

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  
Barrick Goldstrike Mines Inc.  
Operating Permits to Construct for Clean Unit Designations**

**June 13, 2005**

Barrick Goldstrike Mines Inc. (Barrick) has submitted (9) applications for (9) Operating Permits to Construct for (23) Clean Unit Designations (CUDs) to the Nevada Division of Environmental Protection - Bureau of Air Pollution Control (NDEP-BAPC). The emission units requesting CUD are currently permitted under Class I (Title V) Air Quality Operating Permit #AP1041-0739. The applications were submitted on December 16, 2004 and deemed complete on December 26, 2004. The NDEP-BAPC has reviewed the application and has made a preliminary determination to issue the Operating Permits to Construct with Clean Unit Designations. The proposed draft permits are attached to this document.

The facility is located in Elko County, Nevada approximately 27 miles north of Carlin, Nevada, adjacent to State Route 766. Legal location of the facility is Section 29, Township 36 North, Range 50 East, (UTM coordinates – North 4,536.0 km, East 554.6 km). The principal operation constitutes a “metals mine” as defined by the two-digit SIC code “10” for the Primary Metal Industry. Because the primary metal is gold, the Barrick facility can be further classified by the SIC code “1041”, defined as “... *establishments primarily engaged in mining gold ores.*” The Barrick operation consists of the Betze/Post open-pit mine and the Meikle and Rodeo underground mines. Other activities and facilities include: gold recovery, refining, support facilities and exploration.

Barrick has chosen to pursue CUD under 40 CFR §52.21(y). To meet the applicability requirements of 40 CFR §52.21(y), each emission unit must have a control technology or work practice investment placed into service prior to March 3, 2003, but not older than 10 years, which reduces emissions better than or equal to the current day Best Available Control Technology (BACT) and the application had to be submitted before December 31, 2004. Barrick appears to have met the applicability requirements of 40 CFR §52.21(y) and has demonstrated equal or better BACT emission limits using the US EPA RBLC database. See Table 1 for a summary of proposed CUDs, applicability parameters and BACT values.

After review of the application and subsequent air quality analysis, the BAPC has determined that the proposed Clean Unit Designations may be operated without an adverse impact on air quality. The Barrick facility must comply with all State and Federal air quality requirements and all conditions established within the proposed Operating Permits to Construct for Clean Unit Designations (#AP1041-xxx1 through #AP1041-xxx9) and current existing Title V permit #AP1041-0739. The Operating Permits to Construct for Clean Unit Designations will be integrated into the existing Title V permit at the Title V permit's next significant operating permit revision or renewal; whichever occurs first.

*Table 1: Summary of Proposed CUDs*

ID#	Item	Item Description	Fuel	CUD Pollutant	Control Technology	Control Install Date	Work Practice (Value Compared to BACT)	BACT Limit (avg. from RBLC)	Current Title V Permitted Limit
S2.022	Boiler #2	Boiler	Propane	NO <sub>x</sub>	Low NO <sub>x</sub> burner	1997	6.72 lb/hr (0.056 lb/MMBtu)	0.066 lb/MMBtu	6.72 lbs/hr
S2.023	Boiler #3	Boiler	Propane	NO <sub>x</sub>	Low NO <sub>x</sub> burner	1997	6.72 lb/hr (0.056 lb/MMBtu)	0.066 lb/MMBtu	6.72 lbs/hr
S2.024	Boiler #4	Boiler	Propane	NO <sub>x</sub>	SCR	1995	3.19 lb/hr (0.013 lb/MMBtu)	0.066 lb/MMBtu	3.19 lbs/hr
S2.209.1	Roaster #1	Roaster	Sub-bi. coal, #2 fuel oil, propane, NG	NO <sub>x</sub> SO <sub>2</sub> PM & PM <sub>10</sub> CO VOC	SCR Wet scrubber Venturi wet dust scrub & wet ESP thermal oxidizer Thermal oxidizer	2000	36.81 lb/hr (0.084 lb/MMBtu) 44.90 lb/hr (0.100 lb/MMBtu) 6.00 lb/hr (0.014 lb/MMBtu) 47.08 lb/hr (0.110 lb/MMBtu) *13.00 lb/hr (0.030 lb/MMBtu)	0.270 lb/MMBtu 0.290 lb/MMBtu 0.065 lb/MMBtu 0.240 lb/MMBtu 0.030 lb/MMBtu	36.81 lbs/hr 44.90 lbs/hr 6.00 lbs/hr 47.08 lbs/hr 39.00 lbs/hr
S2.209.2	Roaster #2	Roaster	Sub-bi. coal, #2 fuel oil, propane, NG	NO <sub>x</sub> SO <sub>2</sub> PM & PM <sub>10</sub> CO VOC	SCR Wet scrubber Venturi wet dust scrub & wet ESP thermal oxidizer thermal oxidizer	2000	36.81 lb/hr (0.084 lb/MMBtu) 44.90 lb/hr (0.100 lb/MMBtu) 6.00 lb/hr (0.014 lb/MMBtu) 47.08 lb/hr (0.110 lb/MMBtu) *13.00 lb/hr (0.030 lb/MMBtu)	0.270 lb/MMBtu 0.290 lb/MMBtu 0.065 lb/MMBtu 0.240 lb/MMBtu 0.030 lb/MMBtu	36.81 lbs/hr 44.90 lbs/hr 6.00 lbs/hr 47.08 lbs/hr 39.00 lbs/hr
S2.201	Roaster primary crushing	Baghouse DC-201	-	PM & PM <sub>10</sub>	Baghouse	1999	*2.48 lb/hr (0.0068 gr/dscf)	0.0068-0.0076 gr/dscf	2.59 lbs/hr (0.0217 gr/dscf)
S2.202	Roaster 2nd crushing	Baghouse DC-202	-	PM & PM <sub>10</sub>	Baghouse	1999	1.29 lb/hr (0.0064 gr/dscf)	0.0068-0.0076 gr/dscf	1.29 lbs/hr (0.0217 gr/dscf)
S2.203	Roaster mill 1&2 feed process	Baghouse DC-203	-	PM & PM <sub>10</sub>	Baghouse	2000	1.29 lb/hr (0.0064 gr/dscf)	0.0068-0.0076 gr/dscf	1.29 lbs/hr (0.0217 gr/dscf)
S2.208	Roaster 1&2 feed process	Baghouse DC-208 & DC-209 vented through single stack	-	PM & PM <sub>10</sub>	Baghouse	2000	*0.86 lb/hr (0.0064 gr/dscf)	0.0068-0.0076 gr/dscf	1.01 lbs/hr (0.0217 gr/dscf)

\* Comparative values are requested CUD emission limits that are lower than the currently permitted Title V limits. These lower values were obtained from current NDEP-BAPC approved performance stack tests. Applicant was reminded that these lower values represent new, lower applicable emission limits for the facility (if they wish to retain CUD status.)