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

Bureau of Air Pollution Control

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

Facility ID No. A0002 *Permit No. AP1041-2219*

MERCURY OPERATING PERMIT TO CONSTRUCT: PHASE 2

Issued to: **Newmont Mining Corporation, Gold Quarry Operations Area**
(HEREINAFTER REFERRED TO AS ***THE PERMITTEE***)
Mailing Address: 1655 MOUNTAIN CITY HIGHWAY
ELKO, NEVADA 89801-2800
Physical Address: 6 MILES NORTHWEST OF CARLIN, NEVADA, OFF OF S.R. 766 (INTERSTATE 80, EXIT 280)
General Facility Location: SECTION 1 OF T33N, R51E, MDB&M
SECTION 36 OF T34N, R51E, (HA 51, MAGGIE CREEK BASIN) (EUREKA COUNTY)
NORTH 4,514,776 M, EAST 568,699 M, UTM ZONE 11 (NAD 83)

Emission Unit List: (2 Emission Units)		
B. System 02 – CFB North and South Ore Preheaters (Reference System 43 in AQOP AP1041-0793)		
TU	4.002	CFB North Ore Preheater (S2.126)
TU	4.003	CFB South Ore Preheater (S2.129)

Issued to: Newmont Mining Corporation, Gold Quarry Operations Area.

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.

Issued to: Newmont Mining Corporation, Gold Quarry Operations Area.

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.

Issued to: Newmont Mining Corporation, Gold Quarry Operations Area.

Section I. General Conditions (continued)

M. Construction Requirements. NAC 445B.250

1. Early Reduction Credit (ERC), New, or Modified Thermal Units
   The ***Permittee*** shall provide the Director written notification of:
   a. 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.
   b. 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.
   c. The actual date of initial startup of an affected facility, postmarked within 15 days after such date.

N. Annual Testing. NAC 445B.3679.3

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 **each system** 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. Simultaneously, during the Method 29 (or alternative test method approved by the Director) compliance test, conduct and record a material assay from **each system**. One representative sample shall be taken during 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. SIP Article 2.5.4 *(Federally Enforceable SIP Requirement)*

1. 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.

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.

Issued to: Newmont Mining Corporation, Gold Quarry Operations Area.

Section I. General Conditions (continued)

Q. Nevada Mercury Control Program Implementation Requirements

1. The NvMACT for **TU4.001 – TU4.028**, each must be implemented not later than 24 months after the issuance of this mercury operating permit to construct (NAC 445B.3679.3(a)(2)(I)).
   a. The issuance date for **TU4.004 – TU4.005** is **July 22, 2010**.
   b. The issuance date for **TU4.002 – TU4.003** is month date year.
2. The Permittee shall provide the Director written notification of:
   a. The date of implementation of NvMACT for **TU4.001 – TU4.028** each, pursuant to NAC 445B.3679.3(a)(2)(i) postmarked within 15 days after such date (NAC 445B.3679.2(g)).

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

Issued to: Newmont Mining Corporation, Gold Quarry Operations Area.

Section II. Specific Operating Conditions

B. Emission Units # TU4.002 – TU4.003 location North 4,515,000 m East 568,850 m, UTM (Zone 11)

System 02 – CFB North and South Ore Preheaters manufactured by Thermal Transfer & Mark Steel., model # (Custom), serial # (not specified)		
TU	4.002	CFB North Ore Preheater (6400-PH-001)
TU	4.003	CFB South Ore Preheater (6400-PH-002)

1. Air Pollution Equipment

a. Exhaust gases from **TU4.002 – TU4.003**, each shall be ducted to a control system with 100% capture consisting of:
   i. **Baghouse (6400-DC-016)**
   ii. **Baghouse (6400-DC-017)**
   iii. **SO_2 Scrubber (Caustic) (6400-TW-013)**
   iv. **Carbon Filter Pack** *(manufactured by Cameron Great Lakes)* **(CF-005)**

b. Stack parameters
   i. Height: 182.0 ft.
   ii. Diameter: 9.33 ft.
   iii. Stack temperature 120.0 ºF
   iv. Flow: Nominal volume flow rate of 66,543 dry standard cubic feet per minute (dscfm).
   v. **TU4.002** is ducted to **6400-DC-017** and then into **6400-TW-013**.
   TU4.003 is ducted to **6400-DC-016** and then into **6400-TW-013.**
   Exhaust gases from **6400-TW-013** duct into **CF-005** and then exit through stack **E8**.

2. Operating Requirements

a. Limitations of Operation. **(NAC 445B.3679.3)**
   i. The maximum allowable throughput for **TU4.002 – TU4.003** combined will not exceed **560.0** tons of ore per any one hour period, nor more than **4,905,600** tons per year.
   ii. The Interim mercury emission limit during the demonstration period for establishment of the final mercury emission limit as established in Section II.B.4.d.for **System 02** shall not exceed **9.86×10^{-6}** grains per dry standard cubic foot (gr/dscf).
   iii. Hours
   TU4.002 – TU4.003, each may operate a total of **8,760** hours per calendar year.

Issued to: Newmont Mining Corporation, Gold Quarry Operations Area.

Section II. Specific Operating Conditions (continued)

B. Emission Units # TU4.002 – TU4.003 location North 4,515,000 m East 568,850 m, UTM (Zone 11)

b. Work Practices. **(NAC 445B.3679.3)**
   i. Baghouses **(6400-DC-016** and **6400-DC-017)**
      (a) There will be an annual check of all bags contained in **6400-DC-016** and **6400-DC-017** for holes, particulate build-up and tears.
      (b) The differential pressure range for **6400-DC-016** and **6400-DC-017**, each, shall be between **0 – 15** inches of water column.
   ii. SO_2 Scrubber (Caustic) (**6400-TW-013**)
      (a) The exhaust gas temperature exiting **6400-TW-013** shall be maintained at or below **130º** F or an established standard (º F) based on initial performance monitoring with concurrence of the permitting authority.
   iii. Carbon Filter Pack (**CF-005**) (five modules)
      (a) The pre-filters in each module will be replaced if the differential pressure drop exceeds **3.5** inches of water column or an established standard (inches of water) based on initial performance monitoring with concurrence of the permitting authority, then pre-filter(s) will be replaced in the appropriate module(s) that are determined to be the cause of the excursion.
      (b) **CF-005** shall be equipped with sulfur impregnated carbon contained in five modules. Each module is equipped with a first stage, a second stage and a third stage. Each stage shall consist of four trays equipped with 25 cartridges (100 cartridges total) filled with sulfur impregnated carbon. Each cartridge dimension is approximately 2 feet by 1.5 feet and contains approximately 22 pounds of sulfur impregnated carbon.
      (c) Conduct an initial sampling of a randomly chosen carbon filter tray from the first stage of each module **90** days after replacement of the carbon in the trays in a module or the movement of second stage trays to the first stage. Representative samples will be taken and analyzed using EPA Method 7471A. The exact tray location of each sample will be recorded. Periodical sampling of the first stage in each module will be undertaken every year after the initial sampling, until the carbon reaches **50%** mercury loading. Quarterly sampling of the first stage in each module will then commence until the carbon reaches **90%** loading. The trays in the first stage of each module will be replaced no later than **30** days after reaching **90%** loading to ensure the saturation limit of the carbon is not exceeded for each module.
      (d) **CF-005** shall be equipped with **CGL CP48-SU** sulfurized bituminous coal based pelletized activated carbon or an equivalent performing activated carbon.
      (e) **CF-005** must operate with five modules operating in parallel excluding only:
         (1) Pre-filter or carbon replacement;
         (2) Maintenance or repairs of a module, during which three modules must operate in parallel.
      (f) If operation occurs with only three modules operating in parallel and exceeds 24 hours, the Director must be notified no later than 48 hours after the event.

Issued to: Newmont Mining Corporation, Gold Quarry Operations Area.

Section II. Specific Operating Conditions (continued)

B. Emission Units # TU4.002 – TU4.003 location North 4,515,000 m East 568,850 m, UTM (Zone 11)

3. Compliance Testing, Monitoring, Recordkeeping, Reporting and Testing (NAC 445B.3379.3)

a. Compliance Testing

Within 180 days of the implementation of NvMACT for **System 02** as required in Section I.Q., the Permittee shall conduct and record a performance test for mercury on the exhaust stack of **System 02** consisting of three valid runs utilizing US EPA Method 29 of 40 CFR part 60 Appendix A.

b. Monitoring

The ***Permittee***, shall:

i. Prior to implementation of NvMACT for **TU4.002** and **TU4.003**, each, install, operate, calibrate and maintain instrumentation to measure the following:
   (a) The outlet gas temperature from **6400-TW-013**, in degrees Fahrenheit.
   (b) The differential pressure drop across **CF-005**, in inches of water column.
ii. Monitor the throughput rate of ore in tons for **TU4.002 – TU4.003,** combined on a daily basis.
iii. Monitor the hours of operation for **TU4.002 – TU4.003,** each on a daily basis.
iv. Monitor the differential pressure, in inches of water, for **6300-DC-016** and **6300-DC-017**, once each on a daily basis while **TU4.002 – TU4.003**, each is in operation.
v. Conduct an annual check of all bags contained in **6300-DC-016** and **6300-DC-017**, each.
vi. Monitor the exhaust gas temperature, in degrees Fahrenheit, from **6400-TW-013**, once on a daily basis while **TU4.002 – TU4.003**, each is in operation.
vii. Monitor the differential pressure drop, in inches of water across **CF-005**, once on a daily basis while **TU4.002 – TU4.003**, each is in operation.
viii. Monitor the date of the sulfurized carbon replacement for each stage for each module from **CF-005**.
ix. Monitor the number and movement or relocation of any trays from the second stage to the first stage for each module in **CF-005**.
x. Monitor the number of cartridges filled with sulfur impregnated carbon that are replaced for each stage for each module from **CF-005**.
xi. Monitor the percentage mercury loading by weight on the sulfurized carbon sampled from the first stage of each module from **CF-005**.
xii. Monitor the exact tray location that the sulfurized carbon sample was taken for each module from **CF-005**.
xiii. Monitor the hours of operation during the carbon replacement scenario of only three modules in operation.

Issued to: Newmont Mining Corporation, Gold Quarry Operations Area.

Section II. Specific Operating Conditions (continued)

B. Emission Units # TU4.002 – TU4.003 location North 4,515,000 m East 568,850 m, UTM (Zone 11)

c. Recordkeeping

The required monitoring established in Section B.3.b.i. through Section B.3.b.xiii. above will be maintained in a contemporaneous log containing, at a minimum, the following recordkeeping:

i. The calendar date of any required monitoring.
ii. The total daily throughput rate of ore for **TU4.002** and **TU4.003** combined, in tons, for the corresponding date.
iii. The total daily hours of operation for **TU4.002** and **TU4.003**, each, for the corresponding date.
iv. The corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate will be determined from the total daily throughput rate and the total daily hours of operation recorded in Section B.3.b.ii. through Section B.3.b.iii. above.
v. The differential pressure drops for **6300-DC-016** and **6300-DC-017**, each for the corresponding date.
vi. The results of the annual check of bags contained in **6300-DC-016** and **6300-DC-017**, each for the corresponding date.
vii. The exhaust gas temperature from **6400-TW-013**, for the corresponding date.
viii. The differential pressure drop across **CF-005**, for the corresponding date.
ix. The amount of cartridges replaced for each module from **CF-005** and corresponding stage replaced, for the corresponding date.
x. The number and movement or relocation of second stage trays to the first stage for each module from **CF-005**, for the corresponding date.
xi. The percentage mercury loading by weight from the tray sampled from the first stage for each module from **CF-005**, for the corresponding date.
xiii. The exact tray location sampled from each module from **CF-005**, for the corresponding date.
xiv. Carbon manufacturer specifications will be maintained on site for inspection.
xv. The hours of operation under any scenario of three carbon module operation.

d. Reporting

Permittee will promptly report to the Director any deviations from the requirements of the Operating Permit to Construct. The report to the Director will include probable cause of all deviations and any action taken to correct deviations. For this Operating Permit to Construct, prompt is defined as submittal of a report within 15 days of said 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.

Issued to: Newmont Mining Corporation, Gold Quarry Operations Area.

Section II. Specific Operating Conditions (continued)

B. Emission Units # TU4.002 – TU4.003 location North 4,515,000 m East 568,850 m, UTM (Zone 11)

e. Performance Testing

i. Upon the date of implementation of NvMACT, ***the Permittee***, shall begin a performance demonstration period for the establishment of a mercury emissions limit for each thermal unit, which shall consist of (6) consecutive Method 29 source tests at approximate 6-month intervals. The performance demonstration period shall provide emissions data for the establishment of a final NvMACT mercury emission limit for each thermal unit.

ii. ***The Permittee*** shall submit a test protocol and receive NDEP protocol approval for each performance demonstration test. Performance tests must be performed at conditions that the Director deems representative of normal operations. Only NDEP-validated tests may be used for the establishment of a final NvMACT mercury emission limit for each thermal unit.

iii. ***The Permittee*** shall provide in each validated performance test report the records of all operating parameters and work practice standards required in the Phase-2 Mercury Operating Permit to Construct as monitored and recorded during each corresponding test of performance. Material sampling must be performed pursuant to the NDEP approved protocol.

iv. Within 30-days of receiving a complete stack test report, the Director shall complete a review of the stack test report and provide written notification to ***the Permittee*** with determination of applicability for the performance demonstration, pursuant to the NDEP approved test protocol.

v. The final NvMACT mercury emission limit shall be calculated as the maximum test value from the (6) corresponding NDEP-validated performance demonstration tests plus one standard deviation in gr/dscf mercury. The standard deviation value shall be calculated from the (6) corresponding NDEP-validated performance demonstration test values.

vi. The final NvMACT mercury emission limit shall be the applicable mercury emission limit permit requirement for the Phase-2 Mercury Operating Permit to Construct expressed as gr/dscf mercury.

vii. A validated performance demonstration test may be used for the purpose of annual mercury emissions testing.

Facility ID No. A0002 Permit No. AP1041-2219

MERCURY OPERATING PERMIT TO CONSTRUCT: PHASE 2

Issued to: Newmont Mining Corporation, Gold Quarry Operations Area.

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: _____

KM
02/11/2011