Salt Lake Chamber
Utah's Business Leader ™

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February 15, 2011

Utah Division of Air Quality
P.O. Box 144820
Salt Lake City, UT 84114-482

To Whom It May Concern:

On behalf of the Salt Lake Chamber and the more than 6,000 businesses we represent, I wish to express our support for the proposed Cornerstone project of the Bingham Canyon Mine.

Rio Tinto, and its predecessors, have long played an important role in our state and national economy. Each year Kennecott Utah Copper produces nearly 25 percent of America's refined copper supply, which is used for building construction, transportation, industry, computers and electronics, as well as advanced green technologies. The combined economic activity at the Bingham Canyon mine and related facilities has sustained more Utah households than any other private Utah firm.

According to the University of Utah's Bureau of Economic and Business Research department (BEBR), Rio Tinto spent approximately $900 million in 2009 on employee salaries and benefits, taxes and fees, as well as purchases from nearly 1,000 Utah companies. Clearly it has a significant impact on our state economy. The BEBR also concluded that if the Cornerstone investment is not made, the economic impact of Rio Tinto in Utah will decrease by an average of $630 million annually beginning in 2021. Extending the life of the mine with the Cornerstone expansion will generate an average of $1 billion a year into the local economy through the mid 2030s. That is a critical foundation for our state economy.

Beyond its economic impact, Rio Tinto has shown tremendous leadership in environmental stewardship. While the mine itself presents some environmental challenges, we have every reason to be confident Rio Tinto will continue to be a responsible member of our community. Rio Tinto has recently announced an upgrade to its power plant that will help our air quality, committed to continue building high efficiency buildings, implemented a voluntary no idling policy, been a participant in such programs as Salt Lake City's Clear the Air Challenge, and received many environmental recognition awards. This is only a sample of their commitment to our environment and quality of life.

Rio Tinto is working directly with the Salt Lake Chamber to help implement a business-led Clean Air initiative. The goal of this clean air program is to educate the public about the causes of pollution, share best practices for clean air initiatives and generate significant business support to implement clean air friendly behaviors and measures. Rio Tinto has

generously provided leadership, financial assistance, countless hours of staff volunteer time, and provided the Chamber with a loaned executive to help further this initiative.

The proposed Cornerstone project at the Brigham Canyon Mine will be a significant benefit for our state. We are confident that Rio Tinto will responsibly manage the potential environmental impacts and continue to proactively decrease its overall environmental impact. I strongly support this proposed expansion.

Sincerely,

Lane Beattie
President & CEO

CC: Gina Crezee, Rio Tinto

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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FEB 25 2011

Ref: AP-AR

Cheryl Heying, Director
Division of Air Quality
Department of Environmental Quality
P.O. Box 144820
Salt Lake City, Utah 84114-4820

Re: Revision to State Implementation Plan to Allow for Increase in Material Movement at Bingham Canyon Mine

Dear Cheryl:

EPA has reviewed Utah's proposed revision to the Utah State Implementation Plan (SIP), Emission Limits and Operating Practices, Section IX.H.2.h and to Rule R307-110-17, Section IX and Part H, including the Technical Support Document (TSD) prepared by Kennecott Utah Copper LLC. The proposed SIP revision is in public comment period until March 3, 2011. The purpose of the proposed revision is to allow an increase in the annual amount of allowed material movement at Kennecott's Bingham Canyon Mine (BCM). EPA has also reviewed Utah's "Intent-to-Approve" (ITA) (permit DAQE-IN0105710028-11, dated February 2, 2011) and associated "New Source Plan Review," which would allow the same increase. The ITA is in public comment period until March 8, 2011. Kennecott is requesting the State to increase the maximum allowed amount of ore and waste material moved to 260 million tons per year (tpy) from 197 million tpy. We are providing comments (enclosed) on several issues concerning the proposed SIP and permit revisions for your consideration.

Our primary concern is EPA's obligation under Clean Air Act (CAA) section 110(l) that EPA "shall not approve" a SIP revision if it would interfere with any applicable requirement concerning attainment and reasonable further progress or any other applicable requirement of the CAA. This concern is pertinent not only to attainment of the PM_{10} National Ambient Air Quality Standard (NAAQS), but also other NAAQS. Relevant to the 110(l) requirement, we have concerns regarding the adequacy of: 1) air quality modeling; 2) analysis of emission offsets; and 3) support for emission factors. Our preliminary determination supported by the enclosed comments is that the proposed revision for Kennecott's BCM expansion will not be approvable. However, this determination should not be considered our final decision. Our formal analysis will occur through public notice and comment rulemaking after we receive a SIP submittal from the State.

In a previous comment letter sent on January 8, 2010, concerning the December 2009 revisions to the Approval Order for the proposed BCM expansion, we clarified that the federally enforceable limit is 150.5 million tpy as contained in the 1994 PM_{10} SIP. Additionally, in December 2009 EPA proposed to disapprove the 2005 PM_{10} SIP submittal. In that proposal, we identified modeling deficiencies, enforceability issues, and other concerns. Many of the issues discussed in our December 2009 proposed action are related to this proposed Kennecott SIP revision currently under consideration. We also expressed concerns in 1999 about the lack of ambient air quality impact analysis and inadequate explanation of emission offsets for a previous State-allowed increase, from 150.5 million tpy to 197 million tpy.

We appreciate the opportunity to provide comments. If you have any questions, please contact Monica Morales, Chief, Air Quality Planning Unit at 303-312-6936 or Catherine Roberts, Particulate Matter Program Manager at 303-312-6025.

Sincerely,

Deborah Lebow Aal
Acting Director
Air Program

Enclosure

cc: Amanda Smith (UDEQ)
Stephen Smithson (Rio Tinto)
Terry Marasco (Utah Clean Air Alliance)

ENCLOSURE

Lack of an Analysis Demonstrating Impact on the National Ambient Air Quality Standards (NAAQS)

Section 110(l) of the Clean Air Act (CAA) provides that EPA shall not approve a State Implementation Plan (SIP) revision if it would interfere with any applicable requirement concerning attainment and reasonable further progress or any other applicable requirement of the CAA. This provision is relevant not only to PM_{10}, for which the area remains nonattainment, but to all NAAQS. The Technical Support Document (TSD) and other documents for the proposed Kennecott SIP revision contain inadequate analyses for PM_{10} and do not include an analysis of whether emissions associated with the Bingham Canyon Mine (BCM) expansion would interfere with other relevant NAAQS. Regarding other NAAQS, we note that the Wasatch Front is non-attainment for $PM_{2.5}$. Ammonium nitrate comprises more than 50 percent of the measured $PM_{2.5}$ on days that exceed the 24-hour $PM_{2.5}$ NAAQS and increased NO_x emissions resulting from the BCM expansion will contribute to increased ambient concentrations of ammonium nitrate in the basin. This could result in more severe exceedances of the 24-hr $PM_{2.5}$ NAAQS thereby preventing attainment. The Wasatch Front also has exceeded the current 8-hour average ozone NAAQS of 75 ppb during 2007-2009. Thus, increased NO_x emissions at the BCM could contribute to the severity of exceedances of the ozone NAAQS. Any 110(l) analysis should also evaluate potential impacts on the nitrogen dioxide NAAQS.

Section 110(a) of the CAA requires SIPs for the protection of national primary and secondary ambient air quality standards, including provisions for stationary sources of emissions. Utah's pre-construction permitting rules were adopted into the SIP to carry out the intent of CAA section 110. Those rules include provisions for evaluating the ambient air quality impact of a proposed emission increase before issuing a permit to allow the increase. No analysis of the ambient air quality impact of an allowed increase in material movement and the associated emission increase at the BCM is presented in Utah's "New Source Plan Review (NSPR)." Instead, the NSPR states that "The BCM is located in a non-attainment area for PM_{10}. UAC R307 does not require ambient air quality modeling in non-attainment areas." This statement does not relieve Utah of the requirement in its SIP-approved permitting rules to evaluate the ambient air quality impact of an allowed increase. As we pointed out in our June 30, 1999 comments on Utah's Intent to Approve (ITA) for a previous increase (from 150.5 million tons per year to 197 million tons per year), the SIP-approved rules at R307-1-3.1.8 require the State to determine, prior to issuing the permit, if the "proposed installation [in this case, the material movement increase that would be allowed] will meet the applicable requirements of … National Primary and Secondary Ambient Air Quality Standards" and "the State Implementation Plan for the area, if the area is classified as a nonattainment or maintenance area." We note that Kennecott did present a modeling analysis for the proposed increase. Our comments on that modeling are below.

1) Inadequate Air Quality Modeling

Kennecott's CALPUFF analysis in the TSD indicates that the expansion to 260 million tpy would result in a maximum modeled 24-hour PM_{10} concentration of 147.68 ug/m^3 (24-hour PM_{10} NAAQS is 150 ug/m^3). The modeling analysis only included PM_{10}, did not consider other NAAQS, and was based on the 2005 UAM-AERO modeling effort. Our proposed disapproval of the 2005 PM_{10} maintenance plan was based, in part, on issues with the UAM-AERO modeling analysis. Thus, the current modeling is also inadequate for some of the same reasons cited in our proposed disapproval of the 2005 PM_{10} maintenance plan, including the modeling of banked emissions as though they will be emitted from Kennecott's 1,200 foot stack. We are also concerned that Kennecott's modeling analysis uses relative response factors (RRFs) based on total PM_{10} mass without evaluating the RRFs for components of PM_{10} as required by modeling guidance. Furthermore, there is insufficient information for both CALPUFF and AERMOD simulations described in the TSD which supplemented the UAM-AERO model. Our conclusion is that the combination of CALPUFF simulations with UAM-AERO is insufficient, and we recommend that the impacts of the BCM expansion be evaluated using new CMAQ model simulations currently being developed by the State for the $PM_{2.5}$ attainment plan and additional AERMOD simulations with updated emissions data.

2) Inadequate Analysis of Emission Offsets

The TSD states that the total emissions increase from PM_{10} and NO_x is 5,417 tons and proposes to use banked SO_2 credits as offsets. These SO_2 credits are from the Kennecott smelter located approximately 25 miles away from BCM, and associated emissions were emitted from a 1200 foot stack. As a preliminary matter, we note that we have previously asked the State to provide evidence to validate the credits and identified concerns with the 1994 PM_{10} SIP's offset provisions.

Assuming the banked credits are valid, we are still concerned because the PM_{10} and NO_x emissions at BCM are not being emitted from a 1200 foot stack but rather at ground level and at a significant distance from the smelter stack. The proposed interprecursor trade of banked SO_2 emissions from the smelter for increases in NO_x at BCM has not been modeled. Without modeling, it is not clear there is a valid means to show non-interference under CAA section 110(l).

We also note that the NSPR does not discuss the need to obtain emission offsets, indicate that the required offsets have been obtained, specify where the offsets were obtained, or verify that the offsets are enforceable. Without such analysis, we are unable to conclude that the offsets satisfy the requirement of R307-403.

3) Insufficient Information for Emission Factors

Kennecott uses a pit escape factor to estimate the portion of particulates that do not settle in the pit (20% for PM_{10} and 21% for $PM_{2.5}$). It is based on a study with which we have serious

concerns - *Airflow Patterns and Pit-retention of Fugitive Dust for the Bingham Canyon Mine* (Bhaskar and Tandon, 1996). Our concerns are as follows: 1) Most of the model sensitivity simulations were only performed at the pit bottom which could underestimate the amount of particulate released from sources that are located at other locations in the pit; 2) The TSD lacks source location information to verify that the pit escape factor has been appropriately applied; 3) The study does not compare model-simulated concentrations to monitoring data; and 4) The TSD lacks information to verify that the pit escape factor has not been applied in addition to model calculations that account for the pit topography, essentially overestimating the effect of the pit and underestimating the impact to air quality.

To: M. Cheryl Heying & all Whom it Concerns
at the Utah Division of Air Quality,

I am writing this letter as a concerned citizen of Herriman. I completely oppose the Cornerstone expansion of Rio Tinto/Kennecott. We moved our family to Utah from Southern California three years ago for a better quality of life. We are close to family & we all enjoy the outdoors which is what led us back to Utah. We were shocked & appalled that 51 days out of the year the air-quality was deemed unhealthy for elderly & children. We were also shocked that the Utah Division of Air Quality would even consider allowing this project to go ahead when the air-shed is already full. Not only has Rio Tinto/Kennecott destroyed the beautiful Oquirrh mountains, but they are destroying the health of everyone in S.L. County. I feel that the amount of $'s they generate can never make up for the devastation they are causing. I also know that this state generates way more income from tourism than from Rio Tinto. I can assure you there are people from all over this country that will choose to

Vacation in Colorado or Idaho when they keep hearing that Utah has the worst air-quality in the country. Needless to say our families return to Utah has been bitter-sweet. I was at the public-hearing at the DAQ & was so disappointed that Rio-Tinto/Kennecott could only talk about money. I plead with you as an agency that is supposed to protect the health of Utah's citizens that you deny the request of Rio Tinto/Kennecott.

Sincerly,

Patricia A. Stanton

[redacted]