



**Bureau of Air Pollution Control**

901 SOUTH STEWART STREET SUITE 4001

CARSON CITY, NEVADA 89701-5249

p: 775-687-9349 • [www.ndep.nv.gov/bapc](http://www.ndep.nv.gov/bapc)

**Facility ID No. A0003**

**Permit No. AP1041-0723.05**

**CLASS I AIR QUALITY OPERATING PERMIT (40 CFR Part 70 Program)**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (HEREINAFTER REFERRED TO AS PERMITTEE)

**Mailing Address:** 2055 GETCHELL MINE ROAD, GOLCONDA, NV 89414

**Driving Directions:** TAKE STATE ROUTE 789 NORTH FROM GOLCONDA, NV CONTINUE TO END OF PAVEMENT, CONTINUE NORTH ON UNPAVED ROAD, AFTER APPROXIMATELY 8 MILES BEAR RIGHT AT WYE FOR 4 MILE TO FRONT GATE.

**General Facility Location:**

SECTIONS 12, 13, 24, 25, AND 36 T 39 N, R 42 E, MDB&M  
SECTIONS 4, 5, 9, AND 15 T 38 N, R 43 E, MDB&M  
SECTIONS 4-10, 15-22, AND 28-33 T 39 N, R 43 E, MDB&M  
SECTIONS 31 AND 32 T 40 N, R 43 E, MDB&M  
HA 66 – KELLEY CREEK AREA / HUMBOLDT COUNTY  
NORTH 4,562,613 M, EAST 484,262 M, UTM ZONE 11, NAD 83

**Emission Unit List:**

**A. System 01– Juniper Mill Conveying Circuit**

PF1.001 Juniper Ore Hopper  
PF1.002 Juniper Apron Feeder  
PF1.003 Juniper Belt Conveyor

**B. System 02 – Juniper Lime Silo**

S2.001 Juniper Lime Silo Loading  
PF1.004 Juniper Lime Silo Unloading

**C. System 03A – Juniper Mill Carbon Kiln Drum**

S2.002 Juniper Carbon Kiln Drum (MOPTC AP1041-2218, TU4.003)

**D. System 03B – Juniper Mill Carbon Kiln Burner**

S2.003 Juniper Carbon Kiln Burner

**E. System 04 – Juniper Mill Package Boilers**

S2.004 Juniper Mill Package Boiler #1  
S2.005 Juniper Mill Package Boiler #2

**F. System 05 – Mercury Retorts**

S2.006 Juniper Retort A (MOPTC AP1041-2218, TU4.004)  
S2.007 Juniper Retort B (MOPTC AP1041-2218, TU4.005)

**G. System 06 – Juniper Mill Induction Furnaces**

S2.008 Juniper Mill Induction Furnace #1 (MOPTC AP1041-2218, TU4.001)  
S2.008.1 Juniper Mill Induction Furnace #2 (MOPTC AP1041-2218, TU4.002)

**H. System 07A – Sage Mill Ore Handling Circuit**

PF1.005 Fabricated Ore Hopper #1  
PF1.006 Fabricated Ore Hopper #2



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**Emission Unit List (continued):**

**I. System 07B – Sage Mill Ore Handling Circuit**

- PF1.007 Apron Feeder #1
- PF1.008 Apron Feeder #2
- PF1.009 Belt Conveyor to Sag Mill

**J. System 08 – Sage Mill Autoclaves**

- S2.009 Sage Mill Autoclave #1 (MOPTC AP1041-2218, TU4.012)
- S2.010 Sage Mill Autoclave #2 (MOPTC AP1041-2218, TU4.013)

**K. System 10 – Oxygen Plant Vaporizer #1**

- S2.012 Oxygen Plant Vaporizer Boiler #1 - Natural Gas

**L. System 11 – Oxygen Plant Vaporizer #2**

- S2.013 Oxygen Plant Vaporizer Boiler #2 - Natural Gas

**M. System 13 – Sage Mill Steam Generators**

- S2.015 Sage Mill Steam Generator #1
- S2.016 Sage Mill Steam Generator #2

**N. System 13A – Sage Mill Backup Steam Generator**

- S2.064 Sage Mill Backup Steam Generator

**O. System 14 – Sage Mill Lime Storage Silo #1**

- S2.017 Sage Mill Lime Silo #1 Pneumatic Loading
- PF1.010 Sage Mill Lime Silo #1 Unloading via Auger to Lime Slaker

**P. System 15 – Sage Mill Lime Storage Silo #2**

- S2.018 Sage Mill Lime Silo #2 Pneumatic Loading
- PF1.011 Sage Mill Lime Silo #2 Unloading via Auger to Lime Slaker

**Q. System 16 – Sage Mill and Lime Storage Silos Bulk Unloading (Truck Unloading)**

- PF1.012 Sage Lime Bulk Unloading Hopper #1
- PF1.013 Sage Lime Bulk Unloading Hopper #2

**R. System 17 – Sage Mill Lime Silo #1 Bulk Loading**

- S2.019 Hopper #1 Transfer to Conveyor #1
- S2.020 Conveyor #1 Transfer to Conveyor #3
- S2.021 Conveyor #3 Transfer to Elevator #1
- S2.022 Elevator #1 Transfer to Sage Mill Lime Silo #1

**S. System 18 – Sage Mill Lime Silo #2 Bulk Loading**

- S2.023 Hopper #2 Transfer to Conveyor #2
- S2.024 Conveyor #2 Transfer to Conveyor #4
- S2.025 Conveyor #4 Transfer to Elevator #2
- S2.026 Elevator #2 Transfer to Sage Mill Lime Silo #2



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**Emission Unit List (continued):**

**T. System 19 – Snowstorm and Sonoma Pad Lime Silo**

- S2.027 Snowstorm and Sonoma Pad Lime Silo - Loading
- PF1.014 Snowstorm and Sonoma Pad Lime Silo - Unloading

**U. System 20 – Izzenhood Pad Lime Silo**

- S2.028 Izzenhood Pad Lime Silo - Loading
- PF1.015 Izzenhood Pad Lime Silo - Unloading

**V. System 21 – Osgood Pad Lime Silo**

- S2.029 Osgood Pad Lime Silo - Loading
- PF1.016 Osgood Pad Lime Silo - Unloading

**W. System 25A – Vista Shotcrete Plant**

- S2.045.1 Vista Shotcrete Cement Silo – Loading
- S2.045.2 Vista Shotcrete Cement Guppy – Loading
- PF1.021 Vista Shotcrete Cement Silo - Unloading

**X. System 25C – Vista Shotcrete Plant**

- PF1.022 Vista Shotcrete Aggregate Loading (Hopper C-3)

**Y. System 25D – Vista Shotcrete Plant**

- PF1.023 Vista Shotcrete Aggregate Hopper (Hopper C-3 discharge via Screw Mixer)

**Z. System 25E – Vista Shotcrete Plant**

- PF1.024 Vista Shotcrete Cement Mixing Hopper (Lime/Cement/Flyash Hopper C-1 Discharge to Screw Mixer via Mixing Hopper C-2)

**AA. System 25F – Vista Shotcrete Plant**

- PF1.048 Vista Shotcrete Slurry Tank – Loading

**AB. System 26 – Diesel Storage Tank**

- S2.046 100,000 Gallon Diesel Storage Tank

**AC. System 27 – Diesel Storage Tank**

- S2.047 92,000 Gallon Diesel Storage Tank

**AD. System 28 – Pinon Trailer Emergency Generator**

- S2.048 Pinon Trailer Emergency Generator (Cummins, model KT50, 1,300 hp, manufactured 1986)

**AE. System 29 – HVAC Building Emergency Generator**

- S2.049 HVAC Building Emergency Generator (Caterpillar, model 3306, 343 hp, manufactured 1998)

**AF. System 30 – Sage Lube Emergency Generator**

- S2.050 Sage Mill Lube Emergency Generator (Cummins, model KTA19C, 525 hp, manufactured 1990)

**AG. System 31 – Midway Air Emergency Generator**

- S2.051 Midway Air Emergency Generator (Caterpillar, model 3306 (GE637), 270 hp, manufactured 1985)



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**Emission Unit List (continued):**

**AH. System 33 – Juniper Pregnant and Barren Tanks**

- S2.053 Juniper Pregnant Tank A (MOPTC AP1041-2218, TU4.006)
- S2.054 Juniper Pregnant Tank B (MOPTC AP1041-2218, TU4.007)
- S2.055 Juniper Barren Tank (MOPTC AP1041-2218, TU4.008)

**AI. System 34 – Electrowinning Cells**

- S2.056 Electrowinning Cells (6) (MOPTC AP1041-2218, TU4.009)

**AJ. System 35 – Pinon Pregnant and Barren Tank**

- S2.057 Pinon Pregnant Tank (MOPTC AP1041-2218, TU4.010)
- S2.058 Pinon Barren Tank (MOPTC AP1041-2218, TU4.011)

**AK. System 36A – Aggregate Crushing Plant – Primary Crusher**

- PF1.025 Primary Crusher CR-1 (in from Feeder and out to Conveyor C-1)

**AL. System 36B – Aggregate Crushing Plant – Conveyor Transfer**

- PF1.026 Conveyor C-1 transfer to Conveyor C-2

**AM. System 36C – Aggregate Crushing Plant – Screen S-1**

- PF1.027 Screen S-1 and associated transfers (in from Conveyor C-2; out to Conveyors C-7, Conveyor C-4, and to Secondary Crusher CR-2)

**AN. System 36D – Aggregate Crushing Plant – Secondary Crusher**

- PF1.028 Secondary Crusher CR-2 and associated transfers (in from Primary Screen S-1; out to Conveyor C-3)

**AO. System 36E – Aggregate Crushing Plant – Conveyor Transfer**

- PF1.029 Conveyor C-3 transfer to Conveyor C-2

**AP. System 36F – Aggregate Crushing Plant – Conveyor Transfer to Product Stockpile**

- PF1.030 Conveyor C-4 transfer to Conveyor C-5
- PF1.031 Conveyor C-5 transfer to Conveyor C-6
- PF1.032 Conveyor C-6 transfer to Radial Stacker RS-1
- PF1.033 Radial Stacker RS-1 transfer to Product Stockpile PS-1

**AQ. System 36G – Aggregate Crushing Plant – Conveyor Transfer to Reject Stockpile**

- PF1.034 Conveyor C-7 transfer to Conveyor C-8
- PF1.035 Conveyor C-8 transfer to Conveyor C-9
- PF1.036 Conveyor C-9 transfer to Radial Stacker RS-2
- PF1.037 Radial Stacker RS-2 transfer to Reject Stockpile

**AR. System 37 – Metal Removal Plant**

- PF1.038 Loader transfer to Hopper MH-1 Feeder
- PF1.039 Hopper MH-1 transfer to Conveyor MC-1
- PF1.040 Conveyor MC-1 transfer to Conveyor MC-2
- PF1.041 Conveyor MC-2 transfer to Conveyor MC-3
- PF1.042 Conveyor MC-3 transfer to Radial Stacker MS-1
- PF1.043 Radial Stacker MS-1 transfer to Clean Stockpile



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**Emission Unit List (continued):**

**AS. System 38 – Concentrate Stacker**

- PF1.044 Loader to Hopper OH-1
- PF1.045 Hopper OH-1 to Feeder
- PF1.046 Feeder to Conveyor OC-1
- PF1.047 Conveyor OC-1 to Stockpile

**AT. System 39 – Midway Emergency Generator**

- S2.059 Midway Emergency Generator (127 hp Generac, Model RG080, Manufactured 2019+)

**AU. System 40 – Gasoline Storage Tank**

- S2.060 12,000 Gallon Gasoline Tank

**AV. System 41 – Gasoline Storage Tank**

- S2.061 3,000 Gallon Gasoline Tank

**AW. System 42 - Radio Hill Repeater Emergency Generator**

- S2.062 Radio Hill Repeater Emergency Generator (Generac, Model# - RG036, 62 hp, Manufactured 2019)

**AX. System 43 - Stacker Pad Repeater Emergency Generator**

- S2.063 Stacker Pad Repeater Emergency Generator (Cummins, Model# - GGHF, 126 hp, Manufactured 2006)

**AY. System 44 – Emergency Diesel Generator**

- S2.065 Emergency Diesel Generator (John Deere, 60 kW, mfd 2011 or later)

**AZ. System 45 – Emergency Fire Water Pump**

- S2.066 Emergency Diesel Fire Water Pump (Caterpillar, 250 HP/186 kW, mfd 1995 or earlier)

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



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**Section I. General Conditions**

- A. Nevada Administrative Code (NAC) 445B.063  
The Department may use any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed, to determine excess emissions.
- B. NAC 445B.22013  
Prohibited Discharge  
The Permittee shall not cause or permit the discharge into the atmosphere from any stationary source of any hazardous air pollutant or toxic regulated air pollutant that threatens the health and safety of the general public, as determined by the Director.
- C. NAC 445B.22017  
Visible Emissions: Maximum Opacity; Determination and Monitoring of Opacity.  
1. Except as otherwise provided in this section and NAC 445B.2202, the Permittee may not 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.
- D. NAC 445B.22067  
Open Burning  
The open burning of any combustible refuse, waste, garbage, oil, or for any salvage operations, except as specifically exempted, is prohibited. Specific exemptions from open burning are described in NAC 445B.22067(2).
- E. NAC 445B.22087  
Odors  
1. The Permittee may not 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.
- F. NAC 445B.225  
Prohibited Conduct: Concealment of Emissions  
The Permittee may not install, construct or use any device which conceals any emission without reducing the total release of regulated air pollutants to the atmosphere.



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**Section I. General Conditions (continued)**

G. NAC 445B.227

Prohibited conduct: Operation of source without required equipment; removal or modification of required equipment; modification of required procedure

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

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

H. NAC 445B.232

Excess Emissions

1. Scheduled maintenance or testing or scheduled repairs which may result in excess emissions of regulated air pollutants prohibited by NAC 445B.100 to 445B.390, inclusive, must be approved in advance by the Director and performed during a time designated by the Director as being favorable for atmospheric ventilation.
2. The Permittee 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 NAC 445B.232(1).
3. The Permittee 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 NAC 445B.232(1).
4. The Permittee shall notify the Director by email 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. The Permittee shall send the email to [aircompliance@ndep.nv.gov](mailto:aircompliance@ndep.nv.gov).
5. The Permittee 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. The Permittee 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.





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**Section I. General Conditions (continued)**

I. NAC 445B.252

Testing and Sampling

1. To determine compliance with NAC 445B.001 to 445B.390, inclusive, before the approval or the continuance of an operating permit or similar class of permits, the Director may either conduct or order the Permittee 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 reference method with minor changes in methodology;
  - b. Approves the use of an equivalent method;<sup>1</sup>
  - 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;<sup>2</sup> or
  - d. Waives the requirement for tests of performance because the Permittee 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 Permittee shall make available to the Director such records as may be necessary to determine the conditions of the test of performance. Operations during periods of start-up, shutdown and malfunction must not constitute representative conditions of a test of performance unless otherwise specified in the applicable standard.
4. The Permittee 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.<sup>3</sup>
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 Permittee 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 NAC 445B.252(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.

<sup>1</sup> Requires additional approval from the EPA Administrator.

<sup>2</sup> Requires additional approval from the EPA Administrator.

<sup>3</sup> Requires additional approval from the EPA Administrator.





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**Section I. General Conditions (continued)**

J. NAC 445B.273(1)

Schedules for Compliance

All new and existing stationary sources must comply with NAC 445B.001 through 445B.390, inclusive. Existing stationary sources are in compliance with those sections and may continue to operate under the provisions of their approved compliance schedules, which may be amended from time to time.

K. NAC 445B.275

Violations: Acts constituting; notice

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

L. NAC 445B.305

Operating permits: Imposition of more stringent standards for emissions

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

M. NAC 445B.315

Contents of operating permits: Exception for operating permits to construct; required conditions

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 Permittee 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 Permittee 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.



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**Section I. General Conditions (continued)**

M. NAC 445B.315 (continued)

Contents of operating permits: Exception for operating permits to construct; required conditions (continued)

3. An operating permit must contain the following conditions (continued):
  - 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 Permittee shall provide the Director, in writing and within a reasonable time, with any information that the Director requests<sup>4</sup> 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 Permittee shall pay fees to the Director in accordance with the provisions set forth in NAC 445B.327 and 445B.331.
  - j. The Permittee shall allow the Director or any authorized representative, upon presentation of credentials, to:
    - (1) Enter upon the premises of the Permittee 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;<sup>5</sup>
    - (2) Have access to and copy, during normal business hours, any records that are kept pursuant to the conditions of the operating permit<sup>6</sup>
    - (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 (as defined in NAC 445B.156) 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.

N. NAC 445B.319, NAC 445B.342, NAC 445B.3425, and NAC 445B.344

Any changes to this operating permit will comply with all provisions established under NAC 445B.319 (Administrative Amendment),<sup>7</sup> NAC 445B.342 (Notification of Authorized Change), NAC 445B.3425 (Minor Revision), and NAC 445B.344 (Significant Revision).

<sup>4</sup> The Permittee shall submit yearly reports including, but not limited to, throughput, production, fuel consumption, hours of operation, and emissions. These reports will be submitted in the format required by the Nevada Division of Environmental Protection Bureau of Air Pollution Control and Bureau of Air Quality Planning (Air Programs) for all emission units/systems specified on the form. The report must be submitted to the Air Programs no later than March 1 annually for the preceding calendar year, unless otherwise approved by the Air Programs.

<sup>5</sup> Under NAC 445B.288(3), the Permittee shall retain an operating log for emission units considered insignificant activities subject to a limitation on its hours of operation pursuant to NAC 445B.288(2) for not less than 5 years.

<sup>6</sup> The Permittee shall provide a digital spreadsheet or specified format required by the Nevada Division of Environmental Protection Bureau of Air Pollution Control.

<sup>7</sup> Under NAC 445B.287(3), an operating permit may not be transferred from one owner or piece of equipment to another. The Permittee may apply for an administrative amendment reflecting a change of ownership or the name of the stationary source.



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**Facility ID No. A0003**

**Permit No. AP1041-0723.05**

**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section I. General Conditions (continued)**

O. NAC 445B.325

Termination, reopening and revision, modification, and revocation and reissuance

1. A Class I operating permit must be reopened and revised to incorporate any additional applicable requirement adopted pursuant to the Act if, on the effective date of the applicable requirement, the operating permit has a remaining term of 3 or more years. The reopening must be completed no later than 18 months after the effective date of the applicable requirement.<sup>8</sup>
2. An operating permit may be terminated, reopened and revised, modified, or revoked and reissued if:
  - a. The Director or the Administrator determines that the operating permit contains a material mistake or is based on inaccurate statements;
  - b. The Director or the Administrator determines that the operating permit, as written, does not ensure compliance with all applicable requirements; or
  - c. The Director determines that there has been a violation of any of the provisions of NAC 445B.001 to 445B.390, inclusive, any applicable requirement, or any condition contained in the operating permit
3. The Director shall notify the Permittee at least 30 days before the Director terminates, reopens and revises, revises, or revokes and reissues the operating permit. The notice must be made by certified mail and must contain the legal authority, the jurisdiction and the reasons for the action taken.<sup>9</sup>
4. If the Administrator notifies the Director and the Permittee that cause exists to reopen the operating permit, the Director shall forward to the Administrator a proposed determination of the reopening and revision, the revision of, or the revocation and reissuance of the operating permit within 90 days after receipt of the notice from the Administrator.<sup>10</sup>
5. If the Director reopens an operating permit, he or she shall revise only those portions of the operating permit for which cause exists.
6. The reopening of an operating permit pursuant to this section must comply with all of the relevant requirements for the issuance or revision of a permit, including the requirements related to the content of the permit and the requirements for notice, public participation and comment, and a review by any affected states.

P. NAC 445B.3265

Operating permits: Revocation and reissuance

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.

<sup>8</sup> State only requirements (only Nevada has authority to enforce).

<sup>9</sup> State only requirements (only Nevada has authority to enforce).

<sup>10</sup> State only requirements (only Nevada has authority to enforce).



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**Section I. General Conditions (continued)**

P. NAC 445B.3265 (continued)

Operating permits: Revocation and reissuance (continued)

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.

Q. NAC 445B.3405(1)(d)

The Permittee shall record:

1. Monitoring information required by the conditions of this permit including the date, the location and the time of the sampling or the measurements and the operating conditions at the time of the sampling or measurements; and
2. The date on which the analyses were performed, the company that performed them, the analytical techniques that the company used, and the results of such analyses.

R. NAC 445B.3405(1)(e)

The Permittee shall:

1. Promptly report to the Director all deviations from the requirements of this operating permit; and
2. Report to the Director the probable cause of all deviations and any action taken to correct the deviations. For this 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, or for reporting of an emergency (as defined by NAC 445B.326); and
3. Submit reports of any required monitoring every 6 months, within 8 weeks after June 30 and December 31 of each calendar year. The reports must contain a summary of the data collected as required by all monitoring, recordkeeping and compliance requirements and as specified in this operating permit.

S. NAC 445B.3405(1)(j)

The Permittee shall submit a compliance certification annually,<sup>11</sup> or more frequently if required by an applicable requirement, to the Director. A copy of the compliance certification must be submitted to the Administrator. A compliance certification must include:

1. An identification of each term or condition of the operating permit that is the basis of the certification;
2. The status of the stationary source's compliance with any applicable requirement;
3. A statement of whether compliance was continuous or intermittent;
4. The method used for determining compliance; and
5. Any other facts the Director determines to be necessary to determine compliance.

T. NAC 445B.3443

Renewal of permit

1. All Class I operating permits must be renewed 5 years after the date of issuance.
2. A complete application for the renewal of a Class I operating permit must be submitted to the Director on the form provided by the Director with the appropriate fee at least 240 days, but not earlier than 18 months, before the expiration date of the current Class I operating permit for stationary sources.<sup>12</sup>
3. Applications for the renewal of a Class I operating permit must comply with all requirements for the issuance of an initial Class I operating permit as specified in NAC 445B.3395.
4. If an application for the renewal of a Class I operating permit is submitted in accordance with NAC 445B.3443(2), the stationary source may continue to operate under the conditions of the existing Class I operating permit until the Class I operating permit is renewed or the application for renewal is denied.

<sup>11</sup> The Permittee shall submit the compliance certification on or before March 1.

<sup>12</sup> The Director shall determine whether the application is complete within 60 days of receipt of the application (NAC 445B.3395). It is recommended the Permittee submit the application at least 300 days before the expiration date of the current Class I operating permit.



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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section I. General Conditions (continued)**

- T. NAC 445B.3443 (continued)  
Renewal of permit (continued)
5. If an application for the renewal of a Class I operating permit is not submitted in accordance with NAC 445B.3443(2):
    - a. The stationary source may be required to cease operation when the Class I operating permit expires; and
    - b. The Permittee of the stationary source:
      - (1) Must apply for the issuance of a new Class I operating permit pursuant to NAC 445B.3375; and
      - (2) May not recommence the operation until the new Class I operating permit is issued.
  6. The fee for the issuance of a new Class I operating permit or the renewal of a Class I operating permit is specified in NAC 445B.327.
- U. Nevada Revised Statute (NRS) 445B.470  
Prohibited acts; penalty; establishment of violation; request for prosecution
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 NRS 445B.470(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.
- V. ASIP NAC Article 2.5.4  
Breakdown or upset, determined by the Director to be unavoidable and not the result of careless or marginal operations, shall not be considered a violation of these regulations.

**\*\*\*\*End of General Conditions\*\*\*\***



**Bureau of Air Pollution Control**

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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section II. Construction Conditions**

A. Notification (NAC 445B.250; NAC 445B.3405)

The Permittee shall notify the Director in writing of the following for **S2.065** – added on January 30, 2024.

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.

B. Initial Opacity Compliance Demonstration and Initial Performance Tests

1. Under the authority of NAC 445B.22017, NAC 445B.252, and NAC 445B.3405, the Permittee, upon issuance of this operating permit, shall conduct and record 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 IIA-1** below:

<b>Table IIA-1: Initial Opacity Compliance Demonstration</b>			
<b>System</b>	<b>Emission Units</b>	<b>Pollutant To Be Tested</b>	<b>Testing Methods/Procedures</b>
System 28 – Pinon Trailer Emergency Generator	S2.048	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 29 – HVAC Building Emergency Generator	S2.049	Opacity	
System 30 – Sage Lube Emergency Generator	S2.050	Opacity	
System 31 – Midway Air Emergency Generator	S2.051	Opacity	
System 38 – Concentrate Stacker	PF1.044 through PF1.047	Opacity	
System 44 – Emergency Diesel Generator	S2.065	Opacity	





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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section II. Construction Conditions (continued)**

B. Initial Opacity Compliance Demonstration and Initial Performance Tests (continued)

2. All initial opacity compliance demonstration must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of Section **I.I. Testing and Sampling** (NAC 445B.252) of this operating permit. Material sampling must be conducted in accordance with protocols approved by the Director. All initial performance test results shall be based on the arithmetic average of three valid runs. (NAC 445B.252(5))
3. Testing shall be conducted on the exhaust stack (post controls).
4. Initial opacity compliance demonstration in **Table IIA-1** 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 demonstration. Operations during periods of startup, shutdown and malfunction must not constitute representative conditions of the initial opacity compliance demonstration unless otherwise specified in the applicable standard. (NAC 445B.252(3))
5. The Permittee shall give notice to the Director 30 days before the initial opacity compliance demonstration 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 demonstration to allow the Director to review the proposed testing procedures. (NAC 445B.252(4) and 40 CFR Part 60.7(a)(6))
6. Within 60 days after completing the initial opacity compliance demonstration contained in **Table IIA-1** of this section, the Permittee shall furnish the Director a written report of the results. All information and analytical results of testing and sampling must be certified as to the truth and accuracy and as to their compliance with NAC 445B.001 to 445B.3689, inclusive. (NAC 445B.252(8))
7. Initial opacity compliance demonstration 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 initial opacity compliance demonstration sufficient to provide adequate compliance demonstration. Should the Director determine that the initial opacity compliance demonstration do not provide adequate compliance demonstration, the Director may require additional testing.

**\*\*\*End of Construction Conditions\*\*\***



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**Section III. Ambient Air Monitoring Requirements**

A. Not Applicable.

**\*\*\*End of Ambient Air Monitoring Requirements\*\*\***

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CLASS I AIR QUALITY OPERATING PERMIT

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Section IV. Specific Operating Conditions

A. Emission Units PF1.001 through PF1.003

Table with 4 columns: Emission Unit ID, Emission Unit Name, Location UTM (Zone 11, NAD 83) - m North, Location UTM (Zone 11, NAD 83) - m East. Rows include System 01- Juniper Mill Conveying Circuit, PF1.001 Juniper Ore Hopper, PF1.002 Juniper Apron Feeder, and PF1.003 Juniper Belt Conveyor.

- 1. Air Pollution Control Equipment (NAC 445B.3405) PF1.001 through PF1.003, each, have no add-on controls.
2. Operating Parameters (NAC 445B.3405)
a. The maximum allowable throughput rate for PF1.001 through PF1.003, each, shall not exceed 250.0 tons of ore per hour, averaged over a calendar day.
b. Hours
(1) PF1.001 through PF1.003, each, may operate a total of 24 hours per day.
3. Emission Limits (NAC 445B.305, NAC 445B.3405)
The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from PF1.001 through PF1.003, each, the following pollutants in excess of the following specified limits:
a. The discharge of PM (particulate matter) to the atmosphere shall not exceed 0.75 pounds per hour, nor more than 3.29 tons per 12-month rolling period.
b. The discharge of PM10 (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.28 pounds per hour, nor more than 1.20 tons per 12-month rolling period.
c. The discharge of PM2.5 (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.043 pounds per hour, nor more than 0.19 tons per 12-month rolling period.
d. NAC 445B.22017 – The opacity from PF1.001 and PF1.003, each, shall not equal or exceed 20 percent.
e. NAC 445B.22033 – The maximum allowable discharge of PM10 to the atmosphere from PF1.001 through PF1.003, each, shall not exceed 61.0 pounds per hour.
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
a. Monitor and record the throughput for PF1.001 through PF1.003, each, for each calendar day.
b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
d. Monitor and record the hours of operation for PF1.001 through PF1.003, each, for each calendar day.
e. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))



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**Section IV. Specific Operating Conditions (continued)**

**A. Emission Units PF1.001 through PF1.003 (continued)**

5. Federal Requirements

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart LL – Standards of Performance for Metallic Processing Plants (40 CFR Part 60.380)

- a. Process fugitive emissions from **PF1.001 through PF1.003**, each, will not exceed **10 percent** opacity. (40 CFR Part 60.382(b))
- b. The opacity standard set forth in this part shall apply at all times except during period of startup, shutdown, and malfunction, and as otherwise provided in the applicable standard. (40 CFR 60.11(c))
- c. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.001 through PF1.003**, each, including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

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**Section IV. Specific Operating Conditions (continued)**

**B. Emission Units S2.001 and PF1.004**

System 02 – Juniper Lime Silo		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.001	Juniper Lime Silo Loading	4,570,382	486,762
PF1.004	Juniper Lime Silo Unloading	4,570,382	486,762

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. Emissions from **S2.001** shall be controlled by a **vent filter (DC-003)**.
  - b. Emissions from **PF1.004** shall be controlled by an **enclosure**.
  - c. Descriptive Stack Parameters for S2.001  
 Stack Height: 60.0 feet  
 Stack Diameter: 0.5 feet  
 Stack Temperature: ambient  
 Exhaust Flow: 1,300 dry standard cubic feet per minute (dscfm)
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **S2.001** shall not exceed **60.0** tons of **lime** per hour, averaged over a calendar day, nor more than **7,500.0** tons per 12-month rolling period.
  - b. The maximum allowable throughput rate for **PF1.004** shall not exceed **0.86** tons of **lime** per hour, averaged over a calendar day.
  - c. Hours  
 (1) **S2.001 and PF1.004**, each, may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)
  - a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.001** the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.059** pounds per hour, nor more than **0.0037** tons per 12-month rolling period.
    - (2) The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.020** pounds per hour, nor more than **0.0013** tons per 12-month rolling period.
    - (3) The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.0030** pounds per hour, nor more than **0.00019** tons per 12-month rolling period.
    - (4) NAC 445B.22017 – The opacity from the **S2.001** shall not equal or exceed **20** percent.
    - (5) NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **S2.001** shall not exceed **46.3** pounds per hour.
  - b. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.004** the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.0021** pounds per hour, nor more than **0.0090** tons per 12-month rolling period.
    - (2) The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.0012** pounds per hour, nor more than **0.0053** tons per 12-month rolling period.
    - (3) The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.00017** pounds per hour, nor more than **0.00075** tons per 12-month rolling period.
    - (4) NAC 445B.22017 – The opacity from **PF1.004** shall not equal or exceed **20** percent.
    - (5) NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **PF1.004** shall not exceed **3.71** pounds per hour.



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**Section IV. Specific Operating Conditions (continued)**

**B. Emission Units S2.001 and PF1.004 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the throughput for **S2.001 and PF1.004**, each, for each calendar day.
- b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
- c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
- d. Monitor and record the hours of operation for **S2.001 and PF1.004**, each, for each calendar day.
- e. Conduct and record an observation of visible emissions (excluding water vapor) on the vent filter controlling **S2.001** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.
- f. Inspect the vent filter installed on **S2.001** on a **monthly** basis in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter fabric) and any corrective actions taken.
- g. Conduct and record an observation of visible emissions (excluding water vapor) on **PF1.004** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.
- h. Inspect the enclosure installed on **PF1.004** on a **monthly** basis to confirm that the enclosure is in place and functioning properly. If the enclosure is in disrepair, the Permittee shall perform corrective action within 24 hours to ensure that the enclosure is functioning properly.





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Section IV. Specific Operating Conditions (continued)

C. Emission Unit S2.002

System 03A – Juniper Mill Carbon Kiln Drum		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.002	Juniper Carbon Kiln Drum (MOPTC AP1041-2218, TU4.003)	4,570,312	486,883

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. Emissions from S2.002 shall be controlled by a wet scrubber (WS-001) followed by a hypochlorite scrubber (HS-001).
  - b. Descriptive Stack Parameters  
 Stack Height: 87.0 feet  
 Stack Diameter: 1.04 feet  
 Stack Temperature: 100 °F  
 Exhaust Flow: 1,300 dry standard cubic feet per minute (dscfm)
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for S2.002 shall not exceed 1.0 ton of carbon per hour, averaged over a calendar day.
  - b. Hours  
 (1) S2.002 may operate a total of 24 hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from S2.002 the following pollutants in excess of the following specified limits:
  - a. The discharge of PM (particulate matter) to the atmosphere shall not exceed 0.50 pounds per hour, nor more than 2.19 tons per 12-month rolling period.
  - b. The discharge of PM<sub>10</sub> (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.50 pounds per hour, nor more than 2.19 tons per 12-month rolling period.
  - c. The discharge of PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.50 pounds per hour, nor more than 2.19 tons per 12-month rolling period.
  - d. The discharge of CO (carbon monoxide) to the atmosphere shall not exceed 2.50 pounds per hour, nor more than 11.0 tons per 12-month rolling period.
  - e. NAC 445B.22017 – The opacity from the S2.002 shall not equal or exceed 20 percent.
  - f. NAC 445B.22033 – The maximum allowable discharge of PM<sub>10</sub> to the atmosphere from S2.002 shall not exceed 4.10 pounds per hour.
  
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
 The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the throughput for S2.002 for each calendar day.
  - b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
  - c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
  - d. Monitor and record the hours of operation for S2.002 for each calendar day.



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**Section IV. Specific Operating Conditions (continued)**

**C. Emission Unit S2.002 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405) (continued)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

e. Conduct and record an observation of visible emissions (excluding water vapor) on the final exhaust stack of **S2.002** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.

f. Inspect the wet scrubber installed on **S2.002** on a **monthly** basis to confirm that the wet scrubber is functioning properly. If the wet scrubber is in disrepair, the Permittee shall perform corrective action within 24 hours to ensure that the wet scrubber is functioning properly.

g. Inspect the hypochlorite scrubber installed on **S2.002** on a **monthly** basis to confirm that the wet scrubber is functioning properly. If the wet scrubber is in disrepair, the Permittee shall perform corrective action within 24 hours to ensure that the hypochlorite scrubber is functioning properly.

5. Federal Requirements

National Emission Standards for Hazardous Air Pollutants (NESHAPs) – 40 CFR Part 63 Subpart EEEEEEE – Gold Mine Ore Processing and Production Area Source Category

The Permittee, upon issuance of this operating permit, shall comply with the requirements of 40 CFR Part 63 Subpart EEEEEEE, as set forth in **Section V** of this operating permit.



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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**D. Emission Unit S2.003**

System 03B – Juniper Mill Carbon Kiln Burner		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.003	Juniper Mill Carbon Kiln Burner	4,570,312	486,883

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. **S2.003** has no add-on controls.
  - b. Descriptive Stack Parameters  
 Stack Height: 87.0 feet  
 Stack Diameter: 3.33 feet  
 Stack Temperature: 600 °F  
 Exhaust Flow: 1,238 dry standard cubic feet per minute (dscfm)
  
2. Operating Parameters (NAC 445B.3405)
  - a. **S2.003** may consume only **natural gas**.
  - b. The maximum allowable fuel consumption rate for **S2.003** shall not exceed **10,500.0 standard cubic feet (scf)** per hour, averaged over a calendar day.
  - c. Hours  
 (1) **S2.003** may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.003** the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.080** pounds per hour, nor more than **0.35** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.080** pounds per hour, nor more than **0.35** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.080** pounds per hour, nor more than **0.35** tons per 12-month rolling period.
  - d. The discharge of **SO<sub>2</sub>** (sulfur dioxide) to the atmosphere shall not exceed **0.0063** pounds per hour, nor more than **0.028** tons per 12-month rolling period.
  - e. The discharge of **NO<sub>x</sub>** (oxides of nitrogen) to the atmosphere shall not exceed **1.05** pounds per hour, nor more than **4.60** tons per 12-month rolling period.
  - f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **0.88** pounds per hour, nor more than **3.86** tons per 12-month rolling period.
  - g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.058** pounds per hour, nor more than **0.25** tons per 12-month rolling period.
  - h. NAC 445B.22017 – The opacity from the **S2.003** shall not equal or exceed **20** percent.
  - i. NAC 445B.2203 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **S2.003** shall not exceed **0.59** pounds per MMBtu.
  - j. NAC 445B.22047 – The maximum allowable discharge of **sulfur** to the atmosphere from **S2.003** shall not exceed **7.50** pounds per hour.



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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**D. Emission Unit S2.003 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

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 consumption rate of **natural gas** for each calendar day for **S2.003** (in scf) by use of a fuel flow meter.
- b. Record the consumption rate of **natural gas**, in scf, on a cumulative monthly basis, for each 12-month rolling period.
- c. Monitor and record the hours of operation for **S2.003** for each calendar day.
- d. Record the corresponding average hourly consumption rate in scf per hour. The average hourly consumption rate shall be determined from the total daily consumption and the total daily hours of operation.

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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**E. Emission Units S2.004 and S2.005**

System 04 – Juniper Mill Package Boilers		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.004	Juniper Mill Package Boiler #1	4,570,346	486,880
S2.005	Juniper Mill Package Boiler #2	4,570,354	486,865

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. **S2.004 and S2.005**, each, have no add-on controls.
  - b. Descriptive Stack Parameters for S2.004 and S2.005, each,  
 Stack Height: 24.0 feet  
 Stack Diameter: 0.62 feet  
 Exhaust Flow: 950 dry standard cubic feet per minute (dscfm)
  
2. Operating Parameters (NAC 445B.3405)
  - a. **S2.004 and S2.005**, each, may consume only **natural gas**.
  - b. The maximum allowable fuel consumption rate for **S2.004 and S2.005**, each, shall not exceed **6,280.0 standard cubic feet (scf)** per hour, averaged over a calendar day.
  - c. Hours
    - (1) **S2.004 and S2.005**, each, may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.004 and S2.005**, each, the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.048** pounds per hour, nor more than **0.21** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.048** pounds per hour, nor more than **0.21** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.048** pounds per hour, nor more than **0.21** tons per 12-month rolling period.
  - d. The discharge of **SO<sub>2</sub>** (sulfur dioxide) to the atmosphere shall not exceed **0.0038** pounds per hour, nor more than **0.017** tons per 12-month rolling period.
  - e. The discharge of **NO<sub>x</sub>** (oxides of nitrogen) to the atmosphere shall not exceed **0.63** pounds per hour, nor more than **2.75** tons per 12-month rolling period.
  - f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **0.53** pounds per hour, nor more than **2.31** tons per 12-month rolling period.
  - g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.035** pounds per hour, nor more than **0.15** tons per 12-month rolling period.
  - h. NAC 445B.22017 – The opacity from the **S2.004 and S2.005**, each, shall not equal or exceed **20** percent.
  - i. NAC 445B.2203 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **S2.004 and S2.005**, each, shall not exceed **0.60** pounds per MMBtu.
  - j. NAC 445B.22047 – The maximum allowable discharge of **sulfur** to the atmosphere from **S2.004 and S2.005**, each, shall not exceed **4.48** pounds per hour.



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**Section IV. Specific Operating Conditions (continued)**

**E. Emission Units S2.004 and S2.005 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

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 consumption rate of **natural gas** for each calendar day for **S2.004 and S2.005**, each, (in scf) by use of a fuel flow meter.
- b. Record the consumption rate of **natural gas**, in scf, on a cumulative monthly basis, for each 12-month rolling period.
- c. Monitor and record the hours of operation for **S2.004 and S2.005**, each, for each calendar day.
- d. Record the corresponding average hourly consumption rate in scf per hour. The average hourly consumption rate shall be determined from the total daily consumption and the total daily hours of operation.

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**Section IV. Specific Operating Conditions (continued)**

**F. Emission Units S2.006 and S2.007**

System 05 – Mercury Retorts		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.006	Juniper Retort A (MOPTC AP1041-2218, TU4.004)	4,570,323	486,844
S2.007	Juniper Retort B (MOPTC AP1041-2218, TU4.005)	4,570,324	486,842

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. Emissions from **S2.006** shall be controlled by the following controls listed in the order of placement in the exhaust stream, **two mercury condensers** in series (**MC-001 and MC-002**), a **chiller**, a **condensation vessel (CV-001)**, an **after cooler with mist eliminator (AC-001)**, **two carbon filter columns** in parallel (**CF-001 and CF-002**), a **carbon filter (CF-014)**.
  - b. Emissions from **S2.007** shall be controlled by the following controls listed in the order of placement in the exhaust stream, **two mercury condensers** in series (**MC-003 and MC-004**), a **chiller**, a **condensation vessel (CV-002)**, an **after cooler with mist eliminator (AC-002)**, **two carbon filter columns** in parallel (**CF-003 and CF-004**), a **carbon filter (CF-015)**.
  - c. Descriptive Stack Parameters for S2.006 and S2.007, each.  
 Stack Height: 18.4 feet  
 Stack Diameter: 0.33 feet  
 Stack Temperature: 160 °F  
 Exhaust Flow: 100 dry standard cubic feet per minute (dscfm)
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **S2.006 and S2.007**, each, shall not exceed **0.7 tons of precious metal laden material** per batch. Precious metal laden material is defined as:
    - (1) Material loaded with precious metals such as gold and silver, along with various other metals that is produced by electrowinning, the Merrill-Crowe process, flotation and gravity separation processes, and other gold concentration or precipitation processes.
    - (2) Material collected from the wash-down of any equipment or surfaces contacted with precious metals that have been concentrated through the various concentration methods employed by precious metal mines.
  - b. Precious metal laden material shall be retorted in pans and not exceed the volume capacity specified by the manufacturer.
  - c. Hours
    - (1) **S2.006 and S2.007**, each, may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)
 

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.006 and S2.007**, each, the following pollutants in excess of the following specified limits:

  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.0015** pounds per hour, nor more than **0.0064** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.0015** pounds per hour, nor more than **0.0064** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.0015** pounds per hour, nor more than **0.0064** tons per 12-month rolling period.
  - d. NAC 445B.22017 – The opacity from the **S2.006 and S2.007**, each, shall not equal or exceed **20** percent.
  - e. NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **S2.006 and S2.007**, each, shall not exceed **3.23** pounds per hour.



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**Section IV. Specific Operating Conditions (continued)**

**F. Emission Units S2.006 and S2.007 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

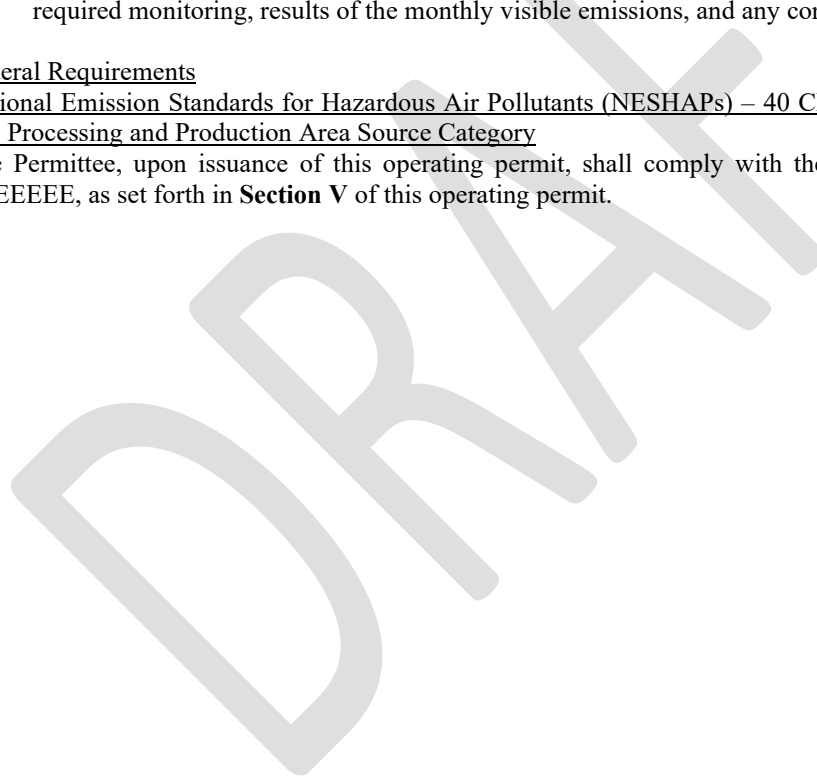
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the throughput for each batch processed in **S2.006 and S2.007**, each for each calendar day.
- b. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
- c. Monitor and record the hours of operation for **S2.006 and S2.007**, each, for each calendar day.
- d. Conduct and record an observation of visible emissions (excluding water vapor) on the final exhaust stack of **S2.006 and 2.007**, 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 conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.

5. Federal Requirements

National Emission Standards for Hazardous Air Pollutants (NESHAPs) – 40 CFR Part 63 Subpart EEEEEEE – Gold Mine Ore Processing and Production Area Source Category

The Permittee, upon issuance of this operating permit, shall comply with the requirements of 40 CFR Part 63 Subpart EEEEEEE, as set forth in **Section V** of this operating permit.





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CLASS I AIR QUALITY OPERATING PERMIT

Issued to: NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

Section IV. Specific Operating Conditions (continued)

G. Emission Units S2.008 and S2.008.1

System 06 – Juniper Mill Induction Furnaces		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.008	Juniper Mill Electric Induction Furnace #1 (MOPTC AP1041-2218, TU4.001)	4,570,325	486,802
S2.008.1	Juniper Mill Electric Induction Furnace #2 (MOPTC AP1041-2218, TU4.002)		

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. Emissions from **System 06** shall be controlled by a **baghouse (DC-004)** followed by a **carbon filter (CF-006)**.
  - b. Descriptive Stack Parameters  
 Stack Height: 47.0 feet  
 Stack Diameter: 2.83 feet  
 Stack Temperature: 95 °F  
 Exhaust Flow: 15,625 dry standard cubic feet per minute (dscfm)
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **S2.008 and S2.008.1**, each, shall not exceed 1.0 ton of **retorted precious metal laden material** per batch, nor more than **4,380.0** tons per 12-month rolling period. Retorted precious metal laden material shall consist of precious metal bearing material, as defined in **Section IV.F.2.a. (1) through (2)**, which has been retorted, and dust collected from **DC-004**.
  - b. Hours  
 (1) **S2.008 and S2.008.1**, each, may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **System 06** the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **2.68** pounds per hour, nor more than **11.7** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **2.68** pounds per hour, nor more than **11.7** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **2.68** pounds per hour, nor more than **11.7** tons per 12-month rolling period.
  - d. NAC 445B.22017 – The opacity from **System 06** shall not equal or exceed **20** percent.
  - e. NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **S2.008 and S2.008.1**, each, shall not exceed **4.10** pounds per hour.
  
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
 The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the throughput for each batch processed in **S2.008 and S2.008.1**, each, for each calendar day.
  - b. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
  - c. Monitor and record the hours of operation for **S2.008 and S2.008.1**, each, for each calendar day.



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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**G. Emission Units S2.008 and S2.008.1 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405) (continued)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

d. Conduct and record an observation of visible emissions (excluding water vapor) on the final exhaust stack of **S2.008 and S2.008.1** 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 conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.

e. Inspect the baghouse installed on **S2.008 and S2.008.1** on a monthly basis in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter fabric) and any corrective actions taken.

5. Performance and Compliance Testing (NAC 445B.3405, NAC 445B.252(1))

The Permittee, upon issuance of this operating permit, shall conduct and record 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.I. Testing and Sampling** (NAC 445B.252) of this operating permit. Material sampling must be conducted in accordance with protocols approved by the Director. All performance test results shall be based on the arithmetic average of three valid runs. (NAC 445B.252(5))

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

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

d. Method 201A in Appendix M of 40 CFR Part 51 shall be used to determine PM<sub>10</sub> and PM<sub>2.5</sub> 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 test. All particulate captured in the Method 5 test performed under this provision shall be considered PM<sub>2.5</sub> 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.

6. Federal Requirements

National Emission Standards for Hazardous Air Pollutants (NESHAPs) – 40 CFR Part 63 Subpart EEEEEEE – Gold Mine Ore Processing and Production Area Source Category

The Permittee, upon issuance of this operating permit, shall comply with the requirements of 40 CFR Part 63 Subpart EEEEEEE, as set forth in **Section V** of this operating permit.



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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**H. Emission Units PF1.005 and PF1.006**

System 07A – Sage Mill Ore Handling Circuit		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.005	Fabricated Ore Hopper #1	4,570,631	486,864
PF1.006	Fabricated Ore Hopper #2	4,570,625	486,874

1. Air Pollution Control Equipment (NAC 445B.3405)  
**PF1.005 and PF1.006**, each, have no add-on controls.
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **PF1.005 and PF1.006**, combined, shall not exceed **900.0** tons of ore per hour, averaged over a calendar day.
  - b. Hours
    - (1) **PF1.005 and PF1.006**, each, may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.005 and PF1.006**, combined, the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **2.70** pounds per hour, nor more than **11.8** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.99** pounds per hour, nor more than **4.34** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.15** pounds per hour, nor more than **0.67** tons per 12-month rolling period.
  - d. NAC 445B.22017 – The opacity from **PF1.005 and PF1.006**, each, shall not equal or exceed **20** percent.
  - e. NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **PF1.005 and PF1.006**, each, shall not exceed **76.2** pounds per hour.
  
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
 The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the throughput for **PF1.005 and PF1.006**, combined, for each calendar day.
  - b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
  - c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
  - d. Monitor and record the hours of operation for **PF1.005 and PF1.006**, each, for each calendar day.
  - e. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))



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**Permit No. AP1041-0723.05**

**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**H. Emission Units PF1.005 and PF1.006 (continued)**

5. Federal Requirements

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart LL – Standards of Performance for Metallic Processing Plants (40 CFR Part 60.380)

- a. Process fugitive emissions from **PF1.005 and PF1.006**, each, will not exceed **10 percent** opacity. (40 CFR Part 60.382(b))
- b. The opacity standard set forth in this part shall apply at all times except during period of startup, shutdown, and malfunction, and as otherwise provided in the applicable standard. (40 CFR 60.11(c))
- c. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.005 and PF1.006**, each, including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

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**Bureau of Air Pollution Control**

**Facility ID No. A0003**

**Permit No. AP1041-0723.05**

**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**I. Emission Units PF1.007 through PF1.009**

System 07B – Sage Mill Ore Handling Circuit		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.007	Apron Feeder #1	4,570,631	486,864
PF1.008	Apron Feeder #2	4,570,625	486,874
PF1.009	Belt Conveyor to Sag Mill	4,570,593	486,918

1. Air Pollution Control Equipment (NAC 445B.3405)  
Emissions from **PF1.007 through PF1.009**, each, shall be controlled by an **enclosure**.
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **PF1.007 and PF1.008**, combined, shall not exceed **900.0** tons of **ore** per hour, averaged over a calendar day.
  - b. The maximum allowable throughput rate for **PF1.009** shall not exceed **900.0** tons of **ore** per hour, averaged over a calendar day.
  - c. Hours
    - (1) **PF1.007 through PF1.009**, each, may operate a total of **24** hours per day.
3. Emission Limits (NAC 445B.305, NAC 445B.3405)
  - a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.007 and PF1.008**, combined, the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **1.35** pounds per hour, nor more than **5.91** tons per 12-month rolling period.
    - (2) The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.50** pounds per hour, nor more than **2.17** tons per 12-month rolling period.
    - (3) The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.077** pounds per hour, nor more than **0.34** tons per 12-month rolling period.
    - (4) NAC 445B.22017 – The opacity from **PF1.007 and PF1.008**, each, shall not equal or exceed **20** percent.
    - (5) NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **PF1.007 and PF1.008**, each, shall not exceed **76.2** pounds per hour.
  - b. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.009** the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **1.35** pounds per hour, nor more than **5.91** tons per 12-month rolling period.
    - (2) The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.50** pounds per hour, nor more than **2.17** tons per 12-month rolling period.
    - (3) The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.077** pounds per hour, nor more than **0.34** tons per 12-month rolling period.
    - (4) NAC 445B.22017 – The opacity from **PF1.009** shall not equal or exceed **20** percent.
    - (5) NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **PF1.009**, shall not exceed **76.2** pounds per hour.



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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**I. Emission Units PF1.007 through PF1.009 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the throughput for **PF1.007 and PF1.008**, combined, for each calendar day.
- b. Monitor and record the throughput for **PF1.009** for each calendar day.
- c. Record the corresponding average hourly throughput rate for **PF1.007 and PF1.008**, combined, in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
- d. Record the corresponding average hourly throughput rate for **PF1.009** in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
- e. Record the throughput rate of material, in tons, for **PF1.007 and PF1.008**, combined, on a cumulative monthly basis, for each 12-month rolling period.
- f. Record the throughput rate of material, in tons, for **PF1.009** on a cumulative monthly basis, for each 12-month rolling period.
- g. Monitor and record the hours of operation for **PF1.007 through PF1.009**, each, for each calendar day.
- h. Conduct and record an observation of visible emissions (excluding water vapor) on **PF1.007 through PF1.009**, 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 conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.
- i. Inspect the enclosure installed on **PF1.007 through PF1.009**, each, on a **monthly** basis to confirm that the enclosure is in place and functioning properly. If the enclosure is in disrepair, the Permittee shall initiate corrective action within 24 hours and complete corrective action as expeditiously as practical to ensure that the enclosure is functioning properly. The Permittee must record each inspection of the enclosures, including the date of each inspection and any corrective actions taken.
- j. 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

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart LL – Standards of Performance for Metallic Processing Plants (40 CFR Part 60.380)

- a. Process fugitive emissions from **PF1.007 through PF1.009**, each, will not exceed **10 percent** opacity. (40 CFR Part 60.382(b))
- b. The opacity standard set forth in this part shall apply at all times except during period of startup, shutdown, and malfunction, and as otherwise provided in the applicable standard. (40 CFR 60.11(c))
- c. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.007 through PF1.009**, each, including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))



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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**J. Emission Units S2.009 and S2.010**

System 08 – Sage Mill Autoclaves		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.009	Sage Mill Autoclave #1 (MOPTC AP1041-2218, TU4.012)	4,570,471	487,007
S2.010	Sage Mill Autoclave #2 (MOPTC AP1041-2218, TU4.013)	4,570,514	487,031

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. Emissions from **S2.009** shall be controlled by a **Primary Venturi Scrubber (VS-001), Primary Quench Vessel (QV-001), Secondary Quench Vessel (QV-002), and a Secondary Venturi Scrubber (VS-002)**. At least three of the four control devices listed above will be functioning during operation of **S2.009**.
  - b. Emissions from **S2.010** shall be controlled by a **Primary Venturi Scrubber (VS-003), Primary Quench Vessel (QV-003), Secondary Quench Vessel (QV-004), and a Secondary Venturi Scrubber (VS-004)**. At least three of the four control devices listed above will be functioning during operation of **S2.010**.
  - c. Following the control devices listed in **J.1.a.** above, emissions from **S2.009** may be ducted to a **Carbon Filter Bed System (CF-011)**. Emissions may also be ducted to the standby **Carbon Filter Bed System (CF-013)**.
  - d. Following the control devices listed in **J.1.b.** above, emissions from **S2.010** may be ducted to a **Carbon Filter Bed System (CF-012)**. Emissions may also be ducted to the standby **Carbon Filter Bed System (CF-013)**.
  - e. **S2.009 and S2.010**, each, have a pressure relief bypass. The exhaust pressure relief bypasses shall be ducted through a cyclone, and their hours of operation will be based on parametric monitoring of the exhaust gas through the cyclone. Each exhaust pressure relief bypass may be operated for 100 hours per year.
  - f. Descriptive Stack Parameters for S2.009 and S2.010, each,  
 Stack Height: 112.0 feet  
 Stack Diameter: 1.83 feet  
 Stack Temperature: 92.5 °F  
 Exhaust Flow: 11,400 dry standard cubic feet per minute (dscfm)
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **S2.009 and S2.010**, each, shall not exceed **400.0** tons of ore per hour, averaged over a calendar day.
  - b. Each exhaust pressure relief bypass may be operated for 100 hours per year.
  - c. Hours  
 (1) **S2.009 and S2.010**, each, may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.009 and S2.010**, each, the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **8.40** pounds per hour, nor more than **36.8** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **8.40** pounds per hour, nor more than **36.8** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **5.20** pounds per hour, nor more than **22.8** tons per 12-month rolling period.
  - d. The discharge of **SO<sub>2</sub>** (sulfur dioxide) to the atmosphere shall not exceed **12.0** pounds per hour, nor more than **52.3** tons per 12-month rolling period.
  - e. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **21.0** pounds per hour, nor more than **92.0** tons per 12-month rolling period.
  - f. The discharge of **H<sub>2</sub>SO<sub>4</sub>** (sulfuric acid) to the atmosphere shall not exceed **15.0** pounds per hour, nor more than **65.7** tons per 12-month rolling period.
  - g. The discharge of **H<sub>2</sub>S** (hydrogen sulfide) to the atmosphere shall not exceed **4.00** pounds per hour, nor more than **17.5** tons per 12-month rolling period.



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**Section IV. Specific Operating Conditions (continued)**

**J. Emission Units S2.009 and S2.010 (continued)**

3. Emission Limits (NAC 445B.305, NAC 445B.3405) (continued)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.009 and S2.010**, each, the following pollutants in excess of the following specified limits:

- h. NAC 445B.22017 – The opacity from the **S2.009 and S2.010**, each, shall not equal or exceed **20** percent.
- i. NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **S2.009 and S2.010**, each, shall not exceed **66.3** pounds per hour.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the throughput for **S2.009 and S2.010**, each, for each calendar day.
- b. Record the corresponding average hourly throughput rate in tons per hour. The average throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
- c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
- d. Monitor and record the hours of operation for **S2.009 and S2.010**, each, for each calendar day.
- e. Monitor and record what control is non-operational when only three of the four controls are functioning and the duration of time this control remains non-operational.
- f. Monitor and record the date, time, and duration of operation of the pressure relief bypasses on **S2.009 and S2.010**.
- g. Inspect the bypasses on **S2.009 and S2.010**, each, on a **monthly** basis. Record the results and any corrective actions taken.
- h. Conduct and record an observation of visible emissions (excluding water vapor) on the final exhaust stack of **S2.009 and S2.010**, each, on a **monthly** basis while operating. The Permittee shall conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of the test, results of the monthly visible emissions, and any corrective actions taken.
- i. Inspect the wet scrubbers installed on **S2.009 and S2.010**, each, on a **monthly** basis to confirm that the wet scrubber is functioning properly. If the wet scrubber is in disrepair, the Permittee shall perform corrective action within 24 hours to ensure that the wet scrubber is functioning properly.

5. Performance and Compliance Testing (NAC 445B.3405, (NAC 445B.252(1))

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

- a. All opacity compliance demonstrations and performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of Section **I.I. Testing and Sampling** (NAC 445B.252) of this operating permit. Material sampling must be conducted in accordance with protocols approved by the Director. 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.



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**Section IV. Specific Operating Conditions (continued)**

**J. Emission Units S2.009 and S2.010 (continued)**

5. Performance and Compliance Testing (NAC 445B.3405, (NAC 445B.252(1)) (continued)

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

- d. Method 5 and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine particulate matter emissions. All particulate captured in the Method 5 and Method 202 test shall be considered PM<sub>2.5</sub> for determination of compliance. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
- e. 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.
- f. 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.
- g. Method 8 in Appendix A of 40 CFR Part 60 shall be used to determine the sulfuric acid mist concentration. Each test will be run for a minimum of one hour.
- h. Method 15 in Appendix A of 40 CFR Part 60 shall be used to determine hydrogen sulfide concentration. Each test will be run for a minimum of one hour.
- i. 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.

6. Federal Requirements

National Emission Standards for Hazardous Air Pollutants (NESHAPs) – 40 CFR Part 63 Subpart EEEEEEE – Gold Mine Ore Processing and Production Area Source Category

The Permittee, upon issuance of this operating permit, shall comply with the requirements of 40 CFR Part 63 Subpart EEEEEEE, as set forth in **Section V** of this operating permit.





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**Section IV. Specific Operating Conditions (continued)**

**J. Emission Units S2.009 and S2.010 (continued)**

- 7. 40 CFR Part 64 – Compliance Assurance Monitoring (CAM) (40 CFR 64.1, et.seq.)
  - a. Upon issuance of this operating permit, Permittee shall conduct monitoring, recordkeeping, and reporting for the controls on **S2.009 and S2.010**, each, as listed in **Table J -1** below:

<b>Table J -1: Part 64 CAM Monitoring for the controls on S2.009 and S2.010</b>	
CAM Performance Indicator====>	<b>Water Flow Rate</b>
<b>Measurement Approach</b>	Conduct and record a reading of the combined water flow rate for the quench tanks, venturi scrubbers, and cyclonic separators on a daily basis.
<b>Indicator Range</b>	An excursion is defined as a combined water flow rate less than 840 gallons per minute (gpm). Excursions trigger an inspection, corrective actions, and a reporting requirement.
<b>Measurement Locations</b>	Water flow readings are taken at the inlet with a Bailey meter.
<b>Verification of Operational Status</b>	If the combined water flow to the quench vessels, venturi scrubbers, and cyclonic separators falls below 840 gpm, the mill control room operator is notified by a low flow alarm.
<b>Quality Assurance/Quality Control</b>	The accuracy of the meter is verified by regularly scheduled preventative maintenance checks.
<b>Monitoring Frequency</b>	A reading of the combined water flow rate is conducted and recorded daily.
<b>Data Collection Procedures</b>	The water flow rate is automatically recorded daily.
<b>Averaging Periods</b>	Daily average.
<b>Operation of Approved Monitoring</b>	Permittee shall comply with the applicable provisions of 40 CFR 64.7.
<b>Reporting</b>	Permittee shall comply with the applicable <i>General Reporting Requirements</i> set forth in 40 CFR 64.9(a).
<b>Recordkeeping</b>	Permittee shall comply with the applicable <i>General Recordkeeping Requirements</i> set forth in 40 CFR 64.9(b).





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**Section IV. Specific Operating Conditions (continued)**

**K. Emission Unit S2.012**

System 10 – Oxygen Plant Vaporizer #1		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.012	Oxygen Plant Vaporizer Boiler #1 - Natural Gas	4,570,534	487,094

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. **S2.012** has no add-on controls.
  - b. Descriptive Stack Parameters  
 Stack Height: 13.42 feet  
 Stack Diameter: 3.0 feet  
 Stack Temperature: 350 °F  
 Exhaust Flow: 1,718 dry standard cubic feet per minute (dscfm)
  
2. Operating Parameters (NAC 445B.3405)
  - a. **S2.012** may consume only **natural gas**.
  - b. The maximum allowable fuel consumption rate for **S2.012** shall not exceed **16,000.0 standard cubic feet (scf)** per hour, averaged over a calendar day.
  - c. Hours  
 (1) **S2.012** may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.012** the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.12** pounds per hour, nor more than **0.53** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.12** pounds per hour, nor more than **0.53** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.12** pounds per hour, nor more than **0.53** tons per 12-month rolling period.
  - d. The discharge of **SO<sub>2</sub>** (sulfur dioxide) to the atmosphere shall not exceed **0.0096** pounds per hour, nor more than **0.042** tons per 12-month rolling period.
  - e. The discharge of **NO<sub>x</sub>** (oxides of nitrogen) to the atmosphere shall not exceed **1.60** pounds per hour, nor more than **7.01** tons per 12-month rolling period.
  - f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **1.34** pounds per hour, nor more than **5.89** tons per 12-month rolling period.
  - g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.088** pounds per hour, nor more than **0.39** tons per 12-month rolling period.
  - h. NAC 445B.22017 – The opacity from the **S2.012** shall not equal or exceed **20** percent.
  - i. NAC 445B.2203 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **S2.012** shall not exceed **0.54** pounds per MMBtu.
  - j. NAC 445B.22047 – The maximum allowable discharge of **sulfur** to the atmosphere from **S2.012** shall not exceed **11.4** pounds per hour.



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**Section IV. Specific Operating Conditions (continued)**

**K. Emission Unit S2.012 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

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 consumption rate of **natural gas** for each calendar day for **S2.012** (in scf) by use of a fuel flow meter.
- b. Record the consumption rate of **natural gas**, in scf, on a cumulative monthly basis, for each 12-month rolling period.
- c. Monitor and record the hours of operation for **S2.012** for each calendar day.
- d. Record the corresponding average hourly consumption rate in scf per hour. The average hourly consumption rate shall be determined from the total daily consumption and the total daily hours of operation.

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Issued to: NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

Section IV. Specific Operating Conditions (continued)

L. Emission Unit S2.013

System 11 – Oxygen Plant Vaporizer #2		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.013	Oxygen Plant Vaporizer Boiler #2 - Natural Gas	4,570,534	487,094

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. **S2.013** has no add-on controls.
  - b. Descriptive Stack Parameters  
 Stack Height: 13.42 feet  
 Stack Diameter: 3.0 feet  
 Stack Temperature: 350 °F  
 Exhaust Flow: 1,718 dry standard cubic feet per minute (dscfm)
  
2. Operating Parameters (NAC 445B.3405)
  - a. **S2.013** may consume only **natural gas**.
  - b. The maximum allowable fuel consumption rate for **S2.013** shall not exceed **16,000.0 standard cubic feet (scf)** per hour, averaged over a calendar day.
  - c. Hours  
 (1) **S2.013** may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.013** the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.12** pounds per hour, nor more than **0.53** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.12** pounds per hour, nor more than **0.53** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.12** pounds per hour, nor more than **0.53** tons per 12-month rolling period.
  - d. The discharge of **SO<sub>2</sub>** (sulfur dioxide) to the atmosphere shall not exceed **0.0096** pounds per hour, nor more than **0.042** tons per 12-month rolling period.
  - e. The discharge of **NO<sub>x</sub>** (oxides of nitrogen) to the atmosphere shall not exceed **1.60** pounds per hour, nor more than **7.01** tons per 12-month rolling period.
  - f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **1.34** pounds per hour, nor more than **5.89** tons per 12-month rolling period.
  - g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.088** pounds per hour, nor more than **0.39** tons per 12-month rolling period.
  - h. NAC 445B.22017 – The opacity from the **S2.013** shall not equal or exceed **20** percent.
  - i. NAC 445B.2203 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **S2.013** shall not exceed **0.54** pounds per MMBtu.
  - j. NAC 445B.22047 – The maximum allowable discharge of **sulfur** to the atmosphere from **S2.013** shall not exceed **11.4** pounds per hour.



**Bureau of Air Pollution Control**

**Facility ID No. A0003**

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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**L. Emission Unit S2.013 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

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 consumption rate of **natural gas** for each calendar day for **S2.013** (in scf) by use of a fuel flow meter.
- b. Record the consumption rate of **natural gas**, in scf, on a cumulative monthly basis, for each 12-month rolling period.
- c. Monitor and record the hours of operation for **S2.013** for each calendar day.
- d. Record the corresponding average hourly consumption rate in scf per hour. The average hourly consumption rate shall be determined from the total daily consumption and the total daily hours of operation.

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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**M. Emission Units S2.015 and S2.016**

System 13 – Sage Mill Steam Generators		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.015	Sage Mill Steam Generator #1	4,570,467	486,988
S2.016	Sage Mill Steam Generator #2	4,570,462	486,987

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. Emissions from **S2.015 and S2.016**, each, shall be controlled by a **flue gas recirculation**.
  - b. Descriptive Stack Parameters for S2.015 and S2.016, each,
    - Stack Height: 67 feet
    - Stack Diameter: 3.33 feet
    - Stack Temperature: 320 °F
    - Exhaust Flow: 10,000 dry standard cubic feet per minute (dscfm)
  
2. Operating Parameters (NAC 445B.3405)
  - a. **S2.015 and S2.016**, each, may consume only **natural gas**.
  - b. The maximum allowable fuel consumption rate for **S2.015 and S2.016**, each, shall not exceed **48,000.0 standard cubic feet (scf)** per hour, averaged over a calendar day, nor more than **250,000,000.0 scf** per 12-month rolling period.
  - c. Only up to two out of the three units among **S2.015, S2.016, and S2.064** shall operate simultaneously at any one time.
  - d. Hours
    - (1) **S2.015 and S2.016**, each, may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)
 

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.015 and S2.016**, each, the following pollutants in excess of the following specified limits:

  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.36** pounds per hour, nor more than **0.95** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.36** pounds per hour, nor more than **0.95** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.36** pounds per hour, nor more than **0.95** tons per 12-month rolling period.
  - d. The discharge of **SO<sub>2</sub>** (sulfur dioxide) to the atmosphere shall not exceed **0.13** pounds per hour, nor more than **0.34** tons per 12-month rolling period.
  - e. The discharge of **NO<sub>x</sub>** (oxides of nitrogen) to the atmosphere shall not exceed **7.15** pounds per hour, nor more than **18.6** tons per 12-month rolling period.
  - f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **4.03** pounds per hour, nor more than **10.5** tons per 12-month rolling period.
  - g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.26** pounds per hour, nor more than **0.69** tons per 12-month rolling period.
  - h. NAC 445B.22017 – The opacity from the **S2.015 and S2.016**, each, shall not equal or exceed **20** percent.
  - i. NAC 445B.2203 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **S2.015 and S2.016**, each, shall not exceed **0.42** pounds per MMBtu.
  - j. NAC 445B.22047 – The maximum allowable discharge of **sulfur** to the atmosphere from **S2.015 and S2.016**, each, shall not exceed **34.3** pounds per hour.



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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**M. Emission Units S2.015 and S2.016 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

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 consumption rate of **natural gas** for each calendar day for **S2.015 and S2.016**, each, (in scf) by use of a fuel flow meter.
- b. Record the consumption rate of **natural gas**, in scf, on a cumulative monthly basis, for each 12-month rolling period.
- c. Monitor and record the hours of operation for **S2.015 and S2.016**, each, for each calendar day.
- d. Record the corresponding average hourly consumption rate in scf per hour. The average hourly consumption rate shall be determined from the total daily consumption and the total daily hours of operation.

5. Performance and Compliance Testing (NAC 445B.3405, (NAC 445B.252(1))

The Permittee, upon issuance of this operating permit, shall conduct and record 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.L. Testing and Sampling** (NAC 445B.252) of this operating permit. Material sampling must be conducted in accordance with protocols approved by the Director. 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 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.
- d. 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.
- e. 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.
- f. Method 25A in Appendix A of 40 CFR Part 60 shall be used to determine the volatile organic compound concentration. Method 18 in Appendix A of 40 CFR Part 60 or Method 320 in Appendix A of CFR Part 63 may be used in conjunction with Method 25A to break out the organic compounds that are not considered VOC's by definition per 40 CFR 51.100(s). Each Method 25A test will be run for a minimum of one hour.





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CLASS I AIR QUALITY OPERATING PERMIT

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Section IV. Specific Operating Conditions (continued)

N. Emission Unit S2.064

System 13A – Sage Mill Backup Steam Generator		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.064	Sage Mill Backup Steam Generator	4,570,466	487,002

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. **S2.064** has no add-on controls.
  - b. Descriptive Stack Parameters  
 Stack Height: 26.8 feet  
 Stack Diameter: 2.50 feet  
 Stack Temperature: 320.0 °F  
 Exhaust Flow: 11,857 dry standard cubic feet per minute (dscfm)
  
2. Operating Parameters (NAC 445B.3405)
  - a. **S2.064** may consume only **natural gas**.
  - b. The maximum allowable fuel consumption rate for **S2.064** shall not exceed **65,513.0 standard cubic feet (scf)** per hour, averaged over a calendar day, nor more than **250,000,000.0 standard cubic feet (scf)** per 12-month rolling period.
  - c. Only up to two out of the three units among **S2.064**, **S2.015**, and **S2.016** shall operate simultaneously at any one time.
  - d. Hours  
 (1) **S2.064** may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.064** the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.50** pounds per hour, nor more than **0.95** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.50** pounds per hour, nor more than **0.95** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.50** pounds per hour, nor more than **0.95** tons per 12-month rolling period.
  - d. The discharge of **SO<sub>2</sub>** (sulfur dioxide) to the atmosphere shall not exceed **0.039** pounds per hour, nor more than **0.075** tons per 12-month rolling period.
  - e. The discharge of **NO<sub>x</sub>** (oxides of nitrogen) to the atmosphere shall not exceed **6.55** pounds per hour, nor more than **12.5** tons per 12-month rolling period.
  - f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **5.50** pounds per hour, nor more than **10.5** tons per 12-month rolling period.
  - g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.36** pounds per hour, nor more than **0.69** tons per 12-month rolling period.
  - h. NAC 445B.22017 – The opacity from the **S2.064** shall not equal or exceed **20** percent.
  - i. NAC 445B.2203 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **S2.064** shall not exceed **0.39** pounds per MMBtu.
  - j. NAC 445B.22047 – The maximum allowable discharge of **sulfur** to the atmosphere from **S2.064** shall not exceed **46.8** pounds per hour.



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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**N. Emission Unit S2.064 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

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 consumption rate of **natural gas** for each calendar day for **S2.064** (in scf) by use of a fuel flow meter.
- b. Record the consumption rate of **natural gas**, in scf, on a cumulative monthly basis, for each 12-month rolling period.
- c. Monitor and record the hours of operation for **S2.064** for each calendar day.
- d. Record the corresponding average hourly consumption rate in scf per hour. The average hourly consumption rate shall be determined from the total daily consumption and the total daily hours of operation.

5. Performance and Compliance Testing (NAC 445B.3405, (NAC 445B.252(1))

The Permittee, upon issuance of this operating permit, shall conduct and record renewal performance testing at least 90 days after the exceedance of 50 hours of operation of **S2.064**, 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 **II.I. Testing and Sampling** (NAC 445B.252) of this operating permit. Material sampling must be conducted in accordance with protocols approved by the Director. 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 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.
- d. 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.
- e. 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.
- f. Method 25A in Appendix A of 40 CFR Part 60 shall be used to determine the volatile organic compound concentration. Method 18 in Appendix A of 40 CFR Part 60 or Method 320 in Appendix A of CFR Part 63 may be used in conjunction with Method 25A to break out the organic compounds that are not considered VOC's by definition per 40 CFR 51.100(s). Each Method 25A test will be run for a minimum of one hour.



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**Section IV. Specific Operating Conditions (continued)**

**O. Emission Units S2.017 and PF1.010**

System 14 – Sage Mill Lime Storage Silo #1		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.017	Sage Mill Lime Silo #1 Pneumatic Loading	4,570,425	486,830
PF1.010	Sage Mill Lime Silo #1 Unloading via Auger to Lime Slaker	4,570,425	486,830

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. Emissions from **S2.017** shall be controlled by a **vent filter**.
  - b. Emissions from **PF1.010** shall be controlled by an **enclosure**.
  - c. Descriptive Stack Parameters for S2.017  
 Stack Height: 119.0 feet  
 Stack Diameter: 0.75 feet  
 Stack Temperature: ambient  
 Exhaust Flow: 1,000 dry standard cubic feet per minute (dscfm)
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **S2.017** shall not exceed **90.0 tons of lime** per hour, averaged over a calendar day, nor more than **197,100.0 tons** per 12-month rolling period.
  - b. The maximum allowable throughput rate for **PF1.010** shall not exceed **50.0 tons of lime** per hour, averaged over a calendar day.
  - c. Hours
    - (1) **S2.017** may operate a total of **24 hours** per day.
    - (2) **S2.017** may operate a total of **2,190 hours** per year.
    - (3) **PF1.010** may operate a total of **24 hours** per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)
  - a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.017** the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.089 pounds** per hour, nor more than **0.098 tons** per 12-month rolling period.
    - (2) The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.031 pounds** per hour, nor more than **0.034 tons** per 12-month rolling period.
    - (3) The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.0045 pounds** per hour, nor more than **0.0049 tons** per 12-month rolling period.
    - (4) NAC 445B.22017 – The opacity from the **S2.017** shall not equal or exceed **20 percent**.
    - (5) NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **S2.017** shall not exceed **50.2 pounds** per hour.
  - b. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.010** the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.12 pounds** per hour, nor more than **0.53 tons** per 12-month rolling period.
    - (2) The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.070 pounds** per hour, nor more than **0.31 tons** per 12-month rolling period.
    - (3) The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.010 pounds** per hour, nor more than **0.044 tons** per 12-month rolling period.
    - (4) NAC 445B.22017 – The opacity from **PF1.010** shall not equal or exceed **20 percent**.
    - (5) NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **PF1.010** shall not exceed **44.6 pounds** per hour.



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**Section IV. Specific Operating Conditions (continued)**

**O. Emission Units S2.017 and PF1.010 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the throughput for **S2.017 and PF1.010**, each, for each calendar day.
- b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
- c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
- d. Monitor and record the hours of operation for **S2.017 and PF1.010**, each, for each calendar day.
- e. Record the monthly hours of operation and the corresponding annual hours of operation for **S2.017** for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for the year.
- f. Conduct and record an observation of visible emissions (excluding water vapor) on the vent filter controlling **S2.017** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.
- g. Inspect the vent filter installed on **S2.017** on a **monthly** basis in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter fabric) and any corrective actions taken.
- h. Conduct and record an observation of visible emissions (excluding water vapor) on **PF1.010** 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 conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.
- i. Inspect the enclosure installed on **PF1.010** on a **monthly** basis to confirm that the enclosure is in place and functioning properly. If the enclosure is in disrepair, the Permittee shall perform corrective action within 24 hours to ensure that the enclosure is functioning properly.



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**Section IV. Specific Operating Conditions (continued)**

**P. Emission Units S2.018 and PF1.011**

System 15 – Sage Mill Lime Storage Silo #2		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.018	Sage Mill Lime Silo #2 Pneumatic Loading	4,570,415	486,844
PF1.011	Sage Mill Lime Silo #2 Unloading via Auger to Lime Slaker	4,570,415	486,844

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. Emissions from **S2.018** shall be controlled by a **vent filter**.
  - b. Emissions from **PF1.011** shall be controlled by an **enclosure**.
  - c. Descriptive Stack Parameters for S2.018  
 Stack Height: 119.0 feet  
 Stack Diameter: 0.75 feet  
 Stack Temperature: ambient  
 Exhaust Flow: 1,000 dry standard cubic feet per minute (dscfm)
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **S2.018** shall not exceed **90.0 tons of lime** per hour, averaged over a calendar day, nor more than **197,100.0 tons** per 12-month rolling period.
  - b. The maximum allowable throughput rate for **PF1.011** shall not exceed **50.0 tons of lime** per hour, averaged over a calendar day.
  - c. Hours
    - (1) **S2.018** may operate a total of **24 hours** per day.
    - (2) **S2.018** may operate a total of **2,190 hours** per year.
    - (3) **PF1.011** may operate a total of **24 hours** per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)
  - a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.018** the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.089 pounds** per hour, nor more than **0.098 tons** per 12-month rolling period.
    - (2) The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.031 pounds** per hour, nor more than **0.034 tons** per 12-month rolling period.
    - (3) The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.0045 pounds** per hour, nor more than **0.0049 tons** per 12-month rolling period.
    - (4) NAC 445B.22017 – The opacity from the **S2.018** shall not equal or exceed **20 percent**.
    - (5) NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **S2.018** shall not exceed **50.2 pounds** per hour.
  - b. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.011** the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.12 pounds** per hour, nor more than **0.53 tons** per 12-month rolling period.
    - (2) The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.070 pounds** per hour, nor more than **0.31 tons** per 12-month rolling period.
    - (3) The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.010 pounds** per hour, nor more than **0.044 tons** per 12-month rolling period.
    - (4) NAC 445B.22017 – The opacity from **PF1.011** shall not equal or exceed **20 percent**.
    - (5) NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **PF1.011** shall not exceed **44.6 pounds** per hour.





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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**P. Emission Units S2.018 and PF1.011 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the throughput for **S2.018 and PF1.011**, each, for each calendar day.
- b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
- c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
- d. Monitor and record the hours of operation for **S2.018 and PF1.011**, each, for each calendar day.
- e. Record the monthly hours of operation and the corresponding annual hours of operation for **S2.018** for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for the year.
- f. Conduct and record an observation of visible emissions (excluding water vapor) on the vent filter controlling **S2.018** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.
- g. Inspect the vent filter installed on **S2.018** on a **monthly** basis in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter fabric) and any corrective actions taken.
- h. Conduct and record an observation of visible emissions (excluding water vapor) on **PF1.011** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.
- i. Inspect the enclosure installed on **PF1.011** on a **monthly** basis to confirm that the enclosure is in place and functioning properly. If the enclosure is in disrepair, the Permittee shall perform corrective action within 24 hours to ensure that the enclosure is functioning properly.





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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**Q. Emission Units PF1.012 and PF1.013**

System 16 – Sage Mill and Lime Storage Silos Bulk Unloading (Truck Unloading)		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.012	Sage Lime Bulk Unloading Hopper #1	4,570,453	486,784
PF1.013	Sage Lime Bulk Unloading Hopper #2	4,570,453	486,784

1. Air Pollution Control Equipment (NAC 445B.3405)  
Emissions from **PF1.012 and PF1.013**, each, shall be controlled by an **enclosure**.
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **PF1.012 and PF1.013**, each, shall not exceed **150.0** tons of **pelletized lime** per hour, averaged over a calendar day, nor more than **325,000.0** tons per 12-month rolling period.
  - b. Hours
    - (1) **PF1.012 and PF1.013**, each, may operate a total of **24** hours per day.
    - (2) **PF1.012 and PF1.013**, each, may operate a total of **4,380** hours per year.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.012 and PF1.013**, each, the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.52** pounds per hour, nor more than **0.56** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.25** pounds per hour, nor more than **0.27** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.038** pounds per hour, nor more than **0.041** tons per 12-month rolling period.
  - d. NAC 445B.22017 – The opacity from **PF1.012 and PF1.013**, each, shall not equal or exceed **20** percent.
  - e. NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **PF1.012 and PF1.013**, each, shall not exceed **55.4** pounds per hour.
  
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the throughput for **PF1.012 and PF1.013**, each, for each calendar day.
  - b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
  - c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
  - d. Monitor and record the hours of operation for **PF1.012 and PF1.013**, each, for each calendar day.
  - e. Record the monthly hours of operation and the corresponding annual hours of operation for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for the year.
  - f. Conduct and record an observation of visible emissions (excluding water vapor) on **PF1.012 and PF1.013**, 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 conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.



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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**Q. Emission Units PF1.012 and PF1.013 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405) (continued)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate. (continued)

- g. Inspect the enclosure installed on **PF1.012 and PF1.013, each**, on a **monthly** basis to confirm that the enclosure is in place and functioning properly. If the enclosure is in disrepair, the Permittee shall perform corrective action within 24 hours to ensure that the enclosure is functioning properly.

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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**R. Emission Units S2.019 through S2.022**

System 17 – Sage Mill Lime Silo #1 Bulk Loading		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.019	Hopper #1 Transfer to Conveyor #1	4,570,455	486,784
S2.020	Conveyor #1 Transfer to Conveyor #3		
S2.021	Conveyor #3 Transfer to Elevator #1		
S2.022	Elevator #1 Transfer to Sage Mill Lime Silo #1		

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. Emissions from **S2.019 through S2.022**, combined, shall be controlled by a **baghouse (DC-011)**.
  - b. Descriptive Stack Parameters  
 Stack Height: 20.0 feet  
 Stack Diameter: 1.3 feet  
 Stack Temperature: ambient  
 Exhaust Flow: 7,000 dry standard cubic feet per minute (dscfm)
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **S2.019 through S2.022**, each, shall not exceed **150.0** tons of **pelletized lime** per hour, averaged over a calendar day, nor more than **650,000.0** tons per 12-month rolling period.
  - b. Hours
    - (1) **S2.019 through S2.022**, each, may operate a total of **24** hours per day.
    - (2) **S2.019 through S2.022**, each, may operate a total of **4,380** hours per year.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.019 through S2.022**, combined, the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **1.20** pounds per hour, nor more than **2.63** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **1.20** pounds per hour, nor more than **2.63** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **1.20** pounds per hour, nor more than **2.63** tons per 12-month rolling period.
  - d. NAC 445B.22017 – The opacity from **System 17** shall not equal or exceed **20** percent.
  - e. NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **S2.019 through S2.022**, each, shall not exceed **55.4** pounds per hour.
  
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
 The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the throughput for **S2.019 through S2.022**, each, for each calendar day.
  - b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
  - c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
  - d. Monitor and record the hours of operation for **S2.019 through S2.022**, each, for each calendar day.
  - e. Record the monthly hours of operation and the corresponding annual hours of operation for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for the year.



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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**R. Emission Units S2.019 through S2.022 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405) (continued)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate. (continued)

f. Conduct and record an observation of visible emissions (excluding water vapor) on the baghouse controlling **S2.019 through S2.022** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.

g. Inspect the baghouse installed on **S2.019 through S2.022** on a **monthly** basis in accordance with the manufacturer’s operation and maintenance manual and record the results (e.g. the condition of the filter fabric), and any corrective actions taken.

5. 40 CFR Part 64 – Compliance Assurance Monitoring (CAM) (40 CFR 64.1, et.seq.)

a. Upon issuance of this operating permit, Permittee shall conduct monitoring, recordkeeping, and reporting for the baghouse (DC-011) on **S2.019 through S2.022**, as listed in **Table R -1** below:

<b>Table R -1: Part 64 CAM Monitoring for Baghouse (DC-011)</b>	
<b>CAM Performance Indicator</b> ====>	<b>Pressure Drop</b>
<b>Measurement Approach</b>	Conduct and record a reading of the baghouse pressure drop daily.
<b>Indicator Range</b>	An excursion is defined as a pressure drop less than 0.05 inches of water column or greater than 8.0 inches of water column. Excursions triggers an inspection and corrective actions.
<b>Measurement Locations</b>	The pressure tap is located at the baghouse inlet. The gauge has a minimum accuracy of +/- 2% of the full scale.
<b>Verification of Operational Status</b>	Annually
<b>Quality Assurance/Quality Control</b>	The gauge is Magnehelic brand. The pressure tap is checked for plugging anytime there are continuous readings below the lower end of the indicator range.
<b>Monitoring Frequency</b>	An instantaneous reading of the baghouse pressure drop is conducted and recorded daily.
<b>Data Collection Procedures</b>	The pressure drop is recorded daily by a trained operator.
<b>Averaging Periods</b>	Instantaneous reading.
<b>Operation of Approved Monitoring</b>	Permittee shall comply with the applicable provisions of 40 CFR 64.7.
<b>Reporting</b>	Permittee shall comply with the applicable <i>General Reporting Requirements</i> set forth in 40 CFR 64.9(a).
<b>Recordkeeping</b>	Permittee shall comply with the applicable <i>General Recordkeeping Requirements</i> set forth in 40 CFR 64.9(b).



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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**S. Emission Units S2.023 through S2.026**

System 18 – Sage Mill Lime Silo #2 Bulk Loading		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.023	Hopper #2 Transfer to Conveyor #2	4,570,455	486,784
S2.024	Conveyor #2 Transfer to Conveyor #4		
S2.025	Conveyor #4 Transfer to Elevator #2		
S2.026	Elevator #2 Transfer to Sage Mill Lime Silo #2		

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. Emissions from **S2.023 through S2.026** shall be controlled by a **baghouse (DC-012)**.
  - b. Descriptive Stack Parameters  
 Stack Height: 20.0 feet  
 Stack Diameter: 1.3 feet  
 Stack Temperature: ambient  
 Exhaust Flow: 7,000 dry standard cubic feet per minute (dscfm)
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **S2.023 through S2.026**, each, shall not exceed **150.0** tons of **pelletized lime** per hour, averaged over a calendar day, nor more than **650,000.0** tons per 12-month rolling period.
  - b. Hours
    - (1) **S2.023 through S2.026**, each, may operate a total of **24** hours per day.
    - (2) **S2.023 through S2.026**, each, may operate a total of **4,380** hours per year.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.023 through S2.026**, combined, the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **1.20** pounds per hour, nor more than **2.63** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **1.20** pounds per hour, nor more than **2.63** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **1.20** pounds per hour, nor more than **2.63** tons per 12-month rolling period.
  - d. NAC 445B.22017 – The opacity from **System 18** shall not equal or exceed **20** percent.
  - e. NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **S2.023 through S2.026**, each shall not exceed **55.4** pounds per hour.
  
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
 The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the throughput for **S2.023 through S2.026**, each, for each calendar day.
  - b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
  - c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
  - d. Monitor and record the hours of operation for **S2.023 through S2.026**, each, for each calendar day.
  - e. Record the monthly hours of operation and the corresponding annual hours of operation for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for the year.





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**Section IV. Specific Operating Conditions (continued)**

**S. Emission Units S2.023 through S2.026 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405) (continued)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate. (continued)

f. Conduct and record an observation of visible emissions (excluding water vapor) on the baghouse controlling **S2.023 through S2.026** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.

g. Inspect the baghouse installed on **S2.023 through S2.026** on a **monthly** basis in accordance with the manufacturer’s operation and maintenance manual and record the results (e.g. the condition of the filter fabric), and any corrective actions taken.

5. 40 CFR Part 64 – Compliance Assurance Monitoring (CAM) (40 CFR 64.1, et.seq.)

a. Upon issuance of this operating permit, Permittee shall conduct monitoring, recordkeeping, and reporting for the baghouse (DC-012) on **S2.023 through S2.026**, as listed in **Table S -1** below:

<b>Table S -1: Part 64 CAM Monitoring for Baghouse (DC-012)</b>	
<b>CAM Performance Indicator</b> ====>	<b>Pressure Drop</b>
<b>Measurement Approach</b>	Conduct and record a reading of the baghouse pressure drop on a daily basis.
<b>Indicator Range</b>	An excursion is defined as a pressure drop less than 0.05 inches of water column or greater than 8.0 inches of water column. Excursions triggers an inspection and corrective actions.
<b>Measurement Locations</b>	The pressure tap is located at the baghouse inlet. The gauge has a minimum accuracy of +/- 2% of the full scale.
<b>Verification of Operational Status</b>	Annually
<b>Quality Assurance/Quality Control</b>	The gauge is Magnehelic brand. The pressure tap is checked for plugging anytime there are continuous readings below the lower end of the indicator range.
<b>Monitoring Frequency</b>	An instantaneous reading of the baghouse pressure drop is conducted and recorded daily.
<b>Data Collection Procedures</b>	The pressure drop is recorded daily by a trained operator.
<b>Averaging Periods</b>	Instantaneous reading.
<b>Operation of Approved Monitoring</b>	Permittee shall comply with the applicable provisions of 40 CFR 64.7.
<b>Reporting</b>	Permittee shall comply with the applicable <i>General Reporting Requirements</i> set forth in 40 CFR 64.9(a).
<b>Recordkeeping</b>	Permittee shall comply with the applicable <i>General Recordkeeping Requirements</i> set forth in 40 CFR 64.9(b).





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**Section IV. Specific Operating Conditions (continued)**

**T. Emission Units S2.027 and PF1.014**

System 19 – Snowstorm and Sonoma Pad Lime Silo		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.027	Snowstorm and Sonoma Pad Lime Silo - Loading	4,563,667	485,804
PF1.014	Snowstorm and Sonoma Pad Lime Silo - Unloading	4,563,667	485,804

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. Emissions from **S2.027** shall be controlled by a **vent filter (DC-005)**.
  - b. Emissions from **PF1.014** shall be controlled by an **enclosure**.
  - c. Descriptive Stack Parameters for S2.027  
 Stack Height: 26.0 feet  
 Stack Diameter: 0.83 feet  
 Stack Temperature: ambient  
 Exhaust Flow: 1,000 dry standard cubic feet per minute (dscfm)
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **S2.027** shall not exceed **60.0 tons of lime** per hour, averaged over a calendar day, nor more than **20,000.0 tons** per 12-month rolling period.
  - b. The maximum allowable throughput rate for **PF1.014** shall not exceed **10.5 tons of lime** per hour, averaged over a calendar day, nor more than **20,000.0 tons** per 12-month rolling period.
  - c. Hours
    - (1) **S2.027 and PF1.014**, each, may operate a total of **24 hours** per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)
  - a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.027** the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.059 pounds** per hour, nor more than **0.0099 tons** per 12-month rolling period.
    - (2) The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.020 pounds** per hour, nor more than **0.0034 tons** per 12-month rolling period.
    - (3) The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.0030 pounds** per hour, nor more than **0.00050 tons** per 12-month rolling period.
    - (4) NAC 445B.22017 – The opacity from the **S2.027** shall not equal or exceed **20 percent**.
    - (5) NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **S2.027** shall not exceed **46.3 pounds** per hour.
  - b. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.014** the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.025 pounds** per hour, nor more than **0.024 tons** per 12-month rolling period.
    - (2) The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.015 pounds** per hour, nor more than **0.014 tons** per 12-month rolling period.
    - (3) The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.0021 pounds** per hour, nor more than **0.0020 tons** per 12-month rolling period.
    - (4) NAC 445B.22017 – The opacity from **PF1.014** shall not equal or exceed **20 percent**.
    - (5) NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **PF1.014** shall not exceed **19.8 pounds** per hour.



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**Section IV. Specific Operating Conditions (continued)**

**T. Emission Units S2.027 and PF1.014 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the throughput for **S2.027 and PF1.014**, each, for each calendar day.
- b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
- c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
- d. Monitor and record the hours of operation for **S2.027 and PF1.014**, each, for each calendar day.
- e. Conduct and record an observation of visible emissions (excluding water vapor) on the vent filter controlling **S2.027** 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 conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.
- f. Inspect the vent filter installed on **S2.027** on a **monthly** basis in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter fabric) and any corrective actions taken.
- g. Conduct and record an observation of visible emissions (excluding water vapor) on **PF1.014** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.
- h. Inspect the enclosure installed on **PF1.014** on a **monthly** basis to confirm that the enclosure is in place and functioning properly. If the enclosure is in disrepair, the Permittee shall perform corrective action within 24 hours to ensure that the enclosure is functioning properly.



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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**U. Emission Units S2.028 and PF1.015**

System 20 – Izzenhood Pad Lime Silo		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.028	Izzenhood Pad Lime Silo - Loading	4,568,871	486,506
PF1.015	Izzenhood Pad Lime Silo - Unloading	4,568,871	486,506

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. Emissions from **S2.028** shall be controlled by a **vent filter (DC-006)**.
  - b. Emissions from **PF1.015** shall be controlled by an **enclosure**.
  - c. Descriptive Stack Parameters for S2.028  
 Stack Height: 40.0 feet  
 Stack Diameter: 1.33 feet  
 Stack Temperature: ambient  
 Exhaust Flow: 1,000 dry standard cubic feet per minute (dscfm)
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **S2.028** shall not exceed **60.0 tons of lime** per hour, averaged over a calendar day, nor more than **20,000.0 tons** per 12-month rolling period.
  - b. The maximum allowable throughput rate for **PF1.015** shall not exceed **10.5 tons of lime** per hour, averaged over a calendar day, nor more than **20,000.0 tons** per 12-month rolling period.
  - c. Hours
    - (1) **S2.028 and PF1.015**, each, may operate a total of **24 hours** per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)
  - a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.028** the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.059 pounds** per hour, nor more than **0.0099 tons** per 12-month rolling period.
    - (2) The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.020 pounds** per hour, nor more than **0.0034 tons** per 12-month rolling period.
    - (3) The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.0030 pounds** per hour, nor more than **0.00050 tons** per 12-month rolling period.
    - (4) NAC 445B.22017 – The opacity from the **S2.028** shall not equal or exceed **20 percent**.
    - (5) NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **S2.028** shall not exceed **46.3 pounds** per hour.
  - b. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.015** the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.025 pounds** per hour, nor more than **0.024 tons** per 12-month rolling period.
    - (2) The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.015 pounds** per hour, nor more than **0.014 tons** per 12-month rolling period.
    - (3) The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.0021 pounds** per hour, nor more than **0.0020 tons** per 12-month rolling period.
    - (4) NAC 445B.22017 – The opacity from **PF1.015** shall not equal or exceed **20 percent**.
    - (5) NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **PF1.015** shall not exceed **19.8 pounds** per hour.



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**Section IV. Specific Operating Conditions (continued)**

**U. Emission Units S2.028 and PF1.015 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the throughput for **S2.028 and PF1.015**, each, for each calendar day.
- b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
- c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
- d. Monitor and record the hours of operation for **S2.028 and PF1.015**, each, for each calendar day.
- e. Conduct and record an observation of visible emissions (excluding water vapor) on the vent filter controlling **S2.028** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.
- f. Inspect the vent filter installed on **S2.028** on a **monthly** basis in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter fabric) and any corrective actions taken.
- g. Conduct and record an observation of visible emissions (excluding water vapor) on **PF1.015** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.
- h. Inspect the enclosure installed on **PF1.015** on a **monthly** basis to confirm that the enclosure is in place and functioning properly. If the enclosure is in disrepair, the Permittee shall perform corrective action within 24 hours to ensure that the enclosure is functioning properly.



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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**V. Emission Units S2.029 and PF1.016**

System 21 – Osgood Pad Lime Silo		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.029	Osgood Pad Lime Silo - Loading	4,563,673	485,827
PF1.016	Osgood Pad Lime Silo - Unloading	4,563,673	485,827

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. Emissions from **S2.029** shall be controlled by a **vent filter (DC-007)**.
  - b. Emissions from **PF1.016** shall be controlled by an **enclosure**.
  - c. Descriptive Stack Parameters for S2.029  
 Stack Height: 57.0 feet  
 Stack Diameter: 1.33 feet  
 Stack Temperature: ambient  
 Exhaust Flow: 1,200 dry standard cubic feet per minute (dscfm)
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **S2.029** shall not exceed **60.0 tons of lime** per hour, averaged over a calendar day, nor more than **20,000.0 tons** per 12-month rolling period.
  - b. The maximum allowable throughput rate for **PF1.016** shall not exceed **10.5 tons of lime** per hour, averaged over a calendar day, nor more than **20,000.0 tons** per 12-month rolling period.
  - c. Hours
    - (1) **S2.029 and PF1.016**, each, may operate a total of **24 hours** per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)
  - a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.029** the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.059 pounds** per hour, nor more than **0.0099 tons** per 12-month rolling period.
    - (2) The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.020 pounds** per hour, nor more than **0.0034 tons** per 12-month rolling period.
    - (3) The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.0030 pounds** per hour, nor more than **0.00050 tons** per 12-month rolling period.
    - (4) NAC 445B.22017 – The opacity from the **S2.029** shall not equal or exceed **20 percent**.
    - (5) NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **S2.029** shall not exceed **46.3 pounds** per hour.
  - b. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.016** the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.025 pounds** per hour, nor more than **0.024 tons** per 12-month rolling period.
    - (2) The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.015 pounds** per hour, nor more than **0.014 tons** per 12-month rolling period.
    - (3) The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.0021 pounds** per hour, nor more than **0.0020 tons** per 12-month rolling period.
    - (4) NAC 445B.22017 – The opacity from **PF1.016** shall not equal or exceed **20 percent**.
    - (5) NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **PF1.016** shall not exceed **19.8 pounds** per hour.





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**Section IV. Specific Operating Conditions (continued)**

**V. Emission Units S2.029 and PF1.016 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the throughput for **S2.029 and PF1.016**, each, for each calendar day.
- b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
- c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
- d. Monitor and record the hours of operation for **S2.029 and PF1.016**, each, for each calendar day.
- e. Conduct and record an observation of visible emissions (excluding water vapor) on the vent filter controlling **S2.029** 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 conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.
- f. Inspect the vent filter installed on **S2.029** on a **monthly** basis in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter fabric) and any corrective actions taken.
- g. Conduct and record an observation of visible emissions (excluding water vapor) on **PF1.016** 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 conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.
- h. Inspect the enclosure installed on **PF1.016** on a **monthly** basis to confirm that the enclosure is in place and functioning properly. If the enclosure is in disrepair, the Permittee shall perform corrective action within 24 hours to ensure that the enclosure is functioning properly.





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**Section IV. Specific Operating Conditions (continued)**

**W. Emission Units S2.045.1, S2.045.2, and PF1.021**

System 25A – Vista Shotcrete Plant		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.045.1	Vista Shotcrete Cement Silo – Loading	4,570,624	486,257
S2.045.2	Vista Shotcrete Cement Guppy – Loading	4,570,624	486,257
PF1.021	Vista Shotcrete Cement Silo - Unloading	4,570,624	486,257

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. Emissions from **S2.045.1 and S2.045.2** shall be controlled by a **vent filter (DC-008)**.
  - b. Emissions from **PF1.021** shall be controlled by an **enclosure**.
  - c. Descriptive Stack Parameters for vent filter (DC-008)  
 Stack Height: 30.0 feet  
 Stack Diameter: 0.5 feet  
 Stack Temperature: ambient  
 Exhaust Flow: 1,200 dry standard cubic feet per minute (dscfm)
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **S2.045.1 and S2.045.2**, each, shall not exceed **50.0** tons of **lime/cement/flyash** per hour, averaged over a calendar day, nor more than **19,416.0** tons per 12-month rolling period.
  - b. The maximum allowable throughput rate for **PF1.021** shall not exceed **13.55** tons of **lime/cement/flyash** per hour, averaged over a calendar day, nor more than **19,416.0** tons per 12-month rolling period.
  - c. Hours
    - (1) **S2.045.1, S2.045.2, and PF1.021**, each, may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)
  - a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.045.1 and S2.045.2**, each, the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.45** pounds per hour, nor more than **0.086** tons per 12-month rolling period.
    - (2) The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.25** pounds per hour, nor more than **0.048** tons per 12-month rolling period.
    - (3) The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.035** pounds per hour, nor more than **0.0068** tons per 12-month rolling period.
    - (4) NAC 445B.22017 – The opacity from the **S2.045** shall not equal or exceed **20** percent.
    - (5) NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **S2.045** shall not exceed **44.6** pounds per hour.
  - b. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.021** the following pollutants in excess of the following specified limits:
    - (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.033** pounds per hour, nor more than **0.023** tons per 12-month rolling period.
    - (2) The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.019** pounds per hour, nor more than **0.014** tons per 12-month rolling period.
    - (3) The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.0027** pounds per hour, nor more than **0.0019** tons per 12-month rolling period.
    - (4) NAC 445B.22017 – The opacity from **PF1.021** shall not equal or exceed **20** percent.
    - (5) NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **PF1.021** shall not exceed **23.5** pounds per hour.



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**Section IV. Specific Operating Conditions (continued)**

**W. Emission Units S2.045.1, S2.045.2, and PF1.021 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the throughput for **S2.045.1, S2.045.2, and PF1.021**, each, for each calendar day.
- b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
- c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
- d. Monitor and record the hours of operation for **S2.045.1, S2.045.2 and PF1.021**, each, for each calendar day.
- e. Conduct and record an observation of visible emissions (excluding water vapor) on the vent filter controlling **S2.045.1 and S2.045.2** 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 conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.
- f. Inspect the vent filter installed on **S2.045.1 and S2.045.2** on a **monthly** basis in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter fabric) and any corrective actions taken.
- g. Conduct and record an observation of visible emissions (excluding water vapor) on **PF1.021** 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 conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.
- h. Inspect the enclosure installed on **PF1.021** on a **monthly** basis to confirm that the enclosure is in place and functioning properly. If the enclosure is in disrepair, the Permittee shall perform corrective action within 24 hours to ensure that the enclosure is functioning properly.



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**Section IV. Specific Operating Conditions (continued)**

**X. Emission Unit PF1.022**

System 25C – Vista Shotcrete Plant		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.022	Vista Shotcrete Aggregate Loading (Hopper C-3)	4,570,624	486,257

1. Air Pollution Control Equipment (NAC 445B.3405)  
PF1.022 has no add-on controls.
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for PF1.022 shall not exceed **27.0** tons of **aggregate** per hour, averaged over a calendar day, nor more than **21,600.0** tons per 12-month rolling period.
  - b. Hours
    - (1) PF1.022 may operate a total of **24** hours per day.
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from PF1.022 the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.19** pounds per hour, nor more than **0.075** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.089** pounds per hour, nor more than **0.036** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.013** pounds per hour, nor more than **0.0054** tons per 12-month rolling period.
  - d. NAC 445B.22017 – The opacity from PF1.022 shall not equal or exceed **20** percent.
  - e. NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from PF1.022 shall not exceed **37.3** pounds per hour.
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the throughput for PF1.022 for each calendar day.
  - b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
  - c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
  - d. Monitor and record the hours of operation for PF1.022, each, for each calendar day.



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Issued to: NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

Section IV. Specific Operating Conditions (continued)

Y. Emission Unit PF1.023

System 25D – Vista Shotcrete Plant		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.023	Vista Shotcrete Aggregate Hopper (Hopper C-3 discharge via Screw Mixer)	4,570,624	486,257

1. Air Pollution Control Equipment (NAC 445B.3405)  
Emissions from **PF1.023** shall be controlled by an **enclosure**.
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **PF1.023** shall not exceed **27.0** tons of **aggregate** per hour, averaged over a calendar day, nor more than **21,600.0** tons per 12-month rolling period.
  - b. Hours
    - (1) **PF1.023** may operate a total of **24** hours per day.
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.023** the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.065** pounds per hour, nor more than **0.026** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.038** pounds per hour, nor more than **0.015** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.0057** pounds per hour, nor more than **0.0023** tons per 12-month rolling period.
  - d. NAC 445B.22017 – The opacity from **PF1.023** shall not equal or exceed **20** percent.
  - e. NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **PF1.023** shall not exceed **37.3** pounds per hour.
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the throughput for **PF1.023** for each calendar day.
  - b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
  - c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
  - d. Monitor and record the hours of operation for **PF1.023** for each calendar day.
  - e. Conduct and record an observation of visible emissions (excluding water vapor) on **PF1.023** on a monthly basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.
  - f. Inspect the enclosure installed on **PF1.023** on a **monthly** basis to confirm that the enclosure is in place and functioning properly. If the enclosure is in disrepair, the Permittee shall perform corrective action within 24 hours to ensure that the enclosure is functioning properly.



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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**Z. Emission Unit PF1.024**

System 25E – Vista Shotcrete Plant		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.024	Vista Shotcrete Cement Mixing Hopper (Lime/Cement/Flyash Hopper C-1 Discharge to Screw Mixer via Mixing Hopper C-2)	4,570,624	486,257

1. Air Pollution Control Equipment (NAC 445B.3405)  
Emissions from **PF1.024** shall be controlled by an **enclosure**.
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **PF1.024** shall not exceed **13.6** tons of **lime/cement/flyash** per hour, averaged over a calendar day, nor more than **19,416.0** tons per 12-month rolling period.
  - b. Hours
    - (1) **PF1.024** may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.024** the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.033** pounds per hour, nor more than **0.023** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.019** pounds per hour, nor more than **0.014** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.0029** pounds per hour, nor more than **0.0021** tons per 12-month rolling period.
  - d. NAC 445B.22017 – The opacity from **PF1.024** shall not equal or exceed **20** percent.
  - e. NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **PF1.024** shall not exceed **23.6** pounds per hour.
  
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the throughput for **PF1.024** for each calendar day.
  - b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
  - c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
  - d. Monitor and record the hours of operation for **PF1.024**, each, for each calendar day.
  - e. Conduct and record an observation of visible emissions (excluding water vapor) on **PF1.024** 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 conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.
  - f. Inspect the enclosure installed on **PF1.024** on a **monthly** basis to confirm that the enclosure is in place and functioning properly. If the enclosure is in disrepair, the Permittee shall perform corrective action within 24 hours to ensure that the enclosure is functioning properly.





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**Section IV. Specific Operating Conditions (continued)**

**AA. Emission Unit PF1.048**

System 25F – Vista Shotcrete Plant		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.048	Vista Shotcrete Slurry Tank – Loading	4,570,624	486,257

1. Air Pollution Control Equipment (NAC 445B.3405)  
Emissions from **PF1.048** shall be controlled by an **enclosure**.
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **PF1.048** shall not exceed **13.6** tons of **lime/cement/flyash** per hour, averaged over a calendar day, nor more than **19,416.0** tons per 12-month rolling period.
  - b. Hours
    - (1) **PF1.048** may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.048** the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.033** pounds per hour, nor more than **0.023** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.019** pounds per hour, nor more than **0.014** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.0029** pounds per hour, nor more than **0.0021** tons per 12-month rolling period.
  - d. NAC 445B.22017 – The opacity from **PF1.048** shall not equal or exceed **20** percent.
  - e. NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **PF1.048** shall not exceed **23.6** pounds per hour.
  
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the throughput for **PF1.048** for each calendar day.
  - b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
  - c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
  - d. Monitor and record the hours of operation for **PF1.048**, each, for each calendar day.
  - e. Conduct and record an observation of visible emissions (excluding water vapor) on **PF1.048** 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 conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.
  - f. Inspect the enclosure installed on **PF1.048** on a **monthly** basis to confirm that the enclosure is in place and functioning properly. If the enclosure is in disrepair, the Permittee shall perform corrective action within 24 hours to ensure that the enclosure is functioning properly.





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**Section IV. Specific Operating Conditions (continued)**

**AB. Emission Unit S2.046**

System 26 – Diesel Storage Tank		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.046	100,000 Gallon Diesel Storage Tank	4,567,990	486,191

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. Emissions from **S2.046** shall be controlled by submerged fill.
  - b. Descriptive Stack Parameters  
 Shell Diameter: 27.0 feet  
 Shell Height: 24.0 feet  
 Capacity: 100,000 gallons
  
2. Operating Parameters (NAC 445B.3405)
  - a. **S2.046** shall only be used to store **diesel**.
  - b. The maximum allowable throughput rate for **S2.046** shall not exceed **675,000.0** gallons per month, nor more than **8,100,000.0** gallons per 12-month rolling period.
  - c. Hours  
**S2.046** may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.046** the following pollutants in excess of the following specified limits:
  - a. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.024** tons per year.
  - b. NAC 445B.22017 – The opacity from the **S2.046** shall not equal or exceed **20** percent.
  
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
 The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the throughput of **diesel**, in gallons, loaded into, or dispensed from, **S2.046**, on a monthly basis, as determined from vendor invoices for tank loading or fuel pump non-resettable meter for tank dispensing.
  - b. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.



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**Section IV. Specific Operating Conditions (continued)**

**AC. Emission Unit S2.047**

System 27 – Diesel Storage Tank		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.047	92,000 Gallon Diesel Storage Tank	4,567,990	486,191

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. Emissions from **S2.047** shall be controlled by submerged fill.
  - b. Descriptive Stack Parameters  
 Shell Diameter: 25.0 feet  
 Shell Height: 25.0 feet  
 Capacity: 92,000 gallons
  
2. Operating Parameters (NAC 445B.3405)
  - a. **S2.047** shall only be used to store **diesel**.
  - b. The maximum allowable throughput rate for **S2.047** shall not exceed **675,000.0** gallons per month, nor more than **8,100,000.0** gallons per 12-month rolling period.
  - c. Hours  
**S2.047** may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.047** the following pollutants in excess of the following specified limits:
  - a. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.024** tons per year.
  - b. NAC 445B.22017 – The opacity from the **S2.047** shall not equal or exceed **20** percent.
  
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
 The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the throughput of **diesel**, in gallons, loaded into, or dispensed from, **S2.047**, on a monthly basis, as determined from vendor invoices for tank loading or fuel pump non-resettable meter for tank dispensing.
  - b. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.



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Section IV. Specific Operating Conditions (continued)

AD. Emission Unit S2.048

<b>System 28 – Pinon Trailer Emergency Generator</b>		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.048	Pinon Trailer Emergency Generator (Cummins, model KT50, 1,300 hp, manufactured 1986)	4,563,096	486,039

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. **S2.048** has no add-on controls.
  - b. Descriptive Stack Parameters  
 Stack Height: 13.2 feet  
 Stack Diameter: 0.75 feet  
 Stack Temperature: 800 °F
  
2. Operating Parameters (NAC 445B.3405)
  - a. **S2.048** may consume only **diesel**.
  - b. The maximum allowable fuel consumption rate for **S2.048** shall not exceed **65.0 gallons** per hour, averaged over a calendar day, nor more than **6,500.0 gallons** per 12-month rolling period of non-emergency use.
  - c. Hours
    - (1) **S2.048** may operate a total of **24** hours per day.
    - (2) **S2.048** may operate a total 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.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.048** the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.63** pounds per hour, nor more than **0.032** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.52** pounds per hour, nor more than **0.026** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.52** pounds per hour, nor more than **0.026** tons per 12-month rolling period.
  - d. The discharge of **SO<sub>2</sub>** (sulfur dioxide) to the atmosphere shall not exceed **0.014** pounds per hour, nor more than **0.00069** tons per 12-month rolling period.
  - e. The discharge of **NO<sub>x</sub>** (oxides of nitrogen) to the atmosphere shall not exceed **29.1** pounds per hour, nor more than **1.46** tons per 12-month rolling period.
  - f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **7.74** pounds per hour, nor more than **0.39** tons per 12-month rolling period.
  - g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.75** pounds per hour, nor more than **0.037** tons per 12-month rolling period.
  - h. NAC 445B.22017 – The opacity from the **S2.048** shall not equal or exceed **20** percent.
  - i. NAC 445B.2203 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **S2.048** shall not exceed **0.60** pounds per MMBtu.
  - j. NAC 445B.22047 – The maximum allowable discharge of **sulfur** to the atmosphere from **S2.048** shall not exceed **6.37** pounds per hour.



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**Section IV. Specific Operating Conditions (continued)**

**AD. Emission Unit S2.048 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

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 consumption rate of **diesel** for each calendar day for **S2.048** (in gallons) by multiplying the hourly fuel consumption rate as stated in **AD.2.b.** of this section and the total daily hours of operation. The corresponding average hourly fuel consumption rate in gallons per hour as determined from the maximum engine size, brake-specific fuel consumption, and heat content.
- b. Record the consumption rate of **diesel**, in gallons, on a cumulative monthly basis, for each 12-month rolling period.
- c. Monitor and record the total daily hours of operation for **S2.048** for each calendar 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.
- d. Record the monthly hours of operation and the corresponding annual hours of operation for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for the year.

5. Federal Requirements

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, 80.510(b))

- (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 in **AD.5.a.** of this section. (40 CFR 63.6625(h))



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**Section IV. Specific Operating Conditions (continued)**

**AD. Emission Unit S2.048 (continued)**

5. Federal Requirements (continued)

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 **AD.5.a.(1)** of this section. The oil analysis must be performed at the same frequency specified for changing the oil in **AD.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 **AD.5.a.** of this section that applies to the Permittee 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.



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**Section IV. Specific Operating Conditions (continued)**

**AD. Emission Unit S2.048 (continued)**

5. Federal Requirements (continued)

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 **AD.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 **AD.5.d.(4)(a) through (c)** of this section, is prohibited. If the Permittee does not operate the engine according to the requirements in **AD.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 **AD.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 **AD.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 **AD.5.d.(4)(b)** of this section. Except as provided in in **AD.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. 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))

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))





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**Section IV. Specific Operating Conditions (continued)**

**AD. Emission Unit S2.048 (continued)**

5. Federal Requirements (continued)

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) (continued)

The Permittee must keep the following records:

- (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 **AD.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 **AD.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))



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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AE. Emission Unit S2.049**

System 29 – HVAC Building Emergency Generator		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.049	HVAC Building Emergency Generator (Caterpillar, model 3306, 343 hp, manufactured 1998)	4,570,464	487,013

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. **S2.049** has no add-on controls.
  - b. Descriptive Stack Parameters  
 Stack Height: 11.0 feet  
 Stack Diameter: 0.5 feet  
 Stack Temperature: 800 °F
  
2. Operating Parameters (NAC 445B.3405)
  - a. **S2.049** may consume only **diesel**.
  - b. The maximum allowable fuel consumption rate for **S2.049** shall not exceed **17.2 gallons** per hour, averaged over a calendar day, nor more than **1,7150.0 gallons** per 12-month rolling period of non-emergency use.
  - c. Hours
    - (1) **S2.049** may operate a total of **24** hours per day.
    - (2) **S2.049** may operate a total 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.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.049** the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.74** pounds per hour, nor more than **0.037** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.74** pounds per hour, nor more than **0.037** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.74** pounds per hour, nor more than **0.037** tons per 12-month rolling period.
  - d. The discharge of **SO<sub>2</sub>** (sulfur dioxide) to the atmosphere shall not exceed **0.70** pounds per hour, nor more than **0.035** tons per 12-month rolling period.
  - e. The discharge of **NO<sub>x</sub>** (oxides of nitrogen) to the atmosphere shall not exceed **10.6** pounds per hour, nor more than **0.53** tons per 12-month rolling period.
  - f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **2.28** pounds per hour, nor more than **0.11** tons per 12-month rolling period.
  - g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.84** pounds per hour, nor more than **0.042** tons per 12-month rolling period.
  - h. NAC 445B.22017 – The opacity from the **S2.049** shall not equal or exceed **20** percent.
  - i. NAC 445B.22047 – The maximum allowable discharge of **sulfur** to the atmosphere from **S2.049** shall not exceed **1.68** pounds per hour.



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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AE. Emission Unit S2.049 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

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 consumption rate of **diesel** for each calendar day for **S2.049** (in gallons) by multiplying the hourly fuel consumption rate as stated in **AE.2.b.** of this section and the total daily hours of operation. The corresponding average hourly fuel consumption rate in gallons per hour as determined from the maximum engine size, brake-specific fuel consumption, and heat content.
- b. Record the consumption rate of **diesel**, in gallons, on a cumulative monthly basis, for each 12-month rolling period.
- c. Monitor and record the total daily hours of operation for **S2.049** for each calendar 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.
- d. Record the monthly hours of operation and the corresponding annual hours of operation for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for the year.

5. Federal Requirements

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, 80.510(b))

- (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 **AE.5.a.** of this section. (40 CFR 63.6625(h))



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**Section IV. Specific Operating Conditions (continued)**

**AE. Emission Unit S2.049 (continued)**

5. Federal Requirements (continued)

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 **AE.5.a.(1)** of this section. The oil analysis must be performed at the same frequency specified for changing the oil in **AE.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 **AE.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.



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**Section IV. Specific Operating Conditions (continued)**

**AE. Emission Unit S2.049 (continued)**

5. Federal Requirements (continued)

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 **AE.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 **AE.5.d.(4)(a) through (c)** of this section, is prohibited. If the Permittee does not operate the engine according to the requirements in **AE.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 **AE.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 **AE.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 **AE.5.d.(4)(b)** of this section. Except as provided in **AE.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. 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))

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))



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**Section IV. Specific Operating Conditions (continued)**

**AE. Emission Unit S2.049 (continued)**

5. Federal Requirements (continued)

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) (continued)

The Permittee must keep the following records:

- (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 **AE.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 **AE.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))





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**Section IV. Specific Operating Conditions (continued)**

**AF. Emission Unit S2.050**

System 30 – Sage Lube Emergency Generator		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.050	Sage Mill Lube Emergency Generator (Cummins, model KTA19C, 525 hp, manufactured 1990)	4,570,395	486,985

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. **S2.050** has no add-on controls.
  - b. Descriptive Stack Parameters  
 Stack Height: 20.0 feet  
 Stack Diameter: 0.75 feet  
 Stack Temperature: 800 °F
  
2. Operating Parameters (NAC 445B.3405)
  - a. **S2.050** may consume only **diesel**.
  - b. The maximum allowable fuel consumption rate for **S2.050** shall not exceed **26.3 gallons** per hour, averaged over a calendar day, nor more than **2,625.0 gallons** per 12-month rolling period of non-emergency use.
  - c. Hours
    - (1) **S2.050** may operate a total of **24** hours per day.
    - (2) **S2.050** may operate a total 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.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.050** the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **1.14** pounds per hour, nor more than **0.057** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **1.14** pounds per hour, nor more than **0.057** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **1.14** pounds per hour, nor more than **0.057** tons per 12-month rolling period.
  - d. The discharge of **SO<sub>2</sub>** (sulfur dioxide) to the atmosphere shall not exceed **1.07** pounds per hour, nor more than **0.053** tons per 12-month rolling period.
  - e. The discharge of **NO<sub>x</sub>** (oxides of nitrogen) to the atmosphere shall not exceed **16.2** pounds per hour, nor more than **0.81** tons per 12-month rolling period.
  - f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **3.49** pounds per hour, nor more than **0.17** tons per 12-month rolling period.
  - g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **1.29** pounds per hour, nor more than **0.064** tons per 12-month rolling period.
  - h. NAC 445B.22017 – The opacity from the **S2.050** shall not equal or exceed **20** percent.
  - i. NAC 445B.22047 – The maximum allowable discharge of **sulfur** to the atmosphere from **S2.050** shall not exceed **2.57** pounds per hour.



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**Section IV. Specific Operating Conditions (continued)**

**AF. Emission Unit S2.050 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

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 consumption rate of **diesel** for each calendar day for **S2.050** (in gallons) by multiplying the hourly fuel consumption rate as stated in **AF.2.b.** of this section and the total daily hours of operation. The corresponding average hourly fuel consumption rate in gallons per hour as determined from the maximum engine size, brake-specific fuel consumption, and heat content.
- b. Record the consumption rate of **diesel**, in gallons, on a cumulative monthly basis, for each 12-month rolling period.
- c. Monitor and record the total daily hours of operation for **S2.050** for each calendar 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.
- d. Record the monthly hours of operation and the corresponding annual hours of operation for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for the year.

5. Federal Requirements

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, 80.510(b))

- (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 in **AF.5.a.** of this section. (40 CFR 63.6625(h))



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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AF. Emission Unit S2.050 (continued)**

5. Federal Requirements (continued)

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 **AF.5.a.(1)** of this section. The oil analysis must be performed at the same frequency specified for changing the oil in **AF.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 **AF.5.a.** of this section that applies to the Permittee 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.



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**Section IV. Specific Operating Conditions (continued)**

**AF. Emission Unit S2.050 (continued)**

5. Federal Requirements (continued)

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 **AF.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 **AF.5.d.(4)(a) through (c)** of this section, is prohibited. If the Permittee does not operate the engine according to the requirements in **AF.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 **AF.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 **AF.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 **AF.5.d.(4)(b)** of this section. Except as provided in in **AF.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. 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))

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))



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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AF. Emission Unit S2.050 (continued)**

5. Federal Requirements (continued)

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) (continued)

The Permittee must keep the following records:

- (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 **AF.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 **AF.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))





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**Section IV. Specific Operating Conditions (continued)**

**AG. Emission Unit S2.051**

System 31 – Midway Air Emergency Generator		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.051	Midway Air Emergency Generator (Caterpillar, model 3306 (GE637), 270 hp, manufactured 1985)	4,568,091	486,058

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. **S2.051** has no add-on controls.
  - b. Descriptive Stack Parameters  
 Stack Height: 9.0 feet  
 Stack Diameter: 0.33 feet  
 Stack Temperature: 800 °F
  
2. Operating Parameters (NAC 445B.3405)
  - a. **S2.051** may consume only **diesel**.
  - b. The maximum allowable fuel consumption rate for **S2.051** shall not exceed **13.5 gallons** per hour, averaged over a calendar day, nor more than **1,350.0 gallons** per 12-month rolling period of non-emergency use.
  - c. Hours
    - (1) **S2.051** may operate a total of **24** hours per day.
    - (2) **S2.051** may operate a total 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.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.051** the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.59** pounds per hour, nor more than **0.029** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.59** pounds per hour, nor more than **0.029** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.59** pounds per hour, nor more than **0.029** tons per 12-month rolling period.
  - d. The discharge of **SO<sub>2</sub>** (sulfur dioxide) to the atmosphere shall not exceed **0.55** pounds per hour, nor more than **0.027** tons per 12-month rolling period.
  - e. The discharge of **NO<sub>x</sub>** (oxides of nitrogen) to the atmosphere shall not exceed **8.33** pounds per hour, nor more than **0.42** tons per 12-month rolling period.
  - f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **1.80** pounds per hour, nor more than **0.090** tons per 12-month rolling period.
  - g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.66** pounds per hour, nor more than **0.033** tons per 12-month rolling period.
  - h. NAC 445B.22017 – The opacity from the **S2.051** shall not equal or exceed **20** percent.
  - i. NAC 445B.22047 – The maximum allowable discharge of **sulfur** to the atmosphere from **S2.051** shall not exceed **1.32** pounds per hour.





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**Section IV. Specific Operating Conditions (continued)**

**AG. Emission Unit S2.051 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

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 consumption rate of **diesel** for each calendar day for **S2.051** (in gallons) by multiplying the hourly fuel consumption rate as stated in **AG.2.b.** of this section and the total daily hours of operation. The corresponding average hourly fuel consumption rate in gallons per hour as determined from the maximum engine size, brake-specific fuel consumption, and heat content.
- b. Record the consumption rate of **diesel**, in gallons, on a cumulative monthly basis, for each 12-month rolling period.
- c. Monitor and record the total daily hours of operation for **S2.051** for each calendar 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.
- d. Record the monthly hours of operation and the corresponding annual hours of operation for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for the year.

5. Federal Requirements

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, 80.510(b))

- (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 **AG.5.a.** of this section. (40 CFR 63.6625(h))



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**Section IV. Specific Operating Conditions (continued)**

**AG. Emission Unit S2.051 (continued)**

5. Federal Requirements (continued)

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 **AG.5.a.(1)** of this section. The oil analysis must be performed at the same frequency specified for changing the oil in **AG.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 **AG.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.



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**Section IV. Specific Operating Conditions (continued)**

**AG. Emission Unit S2.051 (continued)**

5. Federal Requirements (continued)

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 **AG.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 **AG.5.d.(4)(a) through (c)** of this section, is prohibited. If the Permittee does not operate the engine according to the requirements in **AG.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 **AG.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 **AG.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 **AG.5.d.(4)(b)** of this section. Except as provided in **AG.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. 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))

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))



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**Section IV. Specific Operating Conditions (continued)**

**AG. Emission Unit S2.051 (continued)**

5. Federal Requirements (continued)

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) (continued)

The Permittee must keep the following records:

- (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 **AG.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 **AG.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))



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**Section IV. Specific Operating Conditions (continued)**

**AH. Emission Units S2.053 through S2.055**

System 33 – Juniper Pregnant and Barren Tanks		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.053	Juniper Pregnant Tank A (MOPTC AP1041-2218, TU4.006)	4,570,338	486,840
S2.054	Juniper Pregnant Tank B (MOPTC AP1041-2218, TU4.007)		
S2.055	Juniper Barren Tank (MOPTC AP1041-2218, TU4.008)		

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. Emissions from **S2.053 through S2.055** shall be controlled by a **wet scrubber (WS-002)** followed by a **carbon filter (CF-007)**.
  - b. Descriptive Stack Parameters  
 Stack Height: 86.0 feet  
 Stack Diameter: 1.5 feet  
 Stack Temperature: 140 °F  
 Exhaust Flow: 4,018 dry standard cubic feet per minute (dscfm)
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **S2.053 through S2.055**, each, shall not exceed **360.0** gallons of **solution** per minute, averaged over a calendar day.
  - b. Hours  
 (1) **S2.053 through S2.055**, each, may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.053 through S2.055** the following pollutants in excess of the following specified limits:
  - a. NAC 445B.22017 – The opacity from **System 33** shall not equal or exceed **20** percent.
  
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
 The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the throughput for **S2.053 through S2.055**, each, for each calendar day.
  - b. Record the corresponding average throughput rate in gallons per minute. The average throughput rate shall be determined from the total daily throughput and the total daily minutes of operation.
  - c. Record the throughput rate of material, in gallons, on a cumulative monthly basis, for each 12-month rolling period.
  - d. Monitor and record the minutes of operation for **S2.053 through S2.055**, each, for each calendar day.
  - e. Conduct and record an observation of visible emissions (excluding water vapor) on the **final exhaust stack of System 33** 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 conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.
  - f. Inspect the wet scrubber installed on **S2.053 through S2.055** on a **monthly** basis to confirm that the wet scrubber is functioning properly. If the wet scrubber is in disrepair, the Permittee shall perform corrective action within 24 hours to ensure that the wet scrubber is functioning properly.



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**Section IV. Specific Operating Conditions (continued)**

**AH. Emission Units S2.053 through S2.055 (continued)**

5. Federal Requirements

National Emission Standards for Hazardous Air Pollutants (NESHAPs) – 40 CFR Part 63 Subpart EEEEEEE – Gold Mine Ore Processing and Production Area Source Category

The Permittee, upon issuance of this operating permit, shall comply with the requirements of 40 CFR Part 63 Subpart EEEEEEE, as set forth in **Section V** of this operating permit.

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**Section IV. Specific Operating Conditions (continued)**

**AI. Emission Unit S2.056**

System 34 – Electrowinning Cells		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.056	Electrowinning Cells (6) (MOPTC AP1041-2218, TU4.009)	4,570,312	486,871

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. Emissions from **S2.056** shall be controlled by **carbon filter (CF-008)**.
  - b. Descriptive Stack Parameters  
 Stack Height: 41.0 feet  
 Stack Diameter: 2.42 feet  
 Stack Temperature: 100 °F  
 Exhaust Flow: 9,216 dry standard cubic feet per minute (dscfm)
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **S2.056** shall not exceed **360.0** gallons of **solution** per minute, averaged over a calendar day.
  - b. Hours  
 (1) **S2.056** may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.056** the following pollutants in excess of the following specified limits:
  - a. NAC 445B.22017 – The opacity from **S2.056** shall not equal or exceed **20** percent.
  
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
 The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the throughput for **S2.056** for each calendar day.
  - b. Record the corresponding average throughput rate in gallons per minute. The average throughput rate shall be determined from the total daily throughput and the total daily minutes of operation.
  - c. Record the throughput rate of material, in gallons, on a cumulative monthly basis, for each 12-month rolling period.
  - d. Monitor and record the minutes of operation for **S2.056** for each calendar day.
  
5. Federal Requirements  
National Emission Standards for Hazardous Air Pollutants (NESHAPs) – 40 CFR Part 63 Subpart EEEEEEE – Gold Mine Ore Processing and Production Area Source Category  
 The Permittee, upon issuance of this operating permit, shall comply with the requirements of 40 CFR Part 63 Subpart EEEEEEE, as set forth in **Section V** of this operating permit.



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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AJ. Emission Units S2.057 and S2.058**

System 35 – Pinon Pregnant and Barren Tank		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.057	Pinon Pregnant Tank (MOPTC AP1041-2218, TU4.010)	4,563,084	486,097
S2.058	Pinon Barren Tank (MOPTC AP1041-2218, TU4.011)		

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. Emissions from **S2.057 and S2.058** shall be controlled by **carbon filter (CF-009)**.
  - b. Descriptive Stack Parameters  
 Stack Height: 12.0 feet  
 Stack Diameter: 0.5 feet  
 Stack Temperature: 100 °F  
 Exhaust Flow: 675 dry standard cubic feet per minute (dscfm)
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **S2.057 and S2.058**, each, shall not exceed **360.0** gallons of **solution** per minute, averaged over a calendar day.
  - b. Hours  
 (1) **S2.057 and S2.058**, each, may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.057 and S2.058** the following pollutants in excess of the following specified limits:
  - a. NAC 445B.22017 – The opacity from **System 35** shall not equal or exceed **20** percent.
  
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
 The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the throughput for **S2.057 and S2.058**, each, for each calendar day.
  - b. Record the corresponding average throughput rate in gallons per minute. The average throughput rate shall be determined from the total daily throughput and the total daily minutes of operation.
  - c. Record the throughput rate of material, in gallons, on a cumulative monthly basis, for each 12-month rolling period.
  - d. Monitor and record the minutes of operation for **S2.057 and S2.058**, each, for each calendar day.
  
5. Federal Requirements  
National Emission Standards for Hazardous Air Pollutants (NESHAPs) – 40 CFR Part 63 Subpart EEEEEEE – Gold Mine Ore Processing and Production Area Source Category  
 The Permittee, upon issuance of this operating permit, shall comply with the requirements of 40 CFR Part 63 Subpart EEEEEEE, as set forth in **Section V** of this operating permit.



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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AK. Emission Unit PF1.025**

System 36A – Aggregate Crushing Plant – Primary Crusher		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.025	Primary Crusher CR-1 and associated transfers (in from Feeder and out to Conveyor C-1)	4,571,002	486,372

1. Air Pollution Control Equipment (NAC 445B.3405)  
**PF1.025** has no add-on controls.
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **PF1.025** shall not exceed **500.0** tons of **non-metallic mineral material** per hour, averaged over a calendar day, nor more than **500,000.0** tons per 12-month rolling period.
  - b. Hours
    - (1) **PF1.025** may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.025** the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **2.70** pounds per hour, nor more than **1.35** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **1.20** pounds per hour, nor more than **0.60** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.20** pounds per hour, nor more than **0.10** tons per 12-month rolling period.
  - d. NAC 445B.22017 – The opacity from **PF1.025** shall not equal or exceed **20** percent.
  - e. NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **PF1.025** shall not exceed **69.0** pounds per hour.
  
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
 The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the throughput for **PF1.025** for each calendar day.
  - b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
  - c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
  - d. Monitor and record the hours of operation for **PF1.025** for each calendar day.
  - e. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))



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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AK. Emission Unit PF1.025 (continued)**

5. Federal Requirements

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)

a. Emission Limits (40 CFR Part 60.672, Table 3)

On and after the sixtieth day after achieving the maximum production rate at which **PF1.025** will be operated, but not later than 180 days after initial startup, the Permittee shall not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:

- (1) Process fugitive emissions from **PF1.025** will not exceed **12 percent** opacity. (40 CFR Part 60.672(b))
- (2) The opacity standard set forth in this part shall apply at all times except during period of startup, shutdown, and malfunction, and as otherwise provided in the applicable standard. (40 CFR 60.11(c))

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

c. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.025** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

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**Section IV. Specific Operating Conditions (continued)**

**AL. Emission Unit PF1.026**

System 36B – Aggregate Crushing Plant – Conveyor Transfer		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.026	Conveyor C-1 transfer to Conveyor C-2	4,570,998	486,374

1. Air Pollution Control Equipment (NAC 445B.3405)  
**PF1.026** has no add-on controls.
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **PF1.026** shall not exceed **500.0** tons of **non-metallic mineral material** per hour, averaged over a calendar day, nor more than **500,000.0** tons per 12-month rolling period.
  - b. Hours
    - (1) **PF1.026** may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.026** the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **1.50** pounds per hour, nor more than **0.75** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.55** pounds per hour, nor more than **0.28** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.085** pounds per hour, nor more than **0.043** tons per 12-month rolling period.
  - d. NAC 445B.22017 – The opacity from **PF1.026** shall not equal or exceed **20** percent.
  - e. NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **PF1.026** shall not exceed **69.0** pounds per hour.
  
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
 The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the throughput for **PF1.026** for each calendar day.
  - b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
  - c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
  - d. Monitor and record the hours of operation for **PF1.026** for each calendar day.
  - e. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))



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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AL. Emission Unit PF1.026 (continued)**

5. Federal Requirements

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)

a. Emission Limits (40 CFR Part 60.672, Table 3)

On and after the sixtieth day after achieving the maximum production rate at which **PF1.026** will be operated, but not later than 180 days after initial startup, the Permittee shall not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:

- (1) Process fugitive emissions from **PF1.026** will not exceed **7 percent** opacity. (40 CFR Part 60.672(b))
- (2) The opacity standard set forth in this part shall apply at all times except during period of startup, shutdown, and malfunction, and as otherwise provided in the applicable standard. (40 CFR 60.11(c))

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

c. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.026** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

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**Section IV. Specific Operating Conditions (continued)**

**AM. Emission Unit PF1.027**

System 36C – Aggregate Crushing Plant – Screen S-1		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.027	Screen S-1 and associated transfers (in from Conveyor C-2; out to Conveyors C-7, Conveyor C-4, and to Secondary Crusher CR-2)	4,570,991	486,383

1. Air Pollution Control Equipment (NAC 445B.3405)  
**PF1.027** has no add-on controls.
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **PF1.027** shall not exceed **600.0** tons of **non-metallic mineral material** per hour, averaged over a calendar day, nor more than **600,000.0** tons per 12-month rolling period.
  - b. Hours
    - (1) **PF1.027** may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.027** the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **15.0** pounds per hour, nor more than **7.50** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **5.22** pounds per hour, nor more than **2.61** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.78** pounds per hour, nor more than **0.39** tons per 12-month rolling period.
  - d. NAC 445B.22017 – The opacity from **PF1.027** shall not equal or exceed **20** percent.
  - e. NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **PF1.027** shall not exceed **71.2** pounds per hour.
  
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
 The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the throughput for **PF1.027** for each calendar day.
  - b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
  - c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
  - d. Monitor and record the hours of operation for **PF1.027** for each calendar day.
  - e. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))



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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AM. Emission Unit PF1.027 (continued)**

5. Federal Requirements

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)

a. Emission Limits (40 CFR Part 60.672, Table 3)

On and after the sixtieth day after achieving the maximum production rate at which **PF1.027** will be operated, but not later than 180 days after initial startup, the Permittee shall not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:

- (1) Process fugitive emissions from **PF1.027** will not exceed **7 percent** opacity. (40 CFR Part 60.672(b))
- (2) The opacity standard set forth in this part shall apply at all times except during period of startup, shutdown, and malfunction, and as otherwise provided in the applicable standard. (40 CFR 60.11(c))

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

c. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.027** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AN. Emission Unit PF1.028**

System 36D – Aggregate Crushing Plant – Secondary Crusher		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.028	Secondary Crusher CR-2 and associated transfers (in from Primary Screen S-1; out to Conveyor C-3)	4,570,986	486,383

1. Air Pollution Control Equipment (NAC 445B.3405)  
**PF1.028** has no add-on controls.
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **PF1.028** shall not exceed **100.0** tons of **non-metallic mineral material** per hour, averaged over a calendar day, nor more than **100,000.0** tons per 12-month rolling period.
  - b. Hours
    - (1) **PF1.028** may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.028** the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.54** pounds per hour, nor more than **0.27** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.24** pounds per hour, nor more than **0.12** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.040** pounds per hour, nor more than **0.020** tons per 12-month rolling period.
  - d. NAC 445B.22017 – The opacity from **PF1.028** shall not equal or exceed **20** percent.
  - e. NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **PF1.028** shall not exceed **51.3** pounds per hour.
  
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
 The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the throughput for **PF1.028** for each calendar day.
  - b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
  - c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
  - d. Monitor and record the hours of operation for **PF1.028** for each calendar day.
  - e. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))



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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AN. Emission Unit PF1.028 (continued)**

5. Federal Requirements

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)

a. Emission Limits (40 CFR Part 60.672, Table 3)

On and after the sixtieth day after achieving the maximum production rate at which **PF1.028** will be operated, but not later than 180 days after initial startup, the Permittee shall not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:

- (1) Process fugitive emissions from **PF1.028** will not exceed **12 percent** opacity. (40 CFR Part 60.672(b))
- (2) The opacity standard set forth in this part shall apply at all times except during period of startup, shutdown, and malfunction, and as otherwise provided in the applicable standard. (40 CFR 60.11(c))

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

c. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.028** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AO. Emission Unit PF1.029**

System 36E – Aggregate Crushing Plant – Conveyor Transfer		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.029	Conveyor C-3 transfer to Conveyor C-2	4,570,969	486,377

1. Air Pollution Control Equipment (NAC 445B.3405)  
PF1.029 has no add-on controls.
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for PF1.029 shall not exceed **100.0** tons of **non-metallic mineral material** per hour, averaged over a calendar day, nor more than **100,000.0** tons per 12-month rolling period.
  - b. Hours
    - (1) PF1.029 may operate a total of **24** hours per day.
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from PF1.029 the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.30** pounds per hour, nor more than **0.15** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.11** pounds per hour, nor more than **0.055** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.017** pounds per hour, nor more than **0.085** tons per 12-month rolling period.
  - d. NAC 445B.22017 – The opacity from PF1.029 shall not equal or exceed **20** percent.
  - e. NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from PF1.029 shall not exceed **51.3** pounds per hour.
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the throughput for PF1.029 for each calendar day.
  - b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
  - c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
  - d. Monitor and record the hours of operation for PF1.029 for each calendar day.
  - e. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))



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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AO. Emission Unit PF1.029 (continued)**

5. Federal Requirements

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)

a. Emission Limits (40 CFR Part 60.672, Table 3)

On and after the sixtieth day after achieving the maximum production rate at which **PF1.029** will be operated, but not later than 180 days after initial startup, the Permittee shall not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:

- (1) Process fugitive emissions from **PF1.029** will not exceed **7 percent** opacity. (40 CFR Part 60.672(b))
- (2) The opacity standard set forth in this part shall apply at all times except during period of startup, shutdown, and malfunction, and as otherwise provided in the applicable standard. (40 CFR 60.11(c))

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

c. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.029** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AP. Emission Units PF1.030 through PF1.033**

System 36F – Aggregate Crushing Plant – Conveyor Transfer to Product Stockpile		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.030	Conveyor C-4 transfer to Conveyor C-5	4,570,961	486,385
PF1.031	Conveyor C-5 transfer to Conveyor C-6	4,570,974	486,399
PF1.032	Conveyor C-6 transfer to Radial Stacker RS-1	4,570,968	486,404
PF1.033	Radial Stacker RS-1 transfer to Product Stockpile PS-1	4,570,939	486,402

1. Air Pollution Control Equipment (NAC 445B.3405)  
**PF1.030 through PF1.033**, each, have no add-on controls.
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **PF1.030 through PF1.033**, each, shall not exceed **200.0** tons of **non-metallic mineral material** per hour, averaged over a calendar day, nor more than **200,000.0** tons per 12-month rolling period.
  - b. Hours
    - (1) **PF1.030 through PF1.033**, each, may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.030 through PF1.033**, each, the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.60** pounds per hour, nor more than **0.30** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.22** pounds per hour, nor more than **0.11** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.034** pounds per hour, nor more than **0.017** tons per 12-month rolling period.
  - d. NAC 445B.22017 – The opacity from **PF1.030 through PF1.033**, each, shall not equal or exceed **20** percent.
  - e. NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **PF1.030 through PF1.033**, each, shall not exceed **58.5** pounds per hour.
  
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the throughput for **PF1.030 through PF1.033**, each, for each calendar day.
  - b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
  - c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
  - d. Monitor and record the hours of operation for **PF1.030 through PF1.033**, each, for each calendar day.
  - e. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))



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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AP. Emission Unit PF1.030 through PF1.033 (continued)**

5. Federal Requirements

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)

a. Emission Limits (40 CFR Part 60.672, Table 3)

On and after the sixtieth day after achieving the maximum production rate at which **PF1.030 through PF1.032**, each, will be operated, but not later than 180 days after initial startup, the Permittee shall not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:

- (1) Process fugitive emissions from **PF1.030 through PF1.032**, each, will not exceed **7 percent** opacity. (40 CFR Part 60.672(b))
- (2) The opacity standard set forth in this part shall apply at all times except during period of startup, shutdown, and malfunction, and as otherwise provided in the applicable standard. (40 CFR 60.11(c))

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

c. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.030 through PF1.032**, each, including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))



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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AQ. Emission Units PF1.034 through PF1.037**

System 36G – Aggregate Crushing Plant – Conveyor Transfer to Reject Stockpile		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.034	Conveyor C-7 transfer to Conveyor C-8	4,570,986	486,387
PF1.035	Conveyor C-8 transfer to Conveyor C-9	4,570,977	486,395
PF1.036	Conveyor C-9 transfer to Radial Stacker RS-2	4,570,997	486,397
PF1.037	Radial Stacker RS-2 transfer to Reject Stockpile	4,571,021	486,414

1. Air Pollution Control Equipment (NAC 445B.3405)  
**PF1.034 through PF1.037**, each, have no add-on controls.
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **PF1.034 through PF1.037**, each, shall not exceed **300.0** tons of **non-metallic mineral material** per hour, averaged over a calendar day, nor more than **300,000.0** tons per 12-month rolling period.
  - b. Hours
    - (1) **PF1.034 through PF1.037**, each, may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.034 through PF1.037**, each, the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.90** pounds per hour, nor more than **0.45** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.33** pounds per hour, nor more than **0.17** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.051** pounds per hour, nor more than **0.026** tons per 12-month rolling period.
  - d. NAC 445B.22017 – The opacity from **PF1.034 through PF1.037**, each, shall not equal or exceed **20** percent.
  - e. NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **PF1.034 through PF1.037**, each, shall not exceed **63.0** pounds per hour.
  
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
 The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the throughput for **PF1.034 through PF1.037**, each, for each calendar day.
  - b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
  - c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
  - d. Monitor and record the hours of operation for **PF1.034 through PF1.037**, each, for each calendar day.
  - e. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))



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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AQ. Emission Units PF1.034 through PF1.037 (continued)**

5. Federal Requirements

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)

a. Emission Limits (40 CFR Part 60.672, Table 3)

On and after the sixtieth day after achieving the maximum production rate at which **PF1.034 through PF1.036**, each, will be operated, but not later than 180 days after initial startup, the Permittee shall not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:

(1) Process fugitive emissions from **PF1.034 through PF1.036**, each, will not exceed **7 percent** opacity. (40 CFR Part 60.672(b))

(2) The opacity standard set forth in this part shall apply at all times except during period of startup, shutdown, and malfunction, and as otherwise provided in the applicable standard. (40 CFR 60.11(c))

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

c. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.034 through PF1.036**, each, including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))



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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AR. Emission Units PF1.038 through PF1.043**

System 37 – Metal Removal Plant		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.038	Loader transfer to Hopper MH-1 Feeder	4,570,504	486,104
PF1.039	Hopper MH-1 transfer to Conveyor MC-1	4,570,503	486,104
PF1.040	Conveyor MC-1 transfer to Conveyor MC-2	4,570,499	486,101
PF1.041	Conveyor MC-2 transfer to Conveyor MC-3	4,570,497	486,097
PF1.042	Conveyor MC-3 transfer to Radial Stacker MS-1	4,570,495	486,093
PF1.043	Radial Stacker MS-1 transfer to Clean Stockpile	4,570,502	486,085

1. Air Pollution Control Equipment (NAC 445B.3405)  
**PF1.038 through PF1.043**, each, have no add-on controls.
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **PF1.038 through PF1.043**, each, shall not exceed **500.0** tons of **non-metallic and metallic mineral material** per hour, averaged over a calendar day, nor more than **700,000.0** tons per 12-month rolling period.
  - b. Hours
    - (1) **PF1.038 through PF1.043**, each, may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.038 through PF1.043**, each, the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **1.50** pounds per hour, nor more than **1.05** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.55** pounds per hour, nor more than **0.39** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.083** pounds per hour, nor more than **0.058** tons per 12-month rolling period.
  - d. NAC 445B.22017 – The opacity from **PF1.038 through PF1.043**, each, shall not equal or exceed **20** percent.
  - e. NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **PF1.038 through PF1.043**, each, shall not exceed **69.0** pounds per hour.
  
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
 The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the throughput for **PF1.038 through PF1.043**, each, for each calendar day.
  - b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
  - c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
  - d. Monitor and record the hours of operation for **PF1.038 through PF1.043**, each, for each calendar day.
  - e. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))



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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AR. Emission Unit PF1.038 through PF1.043 (continued)**

5. Federal Requirements

a. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)

1. Emission Limits (40 CFR Part 60.672, Table 3)

On and after the sixtieth day after achieving the maximum production rate at which **PF1.039 through PF1.042**, each, will be operated, but not later than 180 days after initial startup, the Permittee shall not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:

(a) Process fugitive emissions from **PF1.039 through PF1.042**, each, will not exceed **7 percent** opacity. (40 CFR Part 60.672(b))

(b) The opacity standard set forth in this part shall apply at all times except during period of startup, shutdown, and malfunction, and as otherwise provided in the applicable standard. (40 CFR 60.11(c))

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

3. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.039 through PF1.042**, each, including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

b. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart LL – Standards of Performance for Metallic Processing Plants (40 CFR Part 60.380)

1. On and after the sixtieth day after achieving the maximum production rate at which **PF1.038 through PF1.042**, each, will be operated, but not later than 180 days after initial startup, the Permittee shall not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:

(a) Process fugitive emissions from **PF1.038 through PF1.042**, each, will not exceed **10 percent** opacity. (40 CFR Part 60.382(b))

(b) The opacity standard set forth in this part shall apply at all times except during period of startup, shutdown, and malfunction, and as otherwise provided in the applicable standard. (40 CFR 60.11(c))

(c) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.038 through PF1.042**, each, including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))





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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AS. Emission Units PF1.044 through PF1.047**

System 38 – Concentrate Stacker		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.044	Loader to Hopper OH-1	4,570,851	487,004
PF1.045	Hopper OH-1 to Feeder	4,570,851	487,004
PF1.046	Feeder to Conveyor OC-1	4,570,849	487,001
PF1.047	Conveyor OC-1 to Stockpile	4,570,833	486,980

1. Air Pollution Control Equipment (NAC 445B.3405)  
**PF1.044 through PF1.047**, each, have no add-on controls.
  
2. Operating Parameters (NAC 445B.3405)
  - a. The maximum allowable throughput rate for **PF1.044 through PF1.047**, each, shall not exceed **100.0** tons of **metallic mineral material** per hour, averaged over a calendar day, nor more than **100,000.0** tons per 12-month rolling period.
  - b. Hours
    - (1) **PF1.044 through PF1.047**, each, may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **PF1.044 through PF1.047**, each, the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.30** pounds per hour, nor more than **0.15** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.11** pounds per hour, nor more than **0.055** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.017** pounds per hour, nor more than **0.0083** tons per 12-month rolling period.
  - d. NAC 445B.22017 – The opacity from **PF1.044 through PF1.047**, each, shall not equal or exceed **20** percent.
  - e. NAC 445B.22033 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **PF1.044 through PF1.047**, each, shall not exceed **51.3** pounds per hour.
  
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
 The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the throughput for **PF1.044 through PF1.047**, each, for each calendar day.
  - b. Record the corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation.
  - c. Record the throughput rate of material, in tons, on a cumulative monthly basis, for each 12-month rolling period.
  - d. Monitor and record the hours of operation for **PF1.044 through PF1.047**, each, for each calendar day.
  - e. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))



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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AS. Emission Units PF1.044 through PF1.047 (continued)**

5. Federal Requirements

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart LL – Standards of Performance for Metallic Processing Plants (40 CFR Part 60.380)

- a. On and after the sixtieth day after achieving the maximum production rate at which **PF1.044 through PF1.046**, each, will be operated, but not later than 180 days after initial startup, the Permittee shall not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
- (1) Process fugitive emissions from **PF1.044 through PF1.046**, will not exceed **10 percent** opacity. (40 CFR Part 60.382(b))
  - (2) The opacity standard set forth in this part shall apply at all times except during period of startup, shutdown, and malfunction, and as otherwise provided in the applicable standard. (40 CFR 60.11(c))
  - (3) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.044 through PF1.046** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

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**Section IV. Specific Operating Conditions (continued)**

**AT. Emission Unit S2.059**

System 39 – Midway Emergency Generator		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.059	Midway Emergency Generator (127 hp Generac, Model RG080, Manufactured 2019+)	4,568,321	486,139

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. **S2.059** has no add-on controls.
  - b. Descriptive Stack Parameters  
 Stack Height: 5 feet  
 Stack Diameter: 0.33 feet  
 Stack Temperature: 1,213 °F
  
2. Operating Parameters (NAC 445B.3405)
  - a. **S2.059** may consume only **propane**.
  - b. The maximum allowable fuel consumption rate for **S2.059** shall not exceed **10.8 gallons** per hour, averaged over a calendar day, nor more than **1,080.0 gallons** per 12-month rolling period of non-emergency use.
  - c. Hours
    - (1) **S2.059** may operate a total of **24** hours per day.
    - (2) **S2.059** may operate a total 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.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.059** the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.054** pounds per hour, nor more than **0.0027** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.054** pounds per hour, nor more than **0.0027** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.054** pounds per hour, nor more than **0.0027** tons per 12-month rolling period.
  - d. The discharge of **SO<sub>2</sub>** (sulfur dioxide) to the atmosphere shall not exceed **0.0038** pounds per hour, nor more than **0.00019** tons per 12-month rolling period.
  - e. The discharge of **NO<sub>x</sub>** (oxides of nitrogen) to the atmosphere shall not exceed **1.50** pounds per hour, nor more than **0.075** tons per 12-month rolling period.
  - f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **1.39** pounds per hour, nor more than **0.070** tons per 12-month rolling period.
  - g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.90** pounds per hour, nor more than **0.045** tons per 12-month rolling period.
  - h. NAC 445B.22017 – The opacity from the **S2.059** shall not equal or exceed **20** percent.
  - i. NAC 445B.22047 – The maximum allowable discharge of **sulfur** to the atmosphere from **S2.059** shall not exceed **0.69** pounds per hour.



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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AT. Emission Unit S2.059 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

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 consumption rate of **propane** for each calendar day for **S2.059** (in gallons) by multiplying the hourly fuel consumption rate as stated in **AT.2.b.** of this section and the total daily hours of operation. The corresponding average hourly fuel consumption rate in gallons per hour as determined from the maximum engine size, brake-specific fuel consumption, and heat content.
- b. Record the consumption rate of **S2.059**, in gallons, on a cumulative monthly basis, for each 12-month rolling period.
- c. Monitor and record the total daily hours of operation for **S2.059** for each calendar 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.
- d. Record the monthly hours of operation and the corresponding annual hours of operation for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for the year.
- e. 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

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

- a. Emissions Standards (40 CFR 60.4231, 40 CFR 60.4233, 40 CFR 60.4234, and 40 CFR 90.103)
  - (1) The Permittee of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) manufactured on or after the applicable date in 40 CFR 60.4230(a)(4) (January 1, 2009) that are rich burn engines that use LPG must comply with the emission standards in 40 CFR 60.4231(c) for their stationary SI ICE. (40 CFR 60.4233(c))
  - (2) Stationary SI internal combustion engine manufacturers must certify their emergency stationary SI ICE greater than 25 HP and less than 130 HP that are rich burn engines that use LPG and that are manufactured on or after the applicable date in 40 CFR 60.4230(a)(4) to the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, and other requirements for new nonroad SI engines in 40 CFR part 90.
    - (a) For a 2009 model year and later emergency engine with a maximum engine power greater than 25 hp and less than 130 hp (40 CFR 90.103(a), Table 1):
      - (i) The discharge of HC + NO<sub>x</sub> to the atmosphere shall not exceed **13.4** grams/kw-hr (**2.80** pounds/hr).
      - (ii) The discharge of CO to the atmosphere shall not exceed **519.0** grams/kw-hr (**108.4** pounds/hr).
  - (3) The Permittee of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in 40 CFR 60.4233 over the entire life of the engine. (40 CFR 60.4234)
- b. Other Requirements (40 CFR 60.4237)
  - (1) The Permittee of an emergency stationary SI internal combustion engine that is less than 130 HP, was built on or after July 1, 2008, and does not meet the standards applicable to non-emergency engines, must install a non-resettable hour meter upon startup of the emergency engine. (40 CFR 60.4237(c))



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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AT. Emission Unit S2.059 (continued)**

5. Federal Requirements (continued)

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (continued)

c. Compliance Requirements (40 CFR 60.4243)

- (1) The Permittee of a stationary SI internal combustion engine that is manufactured after July 1, 2008, and must comply with the emission standards specified in 40 CFR 60.4233(a) through (c), must comply by purchasing an engine certified to the emission standards in 40 CFR 60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. In addition, the Permittee must meet one of the requirements specified in (a)(1) and (2) of 40 CFR 60.4243. (40 CFR 60.4243(a))
  - (a) If the Permittee operates and maintains the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the Permittee must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if the Permittee is an owner or operator. The Permittee must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to the Permittee. If the Permittee adjusts engine settings according to and consistent with the manufacturer's instructions, the Permittee's stationary SI internal combustion engine will not be considered out of compliance. (40 CFR 60.4243(a)(1))
  - (b) If the Permittee does not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the Permittee's engine will be considered a non-certified engine, and the Permittee must demonstrate compliance according to 40 CFR 60.4243(a)(2)(ii). (40 CFR 60.4243(a)(2))
    - (i) The Permittee of a stationary SI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test within 1 year of engine startup to demonstrate compliance. (40 CFR 60.4243(a)(2)(ii))
- (2) If the Permittee owns or operates an emergency stationary ICE, the Permittee must operate the emergency stationary ICE according to the requirements in paragraphs 40 CFR 60.4243(d)(1) through 40 CFR 60.4243(d)(3). In order for the engine to be considered an emergency stationary ICE under 40 CFR Part 60 Subpart JJJJ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs 40 CFR 60.4243(d)(1) through 40 CFR 60.4243(d)(3), is prohibited. If the Permittee does not operate the engine according to the requirements in paragraphs 40 CFR 60.4243(d)(1) through 40 CFR 60.4243(d)(3), the engine will not be considered an emergency engine under 40 CFR Part 60 Subpart JJJJ and must meet all requirements for non-emergency engines. (40 CFR 60.4243(d))
  - (a) There is no time limit on the use of emergency stationary ICE in emergency situations. (40 CFR 60.4243(d)(1))
  - (b) The Permittee may operate their emergency stationary ICE for any combination of the purposes specified in paragraph 40 CFR 60.4243(d)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph 40 CFR 60.4243(d)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR 60.4243(d)(2). (40 CFR 60.4243(d)(2))
    - (i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. (40 CFR 60.4243(d)(2)(i))





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**Section IV. Specific Operating Conditions (continued)**

**AT. Emission Unit S2.059 (continued)**

5. Federal Requirements (continued)

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (continued)

c. Compliance Requirements (40 CFR 60.4243) (continued)

(2) If the Permittee owns or operates an emergency stationary ICE, the Permittee must operate the emergency stationary ICE according to the requirements in paragraphs 40 CFR 60.4243(d)(1) through 40 CFR 60.4243(d)(3). In order for the engine to be considered an emergency stationary ICE under 40 CFR Part 60 Subpart JJJJ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs 40 CFR 60.4243(d)(1) through 40 CFR 60.4243(d)(3), is prohibited. If the Permittee does not operate the engine according to the requirements in paragraphs 40 CFR 60.4243(d)(1) through 40 CFR 60.4243(d)(3), the engine will not be considered an emergency engine under 40 CFR Part 60 Subpart JJJJ and must meet all requirements for non-emergency engines. (40 CFR 60.4243(d)) (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 40 CFR 60.4243(d)(2). (40 CFR 60.4243(d)(3))

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions of 40 CFR 60.4243(d)(3)(i)(A) through (E) are met. (40 CFR 60.4243(d)(3)(i))

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

(1) The Permittee of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements: (40 CFR 60.4245)

(a) The Permittee of all stationary SI ICE must keep records of the information in paragraphs 40 CFR 60.4245(a)(1) through 40 CFR 60.4245(a)(4). (40 CFR 60.4245(a))

(i) All notifications submitted to comply with this subpart and all documentation supporting any notification. (40 CFR 60.4245(a)(1))

(ii) Maintenance conducted on the engine. (40 CFR 60.4245(a)(2))

(iii) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable. (40 CFR 60.4245(a)(3))

(iv) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards. (40 CFR 60.4245(a)(4))

(2) For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the Permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. (40 CFR 60.4245(b))





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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AT. Emission Unit S2.059 (continued)**

5. Federal Requirements (continued)

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart JJJJ – Standards of Performance for Stationary Spark (continued)

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

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

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

(i) Company name and address where the engine is located. (40 CFR 60.4245(e)(1)(ii))

(ii) Date of the report and beginning and ending dates of the reporting period. (40 CFR 60.4245(e)(1)(i))

(iii) Engine site rating and model year. (40 CFR 60.4245(e)(1)(iii))

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

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

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

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

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

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

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 spark ignition engine meets the requirements of 40 CFR Part 60 Subpart JJJJ, 40 CFR Part 63 Subpart ZZZZ requirements are also met. (40 CFR Part 63.6590(c))



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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AU. Emission Unit S2.060**

System 40 – Gasoline Storage Tank		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.060	12,000 Gallon Gasoline Tank	4,562,870	486,186

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. Emissions from **S2.060** shall be controlled by submerged fill.
  - b. Descriptive Stack Parameters  
 Shell Diameter: 10.58 feet  
 Shell Height: 17 feet  
 Capacity: 12,000 gallons
  
2. Operating Parameters (NAC 445B.3405)
  - a. **S2.060** shall only be used to store **gasoline**.
  - b. The maximum allowable throughput rate for **S2.060** shall not exceed **30,000.0** gallons per month, nor more than **360,000.0** gallons per 12-month rolling period.
  - c. Hours  
 (1) **S2.060** may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.060** the following pollutants in excess of the following specified limits:
  - a. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **1.88** tons per year.
  - b. NAC 445B.22017 – The opacity from the **S2.060** shall not equal or exceed **20** percent.
  
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
 The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.
  - a. Monitor and record the throughput of **gasoline**, in gallons, loaded into, or dispensed from, **S2.060**, on a monthly basis, as determined from vendor invoices for tank loading or fuel pump non-resettable meter for tank dispensing.
  - b. Record the throughput rate of material, in gallons, on a cumulative monthly basis, for each 12-month rolling period
  
5. Federal Requirements  
National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart CCCCCC – for Gasoline Dispensing Facilities
  - a. Permittee must, at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. (40 CFR 63.11115)



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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AU. Emission Unit S2.060 (continued)**

5. Federal Requirements (continued)

National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart CCCCCC – for Gasoline Dispensing Facilities (continued)

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



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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AV. Emission Unit S2.061**

System 41 – Gasoline Storage Tank		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.061	3,000 Gallon Gasoline Tank	4,562,870	486,186

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. Emissions from **S2.061** shall be controlled by submerged fill.
  - b. Descriptive Stack Parameters  
 Shell Diameter: 10.58 feet  
 Shell Height: 5 feet  
 Capacity: 3,000 gallons
  
2. Operating Parameters (NAC 445B.3405)
  - a. **S2.061** shall only be used to store **gasoline**.
  - b. The maximum allowable throughput rate for **S2.061** shall not exceed **30,000.0** gallons per month, nor more than **360,000.0** gallons per 12-month rolling period.
  - c. Hours  
 (1) **S2.061** may operate a total of **24** hours per day.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.061** the following pollutants in excess of the following specified limits:
  - a. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.69** tons per year.
  - b. NAC 445B.22017 – The opacity from the **S2.061** shall not equal or exceed **20** percent.
  
4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)  
 The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.
  - a. Monitor and record the throughput of **gasoline**, in gallons, loaded into, or dispensed from, **S2.061**, on a monthly basis, as determined from vendor invoices for tank loading or fuel pump non-resettable meter for tank dispensing.
  - b. Record the throughput rate of material, in gallons, on a cumulative monthly basis, for each 12-month rolling period
  
5. Federal Requirements  
National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart CCCCCC – for Gasoline Dispensing Facilities
  - a. Permittee must, at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. (40 CFR 63.11115)



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**Section IV. Specific Operating Conditions**

**AV. Emission Unit S2.061**

5. Federal Requirements (continued)

National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart CCCCCC – for Gasoline Dispensing Facilities (continued)

- b. Permittee must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:
  - (1) Minimize gasoline spills. (40 CFR 63.11116(a)(1))
  - (2) Clean up spills as expeditiously as practicable. (40 CFR 63.11116(a)(2))
  - (3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use. (40 CFR 63.11116(a)(3))
  - (4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators. (40 CFR 63.11116(a)(4))
- c. Permittee must have records available within 24 hours of a request by the Administrator to document the gasoline throughput. (40 CFR 63.11116(b))
- d. Permittee must only load gasoline into storage tanks at the facility by utilizing submerged filling, as defined in 40 CFR 63.11132, and as specified in paragraphs (b)(1), (b)(2), or (b)(3) of 40 CFR 63.11117. The applicable distances in paragraphs (b)(2) shall be measured from the point in the opening of the submerged fill pipe that is the greatest distance from the bottom of the storage tank. (40 CFR 63.11117(b))
  - (1) Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the tank. (40 CFR 63.11117(b)(2))
  - (2) Submerged fill pipes not meeting the specifications of paragraph (b)(2) of 40 CFR 63.11117 are allowed if the Permittee can demonstrate that the liquid level in the tank is always above the entire opening of the fill pipe. Documentation providing such demonstration must be made available for inspection by the Administrator's delegated representative during the course of a site visit. (40 CFR 63.11117(b)(3))
- e. Permittee must have records available within 24 hours of a request by the Administrator to document the gasoline throughput. (40 CFR 63.11117(d))
- f. Permittee must submit the applicable notifications as required under 40 CFR 63.11124(a). (40 CFR 63.11117(e))
- g. Permittee must comply with the requirements of Subpart CCCCCC by the applicable dates contained in 40 CFR 63.11113. (40 CFR 63.11117(f))



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**Section IV. Specific Operating Conditions (continued)**

**AW. Emission Unit S2.062**

System 42 - Radio Hill Repeater Emergency Generator		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.062	Radio Hill Repeater Emergency Generator (Generac, Model# - RG036, 62 hp, Manufactured 2019)	4,569,674	485,019

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. **S2.062** has no add-on controls.
  - b. Descriptive Stack Parameters  
 Stack Height: 3.00 feet  
 Stack Diameter: 1.60 feet  
 Stack Temperature: 1,050.0 °F
  
2. Operating Parameters (NAC 445B.3405)
  - a. **S2.062** may consume only **propane**.
  - b. The maximum allowable fuel consumption rate for **S2.062** shall not exceed **8.00 gallons** per clock hour, nor more than **800.0 gallons** per 12-month rolling period of non-emergency use.
  - c. Hours
    - (1) **S2.062** may operate a total of **24** hours per day.
    - (2) **S2.062** may operate a total 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.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.062** the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.040** pounds per hour, nor more than **0.0020** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.040** pounds per hour, nor more than **0.0020** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.040** pounds per hour, nor more than **0.0020** tons per 12-month rolling period.
  - d. The discharge of **SO<sub>2</sub>** (sulfur dioxide) to the atmosphere shall not exceed **0.0028** pounds per hour, nor more than **0.00014** tons per 12-month rolling period.
  - e. The discharge of **NO<sub>x</sub>** (oxides of nitrogen) to the atmosphere shall not exceed **1.11** pounds per hour, nor more than **0.056** tons per 12-month rolling period.
  - f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **1.03** pounds per hour, nor more than **0.052** tons per 12-month rolling period.
  - g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.66** pounds per hour, nor more than **0.033** tons per 12-month rolling period.
  - h. NAC 445B.22017 – The opacity from the **S2.062** shall not equal or exceed **20** percent.
  - i. NAC 445B.22047 – The maximum allowable discharge of **sulfur** to the atmosphere from **S2.062** shall not exceed **0.51** pounds per hour.





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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AW. Emission Unit S2.062 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

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 consumption rate of **propane** for each calendar day for **S2.062** (in gallons) by multiplying the hourly fuel consumption rate as stated in **AW.2.b.** of this section and the total daily hours of operation. The corresponding average hourly fuel consumption rate in gallons per hour as determined from the maximum engine size, brake-specific fuel consumption, and heat content.
- b. Record the consumption rate of **propane**, in gallons, on a cumulative monthly basis, for each 12-month rolling period.
- c. Monitor and record the total daily hours of operation for **S2.062** for each calendar 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.
- d. Record the monthly hours of operation and the corresponding annual hours of operation for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for the year.
- e. 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

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

- a. Emissions Standards (40 CFR 60.4231, 40 CFR 60.4233, 40 CFR 60.4234, Table 1 to Subpart JJJJ)
  - (1) The Permittee of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to Subpart JJJJ for their emergency stationary SI ICE. (40 CFR 60.4233(d))
    - (a) For a 2009 model year and later emergency engine with a maximum engine power greater than 25 hp and less than 130 hp (Table 1 to Subpart JJJJ):
      - (i) The discharge of HC + NO<sub>x</sub> to the atmosphere shall not exceed **10.0** grams/hp-hr (**1.37** pounds/hr).
      - (ii) The discharge of CO to the atmosphere shall not exceed **387.0** grams/hp-hr (**52.9** pounds/hr).
    - (2) The Permittee of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in 40 CFR 60.4233 over the entire life of the engine. (40 CFR 60.4234)
  - b. Other Requirements (40 CFR 60.4237)
    - (1) The Permittee of an emergency stationary SI internal combustion engine that is less than 130 HP, was built on or after July 1, 2008, and does not meet the standards applicable to non-emergency engines, must install a non-resettable hour meter upon startup of the emergency engine. (40 CFR 60.4237(c))



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**Section IV. Specific Operating Conditions (continued)**

**AW. Emission Unit S2.062 (continued)**

5. Federal Requirements (continued)

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (continued)

c. Compliance Requirements (40 CFR 60.4243)

- (1) The Permittee of a stationary SI internal combustion engine that is manufactured after July 1, 2008, and must comply with the emission standards specified in 40 CFR 60.4233(a) through (c), must comply by purchasing an engine certified to the emission standards in 40 CFR 60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. In addition, the Permittee must meet one of the requirements specified in (a)(1) and (2) of 40 CFR 60.4243. (40 CFR 60.4243(a))
  - (a) If the Permittee operates and maintains the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the Permittee must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if the Permittee is an owner or operator. The Permittee must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to the Permittee. If the Permittee adjusts engine settings according to and consistent with the manufacturer's instructions, the Permittee's stationary SI internal combustion engine will not be considered out of compliance. (40 CFR 60.4243(a)(1))
  - (b) If the Permittee does not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the Permittee's engine will be considered a non-certified engine, and the Permittee must demonstrate compliance according to 40 CFR 60.4243(a)(2)(ii). (40 CFR 60.4243(a)(2))
    - (i) The Permittee of a stationary SI internal combustion engine less than 100 HP must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions, but no performance testing is required if you are an owner or operator. (40 CFR 60.4243(a)(2)(i))
- (2) The Permittee of a stationary SI internal combustion engine and must comply with the emission standards specified in 40 CFR 60.4233(d) or (e), must demonstrate compliance according to one of the methods specified in (b)(1) and (2) of 40 CFR 60.4243. (40 CFR 60.4243(b))
  - (a) Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in 40 CFR 60.4243(a). (40 CFR 60.4243(b)(1))
  - (b) Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in 40 CFR 60.4233(d) or (e) and according to the requirements specified in § 60.4244, as applicable, and according to paragraphs (b)(2)(i) and (ii) of 40 CFR 60.4243. (40 CFR 60.4243(b)(2))
    - (i) If the Permittee has a stationary SI internal combustion engine greater than 25 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, you must conduct an initial performance test to demonstrate compliance. (40 CFR 60.4243(b)(2)(i))



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**Section IV. Specific Operating Conditions (continued)**

**AW. Emission Unit S2.062 (continued)**

5. Federal Requirements (continued)

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (continued)

c. Compliance Requirements (40 CFR 60.4243) (continued)

(3) If the Permittee owns or operates an emergency stationary ICE, the Permittee must operate the emergency stationary ICE according to the requirements in paragraphs 40 CFR 60.4243(d)(1) through 40 CFR 60.4243(d)(3). In order for the engine to be considered an emergency stationary ICE under 40 CFR Part 60 Subpart JJJJ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs 40 CFR 60.4243(d)(1) through 40 CFR 60.4243(d)(3), is prohibited. If the Permittee does not operate the engine according to the requirements in paragraphs 40 CFR 60.4243(d)(1) through 40 CFR 60.4243(d)(3), the engine will not be considered an emergency engine under 40 CFR Part 60 Subpart JJJJ and must meet all requirements for non-emergency engines. (40 CFR 60.4243(d))

(a) There is no time limit on the use of emergency stationary ICE in emergency situations. (40 CFR 60.4243(d)(1))

(b) The Permittee may operate their emergency stationary ICE for any combination of the purposes specified in paragraph 40 CFR 60.4243(d)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph 40 CFR 60.4243(d)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR 60.4243(d)(2). (40 CFR 60.4243(d)(2))

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. (40 CFR 60.4243(d)(2)(i))

(c) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph 40 CFR 60.4243(d)(2). (40 CFR 60.4243(d)(3))

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions of 40 CFR 60.4243(d)(3)(i)(A) through (E) are met. (40 CFR 60.4243(d)(3)(i))

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

(1) The Permittee of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements: (40 CFR 60.4245)

(a) The Permittee of all stationary SI ICE must keep records of the information in paragraphs 40 CFR 60.4245(a)(1) through 40 CFR 60.4245(a)(4). (40 CFR 60.4245(a))

(i) All notifications submitted to comply with this subpart and all documentation supporting any notification. (40 CFR 60.4245(a)(1))

(ii) Maintenance conducted on the engine. (40 CFR 60.4245(a)(2))

(iii) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR Parts 1048, 1054, and 1060, as applicable. (40 CFR 60.4245(a)(3))

(iv) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation that the engine meets the emission standards. (40 CFR 60.4245(a)(4))



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**Section IV. Specific Operating Conditions (continued)**

**AW. Emission Unit S2.062 (continued)**

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement*)  
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (continued)
  - d. Notification, Reports, and Records (40 CFR 60.4245) (continued)
    - (2) For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the Permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. (40 CFR 60.4245(b))
  - 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 spark ignition engine meets the requirements of 40 CFR Part 60 Subpart JJJJ, 40 CFR Part 63 Subpart ZZZZ requirements are also met. (40 CFR Part 63.6590(c))

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**Section IV. Specific Operating Conditions (continued)**

**AX. Emission Unit S2.063**

System 43 - Stacker Pad Repeater Emergency Generator		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.063	Stacker Pad Repeater Emergency Generator (Cummins, Model# - GGHF, 126 hp, Manufactured 2006)	4,564,287	486,520

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. **S2.063** has no add-on controls.
  - b. Descriptive Stack Parameters  
 Stack Height: 5.50 feet  
 Stack Diameter: 0.29 feet  
 Stack Temperature: 1,119 °F
  
2. Operating Parameters (NAC 445B.3405)
  - a. **S2.063** may consume only **propane**.
  - b. The maximum allowable fuel consumption rate for **S2.063** shall not exceed **8.98 gallons** per hour, averaged over a calendar day, nor more than **898.0 gallons** per 12-month rolling period of non-emergency use.
  - c. Hours
    - (1) **S2.063** may operate a total of **24** hours per day.
    - (2) **S2.063** may operate a total 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.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.063** the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.045** pounds per hour, nor more than **0.0022** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.045** pounds per hour, nor more than **0.0022** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.045** pounds per hour, nor more than **0.0022** tons per 12-month rolling period.
  - d. The discharge of **SO<sub>2</sub>** (sulfur dioxide) to the atmosphere shall not exceed **0.0031** pounds per hour, nor more than **0.00016** tons per 12-month rolling period.
  - e. The discharge of **NO<sub>x</sub>** (oxides of nitrogen) to the atmosphere shall not exceed **1.25** pounds per hour, nor more than **0.062** tons per 12-month rolling period.
  - f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **1.16** pounds per hour, nor more than **0.058** tons per 12-month rolling period.
  - g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.75** pounds per hour, nor more than **0.037** tons per 12-month rolling period.
  - h. NAC 445B.22017 – The opacity from the **S2.063** shall not equal or exceed **20** percent.
  - i. NAC 445B.22047 – The maximum allowable discharge of **sulfur** to the atmosphere from **S2.063** shall not exceed **0.58** pounds per hour.





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**Section IV. Specific Operating Conditions (continued)**

**AX. Emission Unit S2.063 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

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 consumption rate of **propane** for each calendar day for **S2.063** (in gallons) by multiplying the hourly fuel consumption rate as stated in **AX.2.b.** of this section and the total daily hours of operation. The corresponding average hourly fuel consumption rate in gallons per hour as determined from the maximum engine size, brake-specific fuel consumption, and heat content.
- b. Record the consumption rate of **propane**, in gallons, on a cumulative monthly basis, for each 12-month rolling period.
- c. Monitor and record the total daily hours of operation for **S2.063** for each calendar 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.
- d. Record the monthly hours of operation and the corresponding annual hours of operation for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for the year.

5. Federal Requirements

National Emissions Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart ZZZZ – for Stationary Reciprocating Internal Combustion Engines

a. Management Practices and Other Requirements (40 CFR 63.6603(a), Table 2d)

For each Emergency stationary SI RICE and black start stationary SI 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 spark plugs 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. Monitoring, Installation, Collection, Operation and Maintenance Requirements (40 CFR Part 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 **AX.5.a** of this section. (40 CFR 63.6625(h))





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**Section IV. Specific Operating Conditions (continued)**

**AX. Emission Unit S2.063 (continued)**

5. Federal Requirements (continued)

National Emissions Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart ZZZZ – for Stationary Reciprocating Internal Combustion Engines (continued)

b. Monitoring, Installation, Collection, Operation and Maintenance Requirements (40 CFR Part 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 **AX.5.a** of this section. The oil analysis must be performed at the same frequency specified for changing the oil in **AX.5.a.(1)** of this section. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid 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 engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator 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 owner or operator 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(j))

c. 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 **AX.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.
- (4) The Permittee must also report each instance in which the Permittee did not meet the requirements in Table 8 of Subpart ZZZZ. (40 CFR Part 63.6640(e))



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**Section IV. Specific Operating Conditions (continued)**

**AX. Emission Unit S2.063 (continued)**

5. Federal Requirements (continued)

National Emissions Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart ZZZZ – for Stationary Reciprocating Internal Combustion Engines (continued)

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

(5) The Permittee must operate the emergency stationary RICE according to the requirements in **AX.5.c.(5)(a) through (c)** of this section. In order for the engine to be considered an emergency stationary RICE, 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 **AX.5.c.(5)(a) through (c)** of this section, is prohibited. If the Permittee does not operate the engine according to the requirements **AX.5.c.(5)(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 Part 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 **AX.5.c.(4)(b)(i)** of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by **AX.5.c.(4)(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 Permittee 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 **AX.5.c.(4)(b)** of this section. Except as provided in **AX.5.c.(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. 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))



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**Section IV. Specific Operating Conditions (continued)**

**AX. Emission Unit S2.063 (continued)**

5. Federal Requirements (continued)

National Emissions Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart ZZZZ – for Stationary Reciprocating Internal Combustion Engines (continued)

d. 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 this subpart, 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 **AX.5.c.(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 **AX.5.c.(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))



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**Section IV. Specific Operating Conditions (continued)**

**AY. Emission Unit S2.065**

System 44 – Emergency Diesel Generator		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.065	Emergency Diesel Generator (John Deere, 60 kW, mfd 2011 or later)	4,563,165	486,004

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. **S2.065** has no add-on controls.
  - b. Descriptive Stack Parameters  
 Stack Height: 5.0 feet  
 Stack Diameter: 0.25 feet  
 Stack Temperature: 1,000 °F
  
2. Operating Parameters (NAC 445B.3405)
  - a. **S2.065** may consume only **diesel**.
  - b. The maximum allowable fuel consumption rate for **S2.065** shall not exceed **4.32 gallons** per hour, averaged over a calendar day, nor more than **432.0 gallons** per 12-month rolling period of non-emergency use.
  - c. Hours
    - (1) **S2.065** may operate a total of **24** hours per day.
    - (2) **S2.065** may operate a total 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.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.065** the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.053** pounds per hour, nor more than **0.0026** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.053** pounds per hour, nor more than **0.0026** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.053** pounds per hour, nor more than **0.0026** tons per 12-month rolling period.
  - d. The discharge of **SO<sub>2</sub>** (sulfur dioxide) to the atmosphere shall not exceed **0.00092** pounds per hour, nor more than **0.000046** tons per 12-month rolling period.
  - e. The discharge of **NO<sub>x</sub>** (oxides of nitrogen) to the atmosphere shall not exceed **0.62** pounds per hour, nor more than **0.031** tons per 12-month rolling period.
  - f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **0.66** pounds per hour, nor more than **0.033** tons per 12-month rolling period.
  - g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.20** pounds per hour, nor more than **0.010** tons per 12-month rolling period.
  - h. NAC 445B.22017 – The opacity from the **S2.065** shall not equal or exceed **20** percent.
  - i. NAC 445B.22047 – The maximum allowable discharge of **sulfur** to the atmosphere from **S2.065** shall not exceed **0.42** pounds per hour.



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**CLASS I AIR QUALITY OPERATING PERMIT**

**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section IV. Specific Operating Conditions (continued)**

**AY. Emission Unit S2.065 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

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 consumption rate of **diesel** for each calendar day for **S2.065** (in gallons) by multiplying the hourly fuel consumption rate as stated in **AY.2.b.** of this section and the total daily hours of operation. The corresponding average hourly fuel consumption rate in gallons per hour as provided on the manufacturer's specification, to be kept onsite with records.
- b. Record the consumption rate of **diesel**, in gallons, on a cumulative monthly basis, for each 12-month rolling period.
- c. Monitor and record the total daily hours of operation for **S2.065** for each calendar 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.
- d. Record the monthly hours of operation and the corresponding annual hours of operation for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for the year.
- e. 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

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 CFR 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. (40 CFR 60.4205(b))

- (1) For a 2007 model year and later Tier 3 non-road engine with a rated power greater than or equal to 37 kW (50 hp) and less than 75 kW: (40 CFR 60.4202(a), 40 CFR 1039 Appendix I)
  - (a) The discharge of PM to the atmosphere shall not exceed **0.40** grams/kW-hr (**0.053** pounds per hour).
  - (b) The discharge of CO to the atmosphere shall not exceed **5.0** grams/kW-hr (**0.66** pounds per hour).
  - (c) The discharge of NMHC (non-methane hydrocarbon) + NO<sub>x</sub> to the atmosphere shall not exceed **4.7** grams/kW-hr (**0.62** pounds per hour).
- (2) Exhaust opacity must not exceed: (40 CFR 60.4202(a)(2), 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.

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))





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**Section IV. Specific Operating Conditions (continued)**

**AY. Emission Unit S2.065 (continued)**

5. Federal Requirements (continued)

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)

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

- (1) The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. (40 CFR 60.4206)
- (2) The Permittee, except as permitted in **AY.5.d.(5)** of this section, 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 **AY.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 **AY.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 **AY.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 **AY.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 **AY.5.d.(4)(c)** of this section counts as part of the 100 hours per calendar year. (40 CFR 60.4211(f)(2))
    - i. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. (40 CFR 60.4211(f)(2)(i))
  - (c) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph **AY.5.d.(4)(b)** of this section. Except as provided in paragraph **AY.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))





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**Section IV. Specific Operating Conditions (continued)**

**AY. Emission Unit S2.065 (continued)**

5. Federal Requirements (continued)

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)

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

(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 with a maximum engine power less than 100 hp, the Permittee must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if the Permittee do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or the Permittee change the emission-related settings in a way that is not permitted by the manufacturer, the Permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action. (40 CFR 60.4211(g)(1))

e. National Emission Standards for Hazardous Air Pollutants for Source Categories – 40 CFR Part 63, Subpart ZZZZ – Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:

If the compression ignition engine meets the requirements of 40 CFR Part 60 Subpart IIII, 40 CFR Part 63 Subpart ZZZZ requirements are also met. (40 CFR Part 63.6590(c))



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**Section IV. Specific Operating Conditions (continued)**

**AZ. Emission Unit S2.066**

System 45 – Emergency Fire Water Pump		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.066	Emergency Diesel Fire Water Pump (Caterpillar, 250 HP/186 kW, mfd 1995 or earlier)	4,570,409	486,572

1. Air Pollution Control Equipment (NAC 445B.3405)
  - a. **S2.066** has no add-on controls.
  - b. Descriptive Stack Parameters  
 Stack Height: 6.00 feet  
 Stack Diameter: 0.33 feet  
 Stack Temperature: 970 °F
  
2. Operating Parameters (NAC 445B.3405)
  - a. **S2.066** may consume only **diesel**.
  - b. The maximum allowable fuel consumption rate for **S2.066** shall not exceed **12.50 gallons** per hour, averaged over a calendar day, nor more than **1,250 gallons** per 12-month rolling period of non-emergency use.
  - c. Hours
    - (1) **S2.066** may operate a total of **24** hours per day.
    - (2) **S2.066** may operate a total 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.3405)  
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.066** the following pollutants in excess of the following specified limits:
  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.54** pounds per hour, nor more than **0.027** tons per 12-month rolling period.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.54** pounds per hour, nor more than **0.027** tons per 12-month rolling period.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.54** pounds per hour, nor more than **0.027** tons per 12-month rolling period.
  - d. The discharge of **SO<sub>2</sub>** (sulfur dioxide) to the atmosphere shall not exceed **0.0026** pounds per hour, nor more than **0.00013** tons per 12-month rolling period.
  - e. The discharge of **NO<sub>x</sub>** (oxides of nitrogen) to the atmosphere shall not exceed **7.72** pounds per hour, nor more than **0.39** tons per 12-month rolling period.
  - f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **1.66** pounds per hour, nor more than **0.083** tons per 12-month rolling period.
  - g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.61** pounds per hour, nor more than **0.031** tons per 12-month rolling period.
  - h. NAC 445B.22017 – The opacity from the **S2.066** shall not equal or exceed **20** percent.
  - i. NAC 445B.22047 – The maximum allowable discharge of **sulfur** to the atmosphere from **S2.066** shall not exceed **1.23** pounds per hour.



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**Section IV. Specific Operating Conditions (continued)**

**AZ. Emission Unit S2.066 (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

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 consumption rate of **diesel** for each calendar day for **S2.066** (in gallons) by multiplying the hourly fuel consumption rate as stated in **AZ.2.b.** of this section and the total daily hours of operation. The corresponding average hourly fuel consumption rate in gallons per hour as determined from the maximum engine size, brake-specific fuel consumption, and heat content.
- b. Record the consumption rate of **diesel**, in gallons, on a cumulative monthly basis, for each 12-month rolling period.
- c. Monitor and record the total daily hours of operation for **S2.066** for each calendar 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.
- d. Record the monthly hours of operation and the corresponding annual hours of operation for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for the year.

5. Federal Requirements

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.



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**Section IV. Specific Operating Conditions (continued)**

**AZ. Emission Unit S2.066 (continued)**

5. Federal Requirements (continued)

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)

- (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 **AZ.5.a** of this section. (40 CFR 63.6625(h))
- (4) The Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in **AZ.5.a.(1)** of this section. The oil analysis must be performed at the same frequency specified for changing the oil in **AZ.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. (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 **AZ.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.



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**Section IV. Specific Operating Conditions (continued)**

**AZ. Emission Unit S2.066 (continued)**

5. Federal Requirements (continued)

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 **AZ.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 **AZ.5.d.(4)(a) through (c)** of this section, is prohibited. If the Permittee does not operate the engine according to the requirements in **AZ.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 **AZ.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 **AZ.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 **AZ.5.d.(4)(b)** of this section. Except as provided in **AZ.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. 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))



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**Section IV. Specific Operating Conditions (continued)**

**AZ. Emission Unit S2.066 (continued)**

5. Federal Requirements (continued)

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:

- (2) 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 **AZ.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 **AZ.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))

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





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**Issued to:** NEVADA GOLD MINES LLC – TWIN CREEKS MINE (AS PERMITTEE)

**Section V. Mercury Emission Standards**

**A. NESHAP for the Gold Mine Ore Processing and Production Area Source Category – 40 CFR Part 63, Subpart EEEEEEE (40 CFR 63.11640 et. seq.)**

1. Affected Source (40 CFR 63.11640)

a. The following process units listed in **Table V-1** define the existing affected source for Ore Pre-Treatment Processes:

Table V - 1 40 CFR Part 63, Subpart EEEEEEE Affected Source – Ore Pre-Treatment Processes	
Process Unit Description	Final Emission Point
<b>System 08 – Sage Mill Autoclaves</b>	S2.009: Carbon Filter Bed System (CF-011 or CF-013)
<ul style="list-style-type: none"> <li>S2.009 Sage Mill Autoclave #1 (MOPTC AP1041-2218, TU4.012)</li> <li>S2.010 Sage Mill Autoclave #2 (MOPTC AP1041-2218, TU4.013)</li> </ul>	S2.010: Carbon Filter Bed System (CF-012 or CF-013)

b. The following process units listed in **Table V-2** define the existing affected source for Carbon Processes with Retorts:

Table V - 2 40 CFR Part 63, Subpart EEEEEEE Affected Source - Carbon Processes with Retorts	
Process Unit Description	Final Emission Point
<b>System 3A – Juniper Mill Carbon Kiln (Drum)</b>	Hypochlorite Scrubber (HS-001)
<ul style="list-style-type: none"> <li>S2.002 Carbon Kiln, Drum (MOPTC AP1041-2218, TU4.003)</li> </ul>	
<b>System 05 – Mercury Retorts</b>	S2.006: Carbon Filter System (CF-001, CF-002, and CF-014)
<ul style="list-style-type: none"> <li>S2.006 Mercury Retort A (MOPTC AP1041-2218, TU4.004)</li> <li>S2.007 Mercury Retort B (MOPTC AP1041-2218, TU4.005)</li> </ul>	S2.007: Carbon Filter System (CF-003, CF-004, and CF-015)
<b>System 06 – Juniper Mill Induction Furnaces</b>	Carbon Filter (CF-006)
<ul style="list-style-type: none"> <li>S2.008 Inductotherm Furnace (MOPTC AP1041-2218, TU4.001)</li> <li>S2.008.1 Inductotherm Furnace (MOPTC AP1041-2218, TU4.002)</li> </ul>	
<b>System 33 – Juniper Solution Tanks</b>	Carbon Filter (CF-007)
<ul style="list-style-type: none"> <li>S2.053 Juniper Pregnant Tank A (MOPTC AP1041-2218, TU4.006)</li> <li>S2.054 Juniper Pregnant Tank B (MOPTC AP1041-2218, TU4.007)</li> </ul>	
<b>System 34 – Electrowinning Cells (6)</b>	Carbon Filter (CF-008)
<ul style="list-style-type: none"> <li>S2.056 Electrowinning Cells (Six) (MOPTC AP1041-2218, TU4.009)</li> </ul>	
<b>System 35 – Pinon Solution Tanks</b>	Carbon Filter (CF-009)
<ul style="list-style-type: none"> <li>S2.057 Pinon Pregnant Tank (MOPTC AP1041-2218, TU4.010)</li> </ul>	

2. Compliance Dates (40 CFR 63.11641)

Permittee must comply with the provisions of Subpart EEEEEEE no later than February 17, 2014. (40 CFR 63.11641(a))

3. Mercury Emission Standards (40 CFR 63.11645)

Permittee shall not discharge or cause to be discharged from the assemblage of process units listed in **Table V-1 and Table V-2** of this section, combined mercury emissions in excess of the following limit for the **existing** affected sources:

- For **existing** Ore Pre-Treatment Processes, Permittee must emit no more than **127 pounds** of mercury per million tons of ore processed. (40 CFR 63.11645(a))
- For **existing** carbon processes with mercury retorts, the Permittee must emit no more than **2.2 pounds** of mercury per ton of concentrate processed. (40 CFR 63.11645(b))
- The standards set forth in 40 CFR Part 63 Subpart EEEEEEE apply at all times. (40 CFR 63.11645(i))



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**Section V. Mercury Emission Standards (continued)**

**A. NESHAP for the Gold Mine Ore Processing and Production Area Source Category – 40 CFR Part 63, Subpart EEEEEEE (40 CFR 63.11640 et. seq.) (continued)**

4. Compliance Requirements (40 CFR 63.11646)

a. Except as provided in paragraph (b) of 40 CFR 63.11646, the Permittee must conduct a mercury compliance emission test within 180 days of the compliance date for all process units at new and existing affected sources, according to those applicable requirements in paragraphs (a)(1) through (13) of 40 CFR Part 63.11646. This compliance testing must be repeated annually thereafter, with no two consecutive annual compliance tests occurring less than 3 months apart or more than 15 months apart. (40 CFR 63.11646(a))

(1) The Permittee must determine the concentration of mercury and the volumetric flow rate of the stack gas according to the following test methods and procedures. (40 CFR 63.11646(a)(1))

(a) Method 1 or 1A (40 CFR Part 60, Appendix A-1) to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) and prior to any releases to the atmosphere. (40 CFR 63.11646(a)(1)(i))

(b) Method 2, 2A, 2C, 2D, 2F (40 CFR Part 60, Appendix A-1), or Method 2G (40 CFR Part 60, Appendix A-2) to determine the volumetric flow rate of the stack gas. (40 CFR 63.11646(a)(1)(ii))

(c) Method 3, 3A, or 3B (40 CFR Part 60, Appendix A-2) to determine the dry molecular weight of the stack gas. Permittee may use ANSI/ASME PTC 19.10, “Flue and Exhaust Gas Analyses” (incorporated by reference—see 40 CFR 63.14) as an alternative to EPA Method 3B. (40 CFR 63.11646(a)(1)(iii))

(d) Method 4 (40 CFR Part 60, Appendix A-3) to determine the moisture content of the stack gas. (40 CFR 63.11646(a)(1)(iv))

(e) Method 29 (40 CFR Part 60, Appendix A-8) to determine the concentration of mercury, except as provided in paragraphs (a)(1)(vi) and (vii) of 40 CFR 63.11646. (40 CFR 63.11646(a)(1)(v))

(f) Upon approval by the permitting authority, ASTM D6784; “Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method)” (incorporated by reference—see 40 CFR 63.14) may be used as an alternative to Method 29 to determine the concentration of mercury. (40 CFR 63.11646(a)(1)(vi))

(g) Upon approval by the permitting authority, Method 30B (40 CFR Part 60, Appendix A-8) may be used as an alternative to Method 29 to determine the concentration of mercury for those process units with relatively low particulate-bound mercury as specified in Section 1.2 of Method 30B. (40 CFR 63.11646(a)(1)(vii))

(2) A minimum of three test runs must be conducted for each performance test of each process unit. Each test run conducted with Method 29 must collect a minimum sample volume of 0.85 dry standard cubic meters (30 dry standard cubic feet). If conducted with Method 30B or ASTM D6784, determine sample time and volume according to the testing criteria set forth in the relevant method. If the emission testing results for any of the emission points yields a non-detect value, then the minimum detection limit (MDL) must be used to calculate the mass emissions rate (lb/hr) used to calculate the emissions factor (lb/ton) for that emission point and, in turn, for calculating the sum of the emissions (in units of pounds of mercury per ton of concentrate, or pounds of mercury per million tons of ore) for all emission points subject to the emission standard for determining compliance. If the resulting mercury emissions are greater than the MACT emission standard, the Permittee may use procedures that produce lower MDL results and repeat the mercury emissions testing one additional time for any emission point for which the measured result was below the MDL. If this additional testing is performed, the results from that testing must be used to determine compliance (i.e., there are no additional opportunities allowed to lower the MDL). (40 CFR 63.11646(a)(2))



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**Section V. Mercury Emission Standards (continued)**

**A. NESHAP for the Gold Mine Ore Processing and Production Area Source Category – 40 CFR Part 63, Subpart EEEEEEE (40 CFR 63.11640 et. seq.) (continued)**

4. Compliance Requirements (40 CFR 63.11646) (continued)

a. Except as provided in paragraph (b) of 40 CFR 63.11646, the Permittee must conduct a mercury compliance emission test within 180 days of the compliance date for all process units at new and existing affected sources, according to those applicable requirements in paragraphs (a)(1) through (13) of 40 CFR Part 63.11646. This compliance testing must be repeated annually thereafter, with no two consecutive annual compliance tests occurring less than 3 months apart or more than 15 months apart. (40 CFR 63.11646(a)) (continued)

(3) Performance tests shall be conducted under such conditions as the Administrator specifies to the Permittee based on representative performance of the affected source for the period being tested. Upon request, the Permittee shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. Performance tests must be conducted under operating conditions (including process or production throughputs) that are based on representative performance. Record and report to the permit authority the process throughput for each test run. For sources with multiple emission units (e.g., two roasters, or a furnace, electrowinning circuit and a mercury retort) ducted to a common control device and stack, compliance testing must be performed either by conducting a single compliance test with all affected emissions units in operation or by conducting a separate compliance test on each emissions unit. Alternatively, the Permittee may request approval from the permit authority for an alternative testing approach. If the units are tested separately, any emissions unit that is not tested initially must be tested as soon as is practicable. If the performance test is conducted when all affected units are operating, then the number of hours of operation used for calculating emissions pursuant to paragraphs (a)(6) and (7) of 40 CFR 63.11646 must be the total number of hours for the unit that has the greatest total operating hours for that period of time, or based on an appropriate alternative method approved by the permit authority to account for the hours of operation for each separate unit in these calculations. (40 CFR 63.11646(a)(3))

(4) Calculate the mercury emission rate (lb/hr), based on the average of 3 test run values, for each process unit (or combination of units that are ducted to a common stack and are tested when all affected sources are operating pursuant to paragraph (a)(3) of 40 CFR 63.11646) using Equation (1) of this section: (40 CFR 63.11646(a)(4))

$$E = C_s * Q_s * K \quad (\text{Eq. 1})$$

Where:

E = mercury emissions in lb/hr;

C<sub>s</sub> = concentration of mercury in the stack gas, in grains per dry standard cubic foot (gr/dscf);

Q<sub>s</sub> = volumetric flow rate of the stack gas, in dry standard cubic feet per hour; and

K = conversion factor for grains (gr) to pounds (lb), 1.43 × 10<sup>-4</sup>.

(5) Monitor and record the number of one-hour periods each process unit operates during each month. (40 CFR 63.11646(a)(5))



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**Section V. Mercury Emission Standards (continued)**

**A. NESHAP for the Gold Mine Ore Processing and Production Area Source Category – 40 CFR Part 63, Subpart EEEEEEE (40 CFR 63.11640 et. seq.) (continued)**

**4. Compliance Requirements (40 CFR 63.11646) (continued)**

- a. Except as provided in paragraph (b) of 40 CFR 63.11646, the Permittee must conduct a mercury compliance emission test within 180 days of the compliance date for all process units at new and existing affected sources, according to those applicable requirements in paragraphs (a)(1) through (13) of 40 CFR Part 63.11646. This compliance testing must be repeated annually thereafter, with no two consecutive annual compliance tests occurring less than 3 months apart or more than 15 months apart. (40 CFR 63.11646(a)) (continued)
- (6) For the initial compliance determination for both new and existing sources, determine the total mercury emissions for all the full calendar months between the compliance date and the date of the initial compliance test by multiplying the emission rate in lb/hr for each process unit (or combination of units ducted to a common stack that are tested together) by the number of one-hour periods each process unit (or the unit that had the greatest total operating hours among the combination of multiple units with one stack that are tested together, or an alternative method approved by the permit authority, pursuant to paragraph (a)(3) of 40 CFR 63.11646) operated during those full calendar months prior to the initial compliance test. This initial period must include at least 1 full month of operations. After the initial compliance test, for subsequent compliance tests, determine the mercury mass emissions for the 12 full calendar months prior to the compliance test in accordance with the procedures in paragraph (a)(7) of 40 CFR 63.11646. Existing sources may use a previous emission test for their initial compliance determination in lieu of conducting a new test if the test was conducted within one year of the compliance date using the methods specified in paragraphs (a)(1) through (a)(4) of 40 CFR 63.11646, and the tests were representative of current operating processes and conditions. If a previous test is used for their initial compliance determination, 3 to 12 full months of data on hours of operation and production (i.e., million tons of ore or tons of concentrate), including the month the test was conducted, must be used to calculate the emissions rate (in units of pounds of mercury per million tons of ore for the ore pretreatment affected sources, or in units of pounds of mercury per tons of concentrate for the other affected sources). (40 CFR 63.11646(a)(6))
- (7) For compliance determinations following the initial compliance test for new and existing sources, determine the total mercury mass emissions for each process unit for the 12 full calendar months preceding the performance test by multiplying the emission rate in lb/hr for each process unit (or combination of units ducted to a common stack that are tested together) by the number of one-hour periods each process unit (or the unit that had the greatest total operating hours among the combination of multiple units with one stack that are tested together, or an alternative method approved by the permit authority, pursuant to paragraph (a)(3) of 40 CFR 63.11646) operated during the 12 full calendar months preceding the completion of the performance tests. (40 CFR 63.11646(a)(7))
- (8) The Permittee must install, calibrate, maintain and operate an appropriate weight measurement device, mass flow meter, or densitometer and volumetric flow meter to measure ore throughput for each roasting operation and autoclave and calculate hourly, daily and monthly totals in tons of ore according to paragraphs (a)(8)(i) and (a)(8)(ii) of 40 CFR 63.11646. (40 CFR 63.11646(a)(8))
  - (a) Measure the weight or the density and volumetric flow rate of the ore slurry as it is fed to the autoclave(s). Alternatively, the weight or the density and volumetric flow rate of the oxidized ore slurry can be measured as it exits the autoclave and before the carbon-in-leach tanks if approved by the permit authority as an acceptable equivalent method to measure amount of ore processed. (40 CFR 63.11646(8)(ii))
- (9) Measure the weight of concentrate (produced by electrowinning, Merrill Crowe process, gravity feed, or other methods) using weigh scales for each batch prior to processing in mercury retorts or melt furnaces. For facilities with mercury retorts, the concentrate must be weighed in the same state and condition as it is when fed to the mercury retort. For facilities without mercury retorts, the concentrate must be weighed prior to being fed to the melt furnace before drying in any ovens. For facilities that ship concentrate offsite, measure the weight of concentrate as shipped offsite. The Permittee must keep accurate records of the weights of each batch of concentrate processed and calculate, and record the total weight of concentrate processed each month. (40 CFR 63.11646(a)(9))



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**Section V. Mercury Emission Standards (continued)**

**A. NESHAP for the Gold Mine Ore Processing and Production Area Source Category – 40 CFR Part 63, Subpart EEEEEEE (40 CFR 63.11640 et. seq.) (continued)**

**4. Compliance Requirements (40 CFR 63.11646) (continued)**

- a. Except as provided in paragraph (b) of 40 CFR 63.11646, the Permittee must conduct a mercury compliance emission test within 180 days of the compliance date for all process units at new and existing affected sources, according to those applicable requirements in paragraphs (a)(1) through (13) of 40 CFR Part 63.11646. This compliance testing must be repeated annually thereafter, with no two consecutive annual compliance tests occurring less than 3 months apart or more than 15 months apart. (40 CFR 63.11646(a)) (continued)
  - (10) The Permittee must maintain the systems for measuring density, volumetric flow rate, and weight within  $\pm 5$  percent accuracy. The Permittee must describe the specific equipment used to make measurements at the facility and how that equipment is periodically calibrated. The Permittee must also explain, document, and maintain written procedures for determining the accuracy of the measurements and make these written procedures available to the permitting authority upon request. The Permittee must determine, record, and maintain a record of the accuracy of the measuring systems before the beginning of the initial compliance test and during each subsequent quarter of affected source operation. (40 CFR 63.11646(a)(10))
  - (11) Record the weight in tons of ore for ore pretreatment processes and concentrate for carbon processes with mercury retorts, carbon processes without mercury retorts, and for non-carbon concentrate processes on a daily and monthly basis. (40 CFR 63.11646(a)(11))
  - (12) Calculate the emissions from each new and existing affected source for the sum of all full months between the compliance date and the date of the initial compliance test in pounds of mercury per ton of process input using the procedures in paragraphs (a)(12)(i) through (a)(12)(iv) of 40 CFR 63.11646 to determine initial compliance with the emission standards in 40 CFR 63.11645. This must include at least 1 full month of data. Or, if a previous test is used pursuant to paragraph (a)(6) of 40 CFR 63.11646 for the initial compliance test, use a period of time pursuant to paragraph (a)(6) of 40 CFR 63.11646 to calculate the emissions for the affected source. After this initial compliance test period, determine annual compliance using the procedures in paragraph (a)(13) of 40 CFR 63.11646 for existing sources. (40 CFR 63.11646(a)(12))
    - (a) For ore pretreatment processes, divide the sum of mercury mass emissions (in pounds) from all roasting operations and autoclaves during the number of full months between the compliance date and the initial compliance test by the sum of the total amount of gold mine ore processed (in million tons) in these process units during those same full months following the compliance date. Or, if a previous test is used to determine initial compliance, pursuant to paragraph (a)(6) of 40 CFR 63.11646, then the same 3 to 12 full months of production data (i.e., million tons of ore) and hours of operation referred to in paragraph (a)(6) of 40 CFR 63.11646, must be used to determine the emissions in pounds of mercury per million tons of ore. (40 CFR 63.11646(a)(12)(i))
    - (b) For carbon processes with mercury retorts, divide the sum of mercury mass emissions (in pounds) from all carbon kilns, preg tanks, electrowinning, mercury retorts, and melt furnaces during the initial number of full months between the compliance date and the initial compliance tests by the total amount of concentrate (in tons) processed in these process units during those same full months following the compliance date. If a previous test is used to determine initial compliance, pursuant to paragraph (a)(6) of 40 CFR 63.11646, then the same 3 to 12 full months of production data (i.e., tons of concentrate) and hours of operation referred to in paragraph (a)(6) of 40 CFR 63.11646, must be used to determine the emissions in pounds of mercury per tons of concentrate. (40 CFR 63.11646(a)(12)(ii))





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**Section V. Mercury Emission Standards (continued)**

**A. NESHAP for the Gold Mine Ore Processing and Production Area Source Category – 40 CFR Part 63, Subpart EEEEEEE (40 CFR 63.11640 et. seq.) (continued)**

4. Compliance Requirements (40 CFR 63.11646) (continued)

a. Except as provided in paragraph (b) of 40 CFR 63.11646, the Permittee must conduct a mercury compliance emission test within 180 days of the compliance date for all process units at new and existing affected sources, according to those applicable requirements in paragraphs (a)(1) through (13) of 40 CFR Part 63.11646. This compliance testing must be repeated annually thereafter, with no two consecutive annual compliance tests occurring less than 3 months apart or more than 15 months apart. (40 CFR 63.11646(a)) (continued)

(13) After the initial compliance test, calculate the emissions from each new and existing affected source for each 12-month period preceding each subsequent compliance test in pounds of mercury per ton of process input using the procedures in paragraphs (a)(13)(i) through (iv) of 40 CFR 63.11646 to determine compliance with the emission standards in 40 CFR 63.11645. (40 CFR 63.11646(a)(13))

(a) For ore pretreatment processes, divide the sum of mercury mass emissions (in pounds) from all roasting operations and autoclaves in the 12-month period preceding a compliance test by the sum of the total amount of gold mine ore processed (in million tons) in that 12 month period. (40 CFR 63.11646(a)(13)(i))

(b) For carbon processes with mercury retorts, divide the sum of mercury mass emissions (in pounds) from all carbon kilns, preg tanks, electrowinning, mercury retorts, and melt furnaces in the 12-month period preceding a compliance test by the total amount of concentrate (in tons) processed in these process units in that 12-month period. (40 CFR 63.11646(a)(13)(ii))

b. At all times, 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. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. (40 CFR 63.11646(b))

5. Monitoring Requirements (40 CFR 63.11647)

a. The Permittee must monitor each process unit at each new and existing affected source that uses a carbon adsorber to control mercury emissions using the procedures in paragraphs (f)(1) or (f)(2) of 40 CFR 63.11647. A carbon adsorber may include a fixed carbon bed, carbon filter packs or modules, carbon columns, and other variations. (40 CFR 63.11647(f))

(1) Continuously sample and analyze the exhaust stream from the carbon adsorber for mercury using Method 30B (40 CFR part 60, Appendix A-8) for a duration of at least the minimum sampling time specified in Method 30B and up to one week that includes the period of the annual performance test. (40 CFR 63.11647(f)(1))

(a) Establish an upper operating limit for the process as determined using the mercury concentration measurements from the sorbent trap (Method 30B) as calculated from Equation (3) of 40 CFR 63.11647. (40 CFR 63.11647(f)(1)(i))

$$OLC = C_{\text{trap}} * (EL/CT) \text{ (Eq. 3)}$$

Where:

OLC = mercury concentration operating limit for the carbon adsorber control device on the process as measured using the sorbent trap, (micrograms per cubic meter);

C<sub>trap</sub> = average mercury concentration measured using the sorbent trap during the week that includes the compliance performance test, (micrograms per cubic meter);

EL = emission standard for the affected sources (lb/ton of concentrate);

CT = compliance test results for the affected sources (lb/ton of concentrate).





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**Section V. Mercury Emission Standards (continued)**

**A. NESHAP for the Gold Mine Ore Processing and Production Area Source Category – 40 CFR Part 63, Subpart EEEEEEE (40 CFR 63.11640 et. seq.) (continued)**

5. Monitoring Requirements (40 CFR 63.11647) (continued)

- a. The Permittee must monitor each process unit at each new and existing affected source that uses a carbon adsorber to control mercury emissions using the procedures in paragraphs (f)(1) or (f)(2) of 40 CFR 63.11647. A carbon adsorber may include a fixed carbon bed, carbon filter packs or modules, carbon columns, and other variations. (40 CFR 63.11647(f)) (continued)
  - (1) Continuously sample and analyze the exhaust stream from the carbon adsorber for mercury using Method 30B (40 CFR part 60, Appendix A-8) for a duration of at least the minimum sampling time specified in Method 30B and up to one week that includes the period of the annual performance test. (40 CFR 63.11647(f)(1)) (continued)
  - (b) Sample and analyze the exhaust stream from the carbon adsorber for mercury at least monthly using Method 30B (40 CFR art 60, Appendix A-8). When the mercury concentration reaches 75 percent of the operating limit, begin weekly sampling and analysis. When the mercury concentration reaches 90 percent of the operating limit, replace the carbon in the carbon adsorber within 30 days. If mercury concentration exceeds the operating limit, change the carbon in the carbon adsorber within 30 days and report the deviation to the permitting authority. (40 CFR 63.11647(f)(1)(ii))
- (2) Conduct an initial sampling of the carbon in the carbon bed for mercury 90 days after the replacement of the carbon. A representative sample must be collected from the inlet of the bed and the exit of the bed and analyzed using SW-846 Method 7471B (incorporated by reference—see 40 CFR 63.14). The depth to which the sampler is inserted must be recorded. The design capacity is established by calculating the average carbon loading from the inlet and outlet measurements. Sampling and analysis of the carbon bed for mercury must be performed quarterly thereafter. When the carbon loading reaches 50 percent of the design capacity of the carbon, monthly sampling must be performed until 90 percent of the carbon loading capacity is reached. The carbon must be removed and replaced with fresh carbon no later than 30 days after reaching 90 percent of capacity. For carbon designs where there may be multiple carbon columns or beds, a representative sample may be collected from the first and last column or bed instead of the inlet or outlet. If the carbon loading exceeds the design capacity of the carbon, change the carbon within 30 days and report the deviation to the permitting authority. (40 CFR 63.11647(f)(2))
- b. The Permittee must monitor gas stream temperature at the inlet to the carbon adsorber for each process unit (i.e., carbon kiln, melt furnace, etc.) equipped with a carbon adsorber. Establish a maximum value for the inlet temperature either during the annual performance test (required in 40 CFR 63.11646(a)), according to the manufacturer's specifications, or as approved by the permitting authority. If the Permittee choose to establish the temperature operating limit during the performance test, establish the temperature operating limit based on either the highest reading during the test or at 10 °F higher than the average temperature measured during the performance test. Monitor the inlet temperature once per shift. If an inlet temperature exceeds the temperature operating limit, the Permittee must take corrective actions to get the temperature back within the parameter operating limit within 48 hours. If the exceedance persists, within 144 hours of the exceedance, the Permittee must sample and analyze the exhaust stream from the carbon adsorber using Method 30B (40 CFR part 60, Appendix A-8) and compare to an operating limit (calculated pursuant to (f)(1)(i)) or conduct carbon sampling pursuant to (f)(2) of 40 CFR 63.11647. If the concentration measured with Method 30B is below 90 percent of the operating limit or the carbon sampling results are below 90 percent of the carbon loading capacity, the Permittee may set a new temperature operating limit 10 °F above the previous operating limit or at an alternative level approved by the permit authority. If the concentration is above 90 percent of the operating limit or above 90 percent of the carbon loading capacity the Permittee must change the carbon in the bed within 30 days and report the event to the permitting authority, and reestablish an appropriate maximum temperature limit based on approval of the permit authority. (40 CFR 63.11647(g))



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**Section V. Mercury Emission Standards (continued)**

**A. NESHAP for the Gold Mine Ore Processing and Production Area Source Category – 40 CFR Part 63, Subpart EEEEEEE (40 CFR 63.11640 et. seq.) (continued)**

5. Monitoring Requirements (40 CFR 63.11647) (continued)

- c. For each wet scrubber at each new and existing affected source not followed by a mercury control system, the Permittee must monitor the water flow rate (or line pressure) and pressure drop. Establish a minimum value as the operating limit for water flow rate (or line pressure) and pressure drop either during the performance test required in 40 CFR 63.11646(a), according to the manufacturer's specifications, or as approved by the permitting authority. If the Permittee chooses to establish the operating limit based on the results of the performance test, the new operating limit must be established based on either the lowest value during any test run or 10 percent less than the average value measured during the test. For wet scrubbers on an autoclave, establish the pressure drop range according to manufacturer's specifications. The Permittee must monitor the water flow rate and pressure drop once per shift and take corrective action within 24 hours if any daily average is less than the operating limit. If the parameters are not in range within 72 hours, the Permittee must report the deviation to the permitting authority and perform a compliance test for the process unit(s) controlled with the wet scrubber that has the parameter exceedance within 40 days to determine if the affected source is in compliance with the MACT limit. For the other process units included in the affected source, the Permittee can use the results of the previous compliance test to determine the emissions for those process units to be used in the calculations of the emissions for the affected source. (40 CFR 63.11647(h))
- d. The Permittee may conduct additional compliance tests according to the procedures in 40 CFR 63.11646 and re-establish the operating limits required in paragraphs (a) through (c) and (f) through (h) of 40 CFR 63.11647 at any time. The Permittee must submit a request to the permitting authority for approval to re-establish the operating limits. In the request, the Permittee must demonstrate that the proposed change to the operating limit detects changes in levels of mercury emission control. An approved change to the operating limit under this paragraph only applies until a new operating limit is established during the next annual compliance test. (40 CFR 63.11647(i))

6. Notification, Reporting, Recordkeeping (40 CFR 63.11648)

- a. If a deviation occurs during a semiannual reporting period, the Permittee must submit a deviation report to the permitting authority according to the requirements in paragraphs (c)(1) and (2) of 40 CFR 63.11648. (40 CFR 63.11648(c))
  - (1) The first reporting period covers the period beginning on the compliance date specified in 40 CFR 63.11641 and ending on June 30 or December 31, whichever date comes first after the Permittee's compliance date. Each subsequent reporting period covers the semiannual period from January 1 through June 30 or from July 1 through December 31. The Permittee's deviation report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual reporting period. (40 CFR 63.11648(c)(1))
  - (2) A deviation report must include the information in 40 CFR 63.11648(c)(2)(i) through 40 CFR 63.648(c)(2)(iv). (40 CFR 63.11648(c)(2))
    - (a) Company name and address. (40 CFR 63.11648(c)(2)(i))
    - (b) Statement by a responsible official, with the official's name, title, and signature, certifying the truth, accuracy and completeness of the content of the report. (40 CFR 63.11648(c)(2)(ii))
    - (c) Date of the report and beginning and ending dates of the reporting period. (40 CFR 63.11648(c)(2)(iii))
    - (d) Identification of the affected source, the pollutant being monitored, applicable requirement, description of deviation, and corrective action taken. (40 CFR 63.11648(c)(2)(iv))
- b. If the Permittee had a malfunction during the reporting period, the compliance report required in 40 CFR 63.11648(b) must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the Permittee during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 63.11646(b), including actions taken to correct a malfunction. (40 CFR 63.11648(d))



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**Section V. Mercury Emission Standards (continued)**

**A. NESHAP for the Gold Mine Ore Processing and Production Area Source Category – 40 CFR Part 63, Subpart EEEEEEE (40 CFR 63.11640 et. seq.) (continued)**

6. Notification, Reporting, Recordkeeping (40 CFR 63.11648) (continued)

- c. The Permittee must keep the records specified in paragraphs (e)(1) through (e)(3) of 40 CFR 63.11648. The form and maintenance of records must be consistent with the requirements in 40 CFR 63.10(b)(1) of the General Provisions. (40 CFR 63.11648(e))
  - (1) As required in 40 CFR 63.10(b)(2)(xiv), the Permittee must keep a copy of each notification that the Permittee submitted to comply with 40 CFR Part 63 Subpart EEEEEEE and all documentation supporting any Initial Notification, Notification of Compliance Status, and semiannual compliance certifications that the Permittee submitted. (40 CFR 63.11648(e)(1))
  - (2) The Permittee must keep the records of all performance tests, measurements, monitoring data, and corrective actions required by 40 CFR 63.11646 and 40 CFR 63.11647, and the information identified in paragraphs (c)(2)(i) through (c)(2)(vi) of 40 CFR 63.11648 for each corrective action required by 40 CFR 63.11647. (40 CFR 63.11648(e)(2))
    - (a) The date, place, and time of the monitoring event requiring corrective action; (40 CFR 63.11648(e)(2)(i))
    - (b) Technique or method used for monitoring; (40 CFR 63.11648(e)(2)(ii))
    - (c) Operating conditions during the activity; (40 CFR 63.11648(e)(2)(iv))
    - (d) Results, including the date, time, and duration of the period from the time the monitoring indicated a problem to the time that monitoring indicated proper operation; and (40 CFR 63.11648(e)(2)(v))
    - (e) Maintenance or corrective action taken (if applicable). (40 CFR 63.11648(e)(2)(vi))
  - (3) The Permittee must keep records of operating hours for each process as required by 40 CFR 63.11646(a)(5) and records of the monthly quantity of ore and concentrate processed or produced as required by 40 CFR 63.11646(a)(10). (40 CFR 63.11648(e)(3))
- d. The Permittee's records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). As specified in 40 CFR 63.10(b)(1), the Permittee must keep each record for 5 years following the date of each recorded action. The Permittee must keep each record onsite for at least 2 years after the date of each recorded action according to 40 CFR 63.10(b)(1). The Permittee may keep the records offsite for the remaining 3 years. (40 CFR 63.11648(f))
- e. After December 31, 2011, within 60 days after the date of completing each performance evaluation conducted to demonstrate compliance with this subpart, the Permittee of the affected facility must submit the test data to EPA by entering the data electronically into EPA's WebFIRE data base through EPA's Central Data Exchange. The Permittee of an affected facility shall enter the test data into EPA's database using the Electronic Reporting Tool or other compatible electronic spreadsheet. Only performance evaluation data collected using methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database. (40 CFR 63.11648(g))

**\*\*\*End of Mercury Emission Standards\*\*\***



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**Section VI. Emission Caps**

A. Not Applicable.

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

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**Section VII. Surface Area Disturbance Conditions**

The surface area disturbance for **Twin Creeks Mine** is **9,093.0** acres.

A. Fugitive Dust (NAC 445B.22037)

1. The Permittee may not 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 NAC 445B.22037(4), the Permittee may not 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 NAC 445B.22037, “best practical methods” includes, but is not limited to, paving, chemical stabilization, watering, phased construction, and revegetation.
3. Except as provided in NAC 445B.22037(4), the Permittee may not disturb or cover 5 acres or more of land or its topsoil until Permittee 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 NAC 445B.22037(2) and (3) do not apply to:
  - a. Agricultural activities occurring on agricultural land; or
  - b. Surface disturbances authorized by a permit issued pursuant to NRS 519A.180 which occur on land which is not less than 5 acres or more than 20 acres.

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



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**Section VIII. Schedules of Compliance**

A. Not Applicable

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

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**Section IX. Amendments**

**This permit:**

- 1. Shall be posted conspicuously at or near the stationary source. (NAC 445B.318(5))
- 2. Shall expire and be subject to renewal five (5) years from: March 9, 2024 .  
(NAC 445B.315(3)(a))
- 3. A completed application for renewal of an operating permit must be submitted to the Director on the form provided by the Director with the appropriate fee at least 240 calendar days before the expiration date of this operation permit (NAC 445B.3443(2)). The Director shall determine whether the application is complete within 60 days of receipt of the application (NAC 445B.3395).
- 4. Any party aggrieved by the Department’s decision to issue this permit may appeal to the State Environmental Commission (SEC) within ten days after the date of notice of the Department’s action. (NRS 445B.340)

**THIS PERMIT EXPIRES ON:** March 9, 2029

**Signature:** \_\_\_\_\_

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

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



**Bureau of Air Pollution Control**

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**CLASS I AIR QUALITY OPERATING PERMIT**

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**Class I Non-Permit Equipment List**

Appended to Permit #AP1041-0723.05

Emission Unit #	Emission Unit Description
IA1.001	Pinon Area Propane Vaporizers #1 (0.58 MMBtu/hr)
IA1.002	Pinon Area Propane Vaporizers #2 (0.58 MMBtu/hr)
IA1.003	Pinon Strip Circuit Pre-Heaters #1 (1.74 MMBtu/hr)
IA1.004	Pinon Strip Circuit Pre-Heaters #2 (1.74 MMBtu/hr)
IA1.005	Pinon Strip Circuit Pre-Heaters #3 (1.74 MMBtu/hr)
IA1.006	Pinon Strip Circuit Pre-Heaters #4 (1.74 MMBtu/hr)
IA1.007	Pinon Mill Heater #1 (0.98 MMBtu/hr)
IA1.008	Pinon Mill Heater #2 (0.98 MMBtu/hr)
IA1.009	Pinon Mill Heater #3 (0.98 MMBtu/hr)
IA1.010	Pinon Mill Heater #4 (0.98 MMBtu/hr)
IA1.011	Pinon Mill Office Heater (0.25 MMBtu/hr)
IA1.012	Pinon CIC Building Heater (0.60 MMBtu/hr)
IA1.013	Pinon Admin Building Heater (0.14 MMBtu/hr)
IA1.014	Water Treatment Building Heater #1 (0.11 MMBtu/hr)
IA1.015	Water Treatment Building Heater #2 (0.11 MMBtu/hr)
IA1.016	Water Treatment Building Heater #3 (0.11 MMBtu/hr)
IA1.017	Water Treatment Building Heater #4 (0.11 MMBtu/hr)
IA1.018	Water Treatment Building Heater #5 (0.11 MMBtu/hr)
IA1.019	Water Treatment Building Heater #6 (0.11 MMBtu/hr)
IA1.020	Pinon Major Repair Shop Heater #1 (0.14 MMBtu/hr)
IA1.021	Pinon Major Repair Shop Heater #2 (0.14 MMBtu/hr)
IA1.022	Pinon Major Repair Shop Heater #3 (0.14 MMBtu/hr)
IA1.023	Pinon Major Repair Shop Heater #4 (0.14 MMBtu/hr)
IA1.024	Pinon Major Repair Shop Heater #5 (0.14 MMBtu/hr)
IA1.025	Pinon Major Repair Shop Heater #6 (0.14 MMBtu/hr)
IA1.026	Pinon Major Repair Shop Heater #7 (0.14 MMBtu/hr)
IA1.027	Pinon Major Repair Shop Heater #8 (0.14 MMBtu/hr)
IA1.028	Pinon Major Repair Shop Heater #9 (0.14 MMBtu/hr)
IA1.029	Pinon Major Repair Shop Heater #10 (0.14 MMBtu/hr)
IA1.030	Pinon Major Repair Shop Heater #11 (0.14 MMBtu/hr)
IA1.031	Pinon Major Repair Shop Heater #12 (0.14 MMBtu/hr)
IA1.032	Pinon Major Repair Shop Heater #13 (0.14 MMBtu/hr)
IA1.033	Pinon Major Repair Shop Heater #14 (0.14 MMBtu/hr)
IA1.034	Pinon Major Repair Shop Heater #15 (0.14 MMBtu/hr)
IA1.035	Pinon Major Repair Shop Heater #16 (0.14 MMBtu/hr)
IA1.036	Pinon Major Repair Shop Heater #17 (0.14 MMBtu/hr)
IA1.037	Pinon Major Repair Shop Heater #18 (0.14 MMBtu/hr)
IA1.038	Pinon Major Repair Shop Heater #19 (0.14 MMBtu/hr)
IA1.039	Pinon Major Repair Shop Heater #20 (0.14 MMBtu/hr)
IA1.040	Pinon Major Repair Shop Heater #21 (0.14 MMBtu/hr)
IA1.041	Pinon Transportation Shop Heater #1 (0.14 MMBtu/hr)
IA1.042	Pinon Transportation Shop Heater #2 (0.14 MMBtu/hr)
IA1.043	Pinon Transportation Shop Heater #3 (0.14 MMBtu/hr)
IA1.044	Pinon Transportation Shop Heater #4 (0.14 MMBtu/hr)
IA1.045	Pinon Transportation Shop Heater #5 (0.14 MMBtu/hr)
IA1.046	Pinon Transportation Shop Heater #6 (0.14 MMBtu/hr)



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CLASS I AIR QUALITY OPERATING PERMIT

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Class I Non-Permit Equipment List (continued)

Appended to Permit #AP1041-0723.05

Table with 2 columns: Emission Unit # and Emission Unit Description. Lists 35 Pinon Mega Shop Heaters (IA1.047 to IA1.092) and Pinon Electrical/Transportation Shop Heaters.



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**CLASS I AIR QUALITY OPERATING PERMIT**

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**Class I Non-Permit Equipment List (continued)**

Appended to Permit #AP1041-0723.05

Emission Unit #	Emission Unit Description
IA1.093	Sage Mill Heater #1 (0.14 MMBtu/hr)
IA1.094	Sage Mill Heater #2 (0.14 MMBtu/hr)
IA1.095	Sage Mill Heater #3 (0.14 MMBtu/hr)
IA1.096	Sage Mill Heater #4 (0.14 MMBtu/hr)
IA1.097	Sage Mill Heater #5 (0.14 MMBtu/hr)
IA1.098	Sage Mill Heater #6 (0.14 MMBtu/hr)
IA1.099	Sage Mill Heater #7 (0.14 MMBtu/hr)
IA1.100	Sage Mill Heater #8 (0.14 MMBtu/hr)
IA1.101	Sage Mill Heater #9 (0.14 MMBtu/hr)
IA1.102	Sage Mill Heater #10 (0.14 MMBtu/hr)
IA1.103	Sage Mill Heater #11 (0.14 MMBtu/hr)
IA1.104	Sage Mill Heater #12 (0.14 MMBtu/hr)
IA1.105	Sage Mill Heater #13 (0.14 MMBtu/hr)
IA1.106	Sage Mill Heater #14 (0.14 MMBtu/hr)
IA1.107	Sage Mill Heater #15 (0.14 MMBtu/hr)
IA1.108	Sage Mill Heater #16 (0.14 MMBtu/hr)
IA1.109	Sage Mill Heater #17 (0.14 MMBtu/hr)
IA1.110	Sage Mill Heater #18 (0.14 MMBtu/hr)
IA1.111	Sage Mill Heater #19 (0.14 MMBtu/hr)
IA1.112	Sage Mill Heater #20 (0.14 MMBtu/hr)
IA1.113	Sage Mill Heater #21 (0.14 MMBtu/hr)
IA1.114	Sage Mill Heater #22 (0.14 MMBtu/hr)
IA1.115	Sage Mill Heater #23 (0.14 MMBtu/hr)
IA1.116	Sage Mill Heater #24 (0.14 MMBtu/hr)
IA1.117	Sage Mill Heater #25 (0.14 MMBtu/hr)
IA1.118	Sage Mill Heater #26 (0.14 MMBtu/hr)
IA1.119	Sage Mill Heater #27 (0.14 MMBtu/hr)
IA1.120	Sage Mill Heater #28 (0.14 MMBtu/hr)
IA1.121	Sage Mill Heater #29 (0.14 MMBtu/hr)
IA1.122	Sage Mill Heater #30 (0.14 MMBtu/hr)
IA1.123	Sage Mill Heater #31 (0.14 MMBtu/hr)
IA1.124	Sage Mill Heater #32 (0.14 MMBtu/hr)
IA1.125	Sage Mill Heater #33 (0.14 MMBtu/hr)
IA1.126	Sage Mill Heater #34 (0.14 MMBtu/hr)
IA1.127	Sage Mill Heater #35 (0.14 MMBtu/hr)
IA1.128	Sage Mill Heater #36 (0.14 MMBtu/hr)
IA1.129	Sage Mill Heater #37 (0.14 MMBtu/hr)
IA1.130	Sage Mill Heater #38 (0.14 MMBtu/hr)
IA1.131	Sage Mill Heater #39 (0.14 MMBtu/hr)
IA1.132	Sage Mill Heater #40 (0.14 MMBtu/hr)
IA1.133	Sage Pump House Heater #1 (0.02 MMBtu/hr)
IA1.134	Sage Pump House Heater #2 (0.02 MMBtu/hr)
IA1.135	Sage Pump House Heater #3 (0.02 MMBtu/hr)
IA1.136	Sage Pump House Heater #4 (0.02 MMBtu/hr)
IA1.137	Sage Pump House Heater #5 (0.02 MMBtu/hr)
IA1.138	Sage Pump House Heater #6 (0.02 MMBtu/hr)



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Class I Non-Permit Equipment List (continued)

Appended to Permit #AP1041-0723.05

Emission Unit #	Emission Unit Description
IA1.139	Sage Pump House Heater #7 (0.02 MMBtu/hr)
IA1.140	Sage Pump House Heater #8 (0.02 MMBtu/hr)
IA1.141	N. Warehouse/Shop Heater #1 (0.13 MMBtu/hr)
IA1.142	N. Warehouse/Shop Heater #2 (0.13 MMBtu/hr)
IA1.143	N. Warehouse/Shop Heater #3 (0.13 MMBtu/hr)
IA1.144	N. Warehouse/Shop Heater #4 (0.13 MMBtu/hr)
IA1.145	N. Warehouse/Shop Heater #5 (0.13 MMBtu/hr)
IA1.146	N. Warehouse/Shop Heater #6 (0.13 MMBtu/hr)
IA1.147	N. Warehouse/Shop Heater #7 (0.13 MMBtu/hr)
IA1.148	N. Warehouse/Shop Heater #8 (0.13 MMBtu/hr)
IA1.149	N. Warehouse/Shop Heater #9 (0.13 MMBtu/hr)
IA1.150	N. Warehouse/Shop Heater #10 (0.13 MMBtu/hr)
IA1.151	N. Warehouse/Shop Heater #11 (0.13 MMBtu/hr)
IA1.152	N. Warehouse/Shop Heater #12 (0.13 MMBtu/hr)
IA1.153	N. Warehouse/Shop Heater #13 (0.13 MMBtu/hr)
IA1.154	N. Warehouse/Shop Heater #14 (0.13 MMBtu/hr)
IA1.155	N. Warehouse/Shop Heater #15 (0.13 MMBtu/hr)
IA1.156	N. Warehouse/Shop Heater #16 (0.13 MMBtu/hr)
IA1.157	N. Warehouse/Shop Heater #17 (0.13 MMBtu/hr)
IA1.158	N. Warehouse/Shop Heater #18 (0.13 MMBtu/hr)
IA1.159	N. Warehouse/Shop Heater #19 (0.13 MMBtu/hr)
IA1.160	N. Warehouse/Shop Heater #20 (0.13 MMBtu/hr)
IA1.161	N. Warehouse/Shop Heater #21 (0.13 MMBtu/hr)
IA1.162	N. Warehouse/Shop Heater #22 (0.13 MMBtu/hr)
IA1.163	N. Warehouse/Shop Heater #23 (0.13 MMBtu/hr)
IA1.164	N. Warehouse/Shop Heater #24 (0.13 MMBtu/hr)
IA1.165	N. Warehouse/Shop Heater #25 (0.13 MMBtu/hr)
IA1.166	N. Warehouse/Shop Heater #26 (0.13 MMBtu/hr)
IA1.167	Juniper Mill Heater #1 (0.81 MMBtu/hr)
IA1.168	Juniper Mill Heater #2 (0.81 MMBtu/hr)
IA1.169	Juniper Mill Heater #3 (0.81 MMBtu/hr)
IA1.170	Juniper Mill Heater #4 (0.81 MMBtu/hr)
IA1.171	Juniper Mill Heater #5 (0.81 MMBtu/hr)
IA1.172	Juniper Mill Heater #6 (0.81 MMBtu/hr)
IA1.173	Juniper Mill Heater #7 (0.81 MMBtu/hr)
IA1.174	Juniper Mill Heater #8 (0.81 MMBtu/hr)
IA1.175	Juniper Mill Heater #9 (0.81 MMBtu/hr)
IA1.176	Juniper Mill Heater #10 (0.81 MMBtu/hr)
IA1.177	Laboratory Reject Bins
IA1.178	Ammonium Nitrate Silo #1- Loading
IA1.179	Ammonium Nitrate Silo #1- Unloading
IA1.180	Ammonium Nitrate Silo #2- Loading
IA1.181	Ammonium Nitrate Silo #2- Unloading
IA1.182	Ammonium Nitrate Silo #3- Loading
IA1.183	Ammonium Nitrate Silo #3- Unloading



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**Class I Non-Permit Equipment List (continued)**

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Emission Unit #	Emission Unit Description
IA1.184	Vacuum System
IA1.185	Sage Mill Lube Cooling Tower
IA1.186	Laboratory Jaw Crusher
IA1.187	Jaw Crusher/Rotary Splitter #1
IA1.188	Jaw Crusher/Rotary Splitter #2
IA1.189	Pulverizer #1
IA1.190	Pulverizer #2
IA1.191	Pulverizer #3
IA1.192	Pulverizer #4
IA1.193	Pulverizer #5
IA1.194	Laboratory Drying Ovens #1
IA1.195	Laboratory Drying Ovens #2
IA1.196	Laboratory Drying Ovens #3
IA1.197	Laboratory Assay Furnace #1
IA1.198	Laboratory Assay Furnace #2
IA1.199	Laboratory Assay Furnace #3
IA1.200	Laboratory Assay Furnace #4
IA1.201	Laboratory Assay Furnace #5
IA1.202	Sage Mill Cooling Tower
IA1.203	Oxygen Plant Cooling Tower
IA1.204	5,000 Gallon Diesel Tank