April 6, 2011

Mr. Richard Jenks, Jr., Chairman
Ute Indian Tribe
PO Box 190
Fort Duchesne, UT 84026-0190

Dear Mr. Jenks,

As follow-on to our discussion on March 23, 2011, I wanted to provide some additional information regarding the permitting of the White Mesa Mill near Blanding. The Utah Division of Air Quality (Division) solicited public comments for the permit from September 29, 2010 to October 29, 2010. The Division received a letter dated October 29, 2010 from the Ute Mountain Ute Tribe containing comments on the proposed permit, or as we call them in Utah, Approval Orders. The comments were carefully considered prior to the issuance of the final Approval Order on March 2, 2011.

The Division also looked closely at the photos that were submitted with the comments. The letter stated that the Tribe was concerned about fugitive dust and the possible impacts of off-site migration of dust from the mill operations. The letter also addressed a Scientific Investigations Report concerning the conditions around White Mesa, which would include information that may be informative to the Division’s decision to issue the final Approval Order and asked that a decision be delayed until after January 31, 2011.

All of the points in the letter were considered at length by Division staff. The Approval Order prohibits opacities above 20% from any operation at the mill, which serves as a surrogate for fugitive dust. As long as the fugitive dust opacity is below 20%, the source is in compliance with both the Approval Order and the state rule on fugitive dust. The Approval Order also requires the White Mesa mill operators to activate a water-spray whenever the situation exists that the opacity may exceed 20%. The method of determining this compliance is contained in the Approval Order. Division compliance inspectors do perform unannounced inspections of the mill and check on all conditions of the Approval Order and perform opacity observations if there is activity to observe.

However, the Division does not have the authority to monitor or modify a source’s daily operations beyond compliance with the terms of the Approval Order. I was also informed that the Division staff has not seen or received the report discussed in the Tribe’s letter.
The Division of Air Quality takes all comments received seriously and works diligently to put conditions in the Approval Orders for all sources that address concerns of all parties involved, but the conditions must have a legal basis as well.

Thank you for your interest in this matter.

Regards,

Amanda Smith
Executive Director

cc: Gary Hayes, Chairman, Ute Mountain Ute Tribe
    Scott Clow, Director, Environmental Programs Department, Ute Mountain Ute Tribe
Amanda Smith  
Executive Director  
State of Utah  
Department of Environmental Quality  
195 North 1950 West  
Salt Lake City, UT 84114  

Re: White Mesa Uranium Mill  

Dear Ms. Smith:  

I am writing to you today to continue the process of addressing specific issues of concern to the Ute Mountain Ute Tribe ("Tribe") regarding the White Mesa Uranium Mill ("Mill") currently owned and operated by Denison Mines (USA) Corp. ("Denison") in San Juan County, UT. Our Tribal Chairman Gary Hayes recently attempted to discuss the following issues with you and Governor Herbert, but he was informed that the environmental issues of importance to the Tribe had been addressed in a letter of response to our appeal of an Air Approval Order. Unfortunately, that letter was addressed to the Ute Indian Tribe, a different Tribe than the Ute Mountain Ute Tribe that employs me as their Environmental Programs Director. The following letter is meant to clarify serious issues of concern to our Tribe regarding the Mill that were not addressed in your response letter regarding the Air Approval Order.  

The Ute Mountain Ute Tribe is a sovereign nation, a federally-recognized tribe, and a tribe that has engaged your agency in government-to-government consultation for the purposes of regulatory jurisdiction and cross-boundary issues with the State of Utah. I have attached to this letter a map that should clarify any geographical and political misunderstanding or confusion regarding the Ute Mountain Ute Tribe and its lands and communities within and adjacent to the State of Utah. Ute Mountain Ute Tribal Members have lived on and around White Mesa for centuries and intend to do so forever. Tribal members continue traditional practices, which include hunting and gathering and using the land, plants, wildlife and water in ways that are integral to their culture. It is reasonable to expect that those resources are not contaminated with hazardous materials that have blown on the wind or traveled through the groundwater from facilities regulated by your agency.  

The Tribe has serious concerns about the manner in which the Mill is currently operated and regulated. The Tribe has, over the past few years, resorted to using public comment and administrative litigation to raise its concerns, piece by piece, with the relevant divisions of your department. Because the Tribe feels that government-to-government consultation on the Tribe's concerns with the facility is
the appropriate course of action between the Tribal government and the State of Utah, I now present to you the Tribe’s major known concerns about the operation and the regulation of the Mill.

A. AIR QUALITY CONCERNS

1. Migration of Radioactive Fugitive Dust

The Tribe’s first air quality concern is that there is documented evidence of the migration of uranium and vanadium-laden dust from the Mill to adjacent lands. Dust suppression at the ore storage area at the Mill is conducted by a water truck at ground level; however, the ore piles are approximately 20 feet tall. The truck that waters the road during ore delivery and that waters the base of the piles creates additional dust during the watering process. Ore delivery also causes significant dust as delivery trucks drop their cargo. The percent opacity measurements and process for determining the exact appropriate time to initiate dust suppression are virtually unregulated. Windborne dust has blown from the ore pad causing off-site migration of uranium. The Tribe is very concerned that, even when presented with evidence of serious fugitive dust-related environmental contamination, your agency is unwilling to require Denison to perform industry-standard fugitive dust control at the Mill.

2. Insufficient Regulation of Radon Emissions

The Tribe’s second air quality concern is that the State’s regulation of radon emissions from the tailings cells at the mill is insufficient. The Clean Air Act NESHAP Subpart W standards and procedures for operating a “phased disposal” facility such as the White Mesa Mill clearly state that only two 40-acre cells can be in operation at one time. 40 C.F.R. § 61.252(b)(1). Without documentation of cell “closure” dates and regulations that clearly define “closure” and the minimum temporary cap for “closed” cells, the State’s interpretation and Denison’s interpretation of the regulation is ambiguous at best. The State cannot expect Denison to meet NESHAP standards without clear guidance on how to implement the program. Failure to regulate radon emissions from the tailing cells in compliance with 40 CFR Part 61, Subpart W poses unnecessary risks to mill workers, local residents, and wildlife.

B. GROUNDWATER AND OTHER FACILITY FAILURE CONCERNS

1. Tailings Cell Failures and Inadequate Leak Detection System

The Tribe’s first groundwater quality concern is that failure of tailing cell liners in cells 1, 2, and 3 may have caused, or may cause in the future, catastrophic contamination of groundwater resources. The tailing cell liners originally installed for cells 1, 2, and 3 were not “state of the art” when they were installed in the late 1970s, and the Tribe’s experts now believe these liners are insufficient to contain the contents of tailing cells 1, 2, and 3. Significant concern was raised by the Division of Radiation Control (“DRC”) about the chemical compatibility of the liners and the materials that were poised to be delivered to the Mill for processing and disposal when the Nuclear Regulatory Commission (“NRC”) amended the radioactive materials license for the facility to accept alternative feed materials in the late
1990s. The NRC approved the license amendment over the objection of DRC and the Tribe. As predicted by DRC at that time, it now appears that the liners have been leaking and that the leak detection system is inadequate to detect the leakage in a reasonable amount of time to mitigate pollutant migration beyond the cells. The time that DRC has allowed Denison to deliberate over the sources of nitrate and chloride contaminants in the shallow groundwater at the facility has exacerbated the migration of contaminants while Denison proposes hypotheses that deflect blame from itself and does nothing to address the spreading contamination.

2. **Inadequate Closure Plan**

   The closure and reclamation plan for the Mill is currently inadequate to ensure continued protection of public health and environment once the Mill has ceased operation. The proposed final capping of waste tailing cells that Denison is negotiating with the DRC is far below standard industry practice. For example, just up the road in Monticello, the Department of Energy maintains the Monticello mill through its Legacy program. The cap design for that facility is more robust than what is being proposed (20 years later) by Denison. The Tribe insists that the State of Utah require Denison to protect the long-term health of residents of Blanding and White Mesa by requiring a cap design that meets industry standard.

   The current closure plan also does not address the environmental liabilities that Denison is trying to resolve with DRC at this time (such as the chloroform groundwater contamination, the tetrahydrofuran groundwater contamination, the nitrate groundwater contamination, and the chloride groundwater contamination). The evidence of chlorides in the groundwater indicates liner leakage of much more hazardous materials into the groundwater table, and the evidence of off-site migration of radioactive fugitive dust indicates contamination of surface and land resources. The Tribe is concerned that the State of Utah is not requiring Denison to address groundwater and surface resource contamination and that Denison may simply leave this contamination as legacy pollution for state and federal agencies to address in the future.

3. **Inadequate Financial Surety**

   The Tribe asserts that the current level of financial surety for the clean-up, closure and reclamation of the Mill is drastically inadequate to handle the expenses associated with the closure of the Mill. The current surety amount of roughly $11 million cannot cover the costs of mill decommissioning, contaminated soil remediation, groundwater remediation, tailing cell repair, or replacement, closure and capping of the tailing cells and total remediation of cell 1, the liquid waste cell, and the probable contamination below the "Roberts Pond" area of the Mill. The Tribe is also concerned that the current surety amount does not address the incompatibility of alternative feed materials with the tailing cell liners. This incompatibility may cause the need to totally excavate the tailings from cells 2 and 3 and rebuild the cells with liners that are adequate to contain the mixture in perpetuity; the other alternative would be long-term groundwater remediation around the cells beyond the projected responsibilities of Denison. Based on the closure cost data compiled through decades of these
undertakings by the Department of Energy and the total volume of tailings projected at closure, the
Tribe’s experts predict that the surety amount is deficient by at least one order of magnitude.

The Tribe insists that the DRC assess all of Denison’s current liabilities and that the DRC require
Denison to provide a surety amount that provides for real, total, and safe reclamation and closure of the
facility. Similar to the recent discussion at the September 2011 Radiation Control Board Meeting
regarding a radioactive waste disposal facility, the DRC must require Denison to provide adequate
financial surety prior to approval of another radioactive material license for this uranium mill.

The foregoing issues are of deep concern to the Ute Mountain Ute Tribe and its Members.
Protection and preservation of the land and natural resources on and around White Mesa are critical to
our way of life. As a sovereign nation and federally-recognized tribe, we have sought to engage your
agency in government-to-government consultation regarding regulation of the Mill and protection of
Tribal lands, resources and communities on and around White Mesa. We expect the same in return.
We look forward to working with you and your staff in this regard.

Sincerely,

Scott Clow
Environmental Programs Director
Ute Mountain Ute Tribe

Cc: Gary Hayes, Chairman, Ute Mountain Ute Tribe
    Peter Ortego, General Counsel, Ute Mountain Ute Tribe
    Celene Hawkins, Associate General Counsel, Ute Mountain Ute Tribe
    H. Michael Keller, Special Counsel, Ute Mountain Ute Tribe
    Rusty Lundberg, Director, UT Division of Radiation Control
    Bryce Bird, Director, UT Division of Air Quality
November 5, 2011

Scott Clow, Environmental Programs Director  
Ute Mountain Ute Tribe  
P.O. Box 248  
Towaoc, Colorado 81334-0248

Dear Mr. Clow,

Thank you for your letter of October 6, 2011 outlining additional concerns the Ute Mountain Ute Tribe has with the White Mesa Mill, operated by the Denison Mines USA Corporation in San Juan County. Please accept my apologies for the fact that an earlier letter was sent to the Ute Indian Tribe and you and Chairman Gary Hayes from the Ute Mountain Ute Tribe were only copied on that correspondence. It was a mistake on our part and we hope to move forward with better communication.

The Department has taken the Tribe’s comments to heart and has attempted to address them in the same format as you presented. These responses have been coordinated between the Division of Air Quality (DAQ) and the Division of Radiation Control (DRC). I apologize in advance that these responses may sound bureaucratic, but it is important to articulate the legal boundaries set by statute and rule in which DEQ is able to regulate. That being said, we are committed to working with the Tribe to better understand the environmental impacts and ensure the protection of the resources and communities on and around White Mesa.

A. AIR QUALITY CONCERNS

1. Migration of Radioactive Fugitive Dust

Your letter expresses concern about contaminated fugitive dust. Air Quality rules address dust in general. Migration of contaminated dust is a consideration in the Radioactive Material License. The License mandates monitoring of the radionuclide concentration in the air at five locations. The results are reviewed by DRC on a semi-annual basis. The environmental monitors operate continuously and DRC inspects them annually. Placement of the monitors was strategic: two of the five locations are based on prevailing wind directions; two locations on secondary prevailing winds; and, one location was selected based on the Tribe’s request. Since monitoring began, concentrations have been well below the Effluent Concentration Limits for Natural Uranium,
Thorium-230, Radium-226, and Lead-210. These are federally-established limits that have been adopted by the DRC through guidance, rule, or license conditions.

You referenced “documented evidence of the migration of uranium and vanadium-laden dust from the Mill to adjacent lands.” We would welcome a copy of that report. We did see an EPA powerpoint presentation summarizing soil, plant, and water samples in the area, but it was preliminary. Please forward the information you have to Phil Goble in the DRC. He can be contacted at 801-536-4044 or at pgoble@utah.gov.

From an air quality standpoint, Denison is regulated the same as other aggregate production/processing facilities. Its Air Quality Approval Order stipulates 15% opacity for the ore loading area and 20% opacity for haul roads and unpaved areas. The approval order requires Denison to activate a water-spray whenever opacity may exceed 20%. State Rule requires truck track-out to be promptly cleaned from a paved road.

Due to public awareness and concern about this source, DAQ compliance inspectors conduct unannounced surveillance inspections whenever they are in the area – at least 2x a quarter. One challenge DAQ has in being able to take action on fugitive dust complaints is that the 20% opacity has to be verified by a certified visible emissions observer. If you are interested in learning more about opacity and what is needed to be make a certified observation, Jay Morris of our Division of DAQ would be happy to speak to you. He can be contacted at 801-536-4079 or jpmorris@utah.gov.

2. Insufficient Regulation of Radon Emissions

The second concern expressed was about regulating radon emissions in compliance with NESHAP Subpart W. These requirements include an annual Radon-222 emission test from existing uranium mill tailings piles. They also require tailings impoundments to be lined, to be less than 40 acres, and limit sources to two impoundments in operation at any one time. Since these requirements have been in place, Denison has met them.

White Mesa Mill test results are submitted to DAQ by March 31 of each year and reviewed by staff for compliance. These results have shown compliance with established Radon-222 emission limits. You raised the issue of cell closure in this context. Limits on the radon emitted from closed cells are being met with the temporary cover. A permanent cell cover system will be addressed in the reclamation plan which is a requirement of the draft license renewal currently in public comment. No more cell construction can begin until the modeling and reclamation plan are approved by the DRC Executive Secretary.

NESHAP Subpart W is under review by EPA and new guidance is anticipated next Spring.

B. GROUNDWATER AND OTHER FACILITY FAILURE CONCERNS

1. Tailings Cell Failures and Inadequate Leak Detection System

We understand your concerns about adequate leak detection systems and the protection of groundwater sources. As you are aware, the Leak Detection Systems for Tailing Cells 1, 2, and 3
were inadequate and so the original groundwater permit, issued by the DRC on March 8, 2005, required the installation of additional monitoring wells immediately adjacent to the cells.

The leak detection systems seem to be providing the additional warning and protection sought. In June, 2010, an accumulation of fluid was discovered within the Tailings Cell 1 leak detection system. An initial pH paper test indicated a pH of 2.0 to 3.0 which told us that the fluid originated from Cell 1. To repair the liner, Denison lowered the fluid level to 563.10 feet asl by pumping the solution into another cell. Eliminating the flow of wastewater to the leak detection system allowed Denison to identify damage to the liner and to perform repairs. When the former liquid level was allowed to return, the system remained dry for a time. However, fluid was again registered on August 7, 2010, indicating that repairs had not addressed all of the damage. A new repair plan was negotiated and is currently being implemented. No wastewater has been observed in the Cell 1 leak detection system since mid-August 2010.

Tailings Cells 4A and 4B liners were constructed using Best Available Technology. The first opportunity to see if a leak has occurred within those cells would be by their respective leak detection systems.

Your letter specifically mentions chloroform and nitrate contamination. There are two contamination plumes (one chloroform, one nitrate) identified at the site. Based on monitoring results, neither plume appears to have originated from the Tailings Cells.

Chloroform

There are currently 27 monitoring wells associated with the chloroform plume. Repeated groundwater sampling by both Denison and DRC have confirmed concentrations in excess of the State’s Groundwater Quality Standards. The sampling appears to have defined the plume’s eastern and southern boundaries. Impacted wells are along the eastern margin of the site and are upgradient or cross-gradient from the tailings cells.

Contamination appears to have been caused by laboratory wastewater disposal activities that pre-dated mill operation. Denison’s predecessor used chloroform in the laboratory and then dumped the excess into the septic system. This practice no longer occurs. Laboratory water is now discharged to Tailing Cell #1.

We acknowledge the length of time this has taken to address this issue. A Corrective Action Plan (CAP) is near completion and should be ready for public comment this winter. In the interim, Denison is currently using a hydraulic control system (pump and treat) to address the plume.

Nitrate

Based on nitrate contamination found in a number of onsite wells, DRC identified the plume while preparing a permit modification in 2008. Denison agreed to conduct an investigation to determine the source in a Stipulated Consent Agreement dated January 27, 2009.

A final conclusion has not been reached, in spite of two-plus years of investigation. Site conditions make it difficult to determine the total number, locations, magnitude of contribution,
and proportion of the various sources. As a result, it was agreed that resources would be better spent in developing a Corrective Action Plan. A Stipulated Consent Agreement was signed by both parties on September 30, 2011. Denison is required to submit a CAP by November 30, 2011. The CAP will be released for comment and a meeting will be held to give the public a chance to comment on the proposed path forward.

Inadequate Closure Plan

We, too, are concerned about the adequacy of the current closure plan and have taken steps to address it in the Denison Mines License Renewal which is currently out for public comment through December 14, 2011. License Condition 9.11 specifies that the Infiltration and Contaminant Transport Modeling Report, and Reclamation Plan and a more final update of the surety estimate must be approved by the Radiation Control Board Executive Secretary before any new tailings cell construction will be considered.

Inadequate Financial Surety

The current, approved surety for the Denison Mines White Mesa Uranium Mill is $18,777,388. In the License Renewal, License Condition 9.5 requires Denison Mines to submit a revised surety on or before March 4, 2012. The revised surety must include all costs necessary to remediate any groundwater contamination required by new License Condition 10.20. That condition states: "As of July 1, 2011, groundwater contaminants that require remediation at or near the site include, but are not limited to: chloroform, carbon tetrachloride, dichloromethane, chloromethane, and nitrate." Any remediation costs for groundwater contamination at the White Mesa Mill property will be included with this surety submittal.

Upon Executive Secretary approval, Denison will be required to submit written evidence of the final approved surety amount within 60 calendar days.

I anticipate there may be more questions about Denison and invite you to contact me or my staff as they arise. Working with DEQ staff does not constitute government to government consultation with the Tribe. We will try to honor the Tribe’s expectation by facilitating the elevation of critical issues to a meeting with Tribal Leaders and senior staff from the Governor’s Office.

Thank you for your letter and for your time reviewing this information.

Regards,

Amanda Smith
Executive Director

Cc: Lieutenant Governor Greg Bell
Gary Hayes, Sr. Chairman Ute Mountain Utes