

October 21, 2013

Rusty Lundberg
Director
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VIA U.S. MAIL AND EMAIL

Re: Comments on Energy Fuels Resources (USA) Inc., Dawn Mining Amendment Request
(Amendment to 11e(2) Byproduct License UT1900479)

Dear Mr. Lundberg:

The Ute Mountain Ute Tribe (“Tribe”) submits the following comments regarding the above-noted license amendment (“License Amendment”) and the Division of Radiation Control’s (“DRC”) environmental analysis conducted pursuant to Utah Admin Code R313-24-3 (“Environmental Analysis”) ¹ to allow the White Mesa Mill (“WMM”) to process as alternate feed contaminated wastewater treatment sludge hauled from a uranium mining Superfund site located in the State of Washington. The Tribe notes that it is in the process of engaging the State of Utah (including the Utah Department of Environmental Quality (“DEQ”) and its Divisions) in government-to-government consultation regarding the WMM. The Tribe submits these comments as public comments pursuant to Utah Admin. Code R313-17-2, R313-24-3, and R305-7-202.

The Tribe has organized its comments into five major sections. Section I provides DRC a quick overview of the Tribe’s background and connection with the WMM facility. Section II provides the Tribe’s overarching concern that DRC is proposing to amend a license issued in 2002 to allow a new source of alternate feed material, even though DRC has acknowledged that the 2002-era license is insufficient to address known environmental contamination and risks to Ute Mountain

¹ Because DRC tiers its License Amendment to the Request to Amend Radioactive Materials License, Energy Fuels Resources (USA) Inc., White Mesa Uranium Mill, San Juan County, Utah, and Environmental Report (May 2013) (“EFR Environmental Report”) and later EFR submissions dated December 5, 2012, June 14, 2013, and August 7, 2013, the Tribe includes those documents with DRC’s Safety Evaluation Report for the Amendment Request to Process an Alternate Feed Material (the “Uranium Material”) at the White Mesa Mill (the “Mill”) from Dawn Mining Corporation (“DMC”) Midnite Mine, Washington State (the “Midnite Mine SER”) in its analysis of DRC’s compliance with Utah Admin. Code R313-24-3, and collectively refers to the environmental analysis contained in these documents as the “Environmental Analysis.”

Ute Tribal member (“UMU Tribal Member”) and public health. Section III addresses four broad Environmental Analysis deficiencies under Utah Admin. Code R313-24-3, including: (A) DRC’s failure to adequately analyze impacts on UMU Tribal Member and public health; (B) DRC’s failure to adequately analyze impacts on surface and groundwater resources; (C) DRC’s complete failure to conduct an analysis of alternative sites; and (D) DRC’s failure to adequately analyze long-term impacts of the License Amendment. Section IV provides the Tribe’s concern that deficiencies in DRC’s regulation of the WMM facility and in DRC’s analysis of the addition of the alternate feed material from the Midnite Mine site (“Midnite Mine Material”) will eventually result in the relocation of uranium contamination from the Spokane Indian Reservation to the Ute Mountain Ute Tribe’s White Mesa Community. Section V provides a brief conclusion to the Tribe’s comments.

I. OVERVIEW OF TRIBAL BACKGROUND AND CONNECTION WITH 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. The lands comprising the White Mesa community are held in trust for the Tribe and for other individual UMU Tribal Member owners. The Tribe has jurisdiction (as a federally-recognized tribal government) over Tribally-owned lands, UMU Tribal Member-owned lands, and members of the Ute Mountain Ute Tribe who live in the White Mesa community. Under the Tribe’s Constitution, the Tribal Council is responsible for, among other things, the management and protection of Tribal lands and for the protection of public peace, safety, and welfare.

UMU Tribal Members 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 aquifer for its municipal (domestic) needs. UMU 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 in the wind or traveled through the groundwater from facilities regulated by the divisions of DEQ.

The Tribe has serious concerns about the manner in which the WMM is currently operated and regulated. The Tribe has long expressed concern that the WMM operations (in particular, management practices that have allowed continued contamination of surface resources, groundwater resources, and surface water resources) pose serious threats to the health of the land and the natural and cultural resources within and around the Tribe’s White Mesa community and to the health and welfare of its Tribal members and their future generations. The Tribe has also expressed concern that the poor quality of EFR’s reclamation planning and surety estimations for the WMM facility will ultimately result in a legacy of environmental contamination and blight both in the White Mesa community and in surrounding communities.

Since 2010, the Tribe has spent a significant amount of resources documenting its concerns to Divisions of DEQ during licensing and regulatory actions for the WMM facility. These efforts include, but are not limited to, the following dockets:

- Challenge to the Utah Division of Air Quality’s approval of the WMM facility’s Air Approval Order (public comments, October 29, 2010/November 11, 2010, Request for Agency Action/Petition to Intervene, March 31, 2011 (“Air Approval Order RAA”));
- Public comments addressing the DRC’s revision and renewal of the WMM facility’s radioactive materials license (public comment, December 16, 2011 (“2011 RML Renewal Comments”)); and
- Public comments and administrative challenge to the DRC’s approval of the corrective action plan for USG12-04 (nitrate/chloride contamination plume) (public comment, August 17, 2012 (“Nitrate CAP Comments”)), Request for Agency Action, January 11, 2013; Petition to Intervene, January 11, 2013 (“Nitrate CAP RAA”).

The Tribe’s submissions to the DEQ include extensive documentation of the Tribe’s concerns that the DEQ’s enforcement practices with the current set of licenses and permits at the WMM facility are allowing EFR to contaminate air, land, surface water, vegetation, and groundwater in violation of Utah State and federal law.²

The Tribe now faces the DRC’s current proposed License Amendment, which would allow the WMM facility to receive and process wastewater treatment sludge produced during a Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA” or “Superfund”) cleanup of groundwater and surface water contaminated by a former uranium mining facility located on the Spokane Indian Reservation. The Tribe believes that, given the status of the tailings cells, operations, existing and uncontrolled environmental contamination, and lack of appropriate regulation of the WMM facility, the proposed License Amendment will simply move the contamination from the Midnite Mine Superfund Site on the Spokane Indian Reservation to the lands, surface resources, surface water, and groundwater around the WMM facility and near or on Ute Mountain Ute Tribal lands in the White Mesa Community. Contaminated residues from the treatment of groundwater contamination at a uranium mining Superfund Site on one Indian Reservation should not be hauled hundreds of miles to a problematic uranium milling site with existing groundwater contamination that impacts another Tribal Community.

Accordingly, and for the reasons detailed below, the Tribe submits these comments to demand that the DRC deny the requested License Amendment at this time.

II. DRC SHOULD NOT AMEND THE WMM FACILITY’S 2002 RADIOACTIVE MATERIALS LICENSE TO ADD ANY NEW SOURCES OF ALTERNATE FEED MATERIAL

The overarching and most fundamental flaw with the License Amendment and the Environmental Analysis is that the DRC is proposing to amend a radioactive materials license that was issued to the WMM by the Nuclear Regulatory Commission in 2002. The DRC’s decision to amend the 2002 version of EFR’s radioactive materials license (“2002 RML”) is problematic

² To avoid repetitive comments to the DRC, the Tribe requests that the documents referenced in this paragraph (including all exhibits) be incorporated by reference and made a part of the administrative record on the approval of this License Amendment.

because the 2002 RML does not address known contamination events and significant operational and regulatory deficiencies at the WMM facility. In addition, the DRC's decision to base its entire Environmental Analysis for the License Amendment upon the faulty assumption that the 2002 RML and the existing regulatory regime are competently managing existing ore and alternate feed material leads to a deeply flawed analysis of whether the WMM facility is a proper facility under Utah State or federal law to handle CERCLA waste.

A. THE 2002 RML IS INSUFFICIENT TO ADDRESS ONGOING AND UNCONTROLLED CONTAMINATION AND SERIOUS OPERATIONAL DEFICIENCIES AT THE WMM FACILITY

Under Utah Admin. Code R313-70-5(4)(a), the DRC is responsible for reviewing and issuing renewals of radioactive materials licenses for facilities like the WMM every five years. The last renewal of the WMM radioactive materials license was issued in 2002, and the DRC's review of the facility's 2007 renewal application has been ongoing for more than six years.

The renewal process for the WMM facility radioactive materials license has been difficult and time-consuming, in part because of serious ongoing violations of the WMM's groundwater permit and state and federal law. In the eleven years that have passed since the last renewal of the WMM facility's radioactive materials license, there have been several new groundwater enforcement actions taken to address contamination at the WMM facility. *See, e.g.*, Docket UGW12-04 (docket initiated in January, 2009 addressing co-located nitrate/chloride plume in perched groundwater aquifer); Docket UGW12-03 (docket initiated in July, 2012 addressing multiple violations of the groundwater permit, including a decreasing pH trend and exceedances of cadmium, manganese, selenium, thallium, uranium, TDS, sulfate, and fluoride, co-located with exceedances in nitrate, nitrite, chloride, chloroform, and dichloromethane). *See also* 2011 Renewal RML Comments § III(A)(1)(a) and Exhibit C; April 23, 2012 Letter to Rusty Lundberg ("April 2012 Groundwater Letter") (both explaining the Tribe's concerns about elevated levels of indicator parameters in monitoring wells near the southern/Tribal border of the WMM facility). There has been scientific documentation and DRC acknowledgement that the WMM facility has caused off-site contamination of land, surface water, and other surface resources. 2011 RML Renewal Comments § III(B)(1), Exhibit L (explaining the findings in the USGS Study that uranium and vanadium have migrated east of the WMM facility and into off-site vegetation, lands, and surface water); USGS Report: White Mesa Mill, Utah Division of Radiation Control Public Presentation, Blanding Utah (July 9, 2012). The WMM facility has caused at least two violations of the National Emission Standards for Radon Emissions from Operating Mill Tailings (promulgated as a National Emission Standard for Hazardous Air Pollutants under the federal Clean Air Act and published in 40 C.F.R. Part 61, subpart W ("Subpart W NESHAP")). *See* 2011 RML Renewal Comments III(B)(3) (explaining that the WMM is in violation of the Subpart W NESHAP work practice standard restriction to two tailings impoundments); Exhibit A (to these October 2013 Comments) (documenting the WMM's ongoing and uncontrolled violation of the radon emissions limit set forth in 40 C.F.R. § 61.252). Some of the existing contamination issues have been complicated or exacerbated by the presence of other alternate feed sources at the facility. *See, e.g.*, 2011 RML Renewal Comments § III(C)(1) (citing a technical report detailing that certain alternate feed material is incompatible with the PVC liners in Tailings Cells 1, 2, and 3); Energy Fuels Resources (USA) Inc., Tailings Cell 2 Monthly Compliance Report for July 2013, 6 (August 20, 2013) (noting that EFR identified areas of elevated radon flux (leading to the Subpart W NESHAP violation) from "specific alternate feed tailings disposal with elevated radionuclide content").

During the renewal review process, the DRC issued several rounds of interrogatories that indicate that there are serious deficiencies in the current reclamation plan and the surety estimate for the facility and that DRC has some concerns about how the WMM handles, processes, and disposes of alternate feed material. *See, e.g.*, Safety Evaluation Report for the Denison Mines White Mesa Mill 2007 License Renewal Application, October 2011 (“2011 RML SER”) §§ 3.2.3.1; 5.5.4; 5.5.5. In 2011, the DRC issued a draft radioactive materials license renewal for public comment. *See* Draft License Renewal, October 2011 (“2011 Draft RML Renewal”). That draft contained significant revisions to the 2002 RML, which include, but are not limited to:

- A prohibition on “[n]ew construction of any mill process water, wastewater storage, and/or tailings disposal embankments” until DRC approval of several required reclamation plan items and a revised surety estimate. 2011 Draft RML Renewal § 9.1 (citing § 9.11).
- Requirements for a revised surety estimate to include the cost of groundwater remediation (from groundwater contamination events/dockets at the WMM facility). 2011 Draft RML Renewal §§ 9.5, 10.20.
- Heightened requirements for submission and DRC review of standard operating procedures (including, but not limited to, environmental monitoring programs); 2011 Draft RML Renewal § 9.6.
- Additional regulatory requirements on the release of ore trucks and intermodal containers from the restricted areas (additional requirements related to transport of material into the facility). 2011 Draft RML Renewal § 9.10.
- Additional restrictions on the receipt of new sources of alternate feed, and removal of some currently licensed sources of alternate feed. 2011 RML SER § 3.2.3.1.
- New provisions on the groundwater monitoring program and the leak detection systems, 2011 Draft RML Renewal § 11.3.
- A new provision required the WMM owner to conduct an annual survey of land use and to identify any potential routes of exposure of contaminants and dose to the general public. 2011 Draft RML Renewal § 12.3; 2011 Draft RML SER § 2.1.2.1.

In December of 2011, the Tribe submitted public comments supporting some of the more restrictive revisions to the Draft RML Renewal and demanding, among other things, that the DRC include additional provisions in the license to address surface/airborne contamination, require concurrent reclamation of the older tailings cells, and require additional surety to cover the facility. *See* 2011 RML Renewal Comments. Since 2011, the Tribe has urged the DRC to take immediate action on the new groundwater contamination plumes and on the two violations of the Subpart W NESHAP standards that pose significant risk to UMU Tribal Members and the health of the public near the facility. *See, e.g.*, Nitrate CAP Comments; Nitrate CAP RAA.

As of October of 2013, the DRC has taken no action to respond to public comments or to issue a radioactive materials license renewal for the WMM facility. This means that, while the DRC has identified the need to address existing contamination at or near the WMM facility, revise

the facility's reclamation plan, raise the facility's surety estimate to include the cost of groundwater cleanup, and to address transportation and other operational issues at the facility, the 2002 RML still guides regulation and operation of the WMM facility and provides none of the protections provided in the 2011 Draft RML Renewal or requested by the Tribe in the 2011 RML Renewal Comments and related groundwater and air quality proceedings.

The Tribe asserts that both the License Amendment and the Environmental Analysis are fatally flawed because they fail to address numerous environmental, public health and safety, reclamation, surety, and operational issues identified during the DRC's license review process and through subsequent violations of state and federal environmental laws at the facility. The 2002 RML does not provide any heightened protections or restrictions to ensure the safe handling, processing, and disposal of any ore or alternate feed material—including the Midnite Mine Material—or to address existing and ongoing environmental contamination at the WMM facility.

B. THE DRC'S ENTIRE ENVIRONMENTAL ANALYSIS IS FLAWED BECAUSE IT IS PREMISED UPON AN ASSUMPTION THAT THE 2002 RML AND THE EXISTING REGULATORY SCHEME IS SUFFICIENT TO ENSURE THAT THE WMM FACILITY COMPETENTLY MANAGES EXISTING ORE AND ALTERNATE FEED MATERIAL AT THE WMM FACILITY

In the Environmental Analysis for the requested License Amendment, the DRC accepts EFR's environmental review that focuses on whether the receipt and processing of Midnite Mine Material would result in any potential "significant *incremental* impacts over and above previously licensed activities." EFR Environmental Report § 4.1 (emphasis in original). The DRC broadly bases its "incremental" review of the addition of Midnite Mine Material to the WMM facility on the assumption that existing operations, monitoring programs, and regulation of the WMM facility are functioning to competently manage ore and alternate feed at the WMM facility. *See, e.g.*, Midnite Mine SER at p. 27 ("The mill has previously managed chlorides, fluorides, and sulfates in the Mill circuit and tailings system with no adverse process, environmental, or safety issues"); *id.* at p. 33 ("there is no indication that the Mill is impacting surface waters"); EFR Environmental Report §§ 4.6-4.9; Letter from EFRI to Rusty Lundberg (June 14, 2013), Responses to General Comments 1, 1e, 1i. This assumption allows the DRC to repeatedly determine that, because the Midnite Mine Material is similar to other alternate feeds and natural ores already processed at the WMM Facility and it does not introduce new chemical constituents into the tailings cells, there will be no significant incremental environmental impact on the WMM facility. *See, e.g.*, Midnite Mine SER at p. 34 (finding that, because the Midnite Material is similar to other material at the WMM facility, the existing surface water and groundwater monitoring programs are sufficient to detect impacts to surface water); *id.* at p. 37 (noting that existing monitoring for chlorides, fluorides, and sulfate will identify any tailings cell leakage and any barium contamination)³; *id.* at § 4.8 (Findings 1-4, containing broad statements about the sufficiency of the existing air, groundwater, and

³ The Tribe notes here that the DRC's emphasis on monitoring for chloride, fluoride, and sulfate as "early warning" indicators of barium or tailings cell leakage is disingenuous. DRC has already detected chloride, fluoride, sulfates (along with nitrate, nitrite, a decreasing pH trend, and an increase in other monitored constituents) in the WMM facility's groundwater monitoring system, but has refused the Tribe's demands that DRC require EFR to adequately investigate whether the tailings cells are the source of the overlapping contamination plumes. *See* Nitrate CAP RAA § III. Accordingly, it is very unlikely that future detection of chloride, fluoride, or sulfate in the groundwater monitoring system will offer any guarantee that releases of barium from the tailings cells will be promptly or properly remediated.

environmental monitoring systems to address environmental contamination from the Midnite Mine Material).

Because the 2002 RML (and/or existing monitoring programs and the current regulation of the WMM facility) has *not* ensured and *cannot* ensure that EFR competently manages the existing ore and alternate feed at the WMM facility, DRC cannot assume in the Environmental Analysis that the 2002 RML and the existing programs and regulation can ensure proper storage, processing, or disposal of the Midnite Mine Material. Therefore, both the baseline assumption and the broad conclusions drawn in the Environmental Analysis are fundamentally flawed. Section III, *infra*, will provide specific details on how this flawed baseline assumption repeatedly results in inadequate Environmental Analysis of specific environmental impacts as required under Utah Admin. Code R-313-24-3.

III. THE ENVIRONMENTAL ANALYSIS FAILS TO MEET THE REQUIREMENTS OF UTAH ADMIN. CODE R-313-24-3

A. THE ENVIRONMENTAL ANALYSIS FAILS TO ADEQUATELY CONSIDER IMPACTS ON TRIBAL MEMBER AND PUBLIC HEALTH

The Environmental Analysis fails to meet Utah Admin. Code R313-24-3(1)(a)'s requirement that it contain "(a)n assessment of the radiological and nonradiological impacts to the public health from the activities to be conducted pursuant to the license or amendment." As described in Section II(A), *supra*, the WMM facility has a history of unresolved environmental contamination events that include contamination of the perched (shallow) groundwater aquifer, contamination of surface water, land, and natural resources through airborne pathways, and violations of radon emissions standards set forth in Subpart W NESHAP. As described in Section II(A), *supra*, some of the environmental contamination issues at the WMM have been exacerbated by the presence of alternate feed material at the facility.

The Environmental Analysis fails to acknowledge any of the existing contamination events, and the Environmental Analysis fails to acknowledge that existing operations, monitoring protocols, and regulatory actions taken by the DRC have already failed to adequately protect UMU Tribal member health and the public health. For that reason alone, the Environmental Analysis fails to adequately consider important public health impacts from the acceptance of the Midnite Mine Material. In addition, the Environmental Analysis fails to adequately analyze specific public health impacts from airborne releases of Midnite Mine Material and public health impacts from surface and groundwater contamination.

1. The Environmental Analysis Fails to Adequately Analyze and Address Public Health Impacts from Airborne Releases of Midnite Mine Material

The portions of the Environmental Analysis that assess the potential air quality impacts (and the resulting two conditions in Section 10.20 of the License Amendment) do not sufficiently analyze or address impacts to UMU Tribal Member or public health from airborne contamination. In the Environmental Analysis, the DRC relies upon the current air approval order, air monitoring protocols, stormwater management plan, and standard operating procedures at the WMM to provide adequate protection of UMU Tribal Member and the public health from airborne releases of Midnite Mine Material. Midnite Mine SER § 4.4 at p. 32-33 (discussing airborne contamination and

stormwater management); *id.* at § 4.8 (making findings regarding the existing dust suppression program, the existing air approval order, and the existing airborne effluent monitoring program). As the Tribe has exhaustively documented to the DRC since 2010, the results of the USGS Study confirm that the current implementation of the 2002 RML, the facility air approval order, and the monitoring protocols and standard operating procedures has not stopped the facility from contaminating surface water, land, and vegetation outside of the WMM facility. *See* Air Approval Order RAA § III(B)(1)-(3); 2011 RML Renewal Comments § III(B)(1). In addition, the WMM facility is currently in violation of both the Subpart W NESHAP work practice standard limitation on number of tailings impoundments and the Subpart W NESHAP Radon-222 air emissions standard, and EFR has failed to take action to undertake precautionary measures to protect public health of UMU Tribal Members and others living near the WMM facility. Section II(A), *supra*; Exhibit A (to these October 2013 Comments) (explaining the severity and the duration of the 16-month Subpart W NESHAP violation and failure by the DEQ divisions to require EFR to take immediate action to permanently control the Radon-222 emissions). Therefore, DRC's unquestioned reliance on the current air approval order, monitoring protocols, stormwater management plan, and existing standard operation procedures does not sufficiently assess whether those regulatory mechanisms and operations will protect the public from fugitive dust and other hazards associated with the receipt and processing of the Midnite Mine Material.

The fine-grained nature of the Midnite Mine Material, with its heightened potential for airborne release and its high U_3O_8 content, requires that EFR take adequate protective measures to prevent the release of radioactive dust into the environment. In the Environmental Analysis, the DRC properly recognizes that, due to the arid conditions at the WMM facility and the Midnite Mine Material's susceptibility to degrade into a finer dust particle, there is a heightened concern about airborne releases of fugitive dust during wind events at the WMM facility. Midnite Mine SER at p. 34; *see* Proposed License Amendment Conditions 10.20(A)(1)-(2). However, the two methods for controlling these airborne releases fail to provide adequate protection for UMU Tribal Member and public health for at least two reasons. First, DRC proposes a limitation that requires a durable geomembrane to be placed on material that is stockpiled on the ore pad for more than 14 days. Proposed License Amendment Condition 10.20(A)(1). This limitation is less restrictive (and less protective of public health) than the practices identified by EFR in 2011 when DRC undertook a more comprehensive review of the facility's storage and handling of alternate feed materials. 2011 RML SER § 3.2.3.1 ("High grade alternate feed materials typically with 1.0% U_3O_8 or greater⁴ are usually received at the Mill and stored in drums or other containers"). This limitation also unnecessarily puts UMU Tribal Members and the public at risk of exposure during the first 14 days of storage or during catastrophic storm events that move the Midnite Mine Material from the ore storage area.

Second, the DRC proposes a limitation that requires a 30-minute response to stop generation of fugitive dust, "[i]f at any time, visible dust is observed to be originating from Uranium Material stored on site." Proposed License Amendment Condition 10.20(A)(2). To begin, unless this requirement is paired with a new requirement that EFR provide constant monitoring and documentation of dust events at the ore pad, the 30-minute response time provides no guarantee that EFR will observe fugitive dust events or properly respond to such events. *See* Air Approval Order RAA § III(B)(2) (noting the historic lack of on-site presence by the Division of Air Quality and that

⁴ The average U_3O_8 content of the Midnite Mine Material is 1.4%. Midnite Mine SER at p. 10.

the Air Approval Order gives EFR too much discretion on how to comply with fugitive dust limitations); *id.* at § III(B)(3) (arguing that the current fugitive dust emissions control do not meet the Best Available Control Technology requirement). In addition, there is no guarantee that visual monitoring can detect the movement of very fine-grained particles or that EFR can monitor the movement of any particles at night or during other times when visual inspections cannot occur.

Given the existing, ongoing, and uncontrolled airborne releases from the WMM facility documented in the USGS Study and the Subpart W NESHAP violations, the Tribe asserts that both these license conditions are grossly insufficient to protect UMU Tribal Member and public health from releases of fine-grained particles contained in the Midnite Mine Material.

2. The SER Fails to Adequately Analyze and Address Public Health Impacts from Surface and Groundwater Contamination

In Section III(B), *infra*, the Tribe will comprehensively address deficiencies in DRC's evaluation of the potential impacts on surface and groundwater resources. In previous public comments, correspondence, and administrative actions, the Tribe has exhaustively documented its concerns that leakage from Tailings Cells 1, 2, and 3 and/or other activities at the WMM facility have already contaminated the perched (shallow) aquifer and will contaminate the deep aquifer that provides drinking water to the White Mesa Community. 2011 RML Renewal Comments § III(A); Nitrate CAP Comments. *See also* April 2012 Groundwater Letter (reiterating concerns that Deep Water Supply Well WW-2 will serve as a contamination pathway between the contaminated perched aquifer into the deep aquifer that supplies the Tribe's drinking water and reiterating the concern that the monitoring wells closest to the Tribal community are showing increasingly elevated concentrations of multiple indicator parameters of tailings cell leakage (including concentration of beryllium and cadmium exceeding Utah's ground water quality standards)).⁵ The Tribe has also documented its concern that contamination of surface water will impact UMU Tribal Member health through indirect exposure to radioactive material and other constituents contained in alternate feed materials. 2011 RML Renewal Comments § III(B)(1)(a). Accordingly, the DRC's failure to adequately analyze impacts to groundwater and surface water is also a failure to adequately analyze important public health impacts raised by the License Amendment.

⁵ Groundwater south of the tailings system at MW-22 bears a strong signature of pollutants originating from the WMM facility tailings impoundments. Specifically, analytical results for the groundwater samples at monitoring well MW-22 show elevated and increasing (decreasing for pH) levels of cobalt, nickel, zinc, manganese, beryllium, selenium, cadmium, copper, fluoride and gross alpha. Each of these constituents is present at high concentrations in the tailings system. The Midnite Mine Material analytical results show high concentrations of nickel, cobalt, manganese, zinc and beryllium; each of these constituents is currently present at abnormal and increasing concentrations in the groundwater south of the tailings system at MW-22, indicating that these particular inorganic constituents are currently being introduced to the environment and are mobile in groundwater at the WMM facility.

B. THE ENVIRONMENTAL ANALYSIS FAILS TO ADEQUATELY ANALYZE IMPACTS TO SURFACE AND GROUNDWATER

Utah Admin. Code R313-24-3(1)(b) requires that the environmental report contain an analysis of the impacts to surface and groundwater. The Environmental Analysis fails to adequately analyze impacts to both surface and groundwater, and also fails to meet standards for approval of alternate feed license amendments proposed by the DRC in the 2011 RML Renewal.

1. The Environmental Analysis Fails to Adequately Analyze Impacts to Surface Water

The Environmental Analysis' failure to adequately analyze and address anticipated impacts from the release of airborne particles from the Midnite Mine Material is explained in Section II(A), *supra*. Even though the USGS Study documented off-site releases of uranium and vanadium from the WMM facility through stormwater discharge pathways, the Environmental Analysis does not assess or address the possibility that the existing air monitoring and regulatory mechanisms and the existing stormwater management plan are insufficient to contain air deposition from the WMM facility from entering surface waters and polluting nearby land and natural resources. *See* 2011 RML Renewal Comments § III(B)(1)(a) (citing Exhibit L to the 2011 RML Renewal Comments). By failing to properly analyze deficiencies in the existing regulation of airborne releases, and by failing to require adequate control of the fine dust particles contained in the Midnite Mine Material, DRC has failed to adequately analyze or control impacts to stormwater and surface water.

2. The Environmental Analysis Fails to Adequately Analyze Impacts to Groundwater

The Environmental Analysis fails to adequately analyze impacts to groundwater for two reasons. First, the Environmental Analysis completely and erroneously fails to address the multiple, spatially overlapping groundwater contamination plumes that currently exist at the site. *See* Section II(A), *supra*. Instead the Midnite Mine SER falsely states: "The mill has previously managed chlorides, fluorides, and sulfates in the Mill circuit and tailings system with no adverse process, environmental, or safety issues," and then bases its entire analysis of the impacts of the new Midnite Mine Material to groundwater on a flawed baseline assumption that current practices and monitoring programs are not resulting in groundwater contamination at the WMM facility. Midnite Mine SER at p. 27. Accordingly, the entire analysis of potential incremental impacts to groundwater resources is fatally flawed, and the DRC has completely failed to identify real risks to both the perched and deep groundwater aquifers under the WMM facility from leakage from Tailings Cells and releases from other areas of the WMM facility.

A second and perhaps more critical deficiency in the Environmental Analysis is that it limits its tailings cell liner integrity analysis to potential impacts on Tailings Cells 4A and 4B. *See* Tetra Tech Technical Memorandum, Review of Chemical Contaminants in Dawn Mining Company Midnite Mine (DMC) Uranium Material § 3.0, 4.2.3 (June 14, 2013) (clarifying that the analysis of tailings cell liner material incompatibility was only conducted for Tailings Cells 4A and 4B). Tailings Cells 4A and 4B are not the only active tailings cells at the WMM facility. *See* 2002 RML § 9.1 (authorizing mill process and waste water storage and tailings disposal into Tailings Cells 1, 2, 3, 4A, and 4B); *see also* 2011 RML Renewal Comments § III(C)(1)(b) (demanding that DRC amend the 2011 RML Renewal to add a new License condition prohibiting disposal or storage of alternate feed material in Tailings Cells 1, 2, and 3). The 2002 RML allows for mill liquid wastes to be discharged into Tailings Cell 1. *See* Midnite Mine SER § 4.4 (noting that mill process

effluent, laundry, analytical laboratory liquid wastes and runoff from the Mill and facilities go into the Mill's tailings impoundments); 2002 RML § 9.1; Ground Water Discharge Permit UGW370004, 6 (August 24, 2012). The current stormwater management plan also directs runoff from the Mill yard and facilities into Tailings Cell 1. Storm Water Best Management Practices Plan, Denison Mines (USA) Corp., Fig. 2; Appendix 1 § 1.4.5 at p.3 (October 2011); Environmental Protection Agency, NPDES Stormwater Industrial Inspection, at p. 2 (March 14, 2013). Because the single, 34-year old, 30-mil PVC liner on Tailings Cell 1 already poses a grave risk to the groundwater resources underneath the WMM facility, failure to analyze any additional impacts posed by the Midnite Mine Material (including, but not limited to, the analysis related to barium and beryllium) is a critical flaw in the Environmental Analysis.

3. The Process for Evaluating Impacts on Groundwater Fails to Meet Requirements Proposed by DRC in 2011

The Tribe notes here that the DRC's decision to revise the 2002 RML (instead of issuing a revised RML first) negatively impacts the process for analyzing the impact of the Midnite Mine Material on the tailings cells (and the groundwater). In the 2011 RML SER, DRC proposed an amendment of License Condition 10.1 that, in addition to meeting the criteria of the NRC Alternate Feed Policy, would have required EFR to demonstrate: (1) sufficient disposal capacity "such that the proposed alternate feed material and any liquid by-products, will be permanently disposed in tailings cells designed and constructed to meet the Best Available Technology requirements [of Tailings Cells 4a and 4b]; and (2) that the disposal of alternate feed material "will not lead to or cause a violation of the disposal cell performance standards [set forth in the requirements for Tailings Cells 4a and 4b]." 2011 RML SER § 3.2.3.1. Until Tailings Cell 1 is either relined or capped for final closure with major modifications to stormwater management from the Mill yard, EFR cannot demonstrate that the alternate feed materials will be disposed of in a tailings cell designed to meet the BAT requirements for Cells 4A and 4B. *See generally* 2011 RML Renewal Comments. Accordingly, the process that the DRC used to revise the 2002 RML does not even meet standards that the DRC set forth as necessary in 2011, and the DRC's failure to even identify that some Midnite Mine Material will enter a tailings cell that does not meet Best Available Technology requirements raises serious questions about the adequacy of DRC's review of whether this facility should be allowed to take any new sources of alternate feed material.

C. THE ENVIRONMENTAL ANALYSIS COMPLETELY FAILS TO ANALYZE ALTERNATIVES

The Environmental Analysis completely fails to analyze alternative sites and engineering methods as required by Utah law. Utah Admin. Code R313-24-(3)(1)(c) requires DRC to consider alternatives, "including alternative sites and engineering methods" during the environmental analysis of the proposed license request. In the Midnite Mine SER, DRC acknowledges its responsibility to consider alternate sites and engineering methods during its analysis of EFR's request for the License Amendment, but then fails or refuses to undertake that analysis, stating, "[t]he UDRC has concluded that there are no significant environmental impacts associated with the proposed action. Other alternatives need not be evaluated." Midnite Mine SER § 4.6.

DRC's explanation for its failure to analyze alternate sites and engineering methods is erroneous for two reasons. First, because DRC is required to consider alternatives during the environmental analysis of the proposed license request, it cannot make any final determinations on

environmental impacts of the proposed action without first undertaking the alternatives analysis. Utah Admin. Code R313-24-(3)(1) (including subsection (c) as a component of the requirements of the environmental report). Second, nothing in R313-24-3(1)(c) allows an exemption from considering alternatives if DRC (preliminarily) concludes that the proposed action poses no significant environmental impacts. Accordingly, DRC's refusal to consider alternatives is a significant deficiency in the Environmental Analysis.

DRC's failure to consider alternate sites for the Midnite Mine Material compounds other deficiencies in the Environmental Analysis. As discussed in more detail in Section IV, *infra*, the United States Environmental Protection Agency's ("EPA") plans for managing the Midnite Mine Superfund cleanup on the Spokane Indian Reservation specifically mandate that the Midnite Mine Material "must be disposed of in a facility that is designed to limit human exposure and migration of contaminants in surface water and groundwater to acceptable levels." See Midnite Mine Superfund Site Record of Decision at p. 2-75 (September 2006); Midnite Mine Superfund Site Proposed Cleanup Plan (September 2005). See also 2011 RML Renewal Comments § III(C)(3)(a) (explaining limitations on transporting CERCLA waste to facilities that are operating in compliance with applicable federal and state law pursuant to Section 121(d)(3) of CERCLA and 40 C.F.R. § 300.440 ("CERCLA Off-Site Rule")). As discussed in Sections II-III, *supra*, the WMM facility has several serious and ongoing violations of its Utah state groundwater permit and two current violations of the federal Subpart W NESHAP radon emissions limitations. By failing to compare the risk of receiving Midnite Mine Material at the WMM facility to other facilities that could process or dispose of the Midnite Mine Material, the DRC has missed a critical step in evaluating the risks of moving the Midnite Mine Material to the WMM facility.

D. THE ENVIRONMENTAL ANALYSIS FAILS TO ADEQUATELY ANALYZE LONG-TERM IMPACTS TO THE WMM FACILITY

Utah Admin. Code R313-24-3(1)(d) requires that DRC consider the long term impacts, including decommissioning, decontamination, and reclamation impacts, associated with the activities conducted pursuant to the License Amendment. The Environmental Analysis on long-term impacts to the WMM is deficient for two reasons.

First, the deficiencies described in Sections II-III, *supra*, bleed into the conclusions drawn in the Environmental Analysis' assessment of long-term impacts to decommissioning, decontamination, and reclamation at the facility. In its analysis of the long-term impacts, the DRC relies on the faulty assumptions that: (1) existing operations, monitoring systems, and regulatory enforcement are sufficient to contain both existing ore and alternate feed material at the WMM facility; and (2) the Midnite Mine Material will only enter Tailings Cells 4A and 4B. See Sections II(B), III(A)-(B) *supra*; Midnite Mine SER § 4.8 at p. 42-43. These assumptions lead the DRC to the general faulty conclusion that, because the Midnite Mine Material is not expected to be significantly different from conventional ores at the WMM facility, DRC does not anticipate to have incremental long-term impacts from adding the Midnite Mine Material. Midnite Mine SER § 4.7 at p. 40. As explained above, because the current operations are not sufficiently controlling air, surface, surface water, or groundwater contamination at the facility, and because the Midnite Mine Material will enter Tailings Cell 1, DRC cannot assume that EFR can store, process, or dispose of the Midnite Mine Material without creating additional contamination at the WMM facility. Section II(B), *supra*. By failing to evaluate how that contamination might affect the decommissioning,

decontamination, and reclamation at the WMM facility, the current long-term impacts analysis is deficient.

Second, the Environmental Analysis' assessment of the potential long-term impacts also relies on a faulty baseline assumption that there is an adequate reclamation plan and sufficient surety in place that can address long-term environmental remediation at the site. Midnite Mine SER § 4.7. Because Section 9.11 of the 2002 RML is so outdated, it is unclear which version of the Reclamation Plan applies at the facility. However, as the Tribe documented to DRC in the 2011 RML Renewal Comments, even more recent versions of the facility's Reclamation Plan⁶ contain deficiencies in the plans for disposal of demolition materials into Tailings Cell 1 and in the tailings cell cap design. *See* 2011 RML Renewal Comments § IV(A). The Tribe has also exhaustively documented to DRC that the DRC's minimum surety estimates for the facility have been grossly insufficient to ensure adequate decontamination and decommissioning of the WMM facility.⁷ *See* 2011 RML Renewal Comments § IV(B) (citing Exhibit H to the 2011 RML Renewal Comments). Accordingly, the DRC's reliance on the existing reclamation plan and the existing surety at the WMM facility to address any contamination or direct disposal of the Midnite Mine Material makes the long-term impacts analysis deficient.

IV. BY ISSUING THE LICENSE AMENDMENT, DRC IS SUPPORTING THE RELOCATION OF THE LEGACY OF URANIUM CONTAMINATION FROM THE SPOKANE INDIAN RESERVATION TO THE UTE MOUNTAIN UTE RESERVATION

During the 2011 RML Renewal review process, the Tribe submitted public comments articulating a concern that groundwater, surface water, and soil contamination (and uncontrolled continuing releases of such contamination) at the WMM facility rendered the facility ineligible or at least inappropriate for the receipt of alternate feed material at the facility. 2011 RML Renewal Comments § III(C)(3)(a). The Tribe explained that the CERCLA Off-Site Rule limits the transfer of CERCLA material to facilities operating in compliance with state and federal law and that the Tribe was concerned that DRC's failure to find EFR in violation of state and delegated federal laws was making it difficult for the EPA to determine whether the WMM facility was eligible to continue receiving alternate feed material. *Id.* Since 2011, the contamination problems noted by the Tribe have continued with little or no regulatory controls by DRC, and the DRC has identified additional violations of state and federal environmental laws at the WMM facility. *See* Section II(A), *supra* (describing ongoing violations of state and federal law caused by groundwater contamination and the Subpart W NESHAP violations). Accordingly, in October of 2013, the Tribe still believes that the existing uncontrolled and continuing releases of contamination at the WMM facility render the facility ineligible or at least inappropriate for the receipt of the Midnite Mine Material.

The history of contamination at the Midnite Mine site and the similarities between the Midnite Mine facility and the WMM facility provide a compelling and troubling illustration of why

⁶ Section 9.11 of the 2002 RML still contains references to Revisions 3.1 and 3.2 of the Reclamation Plan for the facility. The DRC website indicates that DRC and EFR are still working to finalize Revision 5.0 to the Reclamation Plan.

⁷ In the 2011 RML Renewal Comments, the Tribe's expert, using built-up, benchmarking, and per-ton calculation methods, estimated between \$51 million and \$407 million to pay for a government cleanup of the WMM facility. *See* Exhibit H to the 2011 RML Renewal Comments for the full details of the Tribe's analysis.

the CERCLA Off-Site Rule and the DRC should prohibit the transportation of the Midnite Mine Material to the WMM facility. The Midnite Mine site is a CERCLA cleanup site located on the Spokane Indian Reservation. EFR Environmental Report § 2.1. The uranium mining activities at the Midnite Mine facility resulted in contamination of important tribal water resources, and the EPA required the facility owner, Dawn Mining Company, to install a water treatment plant to pump and decontaminate water under and around the Midnite Mine facility. *Id.* The water treatment at the Midnite Mine site will likely continue for years or decades after the EPA finishes construction of containment measures at the Midnite Mine site, and it is unclear whether the Spokane Indian Tribe will be able to safely use Tribal groundwater around the Midnite Mine site for human consumption in the future. *Id.*; *see also* Midnite Mine Superfund Site Proposed Cleanup Plan at p. 11 (September 2005).

At the WMM facility, spatially-overlapping plumes of chloroform, nitrate, nitrite, and chloride contamination in the perched (aquifer) have already led the DRC to require EFR to begin pumping contaminated groundwater and placing it in the facility's tailings cells. *See* Final Stipulation and Consent Order, Docket No. UGW12-04 § B (requiring near-term active remediation of groundwater nitrate contamination during Phase II). These plumes, along with new data showing an increase in heavy metals and a decreasing pH trend in the same monitoring wells, suggest that the perched groundwater aquifer is being contaminated from a source similar to the facility's older tailings cells. *See* Nitrate CAP RAA § III; Nitrate CAP Comments, Letter to Rusty Lundberg § B (October 4, 2012). Because the DRC refuses to require the WMM to identify the source of the several, overlapping plumes of contamination, and because a likely source of these overlapping contamination plumes is the older Tailings Cells 1, 2, and 3, the Tribe can anticipate that groundwater pumping will occur for as long as the WMM facility is in operation. In addition, the Tribe can anticipate that, during and after decontamination and reclamation of the WMM facility, there will be ongoing groundwater remediation efforts at the WMM facility that may look very similar to the existing water treatment plant operations at the Midnite Mine facility. If the Navajo aquifer is contaminated by the WMM operations, there will be no municipal water supply for the White Mesa Community.

The documents associated with the Midnite Mine cleanup clearly state that the Midnite Mine Material "must be disposed of in a facility that protects human health and the environment." Midnite Mine Superfund Site Proposed Cleanup Plan (September 2005). This reiteration of the CERCLA Off-Site Rule is particularly poignant and relevant to the DRC's Environmental Analysis of the WMM facility because both sites involve legacy contamination from the uranium industry on Tribal lands, water supplies, and other resources. It is a gross violation of the intent of the CERCLA Off-Site Rule to allow EFR to transport and process the Midnite Mine Material in a facility that will likely allow that material to harm another Tribe's members, lands, and water resources. Accordingly, DRC's continued failure to require EFR to remove the sources of the ongoing and uncontrolled contamination at the WMM facility and DRC's failure to properly analyze the environmental and public health impacts of bringing the Midnite Mine Material to the WMM facility will likely result in the License Amendment relocating the environmental contamination from the Spokane Indian Reservation to the White Mesa Community.

V. CONCLUSION

For the reasons stated above, the Tribe urges DRC to reject EFR's application to amend the RML license at this time and to instead re-initiate the process for renewing the 2002 RML for the facility (along with other related permits) and addressing the concerns outlined in the Tribe's Air Approval RAA, 2011 RML Comments, Nitrate CAP Comments, Nitrate CAP RAA, and other correspondence.

The Tribe appreciates your time and attention to these comments. If you have any questions, please 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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