

STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR POLLUTION CONTROL

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

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

June 7, 2011

Barrick Goldstrike Mines, Inc. – Goldstrike Mine has submitted an existing unit application for a Phase-2 Mercury Operating Permit to Construct (MOPTC) pursuant to NAC 445B.3633.1 to the Nevada Division of Environmental Protection-Bureau of Air Pollution Control (NDEP-BAPC) for a kiln, pregnant and barren tanks, three retorts, two furnaces, and electrowinning cells.

The applicable facility, located in air shed basin #61, in Eureka County is:

*Barrick Goldstrike Mines, Inc.
P.O. Box 29
Elko, NV 89803*

The NDEP-BAPC has reviewed the application and has made a preliminary determination to issue the MOPTC. The draft MOPTC consists of three systems. The first system includes a carbon kiln and two pregnant and barren tanks. The second system has three mercury retorts, and the third system has two furnaces and electrowinning cells. Each system has an emissions 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. Other permit contents include a mercury emission limit for each system.

Initial determination of proposed NvMACT mercury emissions performance for the kiln and pregnant and barren tank system, as well as the furnace and electrowinning system, is 5×10^{-3} gr/dscf mercury. Final NvMACT mercury emission limits shall be determined based on the emissions control demonstration period. Determination of proposed NvMACT mercury emissions control technology for the kiln and pregnant and barren tank system is a venturi wet scrubber, condensation tower, a 6 ton carbon bed, and a 1.65 ton carbon bed, and for the furnace and electrowinning system it is a baghouse followed by a carbon bed.

Final NvMACT mercury emissions performance limit for the retort system is: 1.0×10^{-4} gr/dscf mercury for each retort. Determination of proposed NvMACT mercury emissions control technology for the retort system is determined to be: retort separator, chilled contact condenser on each retort, and a secondary condenser, wet gas coalescer, heater, and carbon filter shared by all the retorts.

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-BAPC analyses, the agency has determined that the Barrick Goldstrike Mines, Inc. 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 Pollution Control website at:

<http://ndep.nv.gov/bapc/hg/pub.html>