

## NOTICE OF PROPOSED ACTION

by the  
State of Nevada  
Division of Environmental Protection  
Bureau of Air Quality Planning

### PUBLIC NOTICE

Pursuant to Nevada Revised Statutes (NRS) Chapter 445B and the Nevada Administrative Code (NAC) Chapter 445B, the Division of Environmental Protection is issuing the following notice.

The Administrator has received an application for a new Nevada Mercury Operating Permit to Construct from the following applicant:

*Barrick Cortez, Inc.  
Cortez Pipeline Mine  
HC 66 Box 1250  
Crescent Valley, NV 89821-1250*

The Administrator has prepared tentative determinations regarding the Mercury Operating Permit to Construct (MOPTC) that, in brief, affect the following: a system consisting of two new mercury retorts and two existing smelt furnaces.

The draft MOPTC proposes a mercury emissions performance standard and mercury emissions control technologies determined to be NvMACT pursuant to NAC 445B.3683.2(b). Determination of initial proposed NvMACT mercury emissions performance for the system is:  $9.2 \times 10^{-4}$  gr/dscf mercury. The final NvMACT mercury emissions limit shall be determined pursuant to an emissions control performance demonstration period. Determination of proposed NvMACT mercury emissions control technology for the system is: chilled-water condensers for the retorts, a shared baghouse for the furnaces, and a sulfur impregnated carbon bed that will be shared by all four units in the system.

The tentative MOPTC activities include monitoring, recordkeeping, annual stack testing for mercury emissions, annual emissions reporting, annual mercury co-product reporting, limits of operation, and work practice standards which minimize emissions of mercury to the atmosphere. The permit also includes a mercury emission limit for the system.

On the basis of the preliminary review and the requirements of the NRS and the NAC, the Administrator is hereby announcing his intent to issue the Mercury Operating Permit to Construct based on review of the information, as proposed. A copy of the draft operating permit is available for public inspection at:

BATTLE MOUNTAIN BRANCH LIBRARY  
625 SOUTH BROAD ST.  
BATTLE MOUNTAIN, NV 89820

Persons wishing to comment upon the proposed determinations by the Administrator regarding this proposed action or to request a hearing pursuant to NRS 445B Air Pollution and NAC 445B Air Controls should submit their comments or request in writing either in person or by mail or fax within thirty (30) days to:

Rob Bamford  
Nevada Division of Environmental Protection  
Bureau of Air Quality Planning  
901 S. Stewart St., Suite 4001  
Carson City, Nevada 89701-5249  
(775) 687-9330  
(775) 687-6396 FAX

The application, draft permit, any comments received, and other relevant information may be copied at the above address or copies may be obtained by requesting in writing at the above address. Copies of the Director's Review and the draft Mercury Operating Permit to Construct are available for review on the Nevada Division of Environmental Protection-Bureau of Air Quality Planning website at: <http://ndep.nv.gov/baqp/hg/pub.html>. Written comments or objections, will be received at the Division of Environmental Protection, above address, until **November 16, 2009** and will be retained and considered prior to final action on the Mercury Operating Permit to Construct.

Please bring the foregoing notice to the attention of all persons whom you know may be interested in this matter.

STATE OF NEVADA  
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES  
DIVISION OF ENVIRONMENTAL PROTECTION  
BUREAU OF AIR QUALITY PLANNING

**Director's Review and Preliminary Determination of Permit Issuance  
for**

**Nevada Mercury Control Program  
Mercury Operating Permit to Construct**

**October 14, 2009**

Barrick Cortez, Inc. – Cortez Pipeline Mine has submitted a new unit application for a Mercury Operating Permit to Construct (MOPTC) pursuant to NAC 445B.3633(c) to the Nevada Division of Environmental Protection-Bureau of Air Quality Planning (NDEP-BAQP) for a system consisting of two new mercury retorts and two existing smelt furnaces on November 8, 2007.

The applicable facility, located in air shed basin #54, in Lander County is:

*Barrick Cortez, Inc.  
Cortez Pipeline Mine  
HC 66 Box 1250  
Crescent Valley, NV 89821-1250*

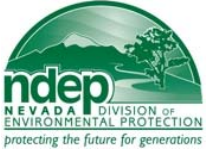
The NDEP-BAQP has reviewed the application and has made a preliminary determination to issue the MOPTC. The draft MOPTC is for a system consisting of two new mercury retorts and two existing smelt furnaces, with an emission performance standard and control technologies determined to be NvMACT pursuant to NAC 445B.3683.2(b).

The draft MOPTC includes requirements for monitoring, recordkeeping, annual stack testing for mercury emissions, annual emissions reporting, annual mercury co-product reporting, limits of operation, and work practice standards which minimize emissions of mercury to the atmosphere. The permit also includes a mercury emission limit for the system.

Initial determination of proposed NvMACT mercury emissions performance for the system is:  $9.2 \times 10^{-4}$  gr/dscf mercury. Final NvMACT mercury emissions limit shall be determined pursuant to the emissions control demonstration period. Determination of proposed NvMACT mercury emissions control technology for the system is: chilled-water condensers for the retorts, a shared baghouse for the furnaces, and a sulfur impregnated carbon bed that will be shared by all units in the system.

The proposed project will not cause or contribute to a violation of any applicable Federal or State air quality standard. After review of the application and independent NDEP-BAQP analyses, the agency has determined that the Barrick Cortez, Inc. – Cortez Pipeline Mine MOPTC may be issued and operated. The proposed sources must comply with all State and Federal air quality requirements and all conditions established within the draft MOPTC.

Copies of this permit action's public notice and the draft Mercury Operating Permit to Construct are available for review on the Nevada Division of Environmental Protection - Bureau of Air Quality Planning website at:  
<http://ndep.nv.gov/baqp/hg/pub.html>



# BUREAU OF AIR QUALITY PLANNING

901 South Stewart Street, Suite 4001 • Carson City, Nv 89701-5249  
 phone: 775-687-9350 • [www.ndep.nv.gov/baqp](http://www.ndep.nv.gov/baqp) • fax: 775-687-6396

**Facility ID No. A0001**

**Permit No. AP1041-2220**

## MERCURY OPERATING PERMIT TO CONSTRUCT

**Issued to:** Barrick Cortez, Inc. (HEREINAFTER REFERRED TO AS *THE PERMITTEE*)

**Mailing Address:** HC 66, Box 1250, CRESCENT VALLEY, NEVADA, 89821-1250

**Physical Address:** HC 66, Box 1250, CRESCENT VALLEY, NEVADA, 89821-1250

**General Facility Location:** SECTIONS 1, 12 OF T26N, R47E  
 SECTIONS 6, 7 OF T26N, R48E  
 SECTIONS 1, 12 OF T27N, R46E  
 SECTIONS 4-10, 13-18, 23-26, 35, 36 OF T27N, R47E  
 SECTIONS 25, 36 OF T28N, R46E  
 SECTIONS 28-33, T28N OF R47E, MDB&M  
 HYDROGRAPHIC BASIN 54, LANDER COUNTY

**Driving Directions:** THE FACILITY IS LOCATED APPROXIMATELY 38 MILES SOUTH OF INTERSTATE 80, EXIT #261 (BEOWAWE EXIT) ON STATE ROUTE 306.

Emission Unit List:	
<b>C. System 03 – Pipeline Refinery Induction Furnaces and Retorts</b>	
TU 4.010	Retort #1
TU 4.011	Retort #2
TU 4.003	Refinery Induction Furnace #1 <span style="float: right;"><i>(Reference AQOP AP1041-2141; J. System 8 – S2.002)</i></span>
TU 4.004	Refinery Induction Furnace #2 <span style="float: right;"><i>(Reference AQOP AP1041-2141; J. System 8 – S2.003)</i></span>



## BUREAU OF AIR QUALITY PLANNING

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Permit No. AP1041-2220

# MERCURY OPERATING PERMIT TO CONSTRUCT

Issued to: Barrick Cortez, Inc.

## **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.



## BUREAU OF AIR QUALITY PLANNING

Facility ID No. A0001

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# MERCURY OPERATING PERMIT TO CONSTRUCT

Issued to: Barrick Cortez, Inc.

## 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 Quality Planning for all emission units/systems specified on the form. The completed form must be submitted to the Bureau of Air Quality Planning no later than March 1 annually for the preceding calendar year, unless otherwise approved by the Bureau of Air Quality Planning.

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.



**BUREAU OF AIR QUALITY PLANNING**

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**MERCURY OPERATING PERMIT TO CONSTRUCT**

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**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 **System 03** 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 **System 03**. Three representative samples shall be taken for the corresponding test. 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.

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



BUREAU OF AIR QUALITY PLANNING

Facility ID No. A0001

Permit No. AP1041-2220

MERCURY OPERATING PERMIT TO CONSTRUCT

Issued to: Barrick Cortez, Inc.

Section II. Specific Operating Conditions

C. Emission Units TU4.010, TU4.011, TU4.003 and TU4.004 - location North 4,456.899 km, East 523.905 km, UTM (NAD 83, Zone 11)

Table with 2 columns: TU ID and Description. Rows include TU 4.010, TU 4.011, TU 4.003, and TU 4.004 with their respective equipment details and references.

1. Air Pollution Equipment

- a. The addition of Carbamate Chemical UNR-811 Mercury Precipitant to the process solutions in the pregnant ponds and SAG Mill upstream of System 3, is presumptive NvMACT pursuant to NAC 445B.3639.
b. Exhaust gas from System 3 shall be ducted to a control system with 100% capture consisting of:
i. Mercury Condenser System (MC-001), manufactured by Summit Valley Equipment & Engineering, consists of a mercury condenser for each retort followed by a second stage mercury condenser on the combined exhaust streams of TU4.010 and TU4.011.
ii. Baghouse (BH-001), manufactured by Sly Technology, on the exhaust streams of TU4.003 and TU4.004.
iii. Sulfur-Impregnated Carbon Adsorption Bed (CA-001), manufactured by Scotia International of Nevada, Inc., on the exhaust streams of TU4.003, 4, 10, and 11
c. Stack parameters
i. Height: 18.0 ft.
ii. Diameter: 0.83 ft.
iii. Stack temperature: Approximately 100°F
iv. Flow: Maximum 1,700 dry standard cubic feet per minute (dscfm).
v. Exhaust gases from System 3 are ducted to 1 stack.

2. Construction Requirements (NAC 445B.250)

The Permittee shall provide the Director written notification of:

- a. The date that construction of TU4.010 and TU4.011 is commenced, postmarked no later than 30 days after such date.
b. The anticipated date of initial startup of TU4.010 and TU4.011, postmarked not more than 60 days and not less than 30 days prior to such date.
c. The actual date of initial startup of TU4.010 and TU4.011, postmarked within 15 days after such date.

3. Operating Requirements

- a. Limitations of operation. NAC 445B.3679.3.
i. The maximum allowable batch weight for TU4.010 and TU4.011 each will not exceed 750 pounds of electrowinned material.
ii. The maximum allowable batch weight for TU4.003 will not exceed 600 pounds of electrowinned material
iii. The maximum allowable batch weight for TU4.004 will not exceed 400 pounds of electrowinned material.
iv. Mercury emissions from System 3 shall not exceed 9.2x10^-4 grains per dry standard cubic foot (gr/dscf).
v. Hours
(a) All units in System 3 may operate 24 hours per day.
(b) TU4.010 and TU4.011 each may operate a total of 8,760 hours per calendar year.
(c) TU4.003 and TU4.004 combined may operate a total of 3,000 hours per calendar year.



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# MERCURY OPERATING PERMIT TO CONSTRUCT

Issued to: Barrick Cortez, Inc.

## Section II. Specific Operating Conditions (continued)

### C. Thermal Units TU4.010, TU4.011, TU4.003 and TU4.004 (continued)

- b. Work practices. NAC 445B.3679.3.
  - i. Carbamate Chemical UNR-811 Mercury Precipitant shall be added to the process solutions in the pregnant ponds and SAG Mill upstream of System 3.
  - ii. Retorts (**TU4.010 and TU4.011**)
    - (a) During heating **TU4.010 and TU4.011** shall be placed under negative gauge pressure greater than or equal to 100 mmHg.
    - (b) Electrowinned material shall be retorted in pans specified by the retort manufacturer and not exceed the volume capacity specified by the manufacturer, per pan.
  - iii. Mercury Condenser System (**MC-001**)
    - (a) The maximum exhaust gas temperature at the discharge of the second stage condenser of **MC-001** shall not exceed 85°F.
    - (b) The water temperature exiting the chilled water tank feeding **MC-001** shall be maintained at or below 60°F.
    - (c) The water flow rate exiting the chilled water tank feeding **MC-001** shall be maintained at or above 35 gallons per minute.
    - (d) Condensed mercury from **MC-001** shall be collected monthly.
  - iv. Furnaces (**TU4.003 and TU4.004**)
    - (a) After initial startup date of **TU4.010 and TU4.011**, only electrowinned material that has been retorted shall be fed into both **TU4.003 and TU4.004**.
    - (b) The Baghouse will be operated at all times, during the operation of **TU4.003 and TU4.004** including startup and shutdown.
    - (c) The pressure differential across **BH-001** shall be maintained within the manufacturer's specified operating range of 0.0 to 5.5 inches of water.
    - (d) Bags in **BH-001** shall be inspected quarterly for damage or leakage.
  - v. Carbon Bed (**CA-001**)
    - (a) **CA-001** shall contain no less than 3,815 pounds of sulfur-impregnated carbon.
    - (b) The pressure differential across **CA-001** shall not exceed 10 inches of water
    - (c) Replace the sulfur-impregnated carbon according to the following schedule:
      1. Conduct an initial sampling of the sulfur-impregnated carbon every calendar quarter. 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 20% by weight of the carbon loading capacity, as specified by the manufacturer, is reached. Upon reaching 70% of the 20% by weight of the carbon loading capacity, sampling of the carbon will occur monthly until 75% of the 20% by weight of the carbon loading capacity is reached. The carbon will be replaced with an equivalent performing sulfur impregnated carbon no later than 30 days after reaching 75% of the 20% by weight of the carbon loading capacity. The required mercury analysis shall be performed utilizing one of the following methods:
        - A. EPA method 6020-Inductively Coupled Plasma-Mass Spectrometry;
        - B. EPA method 7471B- Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique); or
        - C. An alternative test method as approved by the Director.
    - (d) Any sulfur impregnated carbon replaced in **CA-001** shall be replaced with only the original manufacturer's design specification sulfur impregnated carbon or an equivalent performing carbon approved in advance by the Director.



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# MERCURY OPERATING PERMIT TO CONSTRUCT

Issued to: Barrick Cortez, Inc.

## Section II. Specific Operating Conditions (continued)

### C. Thermal Units TU4.010, TU4.011, TU4.003 and TU4.004 (continued)

#### 4. Compliance, Monitoring, Recordkeeping and Testing (NAC 445B.3379.3)

##### a. Compliance Testing

- i. Within 180 days of the notification of initial startup of **TU4.010 and TU4.011** as required in C.2.a through c, of this section, **the Permittee** shall conduct and record a performance test for mercury on the exhaust stack of **System 3** consisting of three valid runs utilizing US EPA Method 29 of 40 CFR part 60 Appendix A.

##### b. Performance Testing

- i. Upon the date of commencement of operations, **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 1 to 7 month intervals, with all 6 tests completed within 3 years of initial startup. The performance demonstration period shall provide emissions data for the establishment of a final NvMACT mercury emission limit for System 3.
- 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 System 3.
- 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 upon prior approval by the Director.



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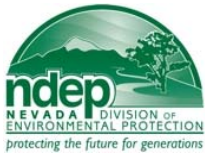
## Section II. Specific Operating Conditions (continued)

### C. Thermal Units TU4.010, TU4.011, TU4.003 and TU4.004 (continued)

#### c. Monitoring

**The Permittee**, upon issuance date of this permit, for **System 3** shall:

- i. Prior to commencement of **System 3**, install, operate, calibrate, and maintain instrumentation to continuously measure and record the following:
  - (a) The negative gauge pressure of **TU4.010 and TU4.011**, in mmHg.
  - (b) The outlet gas temperature for the second stage condenser of **MC-001**, in degrees Fahrenheit.
  - (c) The temperature of the water exiting the chilled water tank feeding **MC-001**, in degrees Fahrenheit.
  - (d) The water flow rate exiting the chilled water tank feeding **MC-001**, in gallons per minute.
  - (e) The pressure drop across **BH-001**, in inches of water.
  - (f) The pressure drop across **CA-001**, in inches of water.
- ii. Prior to commencement of **TU4.010 and TU4.011**, install, operate, calibrate, and maintain a vacuum interlock that will shut off the retort heating element if the retort gauge pressure is less than 100 mmHg of vacuum.
- iii. Prior to commencement of **TU4.010 and TU4.011**, install, operate, calibrate, and maintain a condenser water flow interlock which will shut off the retort heating element if condenser water flow is not present.
- iv. Prior to commencement of **TU4.010 and TU4.011**, install, operate, calibrate, and maintain an exhaust gas temperature alarm which will notify the operator when the exhaust gas from the second stage condenser of **MC-001** equals a temperature of 110°F or more.
- v. Prior to commencement of **TU4.010 and TU4.011**, install, operate, calibrate, and maintain an exhaust gas temperature interlock which will shut off the retort heating element if the exhaust gas from the second stage condenser equals a temperature of 160°F or more.
- vi. Monitor the batch weight of processed material for **each thermal unit in System 3**, in pounds, for each batch.
- vii. Monitor the hours of operation for **each thermal unit in System 3** during operation, for each batch.
- viii. Monitor the amount of Carbamate Chemical UNR-811 Mercury Precipitant consumed on a monthly basis.
- ix. Monitor the gauge pressure on **TU4.010 and TU4.011**, continuously per batch during operation.
- x. Monitor the outlet gas temperature of the second stage condenser of **MC-001**, continuously per batch during operation.
- xi. Monitor the water temperature exiting the chilled water tank feeding **MC-001**, continuously per batch during operation.
- xii. Monitor the water flow rate exiting the chilled water tank feeding **MC-001**, continuously per batch during operation.
- xiii. Monitor the mercury drained from **MC-001**, monthly.
- xiv. Monitor the pressure drop of **BH-001**, continuously per batch during operation.
- xv. Monitor the pressure drop across **CA-001**, continuously per batch during operation.
- xvi. Monitor **CA-001** for percentage of mercury by weight, quarterly until reaching 70 percent capacity and then monthly until reaching 75 percent capacity.



**BUREAU OF AIR QUALITY PLANNING**

**Facility ID No. A0001**

**Permit No. AP1041-2220**

**MERCURY OPERATING PERMIT TO CONSTRUCT**

Issued to: Barrick Cortez, Inc.

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

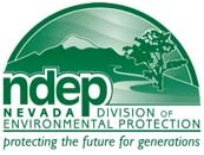
**C. Thermal Units TU4.010, TU4.011, TU4.003 and TU4.004 (continued)**

**d. Recordkeeping**

The required monitoring, established in Section C.4.c.i through xvi., shall be maintained in a contemporaneous log containing, at a minimum, the following recordkeeping:

- i. The calendar date of any required monitoring.
- ii. The batch weight of processed material for **each thermal unit in System 3** per batch load, for the corresponding date.
- iii. The total hours of operation for **each thermal unit in System 3** per batch load, for the corresponding date.
- iv. The total amount of Carbamate Chemical UNR-811 Mercury Precipitant consumed in pounds for the corresponding month.
- v. The gauge pressure on **TU4.010 and TU4.011**, based on a one-hour period, for the corresponding date.
- vi. The outlet gas temperature of the second stage condenser of **MC-001**, based on a one-hour period, for the corresponding date.
- vii. The water temperature exiting the chilled water tank feeding **MC-001** based on a one-hour period, for the corresponding date.
- viii. The water flow rate exiting the chilled water tank feeding **MC-001** based on a one-hour period, for the corresponding date.
- ix. The amount of mercury collected from **MC-001**, in pounds, monthly, for the corresponding date.
- x. The differential pressure drop across **BH-001**, based on a one-hour period, for the corresponding date..
- xi. The quarterly Baghouse bag inspection results for the corresponding date.
- xii. The pressure drop across **CA-001** based on a one-hour period, for the corresponding date.
- xiii. The percentage of mercury by weight in the sulfur-impregnated carbon, for the corresponding date.
- xiv. The depth of the sample location, for the corresponding date
- xv. The date and weight of each replacement of the sulfur-impregnated carbon bed.
- xvi. The original manufacturer's design specifications for the sulfur impregnated carbon used in **CA-001** shall be kept on site.
- xvii. The manufacturer's specified heating temperature profile for **TU4.010 and TU4.011** shall be kept on site.
- xviii. The date, time, and corrective action taken for an alarm notification or an interlock shut-down, for the corresponding date.

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



**BUREAU OF AIR QUALITY PLANNING**

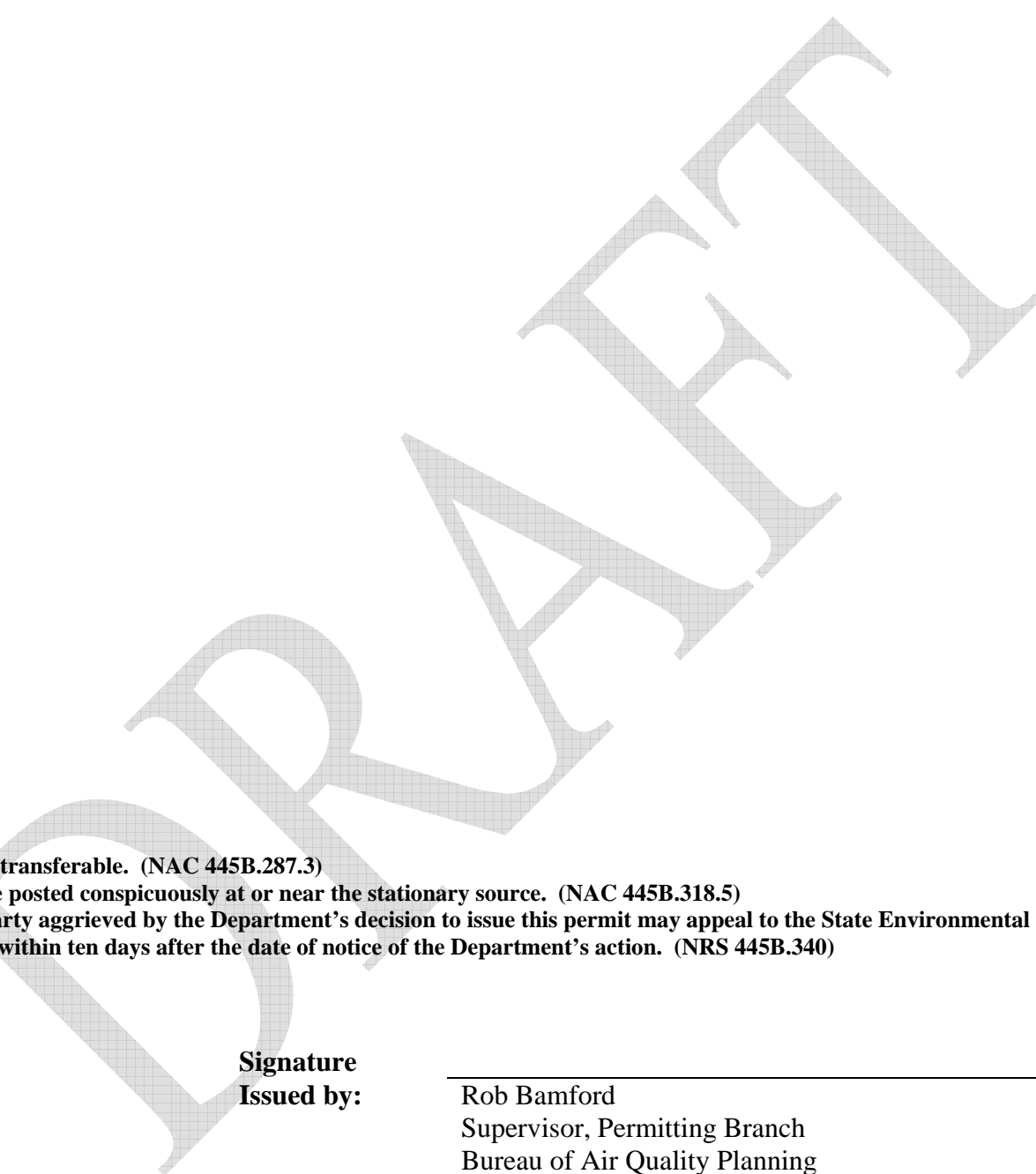
**Facility ID No. A0001**

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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:**

\_\_\_\_\_