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.

Commenter	Comment
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.
Ann Johnson	The role of the Utah Division of Air Quality is to protect the health of Utahns. The DAQ should not allow modification of the State Implementation Plan which would allow Rio Tinto to increase its PM 10 emissions through expanded mining operations. PM 10 particles cause respiratory diseases and cancer, and exacerbate heart disease. As you are aware, the air quality in both Salt Lake and Davis counties currently does not meet federal standards for PM 10 emissions. Allowing millions of tons more pollutants to be dumped into our air is unconscionable. We are choking on bad air days now. Please protect the health of Utah citizens and insist that any further expansion of Rio Tinto operations meet current standards of PM 10 emissions.
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
Cecilee Price- Huish	the SIP modification and the ITA regarding the Cornerstone expansion. 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 air quality for 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).

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	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 it's 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.
Chad Farnes	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.
Chris Karcher	Please OPPOSE changing the SIP and do NOT allow the Rio Tinto expansion. We have some of the worst air pollution in the country. 1,000 to 2,000 people DIE every year because of it. The EPA's' limits were violated 51 days. Rio Tinto made \$14.3 BILLION in profit. Not sales, PROFIT!!! They should be investing in technology to pollute less. Do not allow the Rio Tinto expansion. Stay in integrity, please. Please do the right thing.
Cody Webb	I support the Rio Tinto expansion, please don't hinder their efforts.
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.
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.

Garry Blake Gary Kunkel	I am strongly against approval of any plans for expanded or extended development at Kennecott Utah Copper. We should be doing everything we can to improve the air in Salt Lake City. The LAST thing we want to do is permit the quality of our air to deteriorate. This a real issue for me, because I suffer serious sinus problems that are clearly agravated, and perhaps caused, by particulate matter pollution. I suffer every winter during our infamous air inversions. The state should not allow Kennecott to make things even worse, or permit them to pollute our air for years to come. Hello! As a physician familiar with the literature on air pollution and morbidity/mortality, I find it incredible that we are even considering modifying our SIP to allow Rio Tinto to expand it's mining operations at Kennecott. We ought to be doing the easy things to improve our air quality, and allowing this expansion seems like an easy way to worsen our air quality. Please look out for the public's health, not Rio Tinto's.
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.
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. With
Jen Milner	out consumption, there is no economy. It's that simple. 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 breath or a grandmother suffers a heart attack. There are real physical and financial implications to individual residents whenver 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.
Joan 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.

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.

Joe Norman

There are weeks when we can't see the Oquirrh mountains, which are only 15 miles away from out 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.

Utah DAQ has proposed that the State SIP be amended to accommodate increased production at Kennecott Copper Mine. Under state and federal Clean Air rules certain requirements must be met under the SIP including general requirements such as stack testing. Particulate matter must be tested based on the most appropriate capture method. Other criterial pollutants must be measured at the stack as well. Emission requirements must be met based on a 12 month total. In addition specific visible emissions shall be met so that certain opacity limitations are not exceeded. There must be control of fugitive dust including unpaved roads and mobile equipment. There are specific requirements that apply to the Copper Mine including limitations of total ore moved per year which is proposed to be significantly increased. There are also limitations on SO2 emissions based on the fuel burned, however its unclear how this limitation would be impacted by the increase in ore processed.

Joel Ban

Regardless of the specific current requirements and proposed amendments any changes in the amount of ore processes will undoubtedly mean increased emissions and increased harm to the millions of individuals that live along the Wasatch Front. While recognizing that Kennecott Copper and Rio Tinto have contributed economically to the region the proposed changes are unacceptable on a number of levels. The presumed need of increased production from Kennecott is that the region needs jobs and that the mine needs to be expanded. However, it can be assumed that the region has suffered economically based on existing low air quality. After all, industrial polluters such as KCC and individuals who run their cars contribute to some of the worst air quality during the winter months. There is collective blame for this problem but nevertheless there are certain days where the area has the worst air quality in the U.S. This happened in 2010 and happens most years.

Sunday January 11, 2010, Salt Lake City's air quality index was 142 compared to San Francisco's 67 and Las Vegas' 23. Monday, the federal government's air quality website forecast the five worst places for air quality and they were all in Utah: Logan, Ogden, Provo, Salt Lake City and the Washakie Indian Reservation near the Utah-Idaho border.

The state's SIP itself has already found to be flawed based on the part of the rule that pertains to malfunction of industrial polluters emissions stacks. This raises concerns that right now there could be or is a problem with a large volume of pollution caused by malfunction of emission control systems. When you add all these problems together it becomes clear that the proposed increase is unacceptable and that we would urge you to reject the proposed increase by KCC.

	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:
John F. Bates, Anthony Sarra, Richard E. Kanner, Sam Rushforth, Sandra Moore, Barbara Richardson, Kate Schnepel, Kim Korinek, Tim Brown	 The Current SIP is approved (decision by the Region 8 EPA by December 1, 2011); 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; 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; 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); The UT DAQ provides access to all its analyses of both KUC requests; 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.
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!
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.
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.
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.

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.
Lynda Colton	Please, please, PLEASE vote against R307-110-17, General Requirements. Rio Tinto has absolutely no concern over the welfare of the people in this valley. The execs of this company do not live in this valley, are not concerned about this valley or the inhabitants.
Lynda Colton	Would you, as individuals, not be concerned if you could not breathe the air around you comfortably, without congestion, or other lingering affects? That is what is happening to us and many of our neighbors. Several are on oxygen 24/7/365 due to the particulates in the air that cause difficulties in breathing. When we first moved out here, one of our neighbors told me that I would have to "dust" at least two times a week because of the dust in the air from the mine several miles away. It is now necessary to "dust" each and every day. These particulates are generated from the ever-increasing expansion of open pit mining at the Kennecott Copper Mine owned and operated by Rio Tinto. We have lived in our current home for 31 years. Due to the expansion and ever increasing "dust" in the air due to the open pit mining at the Kennecott Copper Mine, our chances of breathing lethal, harmful air is escalating at an extremely rapid and truly alarming pace. We beseech you to not allow an increase in the expansion of the aforementioned mine and the open air dumping of waste materials mined from said mine. Just as a side note – my husband was diagnosed with terminal prostate cancer five years ago that has metastasized to the bones. He served our wonderful country in the United State Army for four years having achieved the rank of a 1st Sergeant in that branch of the armed forces, worked extremely hard all his life to support our family as an automotive technician having earned the status of Master Mechanic, paid taxes – both Federal, State, and County (never having cheated on either), fees, etc. Now you are considering telling him that it was all for not because Rio Tinto pays taxes, etc. and they can do what they so desire! Once again, we beseech you to not allow an increase in the expansion of the aforementioned mine and the open air dumping of waste materials mined from said mine. Granted, we are all limited as to our time here on earth, but let's not shorten that length of time because one company does not care about
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 Utahn'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.
Nicole Kippen	As a resident of SLC, I am very concerned about our air. Please work toward better air quality by holding Rio Into accountable.

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: The Current SIP is approved (decision by the Region 8 EPA by December 1, 2011); 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; 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; 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, Nikki Sharp 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): The UT DAQ provides access to all its analyses of both KUC requests; 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. 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 Richard Kanner 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. Please require or strongly encourage KUC to withdraw the request to modify the SIP and withdraw their NOI for the KUC Cornerstone expansion until: The Current SIP is approved (decision by the Region 8 EPA by December 1, 2011); A validated, peer reviewed study based on real-time field data is conducted by an independent party(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; 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 **Richard Spotts** the UT DAQ but related to this project are stated in totality; The UT DAQ 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 UT DAQ in a way that these can be evaluated by the public); The UT DAQ provides access to all its analyses of both KUC requests; 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 until 2050.

I believe that the preceding six requests or conditions should be met before the UT DAQ and public will have sufficient information to proceed to adequately consider the merits of the proposals. Stated another way, I believe that the absence of one or more of these six components would undermine the integrity and ripeness of the review process.

In addition, I believe that all comments regarding alleged or potential economic benefits of the proposals be stricken from the record unless there is a specifically defined, legal basis for including them, along with a detailed explanation for how any such comments were used in any UT DAQ decisionmaking. I believe that the UT DAQ's mission is to protect air quality and public health, and that much of its authority is delegated to it by EPA under the federal Clean Air Act so long as that authority is properly exercised.

I am a frequent visitor to the Wasatch Front, and my daughter is a student at U of U. I am well-aware of the already unhealthy air quality along the Wasatch Front much of the year, and I fear for the long-term health of my daugher, myself, and others living in this region. I also attended the Washington County "Clean Air Summit" in St. George several months ago, and learned about the serious dangers of small particulate pollution (PM10 and PM2.5), and how those particles may become lodged in the lungs and remain as persistent irritants.

I attribute much of the chronic and perhaps worsening air pollution problems along the Wasatch Front and elsewhere in our state to the UT Governor, UT Legislature, and UT DAQ's past and continuing collective inability to adequately reduce various sources of air pollution. I realize the practical political context whereby most Utah elected officials place industrial and fossil fuel development well above any concerns about deleterious effects on public health or environmental quality, and that adverse health and environmental costs tend to be ignored or undervalued in their decisionmaking processes. As such, I suspect that UT DAQ officials may risk their jobs by doing their jobs, especially if that upsets any powerful business interest and/or generous campaign contributors. Nevertheless, the bottom line is that: air quality along the Wasatch Front remains demonstrably unhealthy; the UT DAQ has front-line authority under delegated EPA and other air quality laws; the UT DAQ's track record does not instill confidence that this inadequate and arguably illegal status quo may change; and approval of the proposals referenced in these comments could make that status quo situation much worse. Indeed, instead of moving forward, such approvals could take us much further backward.

My comments are intended to be constructive in terms of helping the UT DAQ to do its job, follow the law and science, and serve the public interest.

In short, I think that the status quo is broken, and that the UT DAQ continuing past practices and decisionmaking processes in evaluating these referenced proposals likely won't change that. Therefore, please find the courage to do what's right, starting with the six above components.

Rick Osborn

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

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.

Robert H. Thompson

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.

I would like to voice my concern with Amed R307-110-17 as a taxpayer and property owner at 77 High Country Rd Herriman Utah. The purposed increase of 63 million tons of material from the present permitted level of excavation represent a unacceptable level of air pollutants that will destroy the quality of life that over 1 million people enjoy in the Salt Lake Valley. The mine is not in isolated valley but right in a major metropolitan area that was not the case when the mining started in the area but it is now and it is time for our State Officials and Rio Ronald A.Benson Tinto understand this concept. Salt Lake City making the news with the worst air pollution in the nation for as small a population as we have and considering such a dramatic increase in air pollutants demonstrate to the rest of the country that the State of Utah does not know how to manage its recourses. In closing we all have a right to breathe clean air and this right should not be taken away because of short term economic gain made by a foreign company and allowed by State Officials that have the responsibility for air quality oversight. 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. Ryan Mower 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 "environmentalists" 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. 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. **Sean Barlow** 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 econmic times our state cannot afford to lose such a great investment.

	I am opposed to the rule change and do not feel that Kennecott should expand and extract more ore per year, in turn affecting our air quality and particulates with the following exception:
Sheila White	If they can guarantee that no more particulates and/or pollutants will be released into the air/water/earth/landfill from the extraction process (including the fuel and emissions of the extraction machinery) than are released currently. If there is a way to capture and entrap those pollutants and render them benign or beneficial to the environment, then the yearly expansion project should be considered.
Shirlene James	Please do not pass the R307-110-17 General Requirements as being pursued by Rio Tinto in order to increase their emissions requirements for their Kennecott Copper Mine and the Cornerstone Project. I am a resident of Hi-Country Estates, Phase I and I can tell you we are already suffering from the amount they are emitting now. Our home inside and outside is covered with the emission dust. My husband has asthma and that adds to his danger and discomfort. The rest of the residents are exposed to and breathing in this poison now. I have sent them a letter and also asked them personally on the phone to please do something to lessen the dust coming from the dumps. They have even refused to install any equipment to measure the amount of pollutants coming from the dumps, saying that they have one in Copperton now and that should be enough. IT DEFINITELY IS NOT ENOUGH. The whole Salt Lake Valley suffers from their emissions and a lot of poisons are added to the valley pollution. We need less, not more! MONEY TALKS, BUT WE HOPE YOU ARE NOT LISTENING. No matter what they tell you, the fact is that they tell you what they want to hear, not what is best for the human population of the whole valley.
	I know you are dealing with air quality, but there are other things to consider. If they continue on like they want to they will destroy our water aquifer. The aquifers in the area support our culinary water system and many residents have private water wells, us included. They have already indicated that they could have already drilled into and possibly through our the aquifer that provides area culinary water. We need your help to resist this giant company belonging to a foreign country.
	They have enlisted the support of business interests in the valley, but what they are not aware of or don't care about is the excessive pollutants that will cover the valley, depending how the wind blows. We have lived in Hi-Country since 1972 and we have personally been aware of the additional problems Rio Tinto has been causing.
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.
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 being 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.

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.

Terry Marasco

2. Big Picture Questions/Observations

- 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
- 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, mid-level, 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 withbackup 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 NOx, as a gaseous pollutant, is subject to deposition on the mine walls similar to PM10. Gaseous pollutants do not "depose"... they remain as a gas, and are dispersed. This comment indicates that NOx 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:

- 1. 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.
- 2. 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.
- 3. 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 PM10 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 pubic 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.

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.

Terry Marasco

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 over-arching 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.

- 1. 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.
- 2. 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.
- 3. 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.
- 4. 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?
- 5. 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.
- 6. 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.
- 7. 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 meterorological variables and air monitoring data were well-known.
- 8. 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 veryreal 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.

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

In an email dated Feb 25, 2011from 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 considert 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.

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.

Terry Marasco

Terry Marasco

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.

Terry Marasco

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 Oquirrhs. 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".