August 17, 2012

Rusty Lundberg
Director
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VIA U.S. MAIL AND EMAIL

Re: Comments Regarding Denison Mines (USA) Corp., White Mesa Uranium Mill Corrective Action Plan, UGW12-04.

Dear Mr. Lundberg:

The Ute Mountain Ute Tribe (ñTribeò) submits the following comments regarding the Stipulation and Consent Order, Docket No. UGW12-04 (ñStipulationò) and the Corrective Action Plan for Nitrate, White Mesa Uranium Mill Near Blanding, Utah, May 27, 2012 (ñCAPò). The Tribe notes that it is in the process of engaging the State of Utah (including the Utah Department of Environmental Quality (ñDEQò) and its Divisions) in government-to-government consultation regarding the Tribeôs concerns with Denison Mines (USA) Corp.ôs (ñDUSAò) operation of the White Mesa Mill (ñWMMò). The Tribe also notes that it has filed public comments (ñDecember 16, 2011 Commentsò) in DUSAôs pending action Radioactive Materials License Renewal DRC-045 (ñRML Renewalò), and that the December 16, 2011 Comments addressed the subject of the UGW12-04 corrective action plan in the broader context of deficiencies in the proposed RML Renewal.[1] The Tribe submits these comments as public comments pursuant to Utah Admin. Code R317-6-6.15(E) and R305-6-105(2)(a).

The Tribe has organized these comments into four major sections. Section I provides a short introduction to Tribal concerns about groundwater contamination at the WMM facility. Section II addresses specific deficiencies in the Stipulation and CAP. Section III addresses how deficiencies in the Stipulation and CAP impact Tribal comments and concerns on the renewal of DUSAôs radioactive materials license. Section IV provides a bulleted list of Tribal demands on the Stipulation and CAP.

[1] To avoid repetitive comments to the Division of Radiation Control (ñDRCò), the Tribe requests that the December 16, 2011 Comments, including all exhibits, be incorporated by reference and made a part of the administrative record on this Stipulation and CAP.

I. TRIBAL BACKGROUND AND CONCERN WITH GROUNDWATER CONTAMINATION AT THE WMM FACILITY.

The Ute Mountain Ute Tribe is a federally-recognized Indian tribe with lands located in southwestern Colorado, northwestern New Mexico, and southeast Utah. There are two Tribal communities on the Ute Mountain Ute Reservation: Towaoc, in southwestern Colorado, and White Mesa, which is located in Utah within three miles of the WMM facility. Ute Mountain Ute Tribal Members (ñUMU Tribal Membersò) have lived on and around White Mesa for centuries and intend to do so forever.

The community of White Mesa depends on groundwater resources buried deep in the Navajo (deep confined) aquifer for its municipal (domestic) needs. UMU Tribal members also make use of the perched (shallow) aquifer near the WMM facility and near the White Mesa community. Uses of the perched (shallow) aquifer include direct uses for drinking and ceremonial use, as well as indirect uses through livestock watering and the harvesting of wildlife and plants. Because Tribal uses of the Navajo aquifer and the perched aquifer are downgradient of the WMM facility, the Tribe has a strong interest in maintaining the long-term quality of these resources and preventing short-term users like DUSA from polluting these sources.

The Tribe has serious concerns about the manner in which the WMM facility is currently operated and regulated, and the Tribe is especially concerned about DRCôs enforcement of DUSAôs groundwater permit. Because of these concerns, the Tribe has engaged DRC in public comment on both DUSAôs groundwater permit and DUSAôs radioactive materials license to express its concerns about the regulation and to propose practical and technically sound solutions to the regulatory deficiencies. *See* December 16, 2011 Comments § III(A). Despite these efforts, the Tribe remains concerned that effective and aggressive regulatory action is not being taken to protect shallow and deep groundwater from the impacts of DUSAôs operations. The Tribe was recently dismayed that DRC, on the basis of enforcement discretion, removed DUSAôs compliance obligation under the groundwater permit to test the integrity of a deep drinking water supply well that is completed in the Navajo aquifer to determine if the well is providing a contamination pathway to the aquifer. *See* Letter from Scott Clow to Rusty Lundberg, April 23, 2012, attached as Exhibit A. The testing requirement was a critical permit provision for ensuring protection of the Navajo aquifer. The Tribe also continues to be concerned with DRCôs failure to take regulatory action against DUSA in response to the increasingly elevated concentrations of indicator parameters data in monitoring well MW-22 located near the southern boundary of the WMMôs monitoring network and, therefore, near the border with the White Mesa Community. *Id.*

The Tribe supports and encourages the immediate implementation of an effective corrective action plan requiring DUSA to remediate the nitrate/chloride plume, but without relieving DUSA of its other regulatory obligations to identify and effectively control or remove sources of groundwater contamination at the WMM. The Tribe also reiterates the sections of the December 16, 2011 Comments requesting concurrent reclamation of Tailings Cells 1, 2, and 3, as this concurrent reclamation will likely provide both critical, long-term protection of groundwater near the WMM facility and the basis of a proper corrective action plan to address the nitrate/chloride plume. *See* December 16, 2011 Comments at § III(A).

The Tribe submits these comments to identify the deficiencies in the Stipulation and CAP and to request that DRC take appropriate regulatory action to protect the health and safety of the public, UMU Tribal members, and the environment.

II. THE PROPOSED STIPULATION AND CAP FAIL TO MEET THE REQUIREMENTS OF UTAH ADMIN. CODE R317-6 *ET SEQ*.

In Sections III(A) and III(C) of its December 16, 2011 Comments, the Tribe provides a detailed analysis of its concerns with groundwater contamination at the WMM facility. That analysis includes an initial review of an earlier version of the CAP, but focuses on broader concerns with groundwater contamination and deficiencies under federal and Utah state laws governing DUSAôs RML Renewal for the WMM facility. The Tribe reiterates and expands its December 16, 2011 Comments here to focus on specific deficiencies in the Stipulation and CAP under the Utah Water Quality Standards Regulations, Utah Admin. Code R317-6 *et. seq.*

A. THE STIPULATION AND CAP IMPROPERLY REMOVE DUSAôS RESPONSIBILITY TO IDENTIFY SOURCES OF THE CONTAMINANT PLUME UNDER UTAH ADMIN. CODE R317-6-6.15(D)(1)(b)(5).

Under Utah Admin. Code R317-6-6.15(C), DRC may order regulated entities like DUSA to undertake a contamination investigation report that includes, among other items, ñtype, location and description of possible sources of the pollution at the facility.ò Utah Admin. Code R317-6-6.15(D)(1)(b)(5). Utah Admin. Code R317-6-6.15(C)(4) allows DRC to waive Contamination Investigation requirements when a request for a waiver is submitted to the Director and ñwhen the person subject to this rule demonstrates that the information that would otherwise be required is not necessary to the [Director]ôs evaluation of the Contamination Investigation or Corrective Action Plan.ò

DRC exercised its Utah Admin. Code R317-6-6.15(C) authority in 2009 when it required DUSA to begin a nitrate contaminant investigation that included identification of possible sources of the plume. *See* Stipulation at p. 2. DRC and DUSA then spent more than two years engaging in submitting (DUSA) and revising (DRC) work on the contamination investigation and entering into tolling agreements to defer monetary penalties assessed to DUSA. *See id.* In August of 2011, the DRC issued a review letter stating that it ñwill be extremely difficult for DUSA to demonstrate that the White Mesa Mill Site has not caused at least part of the contamination found in the nitrate and chloride plume(s) beneath the mill.ò *See also* CAP at p. 6 (DUSA recognizes that DRC ñ**cannot eliminate** Mill activities as a potential cause, either in full or in part, of the contamination.ò). From that, DRC and DUSA determined that ñresources will be better spent developing a CAPé rather than continuing with further investigations as to the source(s) of contamination.ò Stipulation at p. 5.

The fact that it is difficult or expensive for DUSA to determine the source of the contaminant plume does not demonstrate that the required information on the source of the contaminant plume is not necessary for the Directorôs evaluation of the contamination investigation or corrective action plan. Indeed, a corrective action plan that meets the requirements of Utah Admin. Code R317-6-6.15(E) must identify the cause of the contamination, including the source, and a plan for removal or other action that produces a permanent effect on the contamination.

The lack of a continued requirement for DUSA to continue with the contaminant investigation on source identification cannot be justified using the discretion provided under Utah Admin. Code R317-6-6.15(C)(4). As a procedural matter, neither DUSA nor DRC has indicated that DUSA has requested a R317-6-6.15(C)(4) waiver or that DUSA or DRC has justified the waiver under that rule. As a more substantive matter, the Tribe asserts that source identification is still necessary to the Directorôs review of the CAP because DUSA has, perhaps willfully, failed to identify and investigate two likely sources of the nitrate/chloride plume: the tailings cells and the Roberts Pond area.

The Tribe has already submitted extensive public comments to DRC explaining the Tribeôs concerns about groundwater contamination caused by leaking liners in Tailings Cells 1, 2, and 3 and the Tribeôs specific concerns about corrective action on the nitrate/chloride plume. *See* Dec. 16, 2011 Comments § III(A)(1)(a). Those comments provide detailed text and exhibits to support the Tribeôs assertion that, ñé given the evidence of chloride, nitrate, and nitrite contamination, it is likely that the liners of Tailings Cells 1, 2, and 3 are currently leaking and that there is a risk of catastrophic liner failure in each of these cells.ò *Id.* at p. 7. The December 16, 2011 Comments also address additional risks posed by alternative feed material containing solvents that are incompatible with the PVC liners in Tailings Cells 1, 2, and 3. Dec. 16, 2011 Comments § III(C)(1)(a). Finally, the December 16, 2011 Comments provide exhibits of DRC documentation and correspondence demonstrating that, ñé **DRC understands that**, give the design of the leak detection system (ñLDSò) in Tailings Cells 1, 2, and 3, evidence of chloride, nitrate, and nitrite in the groundwater monitoring system is a ñsmoking gunò or ñprimaryò indicator that the cell liners in Tailings Cells 1, 2, and 3 are leakingé ò *Id.* at p. 6 (emphasis supplied).

Since the Tribe submitted its December 16, 2011 Comments, DRC may have identified another potential source of the contamination: the Roberts Pond area. *See* Groundwater Permit UGW37004, 3.b(3)(e) (describing Roberts Pond and Interra Nitrate Contamination Investigation Report of December 30, 2009, Report Figure 7 and identifying the Roberts Pond area approximately 300 feet from TWN-2).[2]

Both DRC and DUSA have admitted that, ñthe nitrate and chloride at the Mill site are coextensive and appear to originally come from the same source.ò DUSA First Quarter 2012 Nitrate Quarterly Monitoring Report; *see also* CAP at p. 12 (ñchloride appears to be co-located with nitrate in groundwater at the Millò). Given this admission, and given the December 16, 2011 Comments and evidence available to DRC indicating that the tailings cells and the Roberts Pond area are likely sources of the nitrate/chloride plume, there is no justification for DRC waiving any requirement that DUSA investigate the tailings cells and the Roberts Pond area as sources of the contamination or that DUSA begin taking interim measures to control leakage from these areas. Not only are the tailings cells and Roberts Pond area likely sources of the plume, they are likely significant sources, given their contents, size, volume, hydrostatic head and age.

[2]The January 19, 2012 URS memorandum indicates that the groundwater mound under TWN-2 is not influenced by the wildlife ponds and that the groundwater mound under TWN-2 has the highest concentration of nitrate at the site, and requires DUSA to explain the historic use of the ñPond.ò *See* p. 3 #12, p. 4 #15; *see also* CAP at 4.3.2, paragraph 2, p. 19. It is unclear to the Tribe why DRC would speculate that a historic livestock pond absent 32 or more years in almost the same location as a chemical waste storage pond (recently re-lined due to deficiencies) would be a source, but the chemical pond would not. If, in fact, the ñpondò referred to by URS is Roberts Pond, then it should be explicit and identified as a potential source of the nitrate and chloride ions.

Instead, DRC should assume that Tailings Cells 1, 2 and 3 and the Roberts Pond area are potential sources of the nitrate/chloride plume, unless and until DUSA provides an adequate contamination investigation report ruling them out as sources of the plume.

B. THE STIPULATION AND CAP FAIL TO PROTECT PUBLIC OR TRIBAL MEMBER HEALTH AND THE ENVIRONMENT AS REQUIRED BY UTAH ADMIN. CODE R317-6-6.15(E)(2).

Under Utah Admin. Code R317-6-6.15(E)(2), DRC is required to ensure that the Stipulation and CAP are ñprotective of the public health and the environment.ò The Stipulation and CAP fail to meet this regulatory requirement because they: (1) fail to require DUSA to investigate leakage from Tailings Cells 1, 2, or 3 as the source of the nitrate/chloride plume; (2) fail to require DUSA to provide a surety estimate that includes all future work and elimination of the source of the nitrate/chloride plume; and (3) fail to require DUSA to assess impacts to down-gradient water sources used by Tribal members and the general public.

1. <u>The Stipulation and CAP Are Inadequate to Protect Public Health and the Environment Because They Fail to Require DUSA to Investigate Tailings Cells 1, 2, and 3 and the Roberts Pond Area as Sources of the Nitrate/Chloride Plume.</u>

As described above, the Tribe has already submitted extensive public comments to DRC explaining the Tribeôs concerns about groundwater contamination caused by leaking liners in Tailings Cells 1, 2, and 3 and the Tribeôs specific concerns about corrective action on the nitrate/chloride plume. *See* § II(A) *supra*. As also described above, DRC has consistently identified chloride and nitrate in the DUSA groundwater monitoring system as ñprimaryò or ñsmoking gunò indicators of liner leakage in the tailings cells, and has confirmed the co-location of chloride and nitrate in the contamination plume. *Id.*

Nonetheless, DUSA states in the CAP that DUSA and DRC have concluded that there is ñno known significant unaddressed currently active sourceò of the nitrate plume. CAP at p. 24. Using this conclusion, DUSA designed, and DRC proposes to approve, a CAP that does not require the investigation of active contamination sources like Tailings Cells 1, 2, and 3 and the Roberts Pond area that could be the cause of the co-location of nitrate and chloride in the groundwater.[3]

This means that, although DRC has repeatedly documented that nitrate and chloride are primary indicators of tailing cell leakage, and although DRC and DUSA have documented a contamination plume with co-extensive nitrate and chloride contamination coming from the same source, DRC is now proposing to issue a Stipulation tiered to DUSAôs CAP, which never contemplates the investigation of Tailings Cells 1, 2, and 3 or the Roberts Pond area as potential contamination sources. In doing so, DRC is not only failing to require DUSA to find the real source of the nitrate/chloride contamination plume, but is also failing to investigate or regulate potential leaks from Tailings Cells 1, 2, and 3 or the Roberts Pond area that could be releasing dangerous

[3] Phase I of the CAP requires DUSA to clean contamination of the Ammonium Sulfate Crystal Storage Tanks, which do not contain chlorides (and therefore cannot explain the co-location of nitrate and chloride in the contamination plume). None of the CAP phases (including Phase III, which is supposed to provide a ñcomprehensive long term solution for the nitrate groundwater contaminationò) require DUSA to investigate the tailings cells as the source of the co-located nitrate and chloride.

chemicals (including chemicals contained in alternative feed material) and radioactive materials into the groundwater table. Both failures demonstrate that the current CAP is insufficient to protect public and Tribal member health and the environment as required by Utah Admin. Code R317-6-6.15(E)(2).

2. The Stipulation and CAP are Inadequate to Protect Public Health and the Environment Because They Fail to Require DUSA to Provide for Costs for Phase III of the CAP and Other Phases or Corrective Action Plans Needed for Full Remediation of Groundwater Contamination at the WMM.

The Tribe has already submitted extensive public comments to DRC explaining the Tribeôs concerns about final reclamation and surety estimates at the White Mesa Mill. *See* Dec. 16, 2011 Comments § IV. In those comments, the Tribe provides detailed text and exhibits (including an expertôs report providing several methods of calculating a reasonable surety estimate for the facility[4]) to support its assertion that DRCôs minimum surety estimate for the facility is grossly insufficient to ensure adequate decontamination and decommissioning of the White Mesa Mill facility. The Tribe now asserts that DRC is exacerbating the surety estimate deficiency by only requiring DUSA to provide a surety estimate for Phases I and II of the CAP work.

The current CAP only requires DUSA to provide a surety for costs for Phases I and II of the CAP ñfor a period of time until [Director] approval of Phase III of the CAP to restore groundwater to the established site specific groundwater cleanup standards pursuant to UAC R317-6-6.15 before the site is transferred to the federal government for long term custody.ò CAP at p. 13. This means that the surety estimate for at least the first five years of the CAP will only cover remediation at the Ammonium Sulfate Crystal Storage Tanks and the near-term groundwater pumping under Phase II, and it will not include any work under Phase III, any work to address the Tailings Cells as a source of the nitrate/chloride plume, or other remediation work needed to address the groundwater contamination. As described above, the Tribe asserts that, because the plume contains co-located nitrate and chloride contamination, and because Tailings Cells 1, 2, and 3 are likely active sources of nitrate and chloride contamination, there will likely be significant costs associated with Phase III and other work required to remediate groundwater contamination from the tailings cells.

In its December 16, 2011 Comments, the Tribe raised several concerns about DRCôs failure to provide an adequate minimum surety estimate to DUSA, including a concern that ñthe operation of the WMM facility with the ultimate reclamation and surety plan to be a DOE legacy site will allow DUSA to avoid liability for environmental contamination and will allow DUSA to operate the WMM facility in a manner that poses an increased threat to both the short-term and the long-term health and safety of UMU Tribal Members.ò December 16, 2011 Comments § IV(B)(1). The Tribe reiterates that concern here, and asserts that DRC is failing to protect public health and the environment by allowing DUSA to post only a partial surety estimate on the CAP groundwater reclamation work.

[4] The Tribe notes here that the expertôs calculations in Exhibit H did not include calculations for groundwater remediation, although the expert recommended a ñliberal allowanceò for groundwater reclamation due in part to known contamination plumes like the nitrate plume. *See* Dec. 16, 2011 Comments, Exhibit H, § 3.25.

3. The Stipulation and CAP are Inadequate to Protect Public Health, and in Particular, Tribal Member Health, and the Environment Because the CAP Disregards Down-Gradient Uses.

The Tribe has already submitted comments and correspondence to DRC explaining the Tribeôs concerns about identifying and promptly minimizing contamination pathways from the WMM facility to water resources used by Tribal members and the public. *See* Dec. 16, 2011 Comments § III(A)(3); Exhibit A. The Tribe is concerned here that discrepancies between DRCôs Statement of Basis and the CAP in describing down-gradient water uses, and particularly Tribal down-gradient water uses, will allow DUSA to implement the phased CAP without properly protecting down-gradient uses or impacts on down-gradient public health and the environment.

The nitrate/chloride plume addressed in the Stipulation and CAP has the potential to impact uses of the perched aquifer by Tribal members and livestock owners that occur down-gradient of the WMM facility. These uses include drinking and traditional ceremonial use and use by livestock, wildlife, and plants. The Statement of Basis recognizes some of these uses, stating that, ñ[d]owngradient of the mill site, the perched aquifer supports stock watering and wildlife habitat.ò The Statement of Basis also recognizes that the Tribal community in White Mesa depends on the deep confined aquifer for its drinking water supply. *See id.* The CAP, however, only describes uses of water up gradient of the WMM facility, and does not address protection of public and Tribal member health or the environment downgradient of the WMM facility.

It is unclear to the Tribe why the Statement of Basis and the CAP differ so widely in addressing this important component of ensuring that the CAP protects public health and the environment. However, because neither the Stipulation nor the attached CAP adequately addresses impacts to downgradient users, the Stipulation and CAP are currently inadequate to protect public health and the environment.

C. THE CAP FAILS TO PRODUCE A PERMANENT EFFECT AS REQUIRED BY UTAH ADMIN. CODE R317-6-6.15(E)(4).

Under Utah Admin. Code R317-6-6.15(E)(4), DRC is required to ensure that the CAP ñshall produce a permanent effect.ò The CAP fails to meet this regulatory requirement because no portion of the phased approach is designed to permanently address and remove the source of the nitrate/chloride plume.

Phases I and II of the CAP are fairly limited in scope: as described in Section II(B)(1), n.3, *supra*, Phase I is designed to remove a contamination source that cannot be the source of the co-extensive nitrate and chloride in the plume. In addition, the Tribe asserts that any analysis identifying the Ammonium Sulfate Crystal Storage Tanks as the sole source of the nitrate in the plume is flawed. Based on the distance between the tanks, groundwater well locations, depths of wells, hydraulic conductivity estimates, concentrations in those wells, and recorded precipitation, it is highly unlikely that there is enough water on the land surface at the tank location to move the ammonium ions to the well locations in the time period that has been identified as a precursor to the groundwater plume and its extent. Thus, while the Tribe supports DRC requiring DUSA to remove the Ammonium Sulfate Crystal Storage Tank contamination, the Tribe reasserts that Phase I will not produce a permanent effect on the current nitrate plume because the Ammonium Sulfate Crystal Storage Tank contamination does not produce the kind of contamination or the extent of contamination identified in the nitrate/chloride plume.

Phase II of the CAP is designed as a near-term groundwater pumping regime that will target high-concentration zones in the nitrate plume. *See* Statement of Basis at p. 8. Under this regime, DUSA will attempt to address the nitrate contamination by pumping contaminated groundwater from the plume to the tailings cells and by relying on natural attenuation to dilute the nitrate levels. CAP at p. 1. Although DUSA seems to anticipate that this near-term pumping of groundwater will produce a permanent effect to lower the concentration of nitrate in the plume below the CACL, *see* CAP at pp. 11-12, DRC indicates in its Statement of Basis that its order for the initial Phase III planning document is required to produce a ñpermanent effectò under Utah Admin. Code R317-6-6.15E(4), Statement of Basis at pp. 9-10.

The Tribe asserts here that DRCôs order for the Phase III planning document is still insufficient to provide a permanent effect under Utah Admin. Code R317-6-6.15(E)(4) because nothing in the Stipulation or the CAP requires DUSA to do source analysis (or specifically, analysis of Tailings Cells 1, 2, and 3 or the Roberts Pond area of the WMM facility as the source for the co-extensive chloride and nitrate plume) or to control the potential sources in place. Given that such co-location of nitrate and chloride presents a ñsmoking gunò indicator of leakage from active Tailings Cells 1, 2, and 3, the Tribe asserts that Phase II, without a concurrent Phase III that includes an assessment of leakage from Tailings Cells 1, 2, and 3, will fail to produce a permanent effect. *See* Section II(C)(1), *infra* (describing further contamination problems with pumping contaminated groundwater into a leaking Tailings Cell 1, 2 or 3).

The Tribe also asserts that DRCôs long (five-year) timeline on producing the Phase III planning document and the total lack of detail in the CAP or Stipulation about what will be required under Phase III make it difficult for the Tribe to evaluate whether the critical phase of the remediation plan will be sufficient to produce a permanent effect. However, given DUSAôs reluctance to address the long-term plan for remediation at the WMM facility and DUSAôs refusal to consider the tailings cells as sources, and given that both DUSA and DRC mention DUSA seeking an alternate corrective action concentration limit after implementing Phase II, *see* Statement of Basis at p. 9 and CAP at p. 12, the Tribe is concerned that the Stipulation and CAP do not require DUSA to undertake any other Phase III work or any work addressing leakage from Tailings Cells 1, 2, and 3. Because the Stipulation and CAP have no real plan for implementing remediation work past the near-term pumping regime outlined in Phase II of the CAP, DRC has failed to ensure that the CAP will produce a permanent effect.

D. THE CAP FAILS TO MEET CORRECTIVE ACTION CONCENTRATION LIMITS SPECIFIED IN UTAH ADMIN. CODE R317-6-6.15(F).

Under Utah Admin. Code R317-6-6.15E(3), DRC is required to ensure that the CAP meets corrective action concentration limits specified in R317-6-6.15(F). The CAP fails to meet this regulatory requirement because Phases I and II are fundamentally flawed. Because the Tribe is concerned that DUSA will seek to meet the nitrate corrective action concentration limit by petitioning for an alternate corrective action concentration limit (ñalternate CACLò), the Tribe asserts that phasing the CAP to allow DUSA to seek a higher alternate CACL instead of performing long-term remediation work is inappropriate under Utah Admin. Code R317-6-6.15(G) and R317-6-6.15(E).

1. Flaws in the Design of Phases I and II of the Corrective Action Plan Will Keep DUSA from Meeting the CACL Requirements of Utah Admin. Code R317-6-6.15(F).

In Sections II(B)(1), n. 3 and II(C), *supra*, the Tribe explains that the removal of the Ammonium Sulfate Crystal Storage Tanks is unlikely to remove the source of the nitrate plume because the nitrate is co-located with chloride, which is not present in the Ammonium Sulfate Crystal Tank contaminated soil. The Tribe asserts that, because there is another potential active source for the nitrate/chloride plume (the tailings cells), it is likely that the contamination plume will continue to exist after the completion of Phase I.

The Tribe commends DRC for requiring DUSA to begin a groundwater pumping and monitoring regime as contemplated in Phase II of the CAP. However, Phase II of the plan is not likely to allow DUSA to meet the CACL requirement for nitrate (10 mg/L). As described in Section II(C), *supra*, and as explained in Exhibit G of the December 16, 2011 Comments, if Tailings Cells 1, 2, and 3 or Roberts Pond are the source of the nitrate/chloride contamination, then there will be continued leakage of nitrate/chloride into the groundwater, and at best, DUSA will have to maintain a groundwater pumping regime indefinitely to meet the CACL requirements. The Tribe notes here that continued, unremediated leaks from Tailings Cells 1, 2, and 3 could pose harder pumping and remediation challenges in the future, and will undoubtedly pose increased risk to Tribal member and public health.[5]

The Tribe is also concerned that, without additional monitoring components, the proposed Phase II pumping could complicate the hydrologic environment and delay or prevent the correct identification of the source of the nitrate/chloride plume. *See* December 16, 2011 Comments, Exhibit G (describing how Phase II could mask leakage from the tailings cells). Although this could be remedied by requiring DUSA to expand the Phase II monitoring program to include the analytes in Table 2 from DUSAôs groundwater discharge permit (which could allow identification of sources like the tailings cells) the current, limited monitoring program and the potential for masking the source of the pollution makes it more difficult to identify the source of the contamination and therefore less likely that DUSA will be able to meet the CACL requirement for nitrate.

Finally, the Tribe notes that, if the Phase II pumping regime allows DUSA to pump contaminated groundwater from the plume back into Tailings Cells 1, 2, or 3, it is likely that the contaminated groundwater will simply cycle through leaks in those cell liners. This could be remedied by requiring DUSA to place the contaminated groundwater into cells like Tailings Cell 4a or 4b that contain modern liner technology and more advanced leak detection systems.

[5] The reason that nitrate and chloride are consistently cited as ñprimaryò indicators of tailings cell leakage is due to their mobility in groundwater. If the tailings are the source of groundwater contamination, then the existing nitrate/chloride plume will be followed by metals, radionuclides and solvents, which may travel slower in the subsurface, but which are more threatening to the public and more difficult to remediate.

2. DRC Should Not Allow a Phased CAP that Allows DUSA to Avoid Long-Term Remediation Work by Petitioning for a Higher Alternate Corrective Action Concentration Limit Under Utah Admin. Code R317-6-6.15(G).

The Tribe is concerned that the phased approach to the CAP is premised upon DUSAôs intent to file for an alternate CACL. *See, e.g.*, CAP at p. 12 (noting the possibility of petitioning the Board for an alternate CACL); Statement of Basis at 9 (specifically noting the alternate CACL potential). To the extent that DRC contemplates allowing DUSA to meet the requirements of Utah Admin. Code R317-6-6.15(F) by seeking a higher alternate CACL for nitrate contamination, the Tribe strongly protests that the granting of an alternate CACL is inappropriate under Utah Admin. Code R317-6-6.15(G) and R317-6-6.15(E).

Under Utah Admin. Code R317-6-6.15(G), DUSA may petition the Utah Water Quality Control Board for a higher alternate CACL. When reviewing such a request, the Board must ensure that the limit is protective of human health and the environment and that the limit uses best available technology. Utah Admin. Code R317-6-6.15(G)(1), (3). Utah Admin. Code R317-6-6.15(G)(4) requires that the alternative CACL ñshall not be granted without good causeò and that the Board may consider factors in R317-6-6.15(E) when determining good cause. Under this analysis, it is clear that DUSA should not be granted an alternate CACL on the nitrate/chloride plume.

First, as explained in Section II(B), *supra*, the nitrate/chloride plume poses serious concerns for the protection of public health and the environment, particularly if the nitrate/chloride plume is an indicator that Tailings Cells 1, 2, and 3 are leaking other chemicals and radioactive material into the groundwater. Second, the phased approach in the current CAP does not provide any assurance that DUSA will locate the source of the nitrate/chloride contamination or that DUSA will take any long-term efforts at groundwater remediation, which makes it unlikely that, without Phase III and other work, that DUSA will produce a permanent effect. *See* Section II(C), *supra*. Therefore, the Tribe asserts that, when considering the factors in Utah Admin. Code R317-6-6.15(E)-(G), it is unreasonable for DRC to allow a phased approach to the nitrate/chloride plume remediation that relies on a petition for an alternate CACL.

III. DEFICIENCIES IN THE CAP HEIGHTEN TRIBAL CONCERNS RAISED IN THE DECEMBER 16, 2011 COMMENTS.

The Tribe is concerned that DRC or other DEQ divisions may argue that DEQ has addressed the Tribeôs concerns about groundwater contamination raised in the December 16, 2011 Comments by approving this CAP. The Tribe acknowledges that DRC has responded to some of the Tribeôs recommendations (and in particular, the recommendations to require immediate groundwater pumping and to place firm and enforceable timelines on DUSA[6]). However, DRC has **not** responded to Tribal comments and concerns about leakage from Tailings Cells 1, 2, and 3; failure to address the co-location of nitrate and chloride; inadequate surety estimate minimums; and risk of widespread contamination due to the inadequate leak detection system and long timelines to

[6] Here, the Tribe is acknowledging that DRC has placed stipulated penalties on DUSA to complete actions under the CAP. The Tribe asserts, however, that, because most of the work needed to address the nitrate contamination will occur in Phase III and in unplanned studies to address leakage from Tailings Cells 1, 2, and 3, the CAP does not contain any real timelines for full cleanup of the nitrate/chloride plume.

complete remediation work. The Tribe demands that DRC address these issues in amending its RML Renewal and in amending this Stipulation and CAP.

IV. LIST OF DEMANDS.

In addition to the demands set forth in the December 16, 2011 Comments (tabulated in Section V of that document), the Tribe sets forth the following minimum demands on this Stipulation and CAP.

- DRC must make it clear that Phase III of the CAP is a necessary requirement (and not at the discretion of DUSA).

- DRC must require DUSA perform a new contamination investigation evaluating Tailings Cells 1, 2, and 3 and the Roberts Pond area as the source of the nitrate/chloride plume (as part of Phase III of the CAP).

- DRC must require that, if DUSA is not able to rule out Tailings Cells 1, 2, and 3 as the source of the nitrate/chloride plume in the contamination investigation, DUSA must immediately begin concurrent reclamation of Tailings Cells 1, 2, and 3 (as further described in the December 16, 2011 Comments).[7]

- DRC must require DUSA to perform Phase III (including the contamination investigation of Tailings Cells 1, 2, and 3 as a source of the nitrate/chloride plume) **concurrently** with Phases I and II of the CAP.

- As part of the investigation of Tailings Cell 1, 2, and 3, and as part of Phase II of the CAP, DRC must require DUSA to expand the monitoring program to include everything required in Table 2 of DUSA's groundwater permit.

- DRC must clarify that DUSA may only place the contaminated groundwater from the Phase II pumping into cells like Tailings Cell 4a or 4b that contain modern liner technology and more advanced leak detection systems.

- DRC must reinstate the well integrity testing requirements (removed on February 13, 2012) on WW-2 to require DUSA to remove a potential contamination pathway from the plume or contamination source to the Tribal drinking water aquifer. *See* Exhibit A.

- DRC must designate MW-20 and MW-22 as point of compliance wells to evaluate downgradient movement of contamination to the south end of the WMM property. *See* Exhibit A.

- DRC must require DUSA to provide a surety estimate that covers all phases of the CAP (including the contamination investigation of Tailings Cells 1, 2, and 3 and the Roberts Pond

[7] The Tribe notes here that it has already demanded concurrent reclamation of these tailings cells in the comments for other reasons, including, but not limited to, violations of federal law, *see* December 2011 Comments at § III(B)(3), and insufficiencies in the Reclamation Plan and overall site surety estimates, *see* December 2011 Comments at § IV.

area as the source and all future remediation work on active sources). The Tribe notes here that specific recommendations in the December 16, 2011 Comments on concurrent remediation of Tailings Cells 1, 2, and 3 and surety estimates for the entire facility should be considered by DRC and DUSA while formulating the surety estimate on the CAP.

The Tribe appreciates your time and attention to these comments. If you have any questions, please do not hesitate to contact Special Counsel H. Michael Keller at (801) 237-0287, Associate General Counsel Celene Hawkins at (970) 564-5642, or Scott Clow, Environmental Programs Director, at (970) 564-5432.

Sincerely

s/Celene Hawkins

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