

Kennecott Utah Copper

Intent to Approve Number DAQE-IN0105710028-11

Dated February 2, 2011

- ***Increase the total material moved limit to match the PM₁₀SIP limit***
- ***Add a second in-pit crusher and emergency generator***
- ***Set a facility wide emissions cap on PM₁₀, SO₂, and NO_x combined***
- ***Set a facility wide emissions cap on PM_{2.5}, SO₂, and NO_x combined***
- ***Implementation of a new PM₁₀ ambient monitor***
- ***Decrease the PM10 emission limit for the two transfer points***

Regulatory Program

The Utah Division of Air Quality (DAQ) prepares and issues air quality permits under the New Source Review (NSR) Program, to construct and operate process units and equipment that are sources of air pollution. These permits are called Approval Orders or AOs. Any modification to a facility operation or a process unit requires the company to obtain a new AO to address the changes in operation or emissions.

Source Description

Kennecott Utah Copper LLC (KUC) produces copper and by-products: gold, silver, sulfuric acid and molybdenum from the ores of the Bingham Canyon Mine.

Intent to Approve

Intent to Approve DAQE-IN0105710028-11, proposes changes to Bingham Canyon Mine (BCM) equipment and operations. DAQ has reviewed these requested changes and determined they will have minimal impact on air quality and continue to meet the permitted levels that are set to protect public health. The changes are identified below:

Modify AO DAQE-AN-0105710023-08

Kennecott Utah Copper LLC (KUC) has requested some modifications to the language in their AO for the BCM to allow for an increase in the material movement limit from 197,000,000 to 260,000,000 tons of ore and waste rock combined per 12-month period. This limit will be modified to match the material movement limit in the PM₁₀ State Implementation Plan (SIP). There are also two limits for mobile source sulfur emissions that are in the AO and the PM₁₀ SIP, (One limit restricts SO₂ emissions to 97 TPY and the other limit restricts the sulfur content in the fuel to 0.03 lbs per million BTU heat input.). These sulfur emission limits will not be modified.

NSR does not regulate fugitive and tail pipe emissions through the establishment of limits. KUC has voluntarily accepted an annual facility wide emissions cap at the BCM for PM₁₀, SO₂, and NO_x combined as well as PM_{2.5}, SO₂, and NO_x. To reduce emission from haul roads, KUC will use commercial dust suppressant on haul roads outside the pit influence boundary. KUC has also voluntarily accepted the implementation of a new PM₁₀ ambient monitor.

KUC is proposing to add a new in-pit ore crusher. This second crusher will be used to crush ore as does the existing main crusher. Both crushers will be equipped with baghouses to control particulate emissions. Both the existing and new in-pit ore crushers are located within the pit influence boundary. KUC is also proposing to add a 71 BHP propane fired emergency generator.

The existing baghouses at the C6/C7 and C7/C8 transfer points will be upgraded. The upgrade will result in a decrease in particulate matter from point sources. The point source emission increases and decreases, in tons per year (TPY), associated with this modification are estimated as follows: $PM_{10} = -8.04$, $PM_{2.5} = -3.13$, $NO_x = 0.05$, $SO_2 = 0.0001$, $CO = 0.21$, and $VOC = 0.01$. The potential to emit emissions (PTE) from KUC BCM accounts for those emissions escaping the pit influence boundary. For emission sources located within the pit influence boundary, a pit escape factor of 20% was included in the calculation of PM_{10} emissions. An escape factor of 21% was included in the calculation of $PM_{2.5}$ emissions. The PTE for point sources in TPY at the BCM are estimated as follows: $PM_{10} = 6.28$, $PM_{2.5} = 2.60$, $NO_x = 1.17$, $SO_2 = 0.0002$, $CO = 10.6$, and $VOC = 0.20$.

Public Comment:

The Intent to Approve is available for viewing at:

<http://www.airquality.utah.gov/Permits/DOCS/IN0105710028-11.pdf>

or at the UDAQ office located at:

Utah Division of Air Quality
150 North 1950 West
Salt Lake City, Utah.

The comment period for this action started on February 6, 2011 and will close on March 8, 2011.

A public hearing on the Intent to Approve will be held on February 22, 2011 at 6:00 pm at the Utah Air Quality Board room #1015, located at 195 North 1950 West Salt Lake City, Utah.



Utah Department of
Environmental Quality
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