

BUREAU OF AIR POLLUTION CONTROL

901 South Stewart Street, Suite 4001 • Carson City, NV 89701-5249
phone: 775-687-9350 • www.ndep.nv.gov/bapc • fax: 775-687-6396

Facility ID No. A0388

Permit No. AP1041-2247

MERCURY OPERATING PERMIT TO CONSTRUCT: PHASE 2

Issued to: Newmont Mining Corporation, Phoenix Mine (HEREINAFTER REFERRED TO AS *THE PERMITTEE*)

Mailing Address: P.O. Box 1657; BATTLE MOUNTAIN, NEVADA 89820

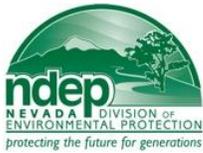
Physical Address: APPROXIMATELY 12.0 MILES SOUTH OF BATTLE MOUNTAIN, NEVADA OFF ROUTE 305

General Facility Location: SECTIONS 2-4, 8-10, 16 AND 21, T30N, R43E, MDB&M
SECTION 15, 16, 21, 22, 26-28 AND 32-34, T31N, R43E, (HA 59) (LANDER COUNTY)
NORTH 4,484.55 KM, EAST 488.95 KM, UTM ZONE 11 (NAD 83)

Emission Unit List: (1 Emission Unit)

A. System 01 – Electric Carbon Regeneration Kiln (AQOP AP1041-0220.02: System 02 – S2.003)

TU	4.001	Electric Carbon Regeneration Kiln
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Section I. General Conditions

The Permittee must comply with, but is not limited to, all conditions of Nevada Administrative Code (NAC) 445B.3611-3689 "Nevada Mercury Air Emissions Control Program", inclusive.

A. Records Retention. NAC 445B.3679.2(a)

The Permittee of a Mercury Operating Permit to Construct shall retain records of all required monitoring data and support information for (5) years after the date of the sample collection, measurement, report or analysis. Supporting information includes, without limitation, all records regarding calibration and maintenance of the monitoring equipment and all original strip-chart recordings for continuous monitoring instrumentation.

B. Severability. NAC 445B.3679.2(b)

Each of the conditions and requirements of the Mercury Operating Permit to Construct is severable and, if any are held invalid, the remaining conditions and requirements continue in effect.

C. Compliance/Noncompliance. NAC 445B.3679.2(c)

The Permittee must comply with all conditions of the Mercury Operating Permit to Construct. Any noncompliance constitutes a violation and is grounds for:

1. An action for noncompliance;
2. The revoking and reissuing, or the terminating of the Mercury Operating Permit to Construct by the Director; or
3. The reopening or revising of the Mercury Operating Permit to Construct by the holder of the Mercury Operating Permit to Construct as directed by the Director.

D. Defense to Noncompliance. NAC 445B.3679.2(d)

The need to halt or reduce activity to maintain compliance with the conditions of the Mercury Operating Permit to Construct is not a defense to noncompliance with any conditions of the Mercury Operating Permit to Construct.

E. Cause. NAC 445B.3679.2(e)

The Director may revise, revoke and reissue, reopen and revise, or terminate the Mercury Operating Permit to Construct for cause.

F. Property Rights/Exclusive Privilege. NAC 445B.3679.2(f)

The Mercury Operating Permit to Construct does not convey any property rights or any exclusive privilege.

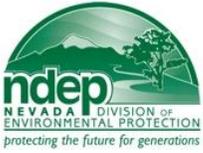
G. Information Request from Director. NAC 445B.3679.2(g)

The Permittee shall provide the Director, in writing and within a reasonable time, with any information that the Director requests to determine whether cause exists for revoking or terminating the Mercury Operating Permit to Construct or to determine compliance with the conditions of this Mercury Operating Permit to Construct.

H. Right to Entry. NAC 445B.3679.2(h)

The Permittee shall allow the Director or any authorized representative of the Director, upon the presentation of credentials, to:

1. Enter upon the premises of *the Permittee* where:
 - a. The thermal unit that emits mercury is located;
 - b. Activity related to mercury emissions is conducted; or
 - c. Records are kept pursuant to the conditions of the Mercury Operating Permit to Construct.
2. Have access to and copy, during normal business hours, any records that are kept pursuant to the conditions of the Mercury Operating Permit to Construct;
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 Mercury Operating Permit to Construct; and
4. Sample or monitor, at reasonable times, substances or parameters to determine compliance with the conditions of the Mercury Operating Permit to Construct or applicable requirements.



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Section I. General Conditions (continued)

I. Certify True and Accurate. NAC 445B.3679.2(i)

A responsible official of the stationary source shall certify that, based on information and belief formed after reasonable inquiry, the statements made in any document required to be submitted by any condition of the Mercury Operating Permit to Construct are true, accurate and complete.

J. Yearly Reporting. NAC 445B.3679.3(b, c, d)

The Permittee will submit yearly reports including, but not limited to, throughput, production, fuel consumption, hours of operation, emissions and mercury co-product. These reports will be submitted on the form provided by the Bureau of Air Pollution Control for all emission units/systems specified on the form. The completed form must be submitted to the Bureau of Air Pollution Control no later than March 1 annually for the preceding calendar year, unless otherwise approved by the Bureau of Air Pollution Control.

K. Facilities Operation. NAC 445B.227

The Permittee may not:

1. Operate a stationary source of air pollution unless the control equipment for air pollution that is required by applicable requirements or conditions of the Mercury Operating Permit to Construct are 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 Mercury Operating Permit to Construct.

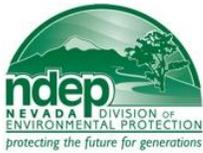
L. Excess Emissions. NAC 445B.232

1. Scheduled maintenance or testing or scheduled repairs which may result in excess emissions of regulated air pollutants prohibited by NAC 445B.001 to 445B.3689, inclusive, must be approved by the Director and performed during a time designated by the Director as being favorable for atmospheric ventilation.
2. The Director must be notified in writing of the time and expected duration at least 24 hours in advance of any scheduled maintenance which may result in excess emissions of regulated air pollutants prohibited by NAC 445B.001 to 445B.3689, inclusive.
3. The Director must be notified in writing or by telephone of the time and expected duration at least 24 hours in advance of any scheduled repairs which may result in excess emissions of regulated air pollutants prohibited by NAC 445B.001 to 445B.3689, inclusive.
4. The Director must be notified of any excess emissions within 24 hours after any malfunction or upset of the process equipment or equipment for controlling pollution or during startup or shutdown of such equipment. The telephone number for the notification is (775) 687-9350.
5. *The Permittee*, as the owner or operator of an affected facility, shall provide the Director, within 15 days after any malfunction, upset, startup, 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 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.

M. Construction Requirements NAC 445B.250

Early Reduction Credit (ERC), New, or Modified Thermal Units: the *Permittee* shall provide the Director written notification of:

1. The date that construction or reconstruction of an affected facility is commenced, postmarked no later than 30 days after such date. This requirement shall not apply to mass-produced facilities which are purchased in completed form.



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Section I. General Conditions (continued)

2. The anticipated date of initial startup of an affected facility, postmarked not more than 60 days and not less than 30 days prior to such date.
3. The actual date of initial startup of an affected facility, postmarked within 15 days after such date.

N. Annual Testing.

Before the conclusion of each calendar year, *the Permittee* shall:

1. Conduct and record a Method 29 (or alternative test method approved by the Director) compliance test for mercury on the exhaust stack of Systems 01 and 02 consisting of three valid runs. Each of the three test runs must collect a sample volume of 1.7 dry standard cubic meters (60 dscf) or be conducted for up to two hours in an effort to collect this sample volume (NAC 445B.3679.3).
2. During or prior to the Method 29 (or alternative test method approved by the Director) compliance test, conduct and record a material assay from Systems 01 and 02. Whenever possible, samples should be collected simultaneously during the testing. One representative sample shall be taken for each test run. Total mercury content shall be determined using EPA Method 7471B (cold vapor atomic adsorption analysis) (or alternative test method approved by the Director) (NAC 445B.3679.3).
3. Conduct tests of performance under such conditions as the Director specifies to the operator of the plant based on representative performance of the affected facility. The owner or operator shall make available to the Director such records as may be necessary to determine the conditions of the test of performance. Operations during periods of startup, shutdown and malfunction must not constitute representative conditions of a test of performance unless otherwise specified in the applicable standard (NAC 445B.252.3).
4. 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 (NAC 445B.252.4).
5. Furnish the Director within 60 days after completing the performance tests a written and electronic report of the results of the performance tests. 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 (NAC 445B.252.8).

O. Annual Reporting.

The Permittee shall:

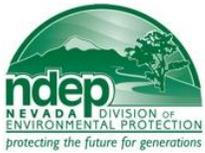
1. Report mercury co-product on an annual basis (NAC 445B.3679.3(d)).
2. Report the level of mercury emissions on an annual basis which must be based on mercury emissions test data (NAC 445B.3679.3(c)).

P. Expiration and Extension. NAC 445B.3687

1. If construction will occur in one phase, a mercury operating permit to construct for a new or modified thermal unit that emits mercury expires if construction is not commenced within 18 months after the date of issuance thereof or construction of the thermal unit that emits mercury is delayed for 18 months after initiated. The Director may extend the date on which the construction may be commenced upon a showing that the extension is justified.
2. If construction will occur in more than one phase, the projected date of the commencement of construction of each phase of construction must be approved by the Director. A mercury operating permit to construct expires if the initial phase of construction is not commenced within 18 months after the projected date of the commencement of construction approved by the Director. The Director may extend only the date on which the initial phase of construction may be commenced upon a showing that the extension is justified.

Q. Nevada Mercury Control Program Implementation Requirements

1. The NvMACT for TU4.001 and TU4.002 each must be implemented not later than 24 months after the issuance date of this mercury operating permit to construct (NAC 445B3679.3(a)(2)(I)). The issuance dates for TU4.001 and TU4.002 each are as follows:
 - a. The issuance date for TU4.002 is July 19, 2010.
 - b. The issuance date for TU4.001 is **XX**.



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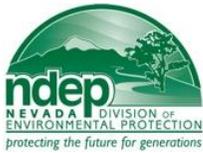
Section I. General Conditions (continued)

2. *The Permittee* shall provide the Director written notification of the date of implementation of NvMACT for TU4.001 and TU4.002 each pursuant to NAC 445B.3679.3(a)(2)(i), postmarked within 15 days after such date (NAC 445B.3679.2(g)).

R. SIP Article 2.5.4 Federally Enforceable SIP Requirement

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 *******



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Section II. Specific Operating Conditions

A. Emission Units #TU 4.001 location North 4,484.339 km, East 488.382 km, UTM NAD83 (Zone 11)

System 01 – Electric Carbon Regeneration Kiln

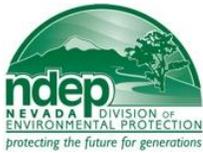
TU 4.001 Electric Carbon Regeneration Kiln, manufactured by Lochhead-Haggerty, model #(unspecified), serial #(unspecified), equipment #250-KI-001

1. Air Pollution Equipment

- a. Exhaust gas from **TU4.001** shall be ducted to a control system with 100% capture consisting of:
 - i. **Wet Scrubber (WS-001)**, manufactured by Lochhead-Haggerty, model #D-30L, serial # (unspecified), equipment #250-SC-005.
 - ii. **Sulfur Impregnated Carbon Adsorption Columns (4 columns: CA-002)**, manufactured by Lochhead-Haggerty, model #(unspecified), serial # (unspecified), equipment #250-XX-042.
- b. Stack parameters
 - i. Height: 74.0 ft.
 - ii. Diameter: 0.75 ft.
 - iii. Stack temperature: Approximately 175°F
 - iv. Flow: Nominal 1,700 dry standard cubic feet per minute (dscfm, 10-15% moisture).
 - v. Unit **TU4.001** is ducted to a single vertical exhaust stack.

2. Operating Requirements

- a. Limitations of operation. NAC 445B.3679.3.
 - i. The maximum allowable throughput for **TU4.001** will not exceed 1.0 ton of strip circuit carbon per any one-hour period.
 - ii. Mercury emissions from **TU4.001** shall not exceed be 1×10^{-4} grains per dry standard cubic foot (gr/dscf).
 - iii. Hours
 - (a) **TU4.001** may operate 24 hours per day.
 - (b) **TU4.001** may operate a total of 8,760 hours per calendar year.
- b. Work practices. NAC 445B.3679.3.
 - i. The water flow to **WS-001** shall be maintained at or above 60 gallons per minute.
 - ii. The vacuum pressure of the exhaust stream prior to **WS-001** shall be maintained between 0 to -1.0 inches water column, damper set at -0.2 inches water column.
 - iii. The differential pressure of **CA-002** shall be maintained between 0.5 to 1.75 inches mercury.
 - iv. **CA-002** shall contain no less than 4,000 pounds (1,000 pounds each column) of sulfur-impregnated carbon.
 - v. Sulfur-impregnated carbon from **CA-002** shall be replaced in accordance with the following schedule:
 - (a) Conduct an initial sampling of the sulfur-impregnated carbon within 90 days of commencement of operation under this permit. A representative sample shall be taken and analyzed. The depth of the sample location shall be recorded. Using this sample the percentage of mercury by weight shall be calculated. Sampling will continue quarterly, at the same sample depth location, until 70% of the carbon loading capacity of 20% by weight is reached. Upon reaching 70% of the carbon loading capacity of 20% by weight, sampling of the carbon will occur monthly until 75% of the carbon loading capacity of 20% by weight is reached. The carbon will be replaced with an equivalent performing sulfur -impregnated carbon no later than 30 days after reaching 75% of the carbon loading capacity of 20% by weight.
 - (b) The required mercury analysis shall be performed utilizing one of the following methods:
 - 1. EPA method 6020-Inductively Coupled Plasma-Mass Spectrometry;
 - 2. EPA method 7471B- Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique); or
 - 3. An alternative test method as approved by the Director.
 - vi. Any sulfur-impregnated carbon replaced in **CA-002** shall be replaced with only the manufacturer's design specification sulfur-impregnated carbon or equivalent performance or better.
 - vii. The original manufacturer's design specifications for the sulfur-impregnated carbon used in **CA-002** shall be kept on site.



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Section II. Specific Operating Conditions (continued)

A. Emission Units TU4.001 - location North 4,484.339 km, East 488.382 km, UTM (NAD 83, Zone 11)

3. Compliance Testing, Monitoring, Recordkeeping, Reporting and Performance Testing

Upon the notification date of the implementation of NvMACT pursuant to Section I.Q. above, the following requirements will be effective:

a. Compliance Testing (NAC 445B.3379.3)

Within 180 days of the notification of the implementation of NvMACT for TU4.001 as required in Section I.Q., *the Permittee* shall conduct and record a performance test for mercury on the exhaust stack of TU4.001 consisting of three valid runs utilizing US EPA Method 29 of 40 CFR Part 60 Appendix A.

b. Monitoring (NAC 445B.3379.3)

The Permittee shall:

- i. Monitor the water flow to WS-001 once per day during operations.
- ii. Monitor the vacuum pressure of the exhaust stream prior to WS-001 once per day during operations.
- iii. Monitor the differential pressure of CA-002 once per day during operations.
- iv. Monitor CA-002 for percentage of mercury by weight quarterly until reaching 70% of the carbon loading capacity of 20%, and then monthly until reaching 75% percent of the carbon loading capacity of 20%.

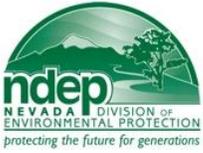
c. Recordkeeping (NAC 445B.3379.3)

The required monitoring established in Section A.3.b.i. through Section A.3.b.vii. shall be maintained on site in a contemporaneous log containing, at a minimum, the following recordkeeping:

- i. The calendar date of any required monitoring.
- ii. The total daily throughput of strip carbon in tons for TU4.001 for the corresponding date.
- iii. The total hours of operation for TU4.001 for the corresponding date.
- iv. The corresponding average hourly throughput rate of strip carbon in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput rate and the total daily hours of operation recorded in Section A.3.c.ii. and Section A.3.c.iii. above.
- v. The water flow to WS-001 in gallons per minute for the corresponding date.
- vi. The vacuum pressure of the exhaust stream prior to WS-001 in inches water column for the corresponding date.
- vii. The differential pressure of CA-002 in inches mercury for the corresponding date.
- viii. The percentage of mercury by weight of the sulfur-impregnated carbon in CA-002 from the corresponding date.
- ix. The date, time and weight of each sulfur-impregnated carbon replacement for CA-002 for the corresponding date.

d. Reporting (NAC 445B.3679.3(e))

Permittee will promptly report to the Director any deviations from the requirements of this Operating Permit. The report to the director will include 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 and under condition I.L of this permit.



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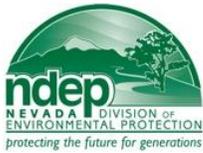
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Section II. Specific Operating Conditions

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



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Section III. Amendments

This permit:

1. **Is non-transferable. (NAC 445B.287.3)**
2. **Will be posted conspicuously at or near the stationary source. (NAC 445B.318.5)**
3. **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)**

Signature _____

Issued by: Rob Bamford
Supervisor, Permitting Branch
Bureau of Air Quality Planning

Phone: (775) 687-9330

Date: December 31, 2010

PAA