

## Public Comments Received On Kennecott Bingham Canyon Mine

The following comments have been received either in writing or by e-mail during the public comment period. Although DEQ is not required to post these comments on its website, it has done so to aid the public discourse.

These comments have been made to the Planning Section for the rules change and have been included in the AO revision.

Thomas E. Bingham, President

As the President of the Utah Manufacturers Association, I am pleased to publically support Rio Tinto's Kennecott Utah Copper Cornerstone Project. UMA believes extending the life of the mine will continue to impact the state of Utah in a positive manner both economically and by providing high-paying safe jobs in both mining and manufacturing.

The manufacturing sector is the backbone of the state's economy. The manufacturing industry in Utah is successful in part because of the more than 100 year contributions of Kennecott Utah Copper. We know and acknowledge that Kennecott is Utah's largest exporter and the second largest copper producer in the United States.

We recognize that for more than 100 years, Kennecott has been a leading manufacturer in Utah with historic production of 18.7 million tons of copper from the Bingham Canyon Mine. They continue to support the Utah economy every year by manufacturing approximately 300,000 tons of copper, 500,000 of gold, 4 million ounces of silver, 25 million pounds of molybdenum, and 1.1 million tons of sulfuric acid, a by-product of the smelting process.

Copper is vital to modern life. It is necessary for building construction, transportation, industry, computers and electronics, as well as advanced green technology, such as solar panels, wind turbines and hybrid cars. Copper supports many other industries that enable our state to thrive and continue to grow.

By extending the life of the Bingham Canyon Mine, Utah could effectively maintain high-paying jobs beyond 2019. With Rio Tinto's average payroll - including benefits - of nearly \$93,000 in 2009, jobs at Kennecott are among the highest-paying jobs in Utah.

UMA recognizes that Kennecott Utah Copper is a leader in safety. With an all-injury frequency rate (AIFR) a more fraction of other industry's — including finance - AIFR in the United States, Kennecott has demonstrated that safety is a core value. We believe this safety culture has permeated the organization at every level and is a direct representation of solid leadership.

The Utah Manufacturers Association has worked closely with Rio Tinto on a number of issues and we appreciate the transparency, outreach and leadership demonstrated by Rio Tinto. KUCC was a charter member of UMA in 1905 and has continued as an industry leader in both mining and manufacturing for more than 100 years. We should do all we can to continue this proud tradition and contribution to Utah's economy.

**02-15-2011** Mark Dihlein

I am writing on behalf of Hale Centre Theatre in support of the Cornerstone Project at Rio Tinto/Kennecott. I offer this recommendation without hesitancy. While I am not in a position to comment on social/environmental concerns that may be associated with this expansion, I can say with assurance that the people behind the scenes care for our community. Rio Tinto is an organization which prides itself on improving the quality of life within its reach.

Although our example is a small one — please allow me to share how Rio Tinto has impacted Hale Centre Theatre.

Rio Tinto has been a top five corporate contributor to Hale Centre Theatre every year since 2002. This partnership is vital as ticket revenue covers only 80% of the operating budget. This gift is appreciated by 250,000 patrons annually.

In addition to cash donations, three years ago, Rio Tinto donated a Commercial Natural Gas Compressor to the Theatre. This has made a dramatic difference in the price of transportation. In addition, we now have 9 employees who drive NGV vehicles. Employees may fuel for free if they drive a NOV vehicle. This has helped in employee retention as an added benefit to the Theatre's employees. This has also clearly paid dividends in terms of keeping the air cleaner. We are proud to tout our efforts in keeping the environment clean and Rio Tinto has been it major part of that story.

Our Theatre is represented on the Salt Lake Chamber's, Clean Air Committee. It has been inspiring to watch Rio Tinto take the lead in their efforts to improve our air quality.

Finally, just a year ago, Rio Tinto accepted an invitation to have Anna Wiley (Refinery General Manager) serve on the Theatre's Board of Trustees. Anna's active participation and input continue to benefit our efforts. This is an example of Rio Tinto's desire to not just give money, but to be an active participant in growing our great state — in many different facets.

My accolades for the company are not based in the hope for future donations. This acknowledgment speaks to our long history of partnership. Our founder Nathan Hale supported his family for several years as an employee at Kennecott before he jumped into the theatre business. As evidenced, Rio Tinto has supported our efforts for several years before this project was put into motion. I am hopeful the Cornerstone Project will move forward and be profitable. Not only will it provide work for Utahans for many years — but I am confident their positive impact within our community will continue to be realized as Rio Tinto enjoys future success.

**02-15-2011** Lane Beattie

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 partner 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 an example 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 Bingham Canyon Mine will be a significant benefit to our state. We are confident that Rio Tinto will be responsibly manage the potential environmental impacts and continue to proactively decrease its overall environmental impact. I strongly support this proposed expansion.

**02-16-2011** Gary C. Curtis

I have lived in the community of Copperton for 62 years. I have had the privilege of working at the Bingham Canyon mine for 47 years as an employee and as a contractor. I have served on the Copperton Community Council for 12 years, 6 of which I have chaired the council.

I attended an open house on Tuesday February 8, 2011 that Rio Tinto/Kennecott Companies sponsored. Approximately 70 residents from our community attended the open house. Residents had the opportunity to view overlays of the proposed Corner Stone Project and discuss their concerns with Rio Tinto/Kennecott personnel. The majority of the residents that attended the open house viewed the Corner Stone Project favorably.

Rio Tinto/Kennecott is concerned about the environment and has in place a very effective environmental plan.

During the open house as I spoke with various Rio Tinto/Kennecott personnel, I asked them questions about the conveyor system that is located west of our community. As a community we have concerns about the amount of ore that will be transported along the conveyor. With more tonnage comes more dust. They explained that if necessary upgrades would be made to the sound walls that surround the C-6/7 and C-7/8 transfer stations, bag houses would be upgraded and modified to collect the dust particles.

I have seen firsthand the professional manner in which Rio Tinto/Kennecott mined the Giant Leap Project on the east side of the mine operation. The majority of the overburden from the Giant Leap Project was transported by haulage trucks down Bingham Canyon and dumped approximately 2 1/2 miles west of our community. The Copperton Community Council has met

with Rio Tinto/Kennecott on a regular basis and discussed the concerns of the community. Rio Tinto/Kennecott always returned to our council in a timely manner and explained what measures they would implement to correct any deficiencies.

If the Rio Tinto/Kennecott Companies secures the necessary permits and continues with the proposed Corner Stone Project I am confident they will continue to be an excellent neighbor and operate the Bingham Canyon mine in a professional and ethical manner.

**02-17-2011** Dan W. Peay

The Magna Community Council is registering its support of the new Kennecott Utah Copper's Cornerstone Project.

Kennecott Utah Copper has been a taxpaying entity in the Salt Lake Valley for over a hundred years, providing decently paying jobs for workers who, in turn, have contributed to the enhancement of the valley's larger workforce by utilizing its retail and service industries.

We are well aware of KUC's largesse in support of various charities and community projects and organizations, such as the local schools and our own Magna Ethnic and Mining Museum.

Over the years, when issues have been pointed out to the company, it has made sincere efforts to become more sensitive to broader environmental needs, and to improve the environmental quality of air, water and land affected by their various levels of production, and we trust that the company will continue to honor their unwritten civic contract to maintain a healthy quality of life among the citizens of the county and state.

Finally, a popular awareness of investment could provide a lift out of the economic despondency caused by the national and international events of the past few years.

For these reasons the Magna Community Council supports the Cornerstone Project.

**02-18-2011** Rob Campbell

My name is Rob Campbell, President and CEO of Wheeler Machinery Co. We are the Caterpillar earthmoving equipment dealer for Utah and parts of surrounding states. Wheeler employs 582 people, 570 of whom reside in Utah, and 500 of whom live along the Wasatch Front. We have a vested interest in the economic viability and environmental sustainability of our community. In 2011 Wheeler will celebrate its 60th anniversary. We have been an integral part of Utah's business community and plan to be here for many years to come.

I would like to comment in support of Kennecott Utah Copper's Cornerstone Project. Kennecott has been our company's largest customer for many years. We provide Kennecott with many of the large mining trucks that carry copper ore. We also provide much of the equipment that builds and maintains mine operational areas. On any given day, Wheeler will have between fifteen and twenty people working at the mine site. In addition, close to fifty people, or one out of ten employees, at our main office in Salt Lake are working to support Kennecott mine operations by rebuilding machines and processing parts orders. Kennecott's success and growth is vital to Wheeler's success and growth.

I would also like to comment on Kennecott's role in the community and its environmental record. I have been involved with the mining industry for 33 years. In my experience, miners generally, and Kennecott in particular, are great stewards of the land and do more to protect and improve the

land than any other group of which I am aware. Over the past twenty years Kennecott has spent more than half a billion dollars on environmental cleanup and remediation. Kennecott certainly ranks at the top of the mining companies we deal with in terms of concern for the environment and action taken to mitigate environmental disturbance as a result of mining activities.

It would be difficult to overstate the importance of Kennecott to Utah's economy. When the mine shut down operations temporarily in 1982, the economic impact to the Wasatch Front was devastating. Conversely, when the mine reopened in 1984, the Wasatch Front economy came to life and began to grow as well. When Kennecott prospers, the local economy prospers as well. I would suggest that the single most significant thing our state could do to promote good paying jobs and economic growth along the Wasatch Front is to approve the Cornerstone Project.

My sincere hope is that state regulators will consider the vital role Kennecott plays in the local economy, Kennecott's leading role in improving previously mined lands and improving air and water quality, and the many families whose lives are better because Kennecott is here.

**02-21-2011**      Bart Warner

I am writing this Letter to express my concern over the possibility of KUC not receiving permission to expand the South wall of their mine. I'm the CEO of the Warner Truck Center, representing Freightliner, Western Star, Trail King and several other manufactures of heavy trucks and equipment.. We employ over 300 people in Utah, several of which work as sublet contractors to help our company run the KOS (Kennecott Operating Services) shop In West Jordon. This shop services the "White iron" (trucks that go out of the mine on the public roads). The newer trucks require training and equipment to operate the 32 on and off board diagnostic computers necessary to maintain the trucks making it more efficient for KUC to subcontract the maintenance of the trucks to dealers who represent the manufacturers of the trucks they buy. As a company who does business with KUC in and out of the mine, I feel that we have a unique perspective on how this company operates and how It affects our community.

I believe that If KCC is not allowed to expand their mine that the negative consequences to our local economy and the people in this community would be far greater than the general public might perceive to them to be. A few of the reasons that I feel this way are as follows:

1. I have recently experienced how desperate our neighboring states are to create new jobs. A major vendor to our heavy trucks and the equipment that KUC uses in the mine was ready to purchase land in our 100 acre truck center to build a \$10 million dollar facility to remanufacture their products. However, when the state of Colorado heard that they were close to making that commitment in Utah, they offered them and incentive package with tax credits and incentives in excess of mid six figures (to be paid by the taxpayers of Colorado) if they would move the operation to Denver with a minimum requirement that created at least 20 new jobs. They also threw in some additional Incentives for future years. From a sheer economical perspective, they could not resist the offer so the new building is now under construction in Denver.
2. I believe that the ratio of one KUC job creating or influencing five others In the community is not only accurate, but certainly not something to take lightly - especially with the economic challenges we all face. It's easy for some to say they don't want more industry— but what is their solution to fund the needs of the state and provide good jobs without it?
3. As a dealer of heavy trucks, using diesel engines, I am very aware of what the EPA has required our industry to do to reduce emissions. I recently asked a Californian who owned a Prius which vehicle emitted more emissions — his Prius, or a new Class 8 diesel tractor? He immediately responded, 'The diesel truck!' I then asked how much carbon and nitrous oxide was

emitted from the Prius — he did not know. I told him that a 500 HP diesel engine in a new heavy truck now only puts out 2 parts per million of carbon, which would mean that the air coming out of that diesel engine was cleaner than the air in the largest 50 cities In America! He was not only amazed, but he had no idea how clean and quiet the new engines were. The technology to accomplish this feat has come at a high price - which KUC is paying to operate trucks that literally become "air recyclers` on smoggy days in the Salt lake valley.

4. KUCs focus on SAFTEY is amazing. Their top three Incentives are: Safety, Safety, & Safety! One time I took my hard hat off while in the mine — in a shop building to adjust the headband. However, before I could get it back on — sirens went off and two individuals who had seen me on their video camera's came over to explain the fact that it was not acceptable to remove a hard hat at any tine while in the mine — or I could be replaced by another vendor who would comply. Their influence on our company to become a safer place to work has been substantial.

I believe that KUC really does care — not just about preventing accidents — but what their operations do to our community. We deal with several thousand different customers. I don't know of many if any companies like KUC who have the ability to create more local jobs that have a future with an opportunity for pay that is far above the average in the state. I believe that the biggest liability to a company like this causing them to not being able to continue providing jobs would be that they are hit with unreasonable demands promoted by those who have selfish interests that scare people in our community with incorrect information. My hope is that the request to expand the mine will be approved so that we can continue to have one of the most economically viable companies that Utah has ever known continue investing in our state and in our people with high paying jobs that are safe and have a ripple effect to create many other jobs in our community.

**02-22-2011** Kristine Wadsworth

I am writing to ask you to take whatever measures you can to IMPROVE the air quality we have here along the Wasatch front. I am unable to attend the hearing today, but am watching with great concern what the outcome will be of Rio Tinto's request to increase its permitted PM10 emission limits. It is my understanding that they have applied for approval of a 32 percent increase in overall production of PM10 emissions. As a citizen of Davis County, I am aware that Salt Lake and Davis counties already do not meet the federal standards for PM10 emissions . As a mother of a child with asthma, I am even more aware of the air quality each and every day. I plead with you to move the standards for any sort of pollutants to a stricter code rather than in the opposite direction. Please do not approve Rio Tinto's request.

**02-22-2011** Nicole Kippen

To Whom it may concern:

As a resident of SLC, I am very concerned about our air. Please work toward better air quality by holding Rio Into accountable.

Rio Tinto emits about 14,500 pounds of air pollutants per employee, far more than any other business in the state. Currently Rio Tinto provides less than one fourth of 1% of the jobs in SL and Utah Counties, but about 30% of the pollution.

The mine expansion would provide jobs for only a few hundred employees at best. Meanwhile, the air pollution impacts would be felt by about 1.8 million people and would curtail other economic and business activity, costing jobs with other potential employers. That is a grossly distorted risk/benefit ratio.

Rio Tinto made a profit of 14.3 billion dollars last year, despite a depressed

worldwide economy. They can afford to make their entire operations much cleaner and live within their current pollution limits.

The Bingham Pit is the largest mine in the world. There is no other mine anywhere near this large, this close to this many people, as Rio Tinto has acknowledged.

Therefore, Rio Tinto should be required to control their pollution more tightly than anywhere else, and again, live within their current pollution limits.

**02-22-2011** Sean Barlow

I live in Utah county but I have been to the copper mine for tours. The copper industry is big right now. Copper costs about \$4.36/lb. Not only is copper used in electrical wiring it is used in most data communication cables such as Cat5E, Cat6, Coaxial and others. Large buildings are required to have a copper grounding plate buried in the ground. The entire roof of Utah Valley University is made of copper for this purpose. Copper is also used in many types of pipes. With the amount of growth the world is currently in, the copper industry will only continue to rise.

My point is not to give a lesson about copper but show that it is a necessary commodity in our world today.

Kennecott gives a lot of money back to the community

<http://www.kennecott.com/library/media/KUC%20VC%20Foundation%20Release.PDF>

They say they have 2400 employees. If some of those employees had to be given time off because there is not enough work to do then our own economy will suffer. The company's request for expansion will give the Utah economy about \$1,000,000,000.

In these trying economic times our state cannot afford to lose such a great investment.

**02-22-2011** Starr Hailey Campbell

Kennecott Hearing Feb 22, 2011

- My name is Starr Hailey Campbell and I am the President of the Magna Town Council.
- Thank you for the opportunity to comment on this important matter.
- If you are unable to attend both hearings, state that you wish your comment to be entered into the record for both matters.
- Kennecott is valuable community partner with Magna. They support our community programs both with donations and attendance. We have a large group of our population in Magna that are either employed there now or have been employed there in the past.
- We value these jobs in these tough economic times, and we want these jobs to be available for a very long time. Kennecott provides jobs to over 2,400 employees with an annual economic contribution of \$900 million
- In 2010, Kennecott contributed over \$1.3 million to more than 150 community organizations.
- In addition to corporate contributions, the Kennecott Utah Copper Visitors Center Charitable Foundation, funded by proceeds collected at the mine's Visitors Center, has given more than \$2.4 million over 19 years to help the poor and needy, with an emphasis on the disabled, children, veterans, homeless and the elderly.
- Kennecott has shown continued leadership in building high efficiency buildings and promoting energy initiatives to reduce its carbon footprint and dependence on traditional energy sources.
- Kennecott oversees the Inland Sea Shorebird Reserve, which provides feeding, staging and breeding habitat for thousands of migratory birds on the south shore of the Great Salt Lake. The 3,670 acre reserve is one of the largest wetland mitigation

banks in the United States.

- I urge you to approve this permit without further delay. Delays in the permitting process are very disruptive and costly to business. Utah companies compete in an international marketplace and compete for limited capital. Their ability to deliver timely projects is critical. In this environment it is necessary that permits are reviewed in accordance with the established process and in a timely manner. Any unnecessary delays or arbitrary requirements put Utah manufacturers at a disadvantage in a competitive global marketplace.
- As demonstrated by the public documents this project has been through a thorough and robust technical review.
- In addition to the regulatory process, Kennecott has demonstrated good faith in
- proactively engaging the community regarding this project.
- Anytime the Magna Community has questions about health safety and environmental impact we are able to go to Kennecott and get the answers quickly and completely.
- The Magna Town Council is fully and completely supportive of the Cornerstone project and any permits need.
- If all regulatory requirements have been met, we urge the approval should move forward as quickly as possible.
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- Thank you for your consideration

**02-22-2011** Terry Marasco

RE: Potential Litigation and potential threats to Utah's economy emanating from questionable DAQ actions regarding Rio Tinto/Kennecott (RT/K)

Dear Amanda:

The pending actions advanced by the UT DAQ violate the UT DAQ's stated mission, the public trust, and its "commitment" to science and pollution prevention. The discussion below makes a case for violation of UT DAQ's mission setting it on a course of entangling legal problems, and setting up threats to Utah's economy.

**UT DAQ Mission** The mission of the Department of Environmental Quality is to safeguard human health and quality of life by protecting and enhancing the environment.

**Vision** A quality environment will be achieved through:

Careful, open, and fair consideration of the concern of all Utahns;  
Excellence in science, communications, and operations;  
Timely, effective, and consistent response to all customers; and,  
Actively promoting pollution prevention

**BACKGROUND:** Rio Tinto is restricted from mining more than 197MM tons of material per year by a current condition of the State Implementation Plan (SIP) for Salt Lake County. Rio Tinto is proposing that the State DAQ modify the SIP to allow for an increase in material mined to 260 MM tons of material per year – a 32% increase in mining operations.

Salt Lake County currently does not attain to the clean air standards for PM10. The SIP, then, is prepared by the State of Utah to demonstrate to the EPA a reasonable plan for re-gaining attainment status, as this is required by Federal law. The SIP is a federally-enforceable



document, and must be approved by the EPA. Once a SIP is approved, rulemaking by the State is completed so that air planning, compliance, and permitting efforts support the goals of the SIP. The SIP, then, is the cornerstone of building an effective plan for PM10 emissions so that the air quality of the County improves and eventually meets the federal clean air standards.

**LACK OF PROMOTING POLLUTION PREVENTION:** There are concerns with the quality of the current PM10 SIP as written by the State Division of Air Quality (DAQ) and submitted to EPA for federal approval:

1. Despite the existence of the plan, Salt Lake County has encountered “excursion events” where monitoring has indicated that the County’s air exceeded the PM10 standard several times over the past several years. This indicates that the SIP as currently developed is not protective;
2. The EPA has not yet approved the Salt Lake County PM10 SIP; and,
3. EPA, in December of 2009, published their intent to disapprove almost all portions of the Utah SIP.[1] EPA will act on this recommendation by December of 2011.

**LACK OF COMMITMENT TO SCIENCE:** Despite a troubled SIP whose planning does not appear to be moving Salt Lake County closer to clean air standards for PM10 as required by federal law, and which has been proposed for disapproval by the EPA (who provides primacy authority for Clean Air Act enforcement to the State of Utah), the DAQ has proposed to allow a change to the SIP where Rio Tinto will be able to increase their production from 197MM tons to 260MM tons per year, increasing PM10 emissions by 2,035 tons per year, according to their own documents. Additionally, this PM10 (and PM2.5) number offered by Kennecott is based on a student thesis noted with many statements by the author that much more needs to be done to verify this study. The actual tonnage of PM 10 may be closer to 6,000 tons per year.

It is my understanding that the UT DAQ makes a source permit on “worst case” numbers. The student master’s level thesis states a “worst case scenario” with winds of 30 mph. First of all winds greater than 30mph are regularly seen across the Oquirrh. At a minimum, remembering the worst case may be winds of 50-80 mph, this would lead to an increase from 33% of PM10, making it out of the pit. In a more realistic worst case scenario perhaps 50% of PM10 would be released out of the pit but a new study with real field data needs to be conducted before any of these considerations are moved on.

The UT DAQ was called on by the EPA re: fugitive dust emissions before when RT/K asked for a production increase. In a letter from the EPA to the UT DAQ dated June 30, 1999 EPA (RE: ITA DAQE-357-99) stated:

“We are aware of the argument expressed by your staff that most PM10 emissions never leave the Bingham Pit Mine. While we believe this may be true for some or most of the ore hauling which occurs entirely in the pit we do not believe this is true for the projected emission increase in this permit action. ...most of the allowed increase in truck hauling will be for waste rock, not ore, which is hauled out of the pit...We would not expect fugitive PM10 emissions from that hauling to remain mostly in the pit” To Ursula Trueman UT DAQ Exec. Sec. from Richard R. Long, EPA Director, Air and Radiation Program

**LACK OF THE FAIR CONSIDERATIONS OF ALL UTAHNS:** Herein a contradiction is observed: How can the DAQ, in spite of a faulty SIP which has been proposed for disapproval,

propose to allow an additional 2,035 tons or much more of PM10 into the airshed, which already does not meet clean air attainment standards?

Additionally, concurrent with their SIP Modification Proposal Submittal (December, 2010), Rio Tinto also submitted a Notice of Intent (NOI) to change their current air permit (Approval Order, or "AO") to allow for an increase of material mined to 260 MM tons per year. Since the SIP provides the foundation for PM10 air permitting in Salt Lake County, the SIP change must first be approved. Once the SIP is changed, only then would a permit change, based on the newly revised SIP, be considered.

A public hearing has been scheduled for 3:30 PM on February 22nd, for the public to make comments on the proposed SIP modification. However, a second public hearing has been scheduled at 6:30 PM on the same day to take comments on a new AO already written for Rio Tinto (called an "Intent to Approve", or ITA document), based on the concurrent NOI submitted on the same day in December, 2010, which presumes a new operating limitation of 260MM tons.

This action is concerning, because the SIP must first be changed prior to any permits being issued based on the SIP changes. The very fact that the DAQ has allocated engineering resources and time to review, author, and "intend to approve" a completely modified AO, which is based on SIP changes which have not been made, nor have even received public comments on the change, is troublesome. This indicates that the DAQ presumes that the change will be made, and has already prepared the first permit based on the change. This points to the underlying assumption that the DAQ (and by reference, the Air Quality Board) are already planning on changing the SIP, DESPITE not yet having received any public comments, and DESPITE EPA's expressed concerns regarding the SIP.

DAQ's response may be that they are simply preparing for an eventuality of a SIP change occurring. However, their actions already contradict this argument; why would an agency who has publicly gone on record as being "strapped for resources and FTE's" assign those very critical existing resources to completing a very extensive permit process which may not even be approved due to an overriding SIP condition which disallows it? The DAQ may already have reached a conclusion to approve the SIP, and the permit based upon the change.

This is presumptive, and makes a mockery of the public process, required by law, in which the members of the public can voice their opinions on the proposed SIP change. In fact, their action may be illegal, in that they have already decided the outcome of the Board vote prior to the Board even meeting to vote on this issue. This violates public trust in the Agency, and may violate terms of due process for public hearings on the issue, which are required by State Air Rules.

**LACK OF CONSISTENT RESPONSE TO ALL CUSTOMERS:** Finally, there are many industries along the Wasatch Front who have been waiting over one or two years for permit approvals. That an action this large, involving thousands of tons of additional emissions into an airshed which already does not meet clean air standards, can be addressed in under two months, with permits already written based on a rule change which has not even yet occurred, much less publicly discussed, is incredibly disingenuous and violates every principle of service to the public as well as to industry. At a WFRC air quality committee meeting last year a participant noted that "Kennecott is dominating the airshed" and "we'll never be in compliance".

**DAQ ACTIONS INVITES LEGAL PROBLEMS:** In addition, by violating due process, the DAQ may be exposing the State of Utah to legal action which will cost the State additional monies and resources to address. It is not certain if the DAQ recognizes this potential liability that they have

created by asking for public comment on a permit they intend to approve which by law can't even be submitted until after the overarching rule (the SIP) is changed, IF it is changed.

This action is a blatant example of favoritism to a single industry, over the voice of the public, and at the expense of other industries, who's permits have been in process longer, and were inevitably delayed so as to "fast track" this permit.

**IMPACTS TO UTAH'S ECONOMY:** Other segments of Utah's economy are impacted by these maneuvers. Transportation funds may be denied if the airshed is perennially out of attainment. The Governor's projections for growth alone may keep the air shed out of attainment without any other segment's growth.

The DAQ needs to cease this process immediately. It also needs to temporarily end the review of any RT/K permits that emits PM 10 until the SIP is addressed by the EPA which is required by a ruling to occur December 1, 2011. Then and only then will the UT DAQ redeem itself in the eyes of the public and may wholly remove itself from potential litigation.

These maneuvers also move Utah closer to loss of primacy with the EPA vis-à-vis The Clean Air Act.

**02-22-2011** Troy Pitts

please help stop the worst polluters in the state. the smog is making us sicker and sicker.

**02-22-2011** Ted Himebaugh

Good afternoon. My name is Ted Himebaugh, and I'm the General Manager of Kennecott Utah Copper's Bingham Canyon Mine. I have proudly worked for Kennecott Utah Copper for 34 years, live in the Salt Lake Valley, and oversee 850 employees and 150 contractors at the mine on a daily basis. I joined Kennecott immediately after graduating from a local university as an environmental engineer. Throughout my career, I have been actively involved in helping Kennecott to operate its business with environmental stewardship and interact with many stakeholders in the Salt Lake Valley.

Nearly 8 months ago, Kennecott announced a plan for its future. The Cornerstone Project requires changes in our operation and our permits — to extend the life of the Bingham Canyon Mine from 2019 to 2028. To implement the plan, Kennecott must update a number of environmental permits and reinvest significant profits in modernizing our operations.

In August, we submitted a permit modification request to the UDAQ to modify the Mine's air quality permit. Because the copper ore needed to sustain operations is decreasing in grade and harder to reach, we need to go from 197 million tons of rock to 260 million tons, annually. We propose to do this while transitioning to more fuel-efficient, cleaner-burning haul trucks, implementing additional dust control measures such as commercial dust suppressants and reducing idling, which is a program that has been applauded by local environmental groups. Since we introduced the Cornerstone Project, a very public process has taken place leading up to this hearing. We have held 10 broadly-promoted community open houses throughout Salt Lake County in January and February to answer community questions. We have provided detailed information on our website, given dozens of community presentations and actively provided information and access to the media about our plan. We have actively engaged with many organized environmental groups that have a presence here in the Salt Lake Valley.

Since we hope to move and crush more rock, we'll need more power for new equipment. In December, we submitted another request to DAQ to convert three boilers in our power plant to combined cycle natural gas.

I mention this because, although it is a different permit than the one we are discussing here today, this upgrade would dramatically reduce Kennecott's emissions. But, we would be unable to move forward with the significant investment in cleaner technology without approval of the mine air permit as the additional power supply would not be necessary without the mine life extension. Rio Tinto has a long history of reinvesting Kennecott profits back to modernize the operation. Since Rio Tinto acquired Kennecott in 1989, Kennecott has reinvested more than 40% of earnings back into the operation including energy efficiency projects and investments in cleaner energy technologies. A few examples are — Rio Tinto spent more than \$880 million on an energy-efficient and cleaner burning smelter in 1995 and \$400 million on clean-up efforts. Kennecott's emissions and contributions to the air shed have recently been represented differently by several different sources. Based on DAQ's 2008 Statewide Air Emissions Inventory, we acknowledge that combined emissions from all Kennecott's facilities are:

- 6% of PM2.5 and precursors
- 16% of PM10 and precursors

What's important to note is that the Cornerstone Project will result in an overall estimated 9% annual decrease in particulate emissions from Kennecott.

The DAQ air particulate monitors closest to our operations — in Herriman on the south end and Magna on the north end — show the lowest ambient air monitoring results in the Valley. In Copperton, the KUC ambient air particulate monitor near operations has shown attainment since installation prior to 1995. Since installation of the monitor in Copperton, KUC has increased production, similar to this proposal, with the monitor showing insignificant changes in particulate concentration.

Cornerstone is a long-term plan to sustain the operation thereby continuing to employ 2,400 Utah Rio Tinto employees, and according to the University of Utah's Bureau of Economic and Business Research, an additional 14,800 external jobs that rely on Kennecott's operations. Our operation contributes nearly a billion dollars into Utah's economy annually in the form of jobs, taxes and purchases from 1,000 Utah area businesses.

In 2009, Kennecott produced 25% of the nation's copper supply, a supply that is critical to the economy and our way of life. Green technology such as hybrid cars, solar panels and wind turbines are highly dependent on copper as are electrical, high-tech and plumbing products. We take the needs of our business and our responsibility to meet the needs of the community seriously. We have been doing this work that we are requesting here today for 108 years and have applied the most stringent review and technology behind our proposal.

We ask today that the Utah Air Quality Board approve this Bingham Canyon Mine proposal and that UDAQ issue the Approval Order to allow a responsible company to continue to operate, innovate and provide jobs and contributions in our community.

**2-23-2011** Cody Webb

I support the Rio Tinto expansion, please don't hinder their efforts.

**2-23-2011** Chad Farnes

To Whom it may Concern:

I am writing this e-mail about the expansion at Rio Tinto's open pit copper mine. I am usually a proponent of economic development and programs or endeavors that will continue to bring jobs to Salt Lake Valley. However, I am opposed to this expansion, simply because I feel that the cost

to the air quality is too high. I love Salt Lake and feel that it is one of the best cities in the nation. However, the biggest downside to living in Salt Lake is the air quality. The air quality is awful during the winter, and I feel that something needs to happen to fix it. While I do applaud Rio Tinto for their measures which they claim will help control the air quality, I feel that the best way to improve the air quality is by not letting the Salt Lake Valley's largest polluter continue to expand so that they can continue to pollute the air that hundreds of thousands of individuals breathe.

**2-23-2011** Colby Poulson

I'm writing to voice my concern over the proposed expansion of Kennecott's Bingham Canyon Mine. Frankly I'm pretty amazed that an expansion is even being considered. Our atrocious, oft-times Nation's worst air quality speaks for itself. Any short term economic "gains" that may come from an expansion to this mine would be far outweighed by long term economic losses that will result from businesses staying away from our state due to our horrible air quality and loss of worker productivity due to illness resulting from our horrible air quality.

Of course, not all things can be quantified economically, and our policy decisions shouldn't be based on economic factors alone. Poor mental and physical health, including hundreds or thousands of deaths each year that result from our poor air quality should be reason enough to disallow any further expansion of this mine, as expansion would only lead to more ore processed, and more pollution in our air. Let's please strive for policies that improve our air quality, instead of make an already bad situation worse.

**2-23-2011** Dennis Gardner

Thank you for your service to our wonderful state. You have a very difficult job. Currently it seems there are serious conflicts between balancing environmental needs against business needs relative to Rio Tinto's business plan. I'm a local businessman and appreciate the positive attitude toward business in Utah. Having said that, I recognize that our air quality is increasingly problematic. We simply can't ignore the evidence that Utah is experiencing greater air quality issues. As much as we all want Rio Tinto to expand and fuel our economy, we just can't accept additional environmental costs. Please protect our air quality.

**2-23-2011** Gordon McWhorter

Thank you for your time and consideration. Salt Lake City has historically been at the top of U.S. cities with the worst air pollution. Those who have lived here all their lives can attest to the horror of a month long inversion. Inversions will not go away. Jobs do. Really, when you compare where Salt Lake City has been to where it is now there is a massive difference in air quality for the better. Rio Tinto is going to do everything they can to minimize the impact on our air, I am sure, but how can we even think about splitting hairs in these tough economic times?

As a long time resident of Salt Lake County I recognize the economics generated by Kennecott and say let them proceed with their proposed expansion.

**02-23-2011** Jack Sederstrom

I'm for Kennecott. Anyone who uses electronics knows copper is necessary. It's got to come from somewhere. We've got to have jobs. We need to get out of the "not in my backyard syndrome". There is a place for environmentalists, but I'd like to see them walk everywhere and not use any modern item that contributed to pollution. Then they will see that you can't live on the planet and

not pollute it unless you live under a tree with no heat, no electricity, no car, no "machine woven" cloth, no nothing. Also, inversions have always been a part of this valley ever since Brigham Young set foot here. Kennecott may not help, but it's not the only polluter. I'd wager Interstate 15 traffic pollutes more than Kennecott, but no one is saying it needs to be shut down. We can reduce our pollution, but as long as we consume we will pollute in some fashion. Without consumption, there is no economy. It's that simple.

**02-23-2011** Joe Norman

Hello, I recently saw a story in the Deseret News inviting public comment on the Rio Tinto mine expansion. I understand that the expansion would offer much needed jobs to the Salt Lake area, although I believe the economic damage of decreased air quality would have a much more harmful effect on our local economy. We have lived in Salt Lake for 8 years now, and it is frustrating and embarrassing when we hear comments from our visitors that "we would love to live here, but I couldn't stand the air quality". Often time this type of comment occurs when we're driving down one of the canyons into the grey/orange soup of pollution in the Salt Lake valley. I am certain the hypocrisy between our outdoorsy-tourism advertising and our willful environmental damage is not lost on businesses and families considering relocating to Utah.

There are weeks when we can't see the Oquirrh mountains, which are only 15 miles away from our house, because of the poor air quality. There are days when my throat and lungs hurt because of the air, and I'm a healthy 34-year old. I used to teach middle school in Sugarhouse, and we had to continually check the air quality before we could let children outside to play. Imagine, a city where it isn't healthy for children to play outside.

Please, take our health and our long-term economic well being into account and refuse to allow the Rio Tinto expansion.

**02-23-2011** Michelle Keisel

I am a very concerned Utah citizen who wants to voice my concerns over the Rio Tinto expansion. Utah's air pollution problems need to be fixed not encouraged. I am the mother of two children with asthma. The air pollution in Utah creates life threatening problems for them and that is not acceptable. We need to come up with solutions to clear the air, not encourage growth of companies that will worsen the problem. As Utah's we need to invest in companies that will promote job growth without damaging our air quality. I was frustrated by the quote of Heidi Walker in the KSL article. "This morning 100,000 people in Utah woke up wanting to go to work and could not." How many more hundreds of thousands (millions really) wanted to breathe clean air and couldn't? Yes, we need to be concerned about employment, but we have got to be more concerned about our health because without it we can't work anyway. We are responsible to clean up our air so that our great-great-great grandchildren will have clean air to breathe and maybe their children won't have to rely on a plethora of daily asthma medications to do so.

**02-23-2011** Robert H. Thompson

I would like to express my support for the proposed mine expansion and also let you know that I am confident the Rio Tinto will make every feasible effort to safeguard air quality.

I worked for Kennecott for nearly 40 years, starting in 1968. Over that period I personally saw a dedicated effort to not only meet air quality standards but to install the

best available technology to exceed current standards. Working in the finance area, I saw hundreds of millions of dollars spent on various environmental projects that have benefited our community.

I feel very fortunate to have worked for Kennecott and feel our community is very privileged to have Rio Tinto as a strong contributor to our local community as well our nation.

**02-23-2011** Ryan Mower

I support Rio Tinto for the expansion. As a son of father who had put eighteen+ years in creating the land mark and producing something we all use in our home I feel Rio Tinto's purpose is strongly overlooked. Growing up in South Jordan and now residing in West Jordan, I have seen this area grow around Rio Tinto's development. For three years I went to Bingham middle school which then stood proudly in Copperton and we always had some of the best views of the valley. I feel that the AIR Pollutants are very minimal from their operation, we have stronger issues with Geneva rock and other sand and gravel quarries along with Mascaro's that reside in Herriman for years. The largest fear with the Rio Tinto extension is the ground water. I feel however that in the past 30 years they have monitored and tried to keep a good standing with several test wells and control of their tailings. In the past 10 years they have also improved areas such as Butterfield canyon and the appearance of the tailings that are visable from across the valley. The people complaining about the expansion moved within the area Kennecott, now Rio Tinto had mineral rights for years. The same happened with people that moved close to ATK in West Valley with concerns of explosions. WHO IS THE FOOL HERE? These companies produce jobs and are a great part of our community offering jobs and scholarships to all of us and our families. They try to keep up-to-date on the latest GREEN technology. The other type of people complaining are these "enviromentalists" that yet can prove to me a better outcome and never bring an option to the table other than their own. Where do they want us to get copper and lumber for their house, gold for their jewelry, jobs for their family, places we can all have recreation and they can take their dog? I think we need to keep Rio Tinto alive for the economy and the thousands of jobs that it produces within many different companies within our state.

**02-23-2011** Terry Marasco

Cheryl, Chris Kaiser made a comment into the record yesterday that stated the mine change, digging deeper, would keep more emissions in the pit. Two things here you need to be concerned about:

1. Chris offered no substantiation for this comment
2. It is one more reason that the student thesis, outdated by 15 years, be stricken from the record.

I recommend you stop the SIP/ITA process until December 1, 2011. Ask Kennecott to withdraw the SIP modification and NOI which they can resubmitt without the student thesis after Dec. 1. Their resubmission needs to include, which they can do in the meantime a real field data study with validation and peer review.

**02-23-2011** Tim Martin

I wanted to write to ask you to please deny the permit for the proposed Rio Tinto expansion. Our air quality has deteriorated to a critical point and this expansion would increase the pollution levels in the valley significantly. I know that it would also force the EPA to enact rules that would harm existing business.

**02-23-2011** Thomas Patton

I am adamantly opposed to any expansion of mining by Rio Tinto in the Salt lake Valley. They are the number one polluter and our air quality is horrible. Upon returning to Utah five years ago I began experiencing asthma attacks for the first time in years. Now I realize these attacks correspodnd directly to bad air quality. what Rio Tinto does is having an adverse direct effect on my health, expanding thier polluting will affect thousnads more.

**02-24-2011** Joan M. Gregory

The mission of the DAQ and its Board is to protect the health of Utah's citizenry. The Rio Tinto/Kennecott expansion adds significantly to the health risks and costs of Wasatch Front communities. While you have heard RT/K staff and certain government officials state at a recent meeting the economic benefits of this project, you must strike these comments from the record as they are completely unrelated to your mission.

I completely oppose the Cornerstone expansion and wish that my comment be entered into both the SIP modification and the ITA regarding the Cornerstone expansion.

Joan

**02-24-2011** Jolynn Darton

Herriman and Daybreak are beautiful family communities with unique demographics. Over half of the citizens are children! With childhood diseases on the rise like leukemia, other cancers, asthma and other respiratory diseases, it would be foolish to consider expanding Rio Tinto/ Kennecott. I know that your major concern is the almighty dollar, but history has taught us that it's never worth the cost. Your bottom line, versus the health of every citizen in Salt Lake County. I vehemently oppose the expansion of Rio Tinto!

**02-24-2011** Leo F. Stanko

First, thank you for your time and any consideration of my concerns...



The mission of the DAQ and its Board is to protect the health of Utah's citizenry. The Rio Tinto/Kennecott expansion adds significantly to the health risks and costs of Wasatch Front communities. While you have heard Rio Tinto/Kennecott staff and certain government officials state at a recent meeting the economic benefits of this project, you must strike these comments from the record as they are completely unrelated to your mission.

I completely oppose the Cornerstone expansion and wish that my comment be entered into both the SIP modification and the ITA regarding the Cornerstone expansion.

**02-24-2011** Linda & greg clark

The mission of the DAQ and its Board is to protect the health of Utah's citizenry. The Rio Tinto/Kennecott expansion adds significantly to the health risks and costs of Wasatch Front communities. While you have heard RT/K staff and certain government officials state at a recent meeting the economic benefits of this project, you must strike these comments from the record as they are completely unrelated to your mission.

I completely oppose the Cornerstone expansion and wish that my comment be entered into both the SIP modification and the ITA regarding the Cornerstone expansion.

**02-24-2011** Linda Clark

The mission of the DAQ and its Board is to protect the health of Utah's citizenry. The Rio Tinto/Kennecott expansion adds significantly to the health risks and costs of Wasatch Front communities. While you have heard RT/K staff and certain government officials state at a recent meeting the economic benefits of this project, you must strike these comments from the record as they are completely unrelated to your mission.

I completely oppose the Cornerstone expansion and wish that my comment be entered into both the SIP modification and the ITA regarding the Cornerstone expansion.

**02-24-2011** Richard E. Kanner,

As a former member and chair of the AQB I am writing to express my opposition to the proposed Kennecott expansion. In many ways Kennecott has been a good corporate citizen but at this time the proposed expansion is ill conceived. We have had too many days on non compliance with Federal Air Quality Standards and any increase in pollutants in our air shed would only make matters worse. The mission of the DAQ and its Board is to protect the health of Utah's citizenry and to bring the State into compliance with Federal standards that are designed to protect our health. The economic consequences are not to be considered. The Rio Tinto/Kennecott expansion adds significantly to the health risks and costs of Wasatch Front communities. Those supporting the expansion cite the economic benefits of this project. However, you must strike these comments from the record as they are completely unrelated to your mission. Kennecott needs to find ways to reduce the release of air pollutants into our environment. If they can reduce an equal amount of particulate air pollution from other sources in their operations to compensate for what this project would add to our air shed then they could proceed with their plans. I completely oppose the current Cornerstone expansion project and wish that my comment be entered into both the SIP modification and the ITA regarding the Cornerstone expansion.

**02-24-2011** Steve Stanko

The mission of the DAQ and its Board is to protect the health of Utah's citizenry. The Rio Tinto/Kennecott expansion adds significantly to the health risks and costs of Wasatch Front communities. While you have heard Rio Tinto/Kennecott staff and certain government officials state at a recent meeting the economic benefits of this project, you must strike these comments from the record as they are completely unrelated to your mission.

I completely oppose the Cornerstone expansion and wish that my comment be entered into both the SIP modification and the ITA regarding the Cornerstone expansion.

**02-24-2011** Tim Halstead

The mission of the DAQ and its Board is to protect the health of Utah's citizenry. The Rio Tinto/Kennecott expansion adds significantly to the health risks and costs of Wasatch Front communities. While you have heard RT/K staff and certain government officials state at a recent meeting the economic benefits of this project, you must strike these comments from the record as they are completely unrelated to your mission.

I completely oppose the Cornerstone expansion and wish that my comment be entered into both the SIP modification and the ITA regarding the Cornerstone expansion.

**02-24-2011** Willy Marshall

I received the following solicitation to cut and paste and email to you. But I FAVOR the Cornerstone expansion, whatever it is! I sincerely doubt any "health risks" the opponents are claiming. This is just another example of radical environmental obstructionism. It is high time we developed Utah's resources in every way possible. Let the rest of the country stagnate and decline. The whole environmental premise is that "we are killing the planet". I say baloney. I am 58 years old, and I know from my own experience that this country is MUCH cleaner in regards to air, water and land than it was when I was a kid, and wildlife has not only recovered, it has become a downright nuisance in many cases. You can hardly drive anywhere in the 48 states without risking hitting a deer with your car. So whatever it is that Rio Tinto/Kennecott want to do is fine with me. They have enough hurdles to jump with the feds. They shouldn't have to jump even more with the State of Utah.

**02-24-2011** Cecilee Price-Huish

I would like to strongly voice my opposition to the Utah Department of Environmental Quality (DEQ) and the Utah Division of Air Quality's (DAQ) proposed modifications to the State Implementation Plan (SIP) regarding production limits currently placed on Rio Tinto. As a public servant given the charge of protecting the citizens of Utah, I urge you to do everything in your trusted position of power and influence to prevent a "special" exemption or modification to the SIP, which if allowed would permit Rio Tinto to add multi-millions of pounds of PM10 annually to our air shed, which as you know currently does not meet federal clean air standards for PM10 emissions.

The current limits set forth in the state-promulgated SIP were put in place in order to provide a mechanism by which the state could help lower PM10 pollution and improve overall air quality. Truly, it would be a breach of the public trust to allow Rio Tinto to increase its permitted PM10 emission limits, especially on such a grand scale, due to the pending approval (via SIP modification) of a 32 percent increase in overall production. If such measures are approved by state regulatory bodies that exist to protect air quality for the citizens of Utah, namely the DEQ and the DAQ, Rio Tinto could potentially add between 4 to 12 MILLION pounds of PM10 pollutants to its existing annual emissions.

As mentioned, Salt Lake County does not meet the federal standards for PM10 emissions – “air pollution evidenced by fine particles, 10 micrometers or smaller, that are suspended in the air which can penetrate the deepest part of the lungs and can cause respiratory distress, asthma, increased risk of heart attacks, cancer and even death (approximately 22,000 to 25,000 deaths annually in the U.S. are attributed to heightened levels of PM10).

Allowing Rio Tinto, one of the largest industrial polluters in the state, to increase its production by 32 percent, and thus its emissions proportionately, seems counterintuitive to the guidelines of the SIP. Again, the SIP is intended to assist the DAQ and the DEQ in its planning, compliance and permitting efforts in order have a mechanism by which the State of Utah can help its citizens enjoy better, cleaner air quality through attainment of clean air standards set forth by federal law.

The DAQ’s mission should be to develop an effective plan so as to help industries implement measures to improve air quality, especially if they operate in those highly populated geographical areas currently not meeting federal guidelines for clean air standards. The DAQ should not simply change the rules of the game in order to help Rio Tinto circumvent current restrictions on PM10 emissions. Industry that helps our economy grow and creates jobs is a good thing, but allowing an unprecedented increase in production (which will require a new – “special” Rio Tinto modification to the SIP), thus resulting in millions of pounds of additional PM10 pollution annually along the Wasatch Front is bad for all Utahns.

02-24-2011 Tom Patton

**I am adamantly opposed to any expansion of mining by Rio Tinto in the Salt lake Valley. They are the number one polluter and our air quality is horrible. Upon returning to Utah five years ago I began experiencing asthma attacks for the first time in years. Now I realize these attacks correspond directly to bad air quality. What Rio Tinto already does in their polluting is having an adverse, direct effect on my health. Now expanding their polluting will affect thousands more. I do not feel any tax or economic benefit this company brings outweighs the overall costs to the community in health care.**

**A recent economic study in West Virginia concluded that the states signature industry, coal mining, is actually an economic liability. The health consequences of that mining, environmental damage, and negative impact on other businesses costs the WV economy hundreds of millions of dollars more than the state receives in jobs and taxes. Could similar conclusions be made about Rio Tinto? Before any further expansion is allowed a similar study should be made.**

02-25-2011 EPA

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 R307-10-17, 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-I I, 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 PM10 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 PM10 SIP. Additionally, in December 2009 EPA proposed to disapprove the 2005 PM10 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

ENCLOSURE

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

(NAAQS)

Section 110(1) 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<sub>10</sub>, 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<sub>10</sub> 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 nonattainment for PM<sub>2.5</sub>. Ammonium nitrate comprises more than 50 percent of the measured PM<sub>2.5</sub> on days that exceed the 24-hour PM<sub>2.5</sub> NAAQS and increased NO<sub>x</sub> 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<sub>2.5</sub> 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<sub>x</sub> emissions at the BCM could contribute to the severity of exceedances of the ozone NAAQS. Any 110(1) 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<sub>10</sub>. 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 rule 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.

#### 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<sub>10</sub> concentration of 147.68 µg/m<sup>3</sup> (24-hour PM<sub>10</sub> NAAQS is 150 µg/m<sup>3</sup>). The modeling analysis only included PM<sub>10</sub>, did not consider other NAAQS, and was based on the 2005 Unn4-egnO modeling effort. Our proposed disapproval of the 2005 PM<sub>10</sub> 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<sub>10</sub> 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<sub>10</sub> mass without evaluating the RRFs for components of PM<sub>10</sub> 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 PM2.5 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 PM10 and NO<sub>x</sub> is 5,417 tons and proposes to use banked SO<sub>2</sub> credits as offsets. These SO<sub>2</sub> 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 PM10 SIP's offset provisions.

Assuming the banked credits are valid, we are still concerned because the PM10 and NO<sub>x</sub> 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<sub>2</sub> emissions from the smelter for increases in NO<sub>x</sub> 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 PM10 and 21% for PM2.5). 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.

**2-25-2011**      Bob\_Brister

I am adamantly opposed to the Rio Tinto/Kennecott expansion. Utahns should not be forced to breathe dirty air. The air is bad enough as it is and should not be made worse with this expansion. The mission of the DAQ and its Board is to protect the health of Utah's citizenry. The Rio Tinto/Kennecott expansion adds significantly to the health risks and costs of Wasatch Front communities.

I completely oppose the Cornerstone expansion and wish that my comment be entered into both the SIP modification and the ITA regarding the Cornerstone expansion.

**02-25-2011** Tim Brown,

The mission of the DAQ and its Board is to protect the health of Utah's citizenry. The Rio Tinto/Kennecott expansion adds significantly to the health risks and costs of Wasatch Front communities. While you have heard RT/K staff and certain government officials state at a recent meeting the economic benefits of this project, you must strike these comments from the record as they are completely unrelated to your mission.

I completely oppose the Cornerstone expansion and wish that my comment be entered into both the SIP modification and the ITA regarding the Cornerstone expansion.

**02-25-2011** Bob Bister

I am adamantly opposed to the Rio Tinto/Kennecott expansion. Utahns should not be forced to breathe dirty air. The air is bad enough as it is and should not be made worse with this expansion. The mission of the DAQ and its Board is to protect the health of Utah's citizenry. The Rio Tinto/Kennecott expansion adds significantly to the health risks and costs of Wasatch Front communities.

I completely oppose the Cornerstone expansion and wish that my comment be entered into both the SIP modification and the ITA regarding the Cornerstone expansion.

**02-25-2011** Terree Kay

We attended two meetings at the Utah Department of Air Quality (DAQ) on the 22nd. A great public turnout, but simply – the most appalling process we've ever encountered. Rio Tinto wants to expand their mine. It's called the Cornerstone Project. They want to 'increase' their allowable emissions. It was presented... the data Rio Tinto submitted to the DAQ for approval, was a U of U student thesis from over 10 years ago. It was not a scientific study, nor current. In addition, there was not – one – individual who stood up who had worked on any scientific study, or produced any data for Rio Tinto.

As was seen in the meetings, Rio Tinto has been - and is currently - inundating the businesses and government entities in the valley asking for their 'support' of the proposed Rio Tinto mine expansion.

They are targeting every entity who receives money from Rio Tinto in some form. As was stated, the DAQ's job is not to be the Chamber of Commerce - it is to protect our Utah air quality.

The statements and the pretty imagine campaign Rio Tinto is shoving out to the public is often incomplete and misleading.

Rio Tinto is also in the process of wanting to dump selenium into the Great Salt Lake. Again... no scientific studies have been done on the overall affects to the ecosystem, of dumping selenium into saltwater. But yet on Wednesday, we heard from a County staff member, the pipeline is eing constructed and there are no permits in place.

Bottom line – if Rio Tinto states they 'anticipate' an overall 9% - decrease - in their emissions, then why do they want a permit to 'increase' their cap from the DAQ?

Please keep in mind, Rio Tinto is a 'global' polluter. They don't care – what happens to the air, water or land in Utah. They only care if someone speaks up. They are only concerned about sustaining their business.

**02-26-2011** Randy L Crane

Your reply as to why you cannot post the requested comments from the SIP hearing are inconsistent with those stated by Nando Meli during the hearing. He was questioned as to why the permit process was allowed to proceed, without the SIP permit, which has yet to be approved. He stated that the reviewing of the permit did not affect the budget of your department as KUC paid for that activity through the fee structure. He also stated there was adequate staffing in your department to review the permit application. This should include all posting of public comment. However, now you state you do not have the resources to post the comments. I submit that your activities are not in the public interest. The permitting review process needs to halt until the SIP is reviewed and acted on by all applicable agencies. You also state that all documents that have been submitted in support of the SIP and permits are posted.

**02-26-2011** Jen Miller

I am emailing my opposition to the proposed Kennecott expansion. I've been a proud Salt Lake City resident for the past 8 years, and I love to invite out of town guests to show off the natural beauty that lies so close to our city. Unfortunately, when I had friends visit this past winter, much of what they saw was smog. I'm also an asthmatic. I worry about the long-term effects our valley's air pollution on Salt Lake's residents. How many children end up with asthma because of the pollutants in our air? How many elderly people have their lives cut short because of red air days? I understand that Kennecott provides many jobs and tax revenues, but I wonder at what cost. They certainly don't shoulder the burden when a child can't breathe or a grandmother suffers a heart attack. There are real physical and financial implications to individual residents whenever Kennecott releases more pollution. It's a travesty that we cover up our beautiful mountains with smog. It's a travesty when people suffer from it. We need less pollution, not more. Please don't allow Kennecott to expand.

**02-26-2011** Terry Marasco

Comments submitted to the UTDAQ 2/27/2011 re: SIP Modification and ITA for Bingham Canyon Mine Expansion (aka Cornerstone Project)-Terry Marasco  
Comments (and thoughts) on brief review of the following KUC documents:

- 1) the NOI Application, and
- 2) Technical Support Document.

Over-arching Comments.

1. Emissions Summary

KUC is currently limited by a "materials moved" limitation of 197 million



tons/year of ore/rock at the shovel face. Their goal is to increase this production amount to 260 million tons/year, or ~32% (nearly 1/3rd more).

The proposed production increase means only a small increase of 5.32 tons of PM10 from stationary sources, and a 1,239 ton/year increase of PM10 from fugitive sources, primarily from increased traffic on haul roads.

There is no requirement to permit NOx increases, as they only occur from mobile sources (haul trucks and offroad equipment) which are not required to undergo permitting. It can be roughly assumed that NOx emissions from mobile sources will certainly increase by the correlating amount – the existing NOx emissions are around 4,800 tons/year, and will increase to ~6400 tons/year if the production increase is granted.

## 2. Big Picture Questions/Observations

A. The current AO, as well as the SIP, both limit KUC mine to 197 million tons/year of production. A higher AO limitation (ie. 260 million tpy) cannot exceed the PM10 SIP limitation This raises a few questions:

- A change to the SIP typically cannot be orchestrated by a single source. This sets a dangerous precedent – if KUC can do it, then other major sources may follow suit.
- A SIP can only be approved... and changed ... after EPA approval and extensive public process. Since the EPA has currently proposed that the PM10 SIP be DISAPPROVED, KUC is attempting to circumvent this fact and may be supported by the UTDAQ.
- If the Utah Air Quality Board approves a change to the SIP, that is ‘legal’ , KUC can hide behind the AQB, even if they know that the EPA will disapprove the change. The SIP change cannot be approved

B. It appears that KUC has managed to separate the “Copperton Concentrator” from the Mine... these two facilities have always shared the same AO, but a recent AO modification (August 2010) was issued to the concentrator only. This AO should have contained all the info for both mine and concentrator, yet the mine info was absent. Since the point-source totals of both units are combined in applying total tons of pollutants towards the major source threshold of 100 tpy, KUC is trying to avoid future major source status by quietly separating the two now... thus the emissions will have to counted separately at each facility, make the 100 tpy limit much further away... if it is ever reached. This is unacceptable as these units share the same property, and are immediately adjacent to each other... they are one facility.

C. KUC has developed a plan to defend a change to the SIP, which is based on “reverse engineering” the Urban Airshed Model (UAM) that was used by DAQ to model the 1994 and 2005 SIPs. They did not re-run these early versions of the model, rather, dissected the findings and re-evaluated sector concentrations with the “what if” scenario of 260 MM tons of production vs. the current 197 MM tons. The Technical Support Document (TSD) is that it is very hard to understand, as it is not written in a cogent manner; it does not enable easy understanding of the complicated method that KUC has used to try and make their case. And much of the supporting data that is used in the various assumptions appears to be missing or incomplete. I argue that the DAQ is not qualified to review this document, and that the document is written in a way that intentionally obfuscates the data and the resultant conclusions.

D. This study states that of all PM10 emissions created in the pit, only 20% of these emissions escape the hole and enter the airshed. The percentage is 21%

for PM2.5 . This is difficult to argue against. KUC has reduced all emissions by this quotient for all of their sources in the mine.

Site-specific real-time data not used in the study. It would have been easy to place a meteorological station with a windspeed indicator in the bottom, midlevel, and near the top of the pit, to better understand the varying wind conditions... this would have been a good way to check the validity of the model.

Comments Related to the NOI

1. The NOI requests a production increase from 197 MM tons/year to 260 MM tons/year. Note that this is 10 MM tons more than they asked for one year ago (in the NOI that was successfully refuted by Terry Marasco and UPHE). This amounts to an approximate 32% overall increase in production.... and resultant emissions. At that time KUC used emissions numbers that were not certified, validated or approved.

2. The NOI acknowledges that EPA has proposed to disapprove the current PM10 SIP. (1-1)

3. Footnote #4 on page 1-2 is disingenuous – the SIP is outdated. (1-2)

4. KUC admits that the majority of their emissions come from fugitive sources, i.e. roads, and states that they are controlled via the plan laid out in the fugitive dust control plan (FDCP). The latest plan need to be submitted with the NOI. It contains all the control strategies currently employed by KUC in controlling the largest portion of their air pollution. (1-2)

5. Lime silos are included in the NOI, although it plainly says that they are ‘part of the concentrator’. There is no other concentrator information included in this document. The NOI will be for the overall facility... unless they are trying to separate the two... see above comment 2B. (2-4)

6. Control efficiencies for drilling, blasting, and off-road equipment (dozers, graders, backhoes) appear to be SWAG’ed... not defended in NOI, so veracity of control claims (i.e. 50% control for dozing emissions) cannot be checked. The DAQ needs more information. (2-4) (3-9)

7. Haul roads – the major source of PM10 emissions in the mine – are not adequately addressed in the NOI with the assumptions and resultant emissions. It is unclear of the traffic patterns and number of trips on each segment... and by which vehicles. Usually this is illustrated with a set of figures... so we can’t check the veracity of the calculated road emissions. In addition, material that is rehandled, ie. low-grade ore... it is hauled, then dumped, then loaded, then hauled again, then dumped again.... Are trips need to be accounted for with backup information to check against. (3-5)

8. Electrowinning emissions are not controlled (VOCs) – not a huge issue, but raises questions... (2-5)

9. Regarding the 20% escape quotient used (i.e. 80% of emissions remain in pit, and therefore are not accounted as emissions, rather, only the 20%), The NOI describes that approximately 1800 acres of new, undisturbed ground will be ‘disturbed’ by expanding mining.

Surface area emissions from disturbed ground must calculated from this new acreage.

Is the acreage reflected in the “pit influence boundary figure”? (Section 3.0 appears to indicate that this answer is “no”. The figure gives little to no information of any use.

10. Best Available Control Technology (BACT) assessment is substandard and incomplete. Control technologies for each source should be listed, and then eliminated where not technically/economically feasible. This process should be

described within the NOI. Instead, various controls are eliminated without demonstration of efficacy. More info should be provided.

#### Comments Related to the Technical Support Document

1. As stated above, very hard to understand, as it is not written in a cogent manner; it does not enable an easy understanding of the complicated method (read: SWAG) that KUC has used to try and make their case.
2. Since when can a single source make changes to the SIP that affects the entire county... especially when it involves an emissions increase?
3. The study states that NO<sub>x</sub>, as a gaseous pollutant, is subject to deposition on the mine walls similar to PM<sub>10</sub>. Gaseous pollutants do not “depose”... they remain as a gas, and are dispersed. This comment indicates that NO<sub>x</sub> may be underestimated.
4. Consultant did not attempt to rerun UAM model using adjusted numbers, because model inputs are not available (i.e. cannot be provided by DAQ). UAM is not a linear model, therefore, cannot be easily adjusted using end output pollutant concentrations without reconsidering all inputs that are addressed by algorithms.
5. Questionable control efficiencies used for fugitive dust from roads, also, mention of seasonal variation in fugitive dust not allowed by DAQ policy.

#### DEMANDS:

REJECT OF ANY AND ALL COMMENTS FROM KUC, ITS CONTRACTORS, GOVERNMENT OFFICIALS OR THE PUBLIC REGARDING THE ECONOMIC BENEFITS OF THE EXPANSION. The stated mission of the DAQ and its Board is health. No where in its mission does it state to proffer jobs or any other economic benefits especially above the health of the citizenry. Such comments are irrelevant and cannot be counted as “favorable” comments for this project in DAQ calculations.

REJECT OF ANY AND ALL COMMENTS FROM KUC, ITS CONTRACTORS, GOVERNMENT OFFICIALS OR THE PUBLIC REGARDING THE ECONOMIC CONTRIBUTIONS BY KUC SUCH DONATIONS TO HOMELESS SHELTERS, THE SOCCER TEAM, PLANTING TREES, OR ITS DAYBREAK RESIDENTIAL SALES OPERATION. . No where in its mission does THE DAQ state AS A REQUIREMENT FOR A PERMIT TO FOR A COMPANY TO PROVIDE ECONOMIC BENEFITS TO THE STATE TO OFF SET POLLUTANTS. The stated mission of the DAQ and its Board is health. No where in its mission does the DAQ state AS A REQUIREMENT FOR A PERMIT TO FOR A COMPANY TO PROVIDE TANGENTIAL BENEFITS TO OFF SET POLLUTANTS. Such comments are irrelevant and cannot be counted as “favorable” comments for this project in DAQ calculations.

#### DISMISS THE SIP MODIFICATION AND THE ITA UNTIL ALL THESE REQUIREMENTS ARE MET:

- A. The EPA rules on the SIP on December 1, 201;
- B. KUC conducts a valid study updated with references from 1996 to the present as well as those preceding 1996 on PM<sub>10</sub> emissions from all sources in the pit executed by competent consultants outside of the DAQ and KUC staff;
- C. Before and KUC process is advanced a table should be provided to the public stating the current real emissions (without offsets) from all KUC operations followed by a table of real emissions (without offsets) for the Cornerstone Project and all other new/changes to operations.
- D. All pending AQ permits-rules-et al, if any, dated prior to KUC’s submission of its NOI and SIP modification be processed to completion

(approval/rejection) BEFORE THESE ITEMS PROCEED.

**02-27-2011** Terry Marasco

Comments on the Masters Thesis: “Airflow Patterns and Pit Retention of Fugitive Dust for the Bingham Canyon Mine”. This document is the primary support for Rio Tinto’s Technical Support Document, submitted to DAQ in August 2010, December 2010, and January 2011.

The DAQ has proposed to allow a change to the SIP where Rio Tinto will be able to increase their production from 197 million tons to 260 million tons of mined material per year. According to Rio Tinto’s own information submitted to the DAQ, this will increase PM10 emissions into the airshed by 2,035 tons per year. All of the calculated total “in pit” emissions of PM10, (emissions occurring within the mine excavation itself) presented by Rio Tinto have been reduced by a factor of 80%, based solely on the results of a “study” submitted to DAQ by Rio Tinto. This study is actually a masters degree thesis from the University of Utah, authored by a Department of Engineering graduate student Navin Tandon in 1996 – 15 years ago.

Mr. Tandon’s thesis evaluates the potential of particles created within the mine pit to ‘escape’ into the surrounding airshed of Salt Lake County. It is critical to note that without reliance on Mr. Tandon’s thesis, Rio Tinto’s estimated emissions may be two to four times as much as they calculate for the SIP modification: instead of 2,035 tons, the actual emissions could be as high as 4,000, or even 8,000 tons greater.

The Utah DAQ states on their website that as part of their vision statement, they support “Excellence in Science”. It is in light of this expressed statement of the DAQ that we make the following overarching comments based on the nature of this paper. Today we will only touch on the general concerns we have with this thesis; specific technical comments regarding the thesis itself will be submitted as written comments, as they are too detailed for today’s public hearing.

An original thesis was authored and copyrighted by Navin Tandon in 1996. Mr Tandon is noted as the sole author, however, as is customary in academia, his Supervisor and Thesis Advisor at the University of Utah, Dr. Ragula Bhaska, is listed as a co author. It appears that Rio Tinto (then Kennecott Utah Copper) printed a new cover page for this study, which lists Dr. Bhaskar first as primary author. This type of change is misleading and disingenuous, as it plays upon the strength of Dr. Bhaskars Ph.D. credentials, and leads the reader to believe that Dr. Bhaskar is the primary author of this paper. In actuality, when a proper literature search was performed for this paper, Dr. Bhaskar’s name never appears, only the name of its only author, student Navin Tandon.

It appears that this paper was written at the request of Kennecott Utah Copper; we can only surmise that because the study was submitted to Kennecott, that it was fully funded by Kennecott, which calls into question a potential conflict of interest in regards to their reliance on this thesis to support their position.

The thesis has never been a) peer reviewed, b) presented at a conference or published in a conference proceedings, or c) published in a peer reviewed scientific journal. If a scientific paper is referenced or relied upon for its results, or is referred to as a “study”, it must have at least been subjected to one or more of these types of reviews. The fact that this paper has never been peer reviewed discredits its use as a “study”, and in fact, requires that it simply remain a masters degree thesis.

This paper is now 15 years old. Why has Rio Tinto presented no additional corroborating studies or other types of assessments that may support the findings of this graduate student’s work that have been conducted in the engineering field in the 15

years since this thesis was written?

Perhaps our most important comment today is that the thesis paper lacks proper validation. The thesis author, Mr. Tandon, states clearly in his summary and conclusions that observational data must be made in order to compare predicted modeling results with actual events that occur. Specifically, he states that meteorologic and source parameters should be monitored on site within the pit to verify the results of his thesis. He also implies that the sensitivity analyses conducted as part of his modeling effort are computationally limited, and suggests more improved methods of completing modeling evaluation which may not limit the modeling study presented within the paper.

In addition, the author has stated clearly that he has made various assumptions in completing this paper that must be clarified with actual data. The author has made assumptions of various types of values based on literature searches, and has incorporated them as fixed constants into his modeling calculations. However, the author himself cautions that these constants are actually variables which need to be accurately measured on site in order to validate his modeling findings. A further discussion of these specific variables, such as the finite element assumptions, mesh node placement and refinement, limitations inherent to a k epsilon model, the meteorological assumptions, etc., will be included with our written comments. The Utah DAQ should well understand this thesis author's concern over the validation efforts that would be required to verify the precision and accuracy of the results presented in this thesis. The DAQ is an agency that conducts airshed modeling, yet also conducts extensive and on going monitoring of the ambient air. Oftentimes, the DAQ is required to study why the monitoring data do not agree with modeling predictions, and in fact, are oftentimes very disparate from each other. This has most recently been the case in development of the current PM2.5 SIP, where DAQ has stated on record publicly that they were not able to get the selected model to simulate or predict past, well documented days of non compliance that have occurred in the past, when all meteorological variables and air monitoring data were well known.

#### CLOSING

Rio Tinto's entire technical support documentation submitted to the DAQ in support of the proposed SIP modification is based primarily upon this single thesis, which has numerous question marks raised by its very own author. In fact, this thesis is not comprehensive enough to be called a "study"; rather, it only represents a good evaluation of the tools that may be used to accomplish such a study, with limitations as well as specific areas of further required research specifically pointed out by the author.

Why, then, is DAQ prepared to accept a single study, never peer reviewed, or published, and whose author cautions against its use without verification of its claims? Based upon this document, Rio Tinto is proposing to eliminate on paper, with the stroke of a pen, 80% of all PM10 emissions created within the pit. However, this may actually be thousands of tons of very real particulate air pollution that will enter the air that we breathe.

The Salt Lake County Airshed already struggles with non attainment with the PM10 standard, despite what DAQ may claim to the contrary. This is the very reason that we are still classified as "non attainment" by the EPA, who has already stated their intention in the Federal Register to disapprove the current SIP because it doesn't accurately present a plan that will, at the end of the day, reduce and control PM10 emissions in the County, and provide us a way back to PM10 attainment. By allowing this single, non published thesis to be used as a basis for large scale emission reduction by the County's largest source of air pollution represents poor application of the scientific method by the DAQ, and appears to violate that very statement

regarding the support of "scientific excellence" that the DAQ makes on their website.

**2-28-2011** Adam McMullin

The mission of the DAQ and its Board is to protect the health of Utah's citizenry. The Rio Tinto/Kennecott expansion adds significantly to the health risks and costs of Wasatch Front communities. While you have heard RT/K staff and certain government officials state at a recent meeting the economic benefits of this project, you must strike these comments from the record as they are completely unrelated to your mission.

I completely oppose the Cornerstone expansion and wish that my comment be entered into both the SIP modification and the ITA regarding the Cornerstone expansion.

**02-28-2011** Jean Crane

I attended both meetings on February 22nd regarding Rio Tinto's expansion efforts. What can I say, other than I was completely appalled at the process. Nothing that I heard or have read since those meetings, tells me this is good public policy. Having Rio Tinto state they anticipate a 9% - decrease - in emissions, and then submit to the DAQ they want an - approval - for an increase their emissions is - yes... outrageous.

It appears, like Michigan, Rio Tinto's processes are being - pushed - through the process without any sound scientific studies.

As was noted in the meetings, the DAQ's job is not to be the Chamber of Commerce. Your job is to protect the air quality of Utah, which we all know to be possibly the worst in the nation. As I told the gentlemen in the second meeting. SHAME ON YOU for not protecting the people of Utah. Being a non-scientific person, I would anticipate, you would 'require' Rio Tinto to - decrease - all emissions... period. Rio Tinto is a 'global' polluter. This is yours and ours - Utah. PLEASE defend it!

I vote - \*NO\* - to allow Rio Tinto to increase any emissions. I also vote - \*NO\* - to any aspect of this proposed mine expansion, as I do not feel there has been adequate research done on this issue.

**02-28-2011** Terry Marasco

Another reason to delay the SIP mod and Cornerstone expansion processing:

In an email dated Feb 25, 2011 from a Rio Tinto staff:

1. "The Molybdenum Autoclave Process Plant (MAP) is not considered a Cornerstone Project. In any case, projected annual emissions from MAP account for less than 0.5% of total KUC current emissions."

In fact the

moly plant is part of Cornerstone as the Cornerstone is to process the moly on site, which was previously outsourced. Cornerstone will mine copper and Molybdenum. This operation will add to

the air and water pollutant burden. The slurry from moly processing will be disposed of here, not somewhere

outside the state. It is unacceptable that the DAQ and the DEQ would not consider this a part of the project.

2. "are currently in the study phase for some projects and permit applications have not been submitted, technically reviewed or finalized by the agency. Specific numbers for each project will be available at the time of regulatory submittal and technical review."

This second statement alludes to the fact that many more pollutants are likely to be emitted.

This process must be stopped until the public knows the entire pollutant burden for RT/K operations. In fact if the DAQ does not know the future pollution burden of the entire project it cannot make incremental health affecting decisions in an air shed that is already overburdened and out of attainment. Furthermore, since both the water and air pollutants from the full scope of the project are large, it is best for the full transparency of this process that all permits be stopped until the complete burden of pollutants is explained to the public.

**02-28-2011** Kristin K. Urry

I cannot imagine approving additional expansion for the largest air polluter in the state of Utah. The air quality is getting increasingly degraded every year. I drive a hybrid vehicle and do my part to mitigate these circumstances. My eyes burn and my chest hurts throughout the inversion plagued winters here. I have lived here most of my life and it's now getting to the point where I may have to move out of the state to improve my quality of life. This expansion should not be allowed.

**02-28-2011** Rick Osborn

I strongly oppose Rio Tinto's request to increase its allowable emissions!

**02-28-2011** Kirsti Ringger

I am very upset about the proposed expansion of Kennecott and vigorously oppose it. Air quality in the Salt Lake and Utah County is atrocious. We have much more to lose than to gain.

**03-01-2011** Anthony Sarra

I am asking the UT DAQ to require KUC to withdraw the request to modify the SIP and withdraw their NOI for the KUC Cornerstone expansion until:

1. The Current SIP is approved (decision by the Region 8 EPA by December 1, 2011);
2. A validated, peer reviewed study based on real-time field data is conducted by an independent part(s) to determine the amount, if any, of PM10 and PM2.5 remains in the open-pit. The student thesis (Tandon, 1996 "Airflow Patterns...") is unacceptable;
3. The real emissions of Cornerstone (without offsets on non-required reductions volunteered by KUC) are stated and stated to the public, and the emissions of all permits not currently filed with the UT DAQ but related to this project are stated in totality;
4. The UTDAQ provides a list of changes between revisions (commonly provided) so that commenter can evaluate changes in comparison to the NOI, which has remained as yet, unchanged from its original submission.

(The TSD has been revised twice since its original submittal in August of 2010. The NOI, however, was submitted in August of 2010, but has not been revised in parallel. The nature of the revisions between versions of the TSD involves emission changes, but have not been documented by DAQ in a way that these can be evaluated by the public);

5. The UT DAQ provides access to all its analyses of both KUC requests;

6. The UT DAQ publishes a statement of the current inventory of criteria pollutants, adds the actual KUC increases, and then states the additional pollutants expected by growth using the Governor's projections – 3 year, 5 year, and 5 year increments till 2050.

As a Herriman area (Rose Canyon) resident less than 3 miles from the current pit the proposed Cornerstone project is a significant concern to me, my family and our neighbors.

**03-01-2011** John F. Bates

I am asking the UT DAQ to require KUC to withdraw the request to modify the SIP and withdraw their

NOI for the KUC Cornerstone expansion until:

1. The Current SIP is approved (decision by the Region 8 EPA by December 1, 2011);

2. A validated, peer reviewed study based on real-time field data is conducted by an independent part(s) to determine the amount, if any, of PM10 and PM2.5 remains in the open-pit. The student thesis (Tandon, 1996 "Airflow Patterns...") is unacceptable;

3. The real emissions of Cornerstone (without offsets on non-required reductions volunteered by KUC) are stated and stated to the public, and the emissions of all permits not currently filed with the UT DAQ but related to this project are stated in totality;

4. The UTDAQ provides a list of changes between revisions (commonly provided) so that commenter can evaluate changes in comparison to the NOI, which has remained as yet, unchanged from its original submission. (The TSD has been revised twice since its original submittal in August of 2010. The NOI, however, was submitted in August of 2010, but has not been revised in parallel. The nature of the revisions between versions of the TSD involves emission changes, but have not been documented by DAQ in a way that these can be evaluated by the public);

5. The UT DAQ provides access to all its analyses of both KUC requests;

6. The UT DAQ publishes a statement of the current inventory of criteria pollutants, adds the actual KUC increases, and then states the additional pollutants expected by growth using the Governor's projections – 3 year, 5 year, and 5 year increments till 2050.

**03-01-2011** Lynda Cotton

Please accept my written plea to not allow Rio Tinto/Kennecott Copper to increase emissions into our air nor to expand their mining operations. Please see the attached letter.

**03-01-2011** Richard Kanner



I am asking the UT DAQ to require Rio Tinto/Kennecott Copper/Utah to withdraw the request to modify the SIP and

withdraw their NOI for the Cornerstone expansion until:

1. The Current SIP is approved (decision by the Region 8 EPA by December 1, 2011);
2. A validated, peer reviewed study based on real time field data is conducted by an independent group) to determine the amount, if any, of PM10 and PM2.5 remains in the open pit. A student thesis (Tandon, 1996 "Airflow Patterns...") is unacceptable;
3. The real emissions of Cornerstone (without offsets on non required reductions volunteered by Kennecott) are presented to the public, and the emissions of all permits not currently filed with the UT DAQ but related to this project are stated in totality;
4. The UDAQ provides a list of changes between revisions (commonly provided) so that an expert can evaluate changes in comparison to the NOI, which has remained as yet, unchanged from its original submission. (The TSD has been revised twice since its original submittal in August of 2010. The NOI, however, was submitted in August of 2010, but has not been revised in parallel. The nature of the revisions between versions of the TSD involves emission changes, but have not been documented by DAQ in a way that these can be evaluated by the public);
5. The DAQ provides access to all its analyses of both Kennecott requests;
6. The DAQ publishes a statement of the current inventory of criteria pollutants, adds the actual anticipated Kennecott increases, and then states the additional pollutants expected by growth using the Governor's projections – for 3 years, 5 years, and then 5 year increments till 2050.

**03-01-2011** Sam Rushforth

I am asking the UT DAQ to require KUC to withdraw the request to modify the SIP and withdraw their

NOI for the KUC Cornerstone expansion until:

1. The Current SIP is approved (decision by the Region 8 EPA by December 1, 2011);
2. A validated, peer reviewed study based on real time field data is conducted by an independent part(s) to determine the amount, if any, of PM10 and PM2.5 remains in the open pit. The student thesis (Tandon, 1996 "Airflow Patterns...") is unacceptable;
3. The real emissions of Cornerstone (without offsets on non required reductions volunteered by KUC) are stated and stated to the public, and the emissions of all permits not currently filed with the UT DAQ but related to this project are stated in totality;
4. The UTDAQ provides a list of changes between revisions (commonly provided) so that commenter can evaluate changes in comparison to the NOI, which has remained as yet, unchanged from its original submission. (The TSD has been revised twice since its original submittal in August of 2010. The NOI, however, was submitted in August of 2010, but has not been revised in parallel. The nature of the revisions between versions of the TSD involves emission changes, but have not been documented by DAQ in a way that these can be evaluated by the public);

5. The UT DAQ provides access to all its analyses of both KUC requests;
6. The UT DAQ publishes a statement of the current inventory of criteria pollutants, adds the actual KUC increases, and then states the additional pollutants expected by growth using the Governor's projections – 3 year, 5 year, and 5 year increments till 2050.

**03-01-2011** Sandra Moore

The Kennecott mine has been a major part of the Utah community for more than a century, and it has provided countless families with good jobs and our entire region with a strong economic engine. If the mine truly can expand without further sullyng our air, that would be fantastic. But before we allow this expansion, Utahns deserve real proof — real proof that, until this time, has not been forthcoming. The mine expansion depends on regulatory changes by the Division of Air Quality. Currently, the DAQ is considering whether or not to increase the amount of ore and waste Kennecott is allowed to move every year. I urge the DAQ to reject Rio Tinto's request to increase this limit, at least until the company's claims can be verified independently. Please don't sacrifice our health in favor of Kennecott's expansion. Don't approve the expansion without verifying their claim of benefits, and and verifying the costs to Utahns and their health.

**03-01-2011** Jean Crane

We have become extremely concerned about Rio Tinto's recent proposed expansion plans. I am a homeowner in the SW part of the Salt Lake valley, and please be patient with me as I try to explain. Rio Tinto states they anticipate a 9% decrease in their emissions. Then why are they currently asking the DAQ to increase their cap? Weâ™ve also learned there has been very little current scientific study done regarding the expansion. And unfortunately, Rio Tintoâ™s statements do always tell the entire truth.

I would ask that you take a few moments and review the following videos from Michigan. Itâ™s unfortunate, as Michigan currently does not have the strong economy or the bright future we are blessed with here in Utah, but they are fighting. I contacted the professors on the first video (below) and one did respond with an email. In that email they had said:

âœI am not naïve about how corporations behave, but I was stunned at how flippantly Kennecott/Rio Tinto has violated environmental regulations â” and common senseâ

<http://www.youtube.com/watch?v=gheTH8ktXb4&feature=related>  
<http://www.youtube.com/watch?v=cIB--EgGQcw&feature=related>

We have been in numerous meetings with Rio Tinto, as we live south of the mine. We fought to protect the Rose Canyon Ranch area. Also, almost daily we are being dusted by their trucks dumping over the south side of the mine. These trucks dump 270 â™tonsâ™ of waste rock each. As Mayor Corroon found, Rio Tinto refused to protect our water, land and air - in writing. There is no reason to have more of our pristine Utah landscape or natural resources destroyed. One of the statements Rio Tinto uses - âœat this timeâ - has created a great distrust of their intent. We found it is not only used in Utah, but also in Michigan.

Below is a short article. Please read the entire article - this is a paragraph from the link below:

Perhaps even more absurd, Rio Tinto, which paid for the entire \$6.4 million cost of the power extension, also claims that it might not use the power line for its mining operations at all. In September, company spokesperson Matt Johnson said, "At this time, we're considering our power generation options at the mine site." State regulator Joe Maki saw things differently, noting "It's obvious they're running power up there to run their mine."

<http://headwatersnews.net/environment-opinion/a-bit-late-rio-tinto-files-for-electric-permit-for-eagle-mine/>

This morning I received the information below. In article published on February 28, 2011 by Forbes magazine, Salt Lake City has made their top 10 list of the highest polluted cities in America. And in their article they state:

"Of our 10 cities the Salt Lake City area (No. 9) stands out as having the highest number of releases on the TRI list. The Western economic hub racks up that hefty number with some help from Kennecott's copper mine, oil refineries including Tesoro's ( TSO - news - people ) and chemical companies like Huntsman ( HUN - news - people ). The Houston MSA (No. 7), with its oil refineries, petrochemical plants and blossoming biomedical industry, had the second-highest toxic release amount on our list."

Below is the link:

[http://www.forbes.com/2011/02/28/most-toxic-cities-personal-finance\\_slide.html?partner=yahoore](http://www.forbes.com/2011/02/28/most-toxic-cities-personal-finance_slide.html?partner=yahoore)

I have been extremely proud of Utah as we stand up for what is right. Utah stood up against the corruption in the Olympics, Utah stood up against industry wanting to dump toxic waste and now Utah is standing up to the federal government and the list goes on and on. Utah has stood firm.

I am asking that you - please - do your research and homework regarding this proposed mine expansion. I am not against mining. I am highly against having this process and this proposed expansion being shoved through regardless of the consequences. Please do not solely believe a global company who is trying to sustain their business - at all costs. Even common sense tells everyone, you cannot increase something 32% and not have an impact. Rio Tinto tells the public what they want to hear and designs imagine campaigns for what they want the public to believe.

Again, I am not against mining. I would however, want any present and future mining to be done responsibly, with open dialogue, accurate and current scientific studies, and ensuring the protection of the air, land and water in Utah.

Governor, we need your help to become part of the solution to a very destructive problem.

Thank you so much for your time and your patience with me!

**03-02-2011** Amie Hancey

I am asking the UT DAQ to require KUC to withdraw the request to modify the

SIP and withdraw their NOI for the KUC Cornerstone expansion until:

1. The Current SIP is approved (decision by the Region 8 EPA by December 1, 2011);
2. A validated, peer reviewed study based on real-time field data is conducted by an independent part(s) to determine the amount, if any, of PM10 and PM2.5 remains in the open-pit. The student thesis (Tandon, 1996 "Airflow Patterns...") is unacceptable;
3. The real emissions of Cornerstone (without offsets on non-required reductions volunteered by KUC) are stated and stated to the public, and the emissions of all permits not currently filed with the UT DAQ but related to this project are stated in totality;
4. The UTDAQ provides a list of changes between revisions (commonly provided) so that commenter can evaluate changes in comparison to the NOI, which has remained as yet, unchanged from its original submission. (The TSD has been revised twice since its original submittal in August of 2010. The NOI, however, was submitted in August of 2010, but has not been revised in parallel. The nature of the revisions between versions of the TSD involves emission changes, but have not been documented by DAQ in a way that these can be evaluated by the public);
5. The UT DAQ provides access to all its analyses of both KUC requests;
6. The UT DAQ publishes a statement of the current inventory of criteria pollutants, adds the actual KUC increases, and then states the additional pollutants expected by growth using the Governor's projections – 3 year, 5 year, and 5 year increments till 2050.

Additionally, I request that all comments regarding this issue that state in any way the economic contributions to KUC be stricken from the record. The DAQ mission is health, not the Utah economy.

**03-02-2011** Barbara Richardson

I am asking the UT DAQ to require KUC to withdraw the request to modify the SIP and withdraw their NOI for the KUC Cornerstone expansion until:

1. The Current SIP is approved (decision by the Region 8 EPA by December 1, 2011);
2. A validated, peer reviewed study based on real-time field data is conducted by an independent part(s) to determine the amount, if any, of PM10 and PM2.5 remains in the open-pit. The student thesis (Tandon, 1996 "Airflow Patterns...") is unacceptable;
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2010, but has not been revised in parallel. The nature of the revisions between versions of the TSD involves emission changes, but have not been documented by DAQ in a way that these can be evaluated by the public);

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Additionally, I request that all comments regarding this issue that state in any way the economic contributions to KUC be stricken from the record.

The DAQ mission is health, not the Utah economy.

**03-02-2011** Kate Schnepel

I am asking the UT DAQ to require KUC to withdraw the request to modify the SIP and withdraw their NOI for the KUC Cornerstone expansion until:

1. The Current SIP is approved (decision by the Region 8 EPA by December 1, 2011);

2. A validated, peer reviewed study based on real-time field data is conducted by an independent part(s) to determine the amount, if any, of PM10 and PM2.5 remains in the open-pit. The student thesis (Tandon, 1996 "Airflow Patterns...") is unacceptable;

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Additionally, I request that all comments regarding this issue that state in any way the economic contributions to KUC be stricken from the record. The DAQ mission is health, not the Utah economy.

**03-02-2011** Kim Korinek

I am asking the UT DAQ to require KUC to withdraw the request to modify the SIP and withdraw their NOI for the KUC

Cornerstone expansion until:

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2. A validated, peer reviewed study based on real-time field data is conducted by an independent part(s) to determine the

amount, if any, of PM10 and PM2.5 remains in the open-pit. The student thesis (Tandon, 1996 “Airflow Patterns...)

is unacceptable;

3. The real emissions of Cornerstone (without offsets on non-required reductions volunteered by KUC) are stated and

stated to the public, and the emissions of all permits not currently filed with the UT DAQ but related to this project

are stated in totality;

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then states the additional pollutants expected by growth using the Governor’s projections – 3 year, 5 year, and 5 year

increments till 2050.

Additionally, I request that all comments regarding this issue that state in any way the economic contributions to KUC be

stricken from the record. The DAQ mission is health, not the Utah economy.

**03-02-2011** Ryan McDermott

Thanks for the opportunity to write a few words about Kennecott’s SIP modification and proposed expansion. Please

include my comments in the record.

As an engineer, with degrees in both chemistry and chemical engineering, I am well equipped to understand the processing and technical details involved for Rio Tinto to extract a product. I am disturbed to see that their expansion plan does not do more to prevent pollution increases. This is irresponsible business, puts the public health at greater risk, and I cannot support it given the company is already the largest source of industrial pollution in the Salt Lake Valley. Rio Tinto is a big company with significant profit margins and can afford to do better, especially since the technology exists to do so. Business as usual where externalities like pollution are passed onto the public are not acceptable.

**03-03-2011** Terry Marasco

Dear Amanda and Cheryl, you know I have been copied on the EPA letter (Feb 25, 2011) to Cheryl. I also have a copy of the June 30, 1999 letter (to: Trueman) referenced in the Feb 25 EPA letter. I have also read the federal register (40 CFR Part 52 [EPA-R08-OAR-2006-0013; FRL-9087-5], Approval and Promulgation of Air Quality Implementation Plans; Utah; Redesignation Request and Maintenance Plan for Salt Lake, County; Utah County; Ogden City PM10 Nonattainment Area) and come away with this:

The recent letter states and the record shows back to 1999 that the UT DAQ is more about repeating mistakes than proffering the appropriate corrections to the variety issues with the EPA, which affects the health of Utah's citizenry.

The UT DAQ was told many times of the issues but keeps on course to advance less than adequate corrections. And now the unlikelihood that the BCM expansion will be approved. The same mistakes can be traced back to 1999.

It appears to me that in fact it is the UT DAQ that is effectively stalling the permit process. It is either doing one of two things: 1) lacking an understanding of the information submitted, or 2) being pressured to advance KUC permits. I would want to believe the former.

Utah's reputation is suffering nationally which must have a significant effect on our economy: the "worst air" in the nation, and the TRI inventory noted by Forbes shows Utah as one of the 10 most toxic cities. At the same time Utah is advertising in CA to move to Utah and the irony is move from the worst to the worst. This must stop and is a matter of health and the economy.

The UT DAQ needs to start over and require KUC to resubmit more researched and adequate documentation, particularly re: its real emissions. The current course will collide with regulations, and worse heighten the public's mistrust of the DAQ as the protector of the public's health. In any of the documentation at the Federal, State, and in this case, KUC submissions there is little the UT DAQ is doing to clear the air shed for attainment. And things are coming down on us: ozone issue in the Uinta Basin, new air alerts in expanded counties, stricter standards based on new health findings.

I hope you see the iceberg before you hit it.

Know if there is anything we on the ground can do to move the airshed to a new level, we are willing to focus our enormous energy toward that goal. Just ask.

**03-03-2011** Michael Mielke

Please include the comments delivered by POST CARBON SALT LAKE that opposes changing the SIP to allow Rio Tinto expansion.

These comments are attached and can be opened by most any program in use.

Please advise us if you are unable to include or open these comments.

Post Carbon Salt Lake

"Thank you for hearing my comment today.

The issue at stake, as far as I understand it, is whether to approve a STATE IMPLEMENTATION PLAN modification to allow Rio Tinto to increase mining operations from 197 million tons of material mined per year to 260 million tons per year of material mined. I would like to voice my comments today toward what I view as a considerable presumption on behalf of the DAQ when it comes to the timing of the proposed STATE IMPLEMENTATION PLAN change and the corresponding Notice of Intent (NOI) for a modification to Rio Tinto's permit (Approval Order) . You may ask me to limit my comments only to the STATE IMPLEMENTATION PLAN change, and not discuss the pending Approval Order. However, the Technical Support Document submitted by Rio Tinto in defense of the STATE IMPLEMENTATION PLAN modification often

refers to the corresponding NOI that was submitted for an Approval Order, so it is apparent that these two are intertwined, and the STATE IMPLEMENTATION PLAN document relies on the NOI to provide technical support, which makes it relevant to this discussion here today. And this forms the basis for my comment.

It is my understanding that an approved PM10 STATE IMPLEMENTATION PLAN is part of the foundation for regaining attainment in Salt Lake County. Based on STATE IMPLEMENTATION PLAN goals, permitting rules are created or modified in order that the DAQ's permitting program will support the goals established by the STATE IMPLEMENTATION PLAN. Therefore, it seems to me that the STATE IMPLEMENTATION PLAN change, if approved, would need to be conducted first, as it establishes the overarching framework for the changes to follow. Given the EPA's position on the DAQ's Salt Lake County PM10 STATE IMPLEMENTATION PLAN, I wouldn't have thought that a STATE IMPLEMENTATION PLAN change of the magnitude proposed would be a "done deal", but apparently, I'm wrong. And doesn't the EPA have the final say on approval of a STATE IMPLEMENTATION PLAN change, since the STATE IMPLEMENTATION PLAN is a federally-enforceable document?

Tonight at 6:00 PM, following this hearing, the DAQ will next hear public comment on the DAQ's Intent to Approve a new Approval Order for the Bingham Canyon Mine, which has been finalized by the DAQ and is posted on the DAQ's website. This Approval Order has been written by DAQ engineers based on the assumption that the STATE IMPLEMENTATION PLAN increase will be approved, and 260 million tons of material will be mined per year.

Perhaps I'm mistaken, but I thought that this meeting here today was for DAQ to consider comments on the merits of changing the STATE IMPLEMENTATION PLAN to allow 260 million tons, but it appears that DAQ has already decided that this issue will be approved, and has produced a completed permit stating just that.

Imagine my surprise – this increase requested by Rio Tinto appears to be a "done deal" already. This situation, then, makes a mockery of this particular public comment event, and also of the DAQ's own vision statement posted on your own internet home page, which says that "A quality environment will be achieved through careful, open, and fair consideration of the concern of all Utahns." Obviously, these Utah voices being heard here today, mine among them, are not being considered, as the permit is already written. Besides being disingenuous to members of the public like me, I'm also wondering if this is legal, or has this jeopardized the due process of these proceedings? I'm not an attorney, but I would be disappointed if my Utah taxpayer dollars are eventually needed to fight or settle a lawsuit brought against the DAQ because the agency so obviously violated their own procedures, not to mention their own vision statement of how they wish to operate.

I've thought that perhaps this conclusion I've reached may be wrong, and that the DAQ's response would be to say that they are simply preparing to act, if the STATE IMPLEMENTATION PLAN modification request is granted, and that the increase hasn't yet been approved. Well, if this is the case, then my question would be to wonder why the DAQ is tasking much-needed personnel resources to writing a permit document which may not even be needed or required? I have heard the DAQ Director state in the past that the agency is short-staffed and in need of additional personnel. I can only imagine that this has been exacerbated by the proposed 7% budget cuts being discussed in the current legislative session. However, if this decision today is not already fixed, then it appears that DAQ has the available staff to write permits that may not even be needed or allowed. Since this would reflect poorly on DAQ management who are allocating staff and resources, I can only return to my earlier assertion that the DAQ's actions in writing this new Approval Order reflect the fact that the outcome of this meeting today is already a foregone conclusion, with results that have been determined in advance, no matter the nature of public comment. DAQ has already taken the next step in preparing the requisite permit the Rio Tinto will need to move forward with their mine expansion.



Given that we can no longer trust the process , which appears to be fixed in advance, or that we can trust the agency tasked to oversee this process, I would like to go on record voicing my strong disapproval of the proposed modification to the Salt Lake County PM10 STATE IMPLEMENTATION PLAN.

**03-03-2011** A

Thank you for the opportunity to provide comments on the proposed modification of Approval Order DAQE-AN0105710023-08.

The City recognizes Kennecott's contribution to our community, both economically and socially, and appreciates the corporation's ongoing moves toward cleaner and more sustainable practices. However, we believe it is critical that DAQ and Kennecott comprehensively assess the valley-wide air quality impacts posed by all of Kennecott's operations, with the objective of aggressively pursuing pollution reduction measures that will help the state and Salt Lake City/County clean up our wintertime air quality to safe levels throughout the City and the valley.

Salt Lake City also recognizes that reducing air pollution in the Salt Lake Valley and along the Wasatch Front requires a multi-faceted approach that includes other sources of pollution including vehicular sources. We have appreciated working with the DAQ, UDOT, Salt Lake County, and other public and private entities in the Clear the Air, TravelWise, and other efforts to address our air quality problems. And, we recognize we have much to do to effectively improve air quality.

Salt Lake City has reviewed the related Notice of Intent and proposed Approval Order for the Bingham Canyon Mine expansion, as well as the proposed SIP changes and supporting technical documentation. Based on our review, the City does not believe the effects of this change on our already poor air quality are adequately understood. The City requests that the Board require further analysis of PM<sub>2.5</sub> air quality impacts from the current and future mine operations prior to making a decision on modifying the Approval Order. Our concerns and recommendations are detailed below.

Salt Lake City, and the larger Salt Lake Valley, are significantly out of compliance with the existing national ambient air quality standard (NAAQS) for PM<sub>2.5</sub> pollution during the winter inversion season. This winter, on 15 days the PM<sub>2.5</sub> concentrations measured in Salt Lake City exceeded safe levels as defined by the PM<sub>2.5</sub> NAAQS of 35 ug/m<sup>3</sup>. The resulting health and economic costs of this pollution to the citizens of Salt Lake City are undeniably high.

The proposed action will slightly increase regulated point source emissions. It appears that the action may significantly increase unregulated fugitive and mobile source emissions. However, the documentation provided does not quantify the incremental increase in fugitive or mobile source PM<sub>2.5</sub>, PM<sub>10</sub>, or NO<sub>x</sub> that will result from the increase in material movement. The City appreciates that DAQ and Kennecott have voluntarily included limitations for total PM<sub>10</sub>+SO<sub>2</sub>+NO<sub>x</sub> and PM<sub>2.5</sub>+SO<sub>2</sub>+NO<sub>x</sub> into the proposed Approval Order. The City feels that this is an important recognition of the role these pollutants play in the out-of-compliance air quality condition of Salt Lake Valley. However, the proposed limits are simply set at the estimated emission levels, and are not justified through an analysis of how those allowed emissions would ultimately impact valley air quality.

Salt Lake City is extremely concerned that there has not yet been an analysis of how the proposed change will add to the already unhealthy air quality in Salt Lake City during the winter months.

We do not believe it is prudent or protective for the Board to approve a modification to the Approval Order that is likely to interfere with Salt Lake County's attainment on established air quality standard (the 35 ug/m<sup>3</sup> NAAQS for PM<sub>2.5</sub>). We request that the Board require this information be submitted for consideration by DAQ and the Board before making a fully informed decision on the proposed modification to the Approval Order.

The proposal by Kennecott to change the power plant operations from coal to natural gas would improve emission levels for some pollutants. While that improvement is welcome, we request DAQ consider other and additional measures that would further improve our air pollution problems in the Salt Lake Valley. That should include use of renewable resources for power supply by Kennecott as an option and requiring all natural gas power production, energy efficiencies in all operations, and use of best control technologies on all emitting facilities.

With pending changes in EPA standards for CO<sub>2</sub> emissions, it would also seem advisable for the proposed changes in the operations be evaluated for carbon emissions as well. Actions should be considered to help meet State and local goals for carbon emission reductions and achieving renewable energy goals.

We appreciate your thoughtful consideration of our comments.

**03-04-2011** Fabienne Poulain

I am writing to strongly oppose the project of Kennecott to expand its mine activity. As you know and as recently pinpointed by Forbes, who classified Salt Lake as one of the most "toxic cities", our city already produces many pollutants, a large part of them released in the air. This is particularly obvious in winter during inversion periods, when the air not only is colored in brown and prevents us from seeing further than 500 ft, but also induces irritations in our lungs and is responsible for health problems.

Kennecott is already the source of about one third of air pollution here. By increasing their activity by 32% as they propose, they will not only generate additional amounts of waste rocks, but also more air pollutants. I strongly believe breathable air is more important than economic gain in this case, and that our health should prime in our decisions. This is why I am urging you to prevent our air from becoming worse, by refusing the project of mine extension proposed by Kennecott.

**03-04-2011** Carol Walters

Please make this part of the public record of comment on the Rio Tinto application to change the state SIP.

I live in Provo, and work with the Utah Valley Earth Forum, but the things that Rio Tinto does affect those of us in Utah Valley as well as those in Salt Lake Valley. We are among their down winders. Every morning in the winter, I wake up with a sinus headache. I have had pneumonia repeatedly. I watch my children and grandchildren struggle with asthma and other respiratory problems that are exacerbated by our terrible air quality, which, as you know is often among the worst in the nation. For us this has been incapacitating. For others it is life threatening. I sympathize with the relatively small percentage of Utah workers whose jobs are dependent on Rio Tinto, but a job isn't much good if you can't breathe.

When air quality is discussed, people tend to throw up their hands and say, "Well, it is just a function of the geological configuration of our area." While that is partly true, it is not an excuse

for doing nothing. It is, in fact the reason for doing all we can do to prevent garbage being dumped into our air.

I appreciate the things that Rio Tinto has done to become more environmentally responsible, but this application is not one of them. Their own published information refutes their claims that this expansion will not increase pollution, especially during the months of our worst air quality problems. If they were serious about reducing pollution, their profits would certainly allow them to replace all their coal fired plants with natural gas, or better yet with wind generated power, whether or not their application for expansion were approved.

I want to express my objection to the fact that representatives of the local municipalities which have received "contributions" from Rio Tinto were given precedence in the Feb. 22 meeting, allowing them to take most of the time when the press was present, and thereby preventing the press from hearing the objections to the application from the majority of the citizens in attendance.

I ask that the DEQ reject this Rio Tinto application for expansion of their mining operation. You have been given the responsibility to protect the public good and we all have to breathe.

**03-05-2011** Nick Burns

Kennecott Utah Copper LLC, Mine & Copperton Concentrator  
Project: Modify Approval Order DAQE AN0107490007 09

Kennecott wants to increase its mining operations by 30%, and increased jobs opportunities for Utahans are needed.

But please: NO increases to any kind of air pollution levels of any sort.

What Utah cannot afford is any more air pollution.

Please mandate that any changes at KUC come with LOWERED air pollution discharges.

No jobs at the expense of the air we ALL breathe.

**03-06-2011** Cindy Brinson

I would like to voice my opinion as being opposed to the Kennecott copper mine Cornerstone project. I prefer to be able to breathe clean air and the copper mine now already seriously compromises the air quality of the entire Salt Lake valley.