.018 through S2.027 (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 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.
   g. Method 29 test in Appendix A of 40 CFR Part 60 shall be used to determine the antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium emissions. The minimum sample volume must be 2.0 dscm (70 dscf) for each run.

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Section V. Specific Operating Conditions (continued)

B. Emission Units S2.028 and S2.029

System 01b – Mechanical Separation 1 (Added April/2021, Air Case # 10604) (Revised Month/Year, Air Case # 11221)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.028	Cyclone Stage 1 (IN: Granulator; OUT: Screener Stage 1)	4,343,005	263,387
S2.029	Cyclone Stage 2 (IN: Turbo Mill; OUT: Screener Stage 2)	4,343,005	263,387

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. Emissions from **S2.028 and S2.029, combined,** shall be controlled by **a baghouse (MS1 Dust Collector #2).**
   b. Descriptive Stack Parameters
      Stack Height: 35 feet
      Stack Diameter: 1.50 feet
      Stack Temperature: 41 °F

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable exhaust flow for **baghouse (MS1 Dust Collector #2)** shall not exceed **6,000.0** dry standard cubic feet per minute averaged over a daily basis.
   b. **S2.028 and S2.029, each,** may process only **Lithium-Ion Batteries and Lithium-Ion Battery Materials.**
   c. Hours
      (1) **S2.028 and S2.029, each,** may operate a total of **24** hours per day**.**

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **the exhaust stack of the baghouse controlling S2.028 and S2.029, combined,** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.11** pounds per hour, nor more than **0.50** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.11** pounds per hour, nor more than **0.50** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.11** pounds per hour, nor more than **0.50** tons per year.
   d. The discharge of **MHAP** (metallic hazardous air pollutants) to the atmosphere shall not exceed **0.11** pounds per hour, nor more than **0.50** tons per year.
   e. The opacity from **the exhaust stack of the baghouse controlling S2.028 and S2.029** shall not equal or exceed **20** percent.

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Section V. Specific Operating Conditions (continued)

B. Emission Units S2.028 and S2.029 (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 exhaust flow for **baghouse (MS1 Dust Collector #2)** on a daily basis.
   b. Monitor and record the hours of operation for **S2.028 and S2.029, each,** on a daily basis.
   c. Conduct and record an observation of visible emissions (excluding water vapor) on the baghouse controlling **S2.028 and S2.029, each,** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly observation of visible emissions, and any corrective actions taken.
   d. Inspect the baghouse installed on **S2.028 and S2.029, each,** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter fabric) and any corrective actions taken.

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 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.
   g. Method 29 test in Appendix A of 40 CFR Part 60 shall be used to determine the antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium emissions. The minimum sample volume must be 2.0 dscm (70 dscf) for each run.

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Section V. Specific Operating Conditions (continued)

C. Emission Units S2.003a and S2.004

System 02a – Converter 3 – Primary Operating Scenario (Revised April/2021, Air Case # 10604) (Revised Month/Year, Air Case # 11221)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.003a	Converter 3	4,342,953	263,229
S2.004	Converter 3 Burner (Natural Gas)	4,342,953	263,229
S2.005	Post-Burner (C3) (Natural Gas) **(Removed Month/Year, Air Case # 11221)**	4,342,953	263,229

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. Emissions from **S2.003a and S2.004, combined,** shall be controlled by **Baghouse #1.**
   b. Descriptive Stack Parameters
      Stack Height: 20 feet
      Stack Diameter: 1 foot
      Stack Temperature: 392 °F
      Exhaust Flow: 6,000.0 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **S2.003a** shall not exceed **1.25 battery material production units** per any one-hour period averaged over a daily basis.
   b. **S2.004** may consume only **natural gas** or **oxygen.**
   c. Hours
      (1) **S2.003a and S2.004, each,** may operate a total of **24** hours per day**.**

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from the **exhaust stack of the baghouse controlling S2.003a and S2.004, combined,** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.21** pounds per hour, nor more than **0.92** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.21** pounds per hour, nor more than **0.92** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.21** pounds per hour, nor more than **0.92** tons per year.
   d. The discharge of **SO_2** (sulfur dioxide) to the atmosphere shall not exceed **0.75** pounds per hour, nor more than **3.29** tons per year.
   e. The discharge of **NO_X** (oxides of nitrogen) to the atmosphere shall not exceed **1.24** pounds per hour, nor more than **5.43** tons per year.
   f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **7.44** pounds per hour, nor more than **32.60** tons per year.
   g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **10.50** pounds per hour, nor more than **45.98** tons per year.
   h. The discharge of **Pb** (lead) to the atmosphere shall not exceed **0.0075** pounds per hour, nor more than **0.033** tons per year.
   i. The discharge of **MHAP** (metallic hazardous air pollutants) to the atmosphere shall not exceed **0.28** pounds per hour, nor more than **1.22** tons per year.

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Section V. Specific Operating Conditions (continued)

C. Emission Units S2.003a and S2.004 (continued)

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)* (continued)
The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from the **exhaust stack of the baghouse controlling S2.003a and S2.004, combined,** the following pollutants in excess of the following specified limits: (continued)
   j. The discharge of **dioxins and furans** to the atmosphere shall not exceed **0.0000079** pounds per hour, nor more than **0.000035** tons per year.
   k. The discharge of **HF** (hydrogen fluoride) to the atmosphere shall not exceed **0.96** pounds per hour, nor more than **4.22** tons per year.
   l. The opacity from **the exhaust stack of the baghouse controlling S2.003a and S2.004** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.
   a. Monitor and record the date and time when operations start and stop for **System 02a**.
   b. Monitor and record the throughput, in **tons**, for **S2.003a** on a daily basis.
   c. Monitor and record the consumption rate of **natural gas** and **oxygen** on a daily basis for **S2.004** (in **scf**).
   d. Monitor and record the date and time when **S2.004** combust **natural gas** or **oxygen.**
   e. Monitor and record the hours of operation for **S2.003a and S2.004, each,** on a daily basis.
   f. Record the monthly hours of operation, and the corresponding annual hours of operation for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined as the sum of the monthly hours of operation for the year.
   g. Conduct and record an observation of visible emissions (excluding water vapor) on the baghouse controlling **S2.003a and S2.004** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly observation of visible emissions, and any corrective actions taken.
   h. Inspect the baghouse installed on **S2.003a and S2.004** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter fabric) and any corrective actions taken.

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Section V. Specific Operating Conditions (continued)

C. Emission Units S2.003a and S2.004 (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 performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of Section I.H. Testing and Sampling (NAC 445B.252) of this operating permit. All performance test results shall be based on the arithmetic average of three valid runs (NAC 445B.252(5)).
   b. Testing shall be conducted on the exhaust stack (post controls).
   c. Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
   d. Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM_{10} and $PM_{2.5}$ emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately.
   e. The Method 201A and 202 test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 and Method 202 in Appendix M of 40 CFR Part 51 test. All particulate captured in the Method 5 and Method 202 test performed under this provision shall be considered $PM_{2.5}$ for determination of compliance.
   f. Method 6C in Appendix A of 40 CFR Part 60 shall be used to determine the sulfur dioxide concentration. Each test will be run for a minimum of one hour.
   g. Method 7E in Appendix A of 40 CFR Part 60 shall be used to determine the nitrogen oxides concentration. Each test will be run for a minimum of one hour.
   h. Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.
   i. Method 10 in Appendix A of 40 CFR Part 60 shall be used to determine the carbon monoxide concentration. Each test will be run for a minimum of one hour.
   j. Method 25A in Appendix A of 40 CFR Part 60 shall be used to determine the volatile organic compound concentration. Method 18 in Appendix A of 40 CFR Part 60 or Method 320 in Appendix A of CFR Part 63 may be used in conjunction with Method 25A to break out the organic compounds that are not considered VOC's by definition per 40 CFR 51.100(s). Each Method 25A test will be run for a minimum of one hour.
   k. Method 29 test in Appendix A of 40 CFR Part 60 shall be used to determine the antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium emissions. The minimum sample volume must be 2.0 dscm (70 dscf) for each run.
   l. Method 23 test in Appendix A of 40 CFR Part 60 shall be used to determine the dioxin and furan concentration. 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.
   m. Method 26A in Appendix A of 40 CFR Part 60 shall be used to determine the hydrogen fluoride concentration. Each test will be run for a minimum of one hour.

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Section V. Specific Operating Conditions (continued)

D. Emission Units S2.003b through S2.005 and S2.008b through S2.014

System 02b – Converters 3-6 – Alternative Operating Scenario (Revised April/2021, Air Case # 10604) (Removed Month/Year, Air Case # 11221)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.003b	Converter 3	4,342,953	263,229
S2.004	Converter 3 Burner (Natural Gas)	4,342,953	263,229
S2.005	Post-Burner (C3) (Natural Gas)	4,342,953	263,229
S2.008b	Converter 4	4,342,958	263,244
S2.009b	Converter 5	4,342,958	263,244
S2.010b	Converter 6	4,342,958	263,244
S2.011	Converter 4 Burner (Natural Gas)	4,342,958	263,244
S2.012	Converter 5 Burner (Natural Gas)	4,342,958	263,244
S2.013	Converter 6 Burner (Natural Gas)	4,342,958	263,244
S2.014	Post-Burner (C4-C6) (Natural Gas)	4,342,958	263,244

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Section V. Specific Operating Conditions (continued)

E. Emission Units S2.008a through S2.013

System 02c – Converters 4-6 – Primary Operating Scenario (Added April/2021, Air Case # 10604) (Revised Month/Year, Air Case # 11221)		Location UTM (Zone 11, NAD 83) m North	m East
S2.008a	Converter 4	4,342,958	263,244
S2.009a	Converter 5	4,342,958	263,244
S2.010a	Converter 6	4,342,958	263,244
S2.011	Converter 4 Burner (Natural Gas)	4,342,958	263,244
S2.012	Converter 5 Burner (Natural Gas)	4,342,958	263,244
S2.013	Converter 6 Burner (Natural Gas)	4,342,958	263,244
S2.014	Post-Burner (C4-C6) (Natural Gas) **(Removed Month/Year, Air Case # 11221)**	4,342,958	263,244

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. Emissions from **S2.008a through S2.013** shall be controlled by **Baghouse #2.** Emissions from **S2.008a through S2.013** shall also be controlled by an **Acid Gas Scrubber and Lime Dosing**.
   b. Descriptive Stack Parameters
   Stack Height: 20 feet
   Stack Diameter: 2 feet
   Stack Temperature: 95 °F
   Exhaust Flow: 17,500 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable throughput rate for **S2.008a through S2.010a, each,** shall not exceed **3.75 battery material production units** per any one-hour period averaged over a daily basis.
   b. **S2.011 through S2.013** may consume only **natural gas** or **oxygen.**
   c. Hours
   (1) **S2.008a through S2.013, each,** may operate a total of **24** hours per day**.**

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from the **exhaust stack of the baghouse controlling S2.008a through S2.013, combined,** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.20** pounds per hour, nor more than **0.89** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.20** pounds per hour, nor more than **0.89** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.20** pounds per hour, nor more than **0.89** tons per year.
   d. The discharge of **SO_2** (sulfur dioxide) to the atmosphere shall not exceed **0.75** pounds per hour, nor more than **3.29** tons per year.
   e. The discharge of **NO_X** (oxides of nitrogen) to the atmosphere shall not exceed **2.10** pounds per hour, nor more than **9.20** tons per year.
   f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **14.90** pounds per hour, nor more than **65.28** tons per year.
   g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **7.87** pounds per hour, nor more than **34.48** tons per year.
   h. The discharge of **Pb** (lead) to the atmosphere shall not exceed **0.0075** pounds per hour, nor more than **0.033** tons per year.
   i. The discharge of **MHAP** (metallic hazardous air pollutants) to the atmosphere shall not exceed **0.28** pounds per hour, nor more than **1.21** tons per year.

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Section V. Specific Operating Conditions (continued)

E. Emission Units S2.008a through S2.013 (continued)

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)* (continued)
The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from the **exhaust stack of the baghouse controlling S2.008a through S2.013, combined,** the following pollutants in excess of the following specified limits: (continued)
   j. The discharge of **dioxins and furans** to the atmosphere shall not exceed **0.0000239** pounds per hour, nor more than **0.000105** tons per year.
   k. The discharge of **HF** (hydrogen fluoride) to the atmosphere shall not exceed **0.95** pounds per hour, nor more than **4.15** tons per year.
   l. The opacity from **the exhaust stack of the baghouse controlling S2.008a through 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 date and time when operations start and stop for **System 02c**.
   b. Monitor and record the throughput, in **tons**, for **S2.008a through S2.010a, each,** on a daily basis.
   c. Monitor and record the consumption rate of **natural gas** and **oxygen** on a daily basis for **S2.011 through S2.013, each,** (in **scf**).
   d. Monitor and record the date and time when **S2.011 through S2.013, each,** combust **natural gas** or **oxygen.**
   e. Monitor and record the hours of operation for **S2.008a through S2.013, each,** on a daily basis.
   f. Record the monthly hours of operation, and the corresponding annual hours of operation for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined as the sum of the monthly hours of operation for the year.
   g. Conduct and record an observation of visible emissions (excluding water vapor) on the baghouse controlling **S2.008a through S2.013** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly observation of visible emissions, and any corrective actions taken.
   h. Inspect the baghouse installed on **S2.008a through S2.013** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter fabric) and any corrective actions taken.
   i. Conduct and record an observation of visible emissions (excluding water vapor) on the acid gas scrubber controlling **S2.008a through S2.013** on a monthly basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly observation of visible emissions, and any corrective actions taken.
   j. Inspect the acid gas scrubber in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the water spray nozzles), and any corrective actions taken.

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Section V. Specific Operating Conditions (continued)

E. Emission Units S2.008a through S2.013 (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 performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of Section I.H. Testing and Sampling (NAC 445B.252) of this operating permit. All performance test results shall be based on the arithmetic average of three valid runs (NAC 445B.252(5)).
   b. Testing shall be conducted on the exhaust stack (post controls).
   c. Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
   d. Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM_{10} and $PM_{2.5}$ emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately.
   e. The Method 201A and 202 test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 and Method 202 in Appendix M of 40 CFR Part 51 test. All particulate captured in the Method 5 and Method 202 test performed under this provision shall be considered $PM_{2.5}$ for determination of compliance.
   f. Method 6C in Appendix A of 40 CFR Part 60 shall be used to determine the sulfur dioxide concentration. Each test will be run for a minimum of one hour.
   g. Method 7E in Appendix A of 40 CFR Part 60 shall be used to determine the nitrogen oxides concentration. Each test will be run for a minimum of one hour.
   h. Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.
   i. Method 10 in Appendix A of 40 CFR Part 60 shall be used to determine the carbon monoxide concentration. Each test will be run for a minimum of one hour.
   j. Method 25A in Appendix A of 40 CFR Part 60 shall be used to determine the volatile organic compound concentration. Method 18 in Appendix A of 40 CFR Part 60 or Method 320 in Appendix A of CFR Part 63 may be used in conjunction with Method 25A to break out the organic compounds that are not considered VOC's by definition per 40 CFR 51.100(s). Each Method 25A test will be run for a minimum of one hour.
   k. Method 29 test in Appendix A of 40 CFR Part 60 shall be used to determine the antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium emissions. The minimum sample volume must be 2.0 dscm (70 dscf) for each run.
   l. Method 23 test in Appendix A of 40 CFR Part 60 shall be used to determine the dioxin and furan concentration. 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.
   m. Method 26A in Appendix A of 40 CFR Part 60 shall be used to determine the hydrogen fluoride concentration. Each test will be run for a minimum of one hour.

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Section V. Specific Operating Conditions (continued)

F. Emission Unit S2.015

System 03 – Lithium Carbonate Dryer (Added April/2021, Air Case # 10604) (Removed Month/Year, Air Case # 11221)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.015	Lithium Carbonate Dryer (Electric)	4,343,021	263,313

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Section V. Specific Operating Conditions (continued)

G. Emission Units S2.016 and S2.017

System 04 – Jaw Crusher & Ball Mill (Added April/2021, Air Case # 10604) (Removed Month/Year, Air Case # 11221)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.016	Jaw Crusher	4,342,963	263,261
S2.017	Ball Mill	4,342,963	263,261

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Section V. Specific Operating Conditions (continued)

H. Emission Unit S2.030

System 05 – Converter Screening & Product Loadout (Added Month/Year, Air Case # 11221)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.030	Cooling Vessel/Super Sack to Loading System (via Forklift)	4,342,961	263,276

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. Emissions from **S2.030** shall be controlled by **a baghouse.**
   b. Descriptive Stack Parameters
      Sta ck Height: 35 feet
      Stack Diameter: 0.83
      Stack Temperature: 41 °F
      Exhaust Flow: 2,000 actual cubic feet per minute (acfm)

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. The maximum allowable exhaust flow for **baghouse controlling S2.030** shall not exceed **2,000.0** actual standard cubic feet per minute averaged over a daily basis.
   b. **S2.030** may process only **Lithium-Ion Batteries and Lithium-Ion Battery Materials.**
   c. Hours
      (1) **S2.030** may operate a total of **24** hours per day**.**

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **the exhaust stack of the Baghouse controlling S2.030** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.086** pounds per hour, nor more than **0.38** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.086** pounds per hour, nor more than **0.38** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.086** pounds per hour, nor more than **0.38** tons per year.
   d. The discharge of **MHAP** (metallic hazardous air pollutants) to the atmosphere shall not exceed **0.086** pounds per hour, nor more than **0.38** tons per year.
   e. The opacity from **the exhaust stack of the baghouse controlling S2.030** shall not equal or exceed **20** percent.

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Section V. Specific Operating Conditions (continued)

H. Emission Unit S2.030 (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 exhaust flow for **baghouse controlling S2.030** on a daily basis.
   b. Monitor and record the hours of operation for **S2.030** on a daily basis.
   c. Conduct and record an observation of visible emissions (excluding water vapor) on the baghouse controlling **S2.030** 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.
   d. Inspect the baghouse installed on **S2.030** 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 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.

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Section V. Specific Operating Conditions (continued)

I. Emission Unit S2.031

System 06 – Emergency Diesel Generator (Added Month/Year, Air Case # 11221)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.031	Emergency Diesel Generator G1 (Kohler, 200kW, Model: 200ROZJ, Serial: 712643, manufactured: 2001)	4,342,964	263,237

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.031** has no add-on controls.
   b. Descriptive Stack Parameters
      Stack Height: 6.00 feet
      Stack Diameter: 0.33 feet
      Stack Temperature: 920 °F

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.031** may consume only **diesel**.
   b. The maximum allowable fuel consumption rate for **S2.031** shall not exceed **16.10 gallons** per any one-hour period.
   c. Hours
      (1) **S2.031** may operate a total of **24** hours per day.
      (2) **S2.031** may operate a total of **100** hours per year of non-emergency use. There is no time limit on operation in emergency situations.
      (3) **S2.031** may operate from **11:00 AM** to **3:00 PM only** during non-emergency use**.**

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.031** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.70** pounds per hour, nor more than **0.035** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.70** pounds per hour, nor more than **0.035** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.70** pounds per hour, nor more than **0.035** tons per year.
   d. The discharge of **SO_2** (sulfur dioxide) to the atmosphere shall not exceed **0.65** pounds per hour, nor more than **0.033** tons per year.
   e. The discharge of **NO_X** (oxides of nitrogen) to the atmosphere shall not exceed **9.94** pounds per hour, nor more than **0.50** tons per year.
   f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **2.14** pounds per hour, nor more than **0.11** tons per year.
   g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.81** pounds per hour, nor more than **0.041** tons per year.
   h. The opacity from **S2.031** shall not equal or exceed **20** percent.

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Section V. Specific Operating Conditions (continued)

I. Emission Unit S2.031 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the times at which operations start and stop as well as the total daily hours of operation for **S2.031.** 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 **S2.031** (in **gallons**) by multiplying the maximum hourly fuel consumption rate as stated in **I.2.b** of this section and the total daily hours of operation.
   c. Monitor and record the total yearly hours of operation of **S2.031** 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.

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
National Emissions Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart ZZZZ – for Stationary Reciprocating Internal Combustion Engines
   a. Emissions Limitations, Management Practices and Other Requirements (40 CFR 63.6603(a), Table 2d)
   For each Emergency stationary CI RICE and black start stationary CI RICE, the Permittee must meet the following requirement, except during periods of startup:
      (1) Change oil and filter every 500 hours of operation or annually, whichever comes first;
      (2) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
      (3) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
   b. Fuel Requirements (40 CFR 63.6604)
   The Permittee must meet the following diesel requirements for non-road engine: (40 CFR 63.6604, 40 CFR 1090.305)
      (1) Sulfur content to be 15 parts per million (ppm) maximum.
      (2) Cetane index or aromatic content as follows:
         (a) A minimum cetane index of 40; or
         (b) A maximum aromatic content of 35 volume percent.
   c. Monitoring, Installation, Collection, Operation, Maintenance Requirements (40 CFR 63.6625)
      (1) The Permittee must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop the Permittee's own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR 63.6625(e))
      (2) The Permittee must install a non-resettable hour meter if one is not already installed. (40 CFR 63.6625(f))
      (3) The Permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in **I.5.a** of this section. (40 CFR 63.6625(h))

Issued to: REDWOOD MATERIALS, INC. (AS PERMITTEE)

Section V. Specific Operating Conditions (continued)

I. Emission Unit S2.031 (continued)

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
National Emissions Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart ZZZZ – for Stationary Reciprocating Internal Combustion Engines (continued)

c. Monitoring, Installation, Collection, Operation, Maintenance Requirements (40 CFR 63.6625) (continued)

(4) The Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in **I.5.a.(1)** of this section. The oil analysis must be performed at the same frequency specified for changing the oil in **I.5.a.(1)** of this section. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the Permittee is not required to change the oil. If any of the limits are exceeded, the Permittee must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The Permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. (40 CFR 63.6625(i))

d. Compliance Requirements (40 CFR 63.6605, 63.6640, Table 6)

(1) The Permittee must be in compliance with the emission limitations, operating limitations, and other requirements in Subpart ZZZZ that apply at all times. (40 CFR Part 63.6605(a))

(2) The Permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator 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 Part 63.6605(b))

(3) Permittee must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in **I.5.a** of this section according to methods specified below: (40 CFR 63.6640(a), Table 6)

(a) Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or

(b) Develop and follow Permittee's own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

Issued to: REDWOOD MATERIALS, INC. (AS PERMITTEE)

Section V. Specific Operating Conditions (continued)

I. Emission Unit S2.031 (continued)

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
National Emissions Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart ZZZZ – for Stationary Reciprocating Internal Combustion Engines (continued)
   d. Compliance Requirements (40 CFR 63.6605, 63.6640, Table 6) (continued)
      (4) The Permittee must operate the emergency stationary RICE according to the requirements in **I.5.d.(4)(a) through (c)** of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in **I.5.d.(4)(a) through (c)** of this section, is prohibited. If the Permittee does not operate the engine according to the requirements in **I.5.d.(4)(a) through (c)** of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. (40 CFR 63.6640(f))
         (a) There is no time limit on the use of emergency stationary RICE in emergency situations. (40 CFR 63.6640(f)(1))
         (b) The Permittee may operate their emergency stationary RICE for any combination of the purposes specified in **I.5.d.(4)(b)(i)** of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by **I.5.d.(c)** of this section counts as part of the 100 hours per calendar year. (40 CFR 63.6640(f)(2))
            i. Emergency stationary RICE 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 owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. (40 CFR 63.6640(f)(2)(i))
         (c) Emergency stationary RICE located at area sources of HAP 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 **I.5.d.(4)(b)** of this section. Except as provided in **I.5.d.(4)(c)(i) and (ii)** of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. (40 CFR 63.6640(f)(4))
            i. Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system. (40 CFR 63.6640(f)(4)(i))
            ii. 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 63.6640(f)(4)(ii)(A) through (E) are met. (40 CFR 63.6640(f)(4)(ii))

Issued to: REDWOOD MATERIALS, INC. (AS PERMITTEE)

Section V. Specific Operating Conditions (continued)

I. Emission Unit S2.031 (continued)

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
National Emissions Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart ZZZZ – for Stationary Reciprocating Internal Combustion Engines (continued)

e. Recordkeeping Requirements (40 CFR Part 63.6655)

The Permittee must keep the following records:

(1) A copy of each notification and report that the Permittee submitted to comply with Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status that the Permittee submitted, according to the requirement in 40 CFR Part 63.10(b)(2)(xiv). (40 CFR 63.6655(a)(1))

(2) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. (40 CFR 63.6655(a)(2))

(3) Records of performance tests and performance evaluations as required in 40 CFR Part 63.10(b)(2)(viii). (40 CFR 63.6655(a)(3))

(4) Records of all required maintenance performed on the RICE and any air pollution control and monitoring equipment. (40 CFR 63.6655(a)(4))

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with **I.5.d.(2)** of this section including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. (40 CFR 63.6655(a)(5))

(6) The Permittee must keep the records required in with **I.5.d.(3)** of this section to show continuous compliance with each emission or operating limitation that applies. (40 CFR 63.6655(d))

(7) The Permittee must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the Permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to their own maintenance plan. (40 CFR 63.6655(e))

(8) 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. If the engine is used for the purposes specified in 40 CFR Part 63.6640(f)(2)(ii) or (iii), or 40 CFR Part 63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. (40 CFR 63.6655(f))

Issued to: REDWOOD MATERIALS, INC. (AS PERMITTEE)

Section V. Specific Operating Conditions (continued)

J. Emission Unit S2.032

System 07 – Emergency Diesel Generator (Added Month/Year, Air Case # 11221)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.032	Emergency Diesel Generator G2 (WhisperWatt, 110 kW, Model: DCA125SSIU4F, Serial: TBD, manufactured: 2020)	4,342,961	263,239

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.032** has no add-on controls.
   b. Descriptive Stack Parameters
      Stack Height: 6 feet
      Stack Diameter: 0.25 feet
      Stack Temperature: 658 °F

2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement)*
   a. **S2.032** may consume only **diesel**.
   b. The maximum allowable fuel consumption rate for **S2.032** shall not exceed **7.10 gallons** per any one-hour period.
   c. Hours
      (1) **S2.032** may operate a total of **24** hours per day**.**
      (2) **S2.032** may operate a maximum of **100** hours per year of non-emergency use. There is no time limit on operation in emergency situations.

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement)*
   The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.032** the following pollutants in excess of the following specified limits:
   a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.0049** pounds per hour, nor more than **0.00024** tons per year.
   b. The discharge of **PM_{10}** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.0049** pounds per hour, nor more than **0.00024** tons per year.
   c. The discharge of **$PM_{2.5}$** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.0049** pounds per hour, nor more than **0.00024** tons per year.
   d. The discharge of **SO_2** (sulfur dioxide) to the atmosphere shall not exceed **0.29** pounds per hour, nor more than **0.014** tons per year.
   e. The discharge of **NO_x** (oxides of nitrogen) to the atmosphere shall not exceed **0.097** pounds per hour, nor more than **0.0049** tons per year.
   f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **1.21** pounds per hour, nor more than **0.061** tons per year.
   g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.36** pounds per hour, nor more than **0.018** tons per year.
   h. The opacity from **S2.032** shall not equal or exceed **20** percent.

Issued to: REDWOOD MATERIALS, INC. (AS PERMITTEE)

Section V. Specific Operating Conditions (continued)

J. Emission Unit S2.032 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement)*
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
   a. Monitor and record the total daily hours of operation for **S2.032** 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 **S2.032** (in **gallons**) by multiplying the maximum hourly fuel consumption rate as stated in **J.2.b** of this section and the total daily hours of operation.
   c. Monitor and record the total yearly hours of operation of **S2.032** per year. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for all previous months of that year.
   d. The Permittee, upon issuance of this operating permit, shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement)*
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
   a. Emissions Standards (40 CFR 60.4205)
   The Permittee must comply with the emission standards for new non-road CI (compression ignition) ICE (internal combustion engine) in 40 CR 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. (40 CFR 60.4205(b))
      (1) For a 2007 model year and later Tier **4** non-road engine with a rated power greater than or equal to 37 kW (50 hp): (40 CFR 60.4202(a), 40 CFR 1039 Appendix I)
         (a) The discharge of PM to the atmosphere shall not exceed **0.02** grams/kW-hr (**0.0049** pounds per hour).
         (b) The discharge of CO to the atmosphere shall not exceed **5.0** grams/kW-hr (**1.21** pounds per hour).
         (c) The discharge of NO_X to the atmosphere shall not exceed **0.40** gram/kW-hr (**0.097** pounds per hour).
      (2) Exhaust opacity must not exceed: (40 CFR 60.4202(a)(1)(i), 40 CFR 1039.105(b))
         (a) 20 percent during acceleration mode;
         (b) 15 percent during the lugging mode; and
         (c) 50 percent during the peaks in either the acceleration or lugging modes.

Issued to: REDWOOD MATERIALS, INC. (AS PERMITTEE)

Section V. Specific Operating Conditions (continued)

J. Emission Unit S2.032 (continued)

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

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 1090.305)

(1) Sulfur content to be 15 parts per million (ppm) maximum.
(2) A minimum cetane index of 40; or
(3) A maximum aromatic content of 35 volume percent.

c. Monitoring Requirements (40 CFR 60.4209)

If the CI ICE does not meet the standards applicable to non-emergency engines, the Permittee must install a non-resettable hour meter prior to startup of the engine. (40 CFR 60.4209(a))

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

(1) The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. (40 CFR 60.4206)

(2) The Permittee must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR Part 89. (40 CFR 60.4211(a))

(3) The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in **J.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 this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs **J.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 **J.5.d.(4)(a) through (c)** of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. (40 CFR 60.4211(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 **J.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 **J.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))

Issued to: REDWOOD MATERIALS, INC. (AS PERMITTEE)

Section V. Specific Operating Conditions (continued)

J. Emission Unit S2.032 (continued)

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

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

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

(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 **J.5.d.(4)(b)** of this section. Except as provided in paragraph **J.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))

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

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

Issued to: REDWOOD MATERIALS, INC. (AS PERMITTEE)

Section VI. Emission Caps

A. Not Applicable

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

Issued to: REDWOOD MATERIALS, INC. (AS PERMITTEE)

Section VII. Surface Area Disturbance Conditions

The surface area disturbance for **Redwood Materials, Inc.** is **8.06** 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: REDWOOD MATERIALS, INC. (AS PERMITTEE)

Section VIII. Schedules of Compliance

A. Not Applicable

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

Issued to: REDWOOD MATERIALS, INC. (AS PERMITTEE)

Section IX. Amendments

April 19, 2021 (Air Case #10604)

- System 01a – Revised system name, emission unit descriptions, emission limits and stack parameters.
- System 01b – Added as new system.
- System 02a – Revised system name, emission unit descriptions, stack parameters and emission limits. Added Pb limits.
- System 02b – Revised system name. Updated alternative operating scenario to process material in one of the four converter units and exhaust through one of two baghouses. Decreased annual operating hours. Added Pb limits.
- System 02c – Added as new system.
- System 03 – Added as new system.
- System 04 – Added as new system.

March 16, 2021 (Air Case #10704)

- Added IA1.044 – IA1.047

December 1, 2021 (Air Case #10993)

- Corrected air pollution control description for System 02A by removing Acid Gas Scrubber.

Issued to: REDWOOD MATERIALS, INC. (AS PERMITTEE)

Section IX. Amendments (continued)

Month Day, Year (Air Case #11221)

- System 01a – Renamed to Mechanical Separation 1. Revise equipment and baghouse control. Addition of transfer points.
- System 01b – Renamed to Mechanical Separation 1. Revise equipment and baghouse control.
- System 02a – Removed S2.005, gas scrubber and Lime Dosing controls. Increase in PM/PM_{10}/$PM_{2.5}$, NO_x, VOC, Dioxin/Furan, HF emission limits. Added material throughput operating parameters.
- System 02b – Removed system.
- System 02c – Removed S2.014. Increase in PM/PM_{10}/$PM_{2.5}$, NO_x, VOC, Pb, Dioxin/Furan, HF emission limits. Added material throughput operating parameters. Updated stack parameters.
- Systems 03 & 04 – Removed
- Systems 05 through 07 – Added as new systems.

This permit:

1. **Is non-transferable. (NAC 445B.287.3) (*Federally Enforceable SIP Requirement)***
2. **Will be posted conspicuously at or near the stationary source. (NAC 445B.318.5) (*Federally Enforceable SIP Requirement)***
3. **Will expire and be subject to renewal five (5) years from: November 17, 2020 . (NAC 445B.315) (*Federally Enforceable SIP Requirement)***
4. **A completed application for renewal of an operating permit must be submitted to the director on the form provided by him with the appropriate fee at least 70 calendar days before the expiration date of this operating permit. (NAC 445B.3473.2) (*Federally Enforceable SIP Requirement)***
5. **Any person aggrieved by a final decision of the Department may, not later than 10 days after notice of the action of the Department, appeal the decision by filing a request for a hearing before the Commission on a form 3* with the State Environmental Commission, 901 South Stewart Street, Suite 4001, Carson City, Nevada 89701-5249. *(See adopting agency for form.) (NAC 445B.890) *(State Only Requirement)***

THIS PERMIT EXPIRES ON: **November 17, 2025**

Signature: _____

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

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

dr 11/ 20 dr 04/ 21 dr 12/ 21 dr xx/ 23

Class II Insignificant Activities List

Appended to Permit #AP3499–4249

Emission Unit #	Emission Unit Description
IA1.001	Chem Room Evaporator Heater
IA1.002	Heater Unit 1
IA1.003	Heater Unit 2
IA1.004	Heater Unit 3
IA1.005	Heater Unit 4
IA1.006	Heater Unit 5
IA1.007	Heater Unit 6
IA1.008	Heater Unit 7
IA1.009	Heater Unit 8
IA1.010	Heater Unit 9
IA1.011	Heater Unit 10
IA1.012	Heater Unit 11
IA1.013	Heater Unit 12
IA1.014	Heater Unit 13
IA1.015	Heater Unit 14
IA1.016	Heater Unit 15
IA1.017	Heater Unit 16
IA1.018	Heater Unit 17
IA1.019	Heater Unit 18
IA1.020	Heater Unit 19
IA1.021	Heater Unit 20
IA1.022	Heater Unit 21
IA1.023	Heater Unit 22
IA1.024	Heater Unit 23
IA1.025	Heater Unit 24
IA1.026	Heater Unit 25
IA1.027	Heater Unit 26
IA1.028	Heater Unit 27
IA1.029	Heater Unit 28
IA1.030	Heater Unit 29
IA1.031	Heater Unit 30
IA1.032	Heater Unit 31
IA1.033	Heater Unit 32
IA1.034	Heater Unit 33
IA1.035	Heater Unit 34
IA1.036	Heater Unit 35
IA1.037	Heater Unit 36
IA1.038	Heater Unit 37
IA1.039	Heater Unit 38
IA1.040	Heater Unit 39
IA1.041	Heater Unit 40
IA1.042	Heater Unit 41
IA1.043	Heater Unit 42
IA1.044	Converter 3 Cooling Tower
IA1.045	Converter 4 Cooling Tower
IA1.046	Converter 5 Cooling Tower
IA1.047	Converter 6 Cooling Tower