EPA Response to Issues Raised by Energy Fuels

I. Introduction

Pursuant to the Comprehensive Environmental Response Compensation and Liability Act ("CERCLA"), 42 USC §§ 9601-9675, Offsite Rule ("OSR"), 40 C.F.R. § 300.440(d)(7), the United States Environmental Protection Agency Region 8 ("EPA" or "Region 8") has made a Final Determination that the White Mesa Mill ("White Mesa" or "the Mill") is unacceptable to receive CERCLA waste because it is in violation of the Clean Air Act's ("CAA") National Emission Standards for Hazardous Air Pollutants ("NESHAP"), 42 USC § 7412, specifically the National Emission Standards for Radon Emissions From Operating Mill Tailings at 40 C.F.R. Part 61, Subpart W ("Subpart W").

II. Factual Background

The White Mesa Mill, located near Blanding, Utah, is the only fully licensed and operating conventional uranium mill in the United States. The Mill was built in the late 1970s to process low-grade uranium ore from the surrounding region, but now also processes "alternate feeds." One of those alternate feeds has been waste transferred from CERCLA (also referred to as Superfund) sites during removal or remedial actions.

The Mill's operator, Energy Fuels Resources (USA) Inc. ("Energy Fuels") extracts and recycles uranium and vanadium in the course of operating two conventional impoundments (Cells 3 and 4A) and two non-conventional impoundments (Cells 1 and 4B), as those terms are defined by Subpart W. 40 C.F.R. § 61.251(h) and (i). Cell 4B, the impoundment at issue in this matter, contains radioactive byproduct materials and is subject to work practice standards in Subpart W that require the liquid level in the impoundment to be maintained so that solid

materials in the impoundment are not visible above the liquid surface, verified by daily inspections documented through notations, and by digital photographic evidence collected at least weekly. 40 C.F.R. § 61.252(b).

The Mill was originally licensed by the Nuclear Regulatory Commission in 1980, but after the State of Utah became an Agreement State for uranium mills in August 2004, the Mill License was reissued by the Executive Secretary as a State of Utah Radioactive Materials License on February 16, 2005. White Mesa operates under the following Utah Department of Environmental Quality ("UDEQ") permits: Air Quality Approval Order DAQE-AN0112050018-11, Groundwater Discharge Permit No. UGW370004, and Radioactive Materials License No. UT1900479. The EPA has delegated its authority for implementation and enforcement of Subpart W to the State of Utah for all subject sources located in the state, pursuant to Section 112(*l*) of the Clean Air Act, 42 U.S.C. § 7412(l). 82 Fed. Reg. 5142-01, at 5148 (Jan. 17, 2017) *citing* 60 Fed. Reg 13912 (Mar. 15, 1995). As part of this state authorization, EPA retains concurrent enforcement authority for Subpart W. 60 Fed. Reg 13912, at 13913. Utah's Air Quality Regulations incorporate the federal NESHAP regulations at 40 CFR Part 61 by reference into the state rules. Utah Admin. Code § R307-214-1.

White Mesa received its first CERCLA OSR Acceptability Determination from Region 8 for the ore pad, the ore processing circuit, and the tailings impoundment Cell 3 on April 20, 1999.[1] On February 2, 2015, White Mesa requested a CERCLA OSR acceptability determination

[1] *See* Letter from Wanda C. Taunton, Director of EPA Region 8 Solid and Hazardous Waste Program, to David C. Frydenlund, Vice-President and General Counsel, International Uranium Corporation USA (Apr. 20, 1999).

for tailings impoundment Cell 4A, tailings impoundment Cell 4B, and the alternate feed processing circuit and related storage pads,[2] which was approved on June 11, 2019.[3]

III. Procedural Background

A. Initial Determination of Unacceptability

On August 4, 2021, the Environmental Director of the Ute Mountain Ute Tribe contacted the Acting EPA Region 8 Regional Administrator, Debra Thomas, informing her that a flyover conducted that day showed that Cell 4B at White Mesa was less than half covered with liquid, an alleged violation of the applicable Subpart W work practice standard.[4]

In response to the August 4, 2021 information provided by the Ute Mountain Ute Tribe, Region 8's Air and Toxics Enforcement Branch separately consulted with EPA's Office of Radiation and Indoor Air ("ORIA") and Utah's Department of Air Quality (UDAQ) regarding Cell 4B. On August 6, 2021, Region 8 began coordination efforts with ORIA regarding the alleged Subpart W noncompliance. Region 8 reached out to UDAQ regarding exposed solid materials in Cell 4B on August 6 and 9, 2021, and has remained in communication to date. Region 8 also independently reviewed the CAA Subpart W Impoundment Photographic Reporting ("SWIPR") web-based reporting system, which contains digital photographs collected by Energy Fuels pursuant to 40 C.F.R. § 61.252(b). As a result of this SWIPR review, Region 8

[2] *See* Letter from David C. Frydenlund, Senior Vice-President, General Counsel, and Corporate Secretary, Energy Fuels Resources (USA), Inc., to Linda Jacobson, EPA Region 8 RCRA Inspector (Jun. 15, 2017).
[3] *See* Letter from Suzanne J. Bohan, EPA Region 8 Director of Enforcement and Compliance Assurance Division, to David C. Frydenlund, Senior Vice-President, General Counsel, and Corporate Secretary, Energy Fuels Resources (USA), Inc (Jun. 11, 2019).
[4] *See* E-mail from Scott Clow, Environmental Program Director, Ute Mountain Ute Tribe, to Debrah[sic] Thomas, Acting EPA Region 8 Administrator (Aug. 4, 2021, 06:43 MT).

discovered that Energy Fuels' own photographs revealed solid material on the bottom of the impoundment liner readily visible and uncovered by liquid since June 2020.

Concurrent with Region 8's review of the evidence relevant to the August 4, 2021 E-mail to Debra Thomas, Region 8 received inquiries from EPA Region 10 regarding a planned shipment of CERCLA waste from the Midnite Mine Superfund site on the Spokane Reservation in Washington State.[5] Specifically, Region 10 wanted to know if White Mesa remained a facility that was acceptable to receive the offsite transfer of CERCLA waste. *Id*.

On October 27, 2021, UDAQ issued a Compliance Advisory (CA) to Energy Fuels for a potential violation of Subpart W.[6] The CA noted that solids were observed above the liquid surface of Cell 4B, indicating a failure to maintain liquid levels in the non-conventional impoundment. *Id*.

On December 2, 2021, Region 8 issued an Initial OSR Unacceptability Notice to White Mesa ("Initial Unacceptability Notice").[7] Consistent with the OSR, which authorizes EPA to make findings based on available information or based on its own findings, 40 CFR § 300.440 (c)(3), EPA's Air and Toxics Enforcement Branch considered: (1) the August 4, 2021 flyover photographs; (2) the June 2020-November 2021 SWIPR photographic evidence; and (3) information regarding UDEQ's October 14, 2021 on-site inspection, which confirmed that there were solids visible above the liquid surface in Cell 4B and led UDAQ to issue the October 27,

[5] *See* E-mails from Linda Meyer, Remedial Project Manager, EPA Region 10, Superfund and Emergency Response Division, to Linda Jacobson, RCRA Inspector, EPA Region 8, (Sep. 13, 2021, 5:07 MT; Nov. 1, 2021, 15:37 MT; Nov. 1, 2021, 15:44 MT; Nov. 15, 2021, 8:49 MT).
[6] *See* Letter from Rik Ombach, Manager, Utah Department of Air Quality Minor Source Compliance Section, to Scott Bakken, Vice President, Regulatory Affairs, Energy Fuels Resources (USA), Inc. (Oct. 27, 2021).
[7] *See* Letter from Janice A. Pearson, EPA Region 8 Branch Chief, RCRA/OPA Enforcement Branch, to Mark Chalmers, President and CEO, Energy Fuels Resources (USA), Inc., (Dec. 2, 2021).

2021, CA. Based on EPA's own findings, EPA determined that (1) there was a violation of Subpart W, 40 C.F.R. § 61.252(b) at Cell 4B, and (2) the violation has persisted since June 2020.

B. Informal Conference and Written Comments

In a letter dated December 11, 2021, Energy Fuels requested an informal conference with EPA pursuant to the OSR at 40 C.F.R. § 300.440(d)(4).[8] In that letter, in a follow-up letter dated December 31, 2021,[9] and in a Power Point presentation offered during the January 6, 2022 informal conference,[10] Energy Fuels makes four distinct arguments in favor of reversing EPA's Initial Unacceptability Notice: (1) Cell 4B is not in violation of Subpart W because EPA's 2019 Regulatory Interpretation provides that evaporite crystals are not solid materials within the meaning of 40 CFR § 61.252(b), regardless of where they are located in the cell and regardless of the areal extent or duration of exposure, and hence not required by 40 CFR § 61.252(b) to be covered by liquids; (2) radon emissions from Cell 4B have been kept As Low as Reasonably Achievable ("ALARA") below the regulatory standards; (3) there are no environmental, public health or safety impacts; and (4) Cell 4B is not a receiving unit within the meaning of the term under the OSR.[11]

[8] *See* Letter from David C. Frydenlund, Chief Financial Officer, General Counsel, and Corporate Secretary, Energy Fuels Resources (USA), Inc., to Janice A. Pearson, Branch Chief, RCRA/OPA Enforcement Branch, EPA Region 8 (Dec. 11, 2021).

[9] *See* Letter from David C. Frydenlund, Chief Financial Officer, General Counsel, and Corporate Secretary, Energy Fuels Resources (USA), Inc., to Janice A. Pearson, Branch Chief, RCRA/OPA Enforcement Branch, EPA Region 8 (Dec. 31, 2021).

[10] *See* Energy Fuels' CERCLA OSR Unacceptability Notice – Informal Conference Power Point Presentation for the Informal Conference (Jan. 6, 2022).

[11] Energy Fuels raises five additional arguments. The first four are as follows: (1) Energy Fuels drew down the liquid in Cell 4B to extract the rare earth metal, vanadium; (2) Energy Fuels also drew down the liquid in Cell 4B to conserve water; (3) White Mesa is operated at the highest standards and Cell 4B has a superior design; and (4) Irreparable damages to Energy Fuels' existing and future commercial relations, public relations, and reputation were caused by the Initial Unacceptability Notice and EPA's circulation of that Notice. EPA declines to address these arguments because they are not factors that EPA is authorized to consider under either the CAA or CERCLA; that is, none are relevant to either the finding of a violation under Subpart W, nor the acceptability analysis under the

C. EPA's January 13, 2022 Site Visit

On January 13, 2022, EPA representatives from Region 8's Air and Toxics Enforcement Branch and ORIA visited the White Mesa Mill and conducted an on-site inspection of Cell 4B. During this inspection, EPA representatives observed that approximately 60% of Cell 4B was uncovered by liquid and that the bottom of the liner had a significant amount of radioactive byproduct material dried and exposed to the atmosphere. *See* Inspection Report of Partial Compliance Evaluation, On-Site CAA Inspection of Energy Fuels Resources – White Mesa Mill at 2 and 5 (Jan. 13, 2022) ("EPA 2022 Inspection Report").

This inspection finding confirmed EPA's prior findings based, in part, on the review of White Mesa's electronic reporting to the SWIPR database, which showed that a significant amount of solid material in Cell 4B had been exposed above the liquid level since June 2020.

IV. Discussion

a. National Emission Standards for Radon Emissions from Operating Mill Tailings at 40 C.F.R. Part 61 Subpart W

Subpart W was originally promulgated under the CAA to control emissions of radon-222 from operating structures used to manage uranium byproduct material or tailings at uranium recovery facilities. 82 Fed. Reg. 5142-01, at 5143. Conventional uranium milling uses a chemical process to recover and process uranium, with the resulting solid and liquid wastes known as uranium byproduct material or tailings. *Id*. Uranium byproduct material or tailings contain

OSR. Energy Fuels' fifth argument is that air emissions are excluded from CERCLA § 121(d)(3) and cannot be regulated through the OSR. EPA declines to reach the merits of this argument because the Agency's OSR Unacceptability Determination was based on the *compliance criterion* of the OSR rather than the release criterion.

residual uranium, radium and heavy metals. *Id*. Emissions of Radon-222 occur from radium-226 in the byproduct material or tailings decays. *Id*.

Operating uranium mills, like White Mesa, may utilize two styles of impoundments. "Conventional impoundments" are used to manage the mostly solid wastes from uranium processing. 40 C.F.R. § 61.251(h). "Non-conventional impoundments," also known as evaporation or holding ponds, are used to manage process liquids and effluents. 40 C.F.R. § 61.251(i). Non-conventional impoundments contain uranium byproduct material or tailings suspended in and/or covered by liquids and may accumulate sediments at the bottom as solids contained in the liquids settle out. *Id*.; 82 Fed. Reg. 5142-01, at 5143. Cell 4B is a non-conventional impoundment.

As amended in 2017, Subpart W requires operating uranium recovery facilities to employ specific management practices or generally available control technology ("GACT") to control radon emissions from conventional and non-conventional impoundments. *See* 42 USC § 7412(d)(5). A facility is in "operation" if an impoundment is being used for the continued placement of uranium byproduct material or tailings or is in standby status for such placement. 40 C.F.R. § 61.251(e). 82 Fed. Reg. 5142-01, at 5147. An impoundment is in operation from the day that uranium byproduct material or tailings are first placed in the impoundment until the day that final closure begins. *Id*.

The GACT standard set forth by Subpart W for non-conventional impoundments achieves control of radon emissions by requiring the facility owner or operator to ensure that solid uranium byproduct material or tailings in the ponds are maintained in a saturated condition, with no solid materials visible above the level of liquid in the impoundment. 82 Fed. Reg. 5142-01, at 5144. Specifically, Subpart W's standard for non-conventional impoundments states, in

addition to mandating certain design, construction, installation, and closure requirements, the following**:**

> During operation and until final closure begins, the liquid level in the impoundment shall be maintained *so that solid materials in the impoundment are not visible above the liquid surface,* verified by daily inspections documented through notations and by digital photographic evidence collected at least weekly. Should inspection reveal that solid materials in the impoundment are visible above the liquid surface, the owner or operator must correct the situation within seven days, or other such time as specified by the Administrator.

40 C.F.R. § 61.252(b). (Emphasis added).

To demonstrate compliance with Subpart W, the regulations require owners and operators of any uranium recovery facility with non-conventional impoundments to comply with the following recordkeeping requirements: (1) maintain written records from daily inspections and other records confirming that any sediments have remained saturated in the non-conventional impoundments at the facility; and (2) collect periodic digital photographic evidence, with embedded date stamp and other identifying metadata, no less frequently than weekly to demonstrate compliance with the requirements of § 61.252(b); as well as the non-compliance reporting requirement at 40 C.F.R. § 61.255(b) to document non-compliance with the requirements of § 61.252(b) through the collection of photographic evidence before and after the non-compliance is corrected. These records must be kept for the operational life of the facility and made available for inspection by the Administrator, or his authorized representative. 40 C.F.R. § 61.255(c).

b. <u>The 2019 Regulatory Interpretation</u>

i. EPA's 2017 Site Visit and Energy Fuels' Waiver Request

On May 16, 2017, Region 8 conducted a CAA oversight inspection of White Mesa ("EPA's 2017 Inspection"), which included a visual assessment and records review related to Cell 4B. Region 8 representatives observed that:

> Cell 4B had its liquid level drawn down to complete a solution reprocessing to extract additional uranium product from the liquids. As a result of this reprocessing, evaporative crystals have formed on the sides and bottom of the liner of Cell 4B. Per 40 CFR 60.252(b) "Should inspection reveal that solid materials in the impoundment are visible above the liquid surface, the owner or operator must correct the situation within seven days, or other such time as specified by the Administrator." The inspectors noted that the liquid level on impoundment 4B was low enough that the bottom of the liner was visible in the northwest corner of the impoundment and that crystals have formed above the liquid level along the bottom and sides of the liner.[12]

The EPA 2017 Inspection Report contains the following note: "the facility appears to be in compliance with all applicable regulatory requirements *except for the solid material that is located above the liquid level on the liner of Cell 4B*." *Id*. at 2. (Emphasis added).

In follow-up communications after EPA's 2017 Inspection, Energy Fuels explained to EPA that the crystals formed on Cell 4B's liner regardless of how much liquid was in the impoundment and requested that EPA make a regulatory interpretation that those crystals, which it distinguished from sediment, are not "solid materials" as that term is used by Subpart W. Alternatively, if EPA was not willing to make such an interpretation, Energy Fuels advised that it would submit a request pursuant to 40 C.F.R. § 61.05(c) and § 61.10(b) for a waiver of the requirements of 40 CFR § 61.252(b) until August 31, 2017, to allow enough time for the recharge of reprocessed solutions from Cell 4A to cover the bottom of Cell 4B.[13]

[12] *See* On-site Full Compliance Evaluation of White Mesa Mill (March 5, 2018) ("EPA 2017 Inspection Report").
[13] *See* Letter from Scott A. Bakken, Senior Director, Regulatory Affairs, Energy Fuels Resources (USA), Inc., to Scott Patefield, Director, Air & Toxics Technical Enforcement Program, Office of Enforcement, Compliance and Environmental Justice, EPA Region 8 (May 12, 2017).

Specifically, on May 12, 2017, the facility provided a "Status of Operations" letter to EPA and the State of Utah that discussed the solution reprocessing activities that the facility was conducting, which required the liquid level in Cell 4B to be drawn down for uranium extraction.[14] In that letter, Energy Fuels assured EPA that it was refilling Cell 4B, but that "some crystals of precipitates are exposed on the sides and bottom of the liner that form naturally as a result of the evaporative process." *Id*. at 2.

Additionally, in a June 19, 2017 letter to UDEQ, Energy Fuels repeated the request it had made to EPA for a waiver for the "evaporative crystals" forming on the liner, which Energy Fuels clearly distinguished from "actual sediments":

> With respect to Cell 4B, which has only evaporative crystals on the liner, as described in the National Mining Association's ("NMA's") letter to Mr. Daniel Schultheisz of the EPA dated March 20, 2017 (see Attachment B), Energy Fuels believes that the proper interpretation of the Final Rule would exclude these crystals from being considered "solid materials" that must not be visible. Rather, we and NMA interpret "solid materials" to be actual sediments as described in § 61.255(b).[15]

Because the "crystals" on the sides of the liner continued to appear even as Energy Fuels refilled the liquid in Cell 4B,[16] EPA and Energy Fuels continued their discussions, mainly through telephone conversations, about work practices that could result in the crystals sloughing off into the liquid without damage to the cell's liner. When those telephone discussions failed to yield a workable solution for maintaining a liquid cover over the crystals in Cell 4B, EPA and Energy Fuels began to discuss potentially addressing the infeasibility problem through a

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[14] *See* Letter from Scott A. Bakken, Senior Director, Regulatory Affairs, Energy Fuels Resources (USA), Inc., to Scott Patefield, Director, Air & Toxics Technical Enforcement Program, Office of Enforcement, Compliance and Environmental Justice, EPA Region 8 (May 12, 2017).

[15] *See* Letter from Scott Bakken, Senior Director, Regulatory Affairs, Energy Fuels Resources (USA) Inc., to Jay Morris, Manager, Minor Source Compliance Section, UDEQ Division of Air Quality (Jun. 19, 2017).

[16] *Id*. at 2 ("At this rate, we anticipate that the liner on the bottom of Cell 4B will be completely covered by the end of July 2017 or shortly thereafter. Accompanying this letter is a recent photo taken on June 16, 2017, along with copies of photos collected on April 7 and May 12, 2017, from the west side of Cell 4B showing the increase in fluid levels since April 7, 2017, and the limited amount of crystals that remain on the bottom of the liner on Cell 4B.")

regulatory interpretation that would clarify the scope of Subpart W's work practice standard for non-conventional impoundments. EPA requested additional sampling data and other information about the crystals from Energy Fuels to support such a potential regulatory interpretation, and Energy Fuels provided the requested information.[17]

ii. The Terms of the 2019 Regulatory Interpretation

Based on Energy Fuels' request for assistance in response to the infeasibility of maintaining a liquid cover of what Energy Fuels referred to as "evaporite crystals" on the freeboard area of Cell 4B, ORIA issued a letter to Energy Fuels on March 11, 2019, that provided a regulatory interpretation of the term "solid material" as it is used in Subpart W ("2019 Regulatory Interpretation"). [18]

The 2019 Regulatory Interpretation begins with an acknowledgment that the letter is issued in response to Energy Fuels' "requested clarification of the regulatory term 'solid material' after [Energy Fuels'] not[ed] the presence of evaporite crystals around the edges and at the bottom of Cell 4B at the White Mesa Mill * * *."[19] In response to this request, which was informed by past telephone discussions and correspondence with Energy Fuels about the identified infeasibility problem, EPA explained its focus for the interpretation as an introductory matter:

> Of primary interest to the U.S. Environmental Protection Agency are **crystals that form on the sides of the impoundment at the liquid level, which fluctuates throughout the year under normal operating conditions, and may leave crystals exposed for extended periods**. As described by Energy Fuels, these

[17] *See* Letter from Scott Bakken, Senior Director, Regulatory Affairs, Energy Fuels Resources (USA) Inc., to Michael Stovern, Air & Toxics Technical Enforcement Program, Office of Enforcement, Compliance and Environmental Justice, EPA Region 8 (November 10, 2017).
[18] *See* Letter from Lee Ann B. Veal, Director, EPA Radiation Protection Division, to Scott Bakken, Senior Director Regulatory Affairs, Energy Fuels Resources (USA), Inc., (Mar. 11, 2019).
[19] *Id*. at p.1.

> crystals tend to "grow" on the impoundment liner and form through chemical complexing and precipitation.[20]

The 2019 Regulatory Interpretation provided the following conclusions:

> The EPA concludes that the evaporite crystals in Cell 4B at the White Mesa Mill are not "solid material," as that term is used in 40 CFR 61.252(b), that must remain below the liquid level in a non-conventional impoundment. The EPA further concludes that evaporite crystals that may form in and around other non-conventional impoundments through a similar process and have similar characteristics are not "solid material," as that term is used in 40 CFR 61.252(b). The EPA bases this conclusion on the **physical form and nature of the material**. Subpart W is concerned with the management of uranium byproduct material or tailings. When uranium byproduct material or tailings precipitates out of solution or suspension, it forms a granular sediment on the bottom of the impoundment. The crystalline material in Cell 4B is of a very different physical form, is a byproduct of the chemical interactions taking place within the impoundment and tends to attach to imperfections (such as seams) on the impoundment liner.[21]

As additional support for its conclusions, and in further recognition of past telephone conversations and correspondence with Energy Fuels to address identified infeasibility issues, EPA closed the 2019 Regulatory Interpretation by: (1) acknowledging that EPA had reviewed information provided by Energy Fuels prior to reaching these conclusions and (2) offering several "observations relevant to EPA's understanding of evaporite crystals at the White Mesa Mill."[22] The first set of observations focused on summarizing an analysis of the radon flux from Ra-226 contained within the evaporite crystals compared to Ra-226 suspended or dissolved in liquids. The second set of observations relayed EPA's understanding that, under normal operating conditions, the "contribution of evaporite crystals to overall radon emissions at non-conventional impoundments is limited compared to the impoundment itself" and the "need to maintain freeboard complicates efforts to keep all crystals covered at all times, and physical

[20] *Id*. (emphasis added).
[21] *Id*. at pp. 1-2 (emphasis in original).
[22] *Id*. at p. 2

removal has the potential to damage the liner." Here, EPA summarized that it estimated the area of exposed crystals to "constitute on the order of 10% of the overall impoundment area," taking the size of the impoundment and the "limited area on the sides where crystals may be exposed."[23]

iii. Energy Fuels' Reading of the 2019 Regulatory Interpretation

Energy Fuels applies the 2019 Regulatory Interpretation broadly, arguing that it provides that evaporite crystals are not solid materials within the meaning of 40 CFR § 61.252(b), regardless of their location in the impoundment and regardless of the areal extent or duration of exposure.[24] Energy Fuels focuses its attention on the introductory paragraph of the 2019 Regulatory Interpretation, where EPA stated, "Energy Fuels Resources (USA) Inc. ("Energy Fuels") requested clarification of the regulatory term "solid material" after noting the presence of evaporite crystals around the edges **and at the bottom of** Cell 4B at the White Mesa Mill * * *" and later statements where EPA discusses "evaporite crystals **in** Cell 4B" (emphasis added). Energy Fuels essentially argues that by first acknowledging the company's notation of the presence of evaporite crystals throughout the impoundment, EPA bound the scope of its interpretation to apply to *all* crystals regardless of their location, despite other language suggesting the contrary. *Id*. In sum, Energy Fuels takes the position that it is unnecessary to maintain a liquid cover anywhere in Cell 4B because evaporite crystals comprise the entirety of the byproduct material exposed in Cell 4B.

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[23] *Id*.

[24] *See* Letter from David C. Frydenlund, Chief Financial Officer, General Counsel, and Corporate Secretary, Energy Fuels Resources (USA), Inc., to Janice A. Pearson, Branch Chief, RCRA/OPA Enforcement Branch, EPA Region 8, at 2-6 (Dec. 11, 2021); Letter from David C. Frydenlund, Chief Financial Officer, General Counsel, and Corporate Secretary, Energy Fuels Resources (USA), Inc., to Janice A. Pearson, Branch Chief, RCRA/OPA Enforcement Branch, EPA Region 8, at 2-5, 11-20, 22-26, 28-37 (Dec. 31, 2021); and Energy Fuels' CERCLA OSR Unacceptability Notice – Informal Conference Power Point Presentation at 2, 5-12,18, 20, 26-27, 29, 31, 33, 35-36 (Jan. 6, 2022).

iv. EPA's Position on the 2019 Regulatory Interpretation

The 2019 Regulatory Interpretation requires a narrower application than the one urged by Energy Fuels. EPA did not intend the 2019 Regulatory Interpretation to apply to all or the majority of the substances or materials present in the impoundment. To state such requires the unsupported contention that the requirements of 40 C.F.R. § 61.252(b) are completely invalidated by the 2019 Regulatory Interpretation as applied to Cell 4B. Further, the 2019 Regulatory Interpretation was not intended to permit the unrestricted drawdown of the liquid in a non-conventional impoundment, nor should it be interpreted to mean that the maintenance of liquid levels as prescribed by the GACT-based standard of Subpart W is no longer required.

EPA's Clarification of the 2019 Regulatory Interpretation

In response to arguments recently offered by Energy Fuels,[25] EPA recognized that the 2019 Regulatory Interpretation included imprecise language that may have introduced uncertainties regarding the Agency's intent. To address any misunderstanding of the scope and application of the 2019 Regulatory Interpretation, EPA is issuing a contemporaneous letter on March 3, 2022 clarifying its March 2019 Regulatory Interpretation ("Clarification Letter").[26] The Clarification Letter concludes:

- All liquid and solid material in Cell 4B constitutes byproduct material.
- Solid byproduct material is not "solid material" subject to § 61.252(b) only to the extent that it forms along the steeply sloped sides of the impoundment, i.e., the freeboard area.

[25] *See* supra note 24.
[26] A copy of the Clarification Letter is attached for reference.

- Solid byproduct material that is present on the more extensive bottom of the impoundment is "solid material" subject to § 61.252(b) that must be kept covered such that it is not visible above the liquid level.

While EPA's position on the scope of 2019 Regulatory Interpretation has remained consistent since its original issuance, the Clarification Letter is being issued to address any arguably ambiguous language in the 2019 Regulatory Interpretation by providing additional clarity on the meaning of "solid materials" under Subpart W.

c. Radon emissions from Cell 4B & Asserted Absence of Environmental, Public Health or Safety Impacts

Energy Fuels argues that the radon emissions from the exposed evaporative crystals in Cell 4B are less than contemplated by the 2019 Regulatory Interpretation, so there is no incremental impact to public health, safety, or the environment from such exposure. Although EPA considered data on the potential radon flux from the byproduct material on the freeboard area of Cell 4B as part of its evaluation of the material prior to issuing the 2019 Regulatory Interpretation, Subpart W strictly applies design and management practices as the GACT standard for non-conventional impoundments. Only conventional impoundments are regulated by a numerical emissions standard for radon. As such, there is no *de minimis* level of radon emanation below which it becomes unnecessary to apply a liquid cover over solid materials in a non-conventional impoundment. It is inappropriate to refer to the emissions standard for pre-1989 conventional impoundments in that context.

d. The CERCLA Offsite Rule

The CERCLA OSR, 40 C.F.R. § 300.440, implements the requirements of CERCLA § 121(d)(3), which requires that in the case of any CERCLA removal or remedial action involving

the off-site transfer of any hazardous substance, pollutant, or contaminant, that transfer may only occur if the facility is operating in compliance with all applicable federal and state requirements. 42 USC § 9621(d)(3). The OSR applies to any remedial or removal action involving the offsite transfer of any CERCLA waste that is either Fund-financed or taken pursuant to any CERCLA authority. 40 C.F.R. § 300.440(a).

The goal of the OSR is to avoid the creation of new CERCLA sites, which is possible when CERCLA wastes are transferred to improperly permitted or managed facilities. 58 Fed. Reg. 49,201 (Sep. 22, 1993). Because CERCLA cleanups are generally ordered or funded by EPA, the off-site determination is, in effect, EPA's business decision as to where CERCLA wastes under EPA's control should be sent. 58 Fed. Reg. at 49,206.

EPA is authorized by the OSR to "make findings based on available information or based on its own findings." 40 C.F.R. § 300.440(c)(3). Specifically, EPA may undertake "any inspection, data collection and/or assessments necessary." *Id*.

The OSR criteria for a facility's acceptability to receive CERCLA wastes are that there are: (1) no environmentally significant releases of hazardous substances at the facility unless the release is controlled by an enforceable agreement for corrective action under an applicable federal or state authority (release criterion), and (2) no relevant violations at, or affecting, the unit or units receiving the CERCLA wastes (compliance criterion). EPA's December 2, 2021 Initial Unacceptability Determination for White Mesa was based on the second criteria: relevant violations at or affecting the unit or units receiving the CERCLA wastes.

i. Relevant violations

According to the Preamble to the Final OSR, determining whether a violation is "relevant" is made on a case-by-case basis. 58 Fed. Reg. 49,208. The OSR provides the following examples of "relevant violations" at 40 C.F.R. § 300.440(b)(1)(ii):

> "[*S]ignificant deviations from regulations*, compliance order provisions, or permit conditions designed to: ensure that CERCLA waste is destined for and delivered to authorized facilities; prevent releases of hazardous waste, hazardous constituents, or hazardous substances to the environment, ensure early detection of such releases or compel corrective action for releases. Criminal violations which result in indictment * * *. *[V]iolations of * * * other Federal laws* ***." (Emphasis added).

The Region 8 Air Enforcement Branch, in consultation with ORIA, had determined that White Mesa had violated Subpart W by failing to keep the solid uranium byproduct material or tailings in Cell 4B saturated with liquid at all times and, therefore, leaving a significant amount of solid material visible above the liquid level.

Energy Fuels argues that:

> Any violation of 40 CFR § 61.252(b) would not be relevant to this purpose as it would involve tailings management practices within the control of the Mill and would not render Cell 4B environmentally unsound: The solution levels in Cell 4B can be elevated at any time by the Mill, thereby eliminating any concerns about compliance with 40 CFR § 61.252(b), and in the meantime, while the liquid levels are being elevated the Mill is merely stockpiling the CERCLA materials. Even if the CERCLA materials were to be processed using Cell 4B, which they need not be, the liquid levels could be elevated prior to any such processing.

See Energy Fuels' CERCLA OSR Unacceptability Notice – Informal Conference Power Point Presentation (Jan. 6, 2022). Energy Fuels appears to be arguing that there are no concerns regarding compliance with Subpart W, because it can raise the liquid in Cell 4B at any time and, therefore, the Subpart W violations are not relevant to the OSR. EPA rejects this argument.

EPA's finding of a violation at Cell 4B comports with the express terms of the OSR which authorizes EPA to "make findings based on available information or based on its own findings." 40 C.F.R. § 300.440(c)(3). EPA undertook "any inspection, data collection and/or assessments necessary" *id.*, when it reviewed the August 4, 2021 flyover photographs and the June 2020-November 2021 SWIPR photographic evidence, consulted with UDEQ and ORIA, and reviewed communications with Energy Fuels in the period leading up to, and immediately following, the 2019 Regulatory Interpretation, and the reduction of the liquid level in Cell 4B by Energy Fuels.

Region 8, after almost 4 months of evidence gathering and deliberation, determined that there was a relevant violation at White Mesa based on the absence of sufficient liquid in the impoundment in violation of the clear language of Subpart W at 40 C.F.R. § 61.252(b) ("During operation and until final closure begins, the liquid level in the impoundment shall be maintained so that solid materials in the impoundment are not visible above the liquid surface."). That Energy Fuels has the ability to cure the violation (yet still has not done so) does not render the violation "not relevant" for purposes of the OSR. Rather, the presence of a "significant deviation from regulations" makes the Subpart W violations relevant.

ii. At or Affecting the Units Receiving CERCLA wastes

Energy Fuels has represented in its December 31, 2021 letter and during the January 6, 2022 informal conference that Cell 4B never receives CERCLA waste and, therefore, EPA has failed to establish the second criteria of the OSR analysis, a relevant violation *at, or affecting, the unit or units receiving the CERCLA wastes*. Energy Fuels' compliance argument boils down to this: Cell 4B is not a "receiving unit" within the meaning of 40 C.F.R. § 300.440(b)(1)(i), because it does not directly receive CERCLA off-site wastes.

First, it should be noted that Energy Fuels' February 2, 2015 request for a CERCLA OSR acceptability determination for several areas of the Mill specifically listed Cell 4B, and that request was approved on June 11, 2019. *See supra* notes 2-3. It does not seem credible that Energy Fuels would seek an OSR acceptability determination for an impoundment that would not receive CERCLA waste.

Second, Energy Fuel contradicted its own written comments and statements made in the informal conference when, during the January 13, 2022 Site Visit, Energy Fuels informed EPA that the primary feed for Cell 4B comes from the La Sal Mine Complex and the alternate feed *is CERCLA off-site waste from the Midnite Mine*. *See* 2022 EPA Inspection Report at 5. Energy Fuels further stated during the site visit that the CERCLA off-site waste feed was added to Cell 4B as a slurry to the last step of the solvent extraction process. *Id*. Based on the prior OSR acceptability determination for Cell 4B, and Energy Fuels' own statements to EPA inspectors, it is reasonable to conclude that Cell 4B receives CERCLA waste and is, therefore, a receiving unit within the meaning of the OSR.

iii. *Egregious nature of the violations*

EPA's Initial Determination of Unacceptability was made immediately effective, rather than on the 60th calendar day after issuance of the Initial Determination, because EPA determined Energy Fuels' violations to be "egregious." *See* 2021 Unacceptability Notice. Under the applicable OSR provision at 40 C.F.R. § 300.440(d)(9), EPA may decide that a facility's unacceptability is immediately effective (or effective in fewer than 60 days) in extraordinary situations. The only guidance the OSR provides with respect to the term "extraordinary situations" are the examples of "emergencies at the facility" and "egregious violations," neither

of which are further defined in the rule. However, the Offsite Rule Training Reference (Apr. 19, 2009), provides the following example at Chapter III-9:

> (5) a large number of violations or repeat violations. Any other situation which raises doubts about the facility's capability to manage CERCLA waste in an environmentally sound manner during the 60 days following the issuance of the (d)(1) notice.

It is evident from the SWIPR web-based reporting system that White Mesa's Cell 4B has been in violation of Subpart W since June 2020. EPA's January 13, 2022 site visit confirmed that those violations continue to persist. Moreover, Energy Fuels neither cured the violations within 7 days (and still has not done so three months after receiving the Initial Unacceptability Notice) nor reported them to EPA or UDAQ,[27] as required by Subpart W, 40 C.F.R. § 61.252(b). Accordingly, based on the lengthy duration of the violations and Energy Fuels' failure to cure them, EPA had significant doubts about White Mesa's capability to manage CERCLA waste in an environmentally sound manner, and therefore, determined these violations "egregious" under the OSR, allowing the unacceptability determination to take immediate effect.

Energy Fuel asserts that the 2019 Regulatory Interpretation contained unclear language that it interpreted to mean it did not have to cover *any* of the solid material in Cell 4B.[28] In response, EPA issued the Clarification Letter, which stated:

> EPA recognizes that the 2019 interpretation included imprecise language that may have introduced uncertainties regarding the Agency's intent. * * * The 2019 interpretation should have provided more specific descriptions and location-based limitations, such as those presented above. As noted above, the Agency's purpose in issuing the interpretation

[27] Energy Fuels appears to argue that even if its drawdown of the liquid in Cell 4B is a violation of Subpart W, the facility duly reported it to EPA when it submitted photos to the SWIPR web-based reporting system. EPA disagrees. Subpart W has distinct record-keeping requirements under § 61.255(b) and non-compliance reporting requirements under § 61.252(b). Energy Fuels complied with its record-keeping requirements under § 61.255(b) by submitting digital photos electronically using the SWIPR system that is accessed through EPA's Central Data Exchange, as thousands of other facilities across the United States do, but failed to "correct the situation within seven days, or other such time as specified by the Administrator," as required by § 61.252(b).

[28] *See* supra note 24.

> was to address a situation in which, as Energy Fuels described it, Energy Fuels found it impractical to implement the GACT-based standard as written on the steeply sloped edges of the impoundment, i.e., the freeboard area. No such impediment existed or exists to maintaining a liquid cover in the preponderance of the impoundment, i.e., on the bottom. * * *. While the 2019 interpretation generally referred throughout to material "in" Cell 4B and did not explicitly state that the interpretation only applied to material found on the freeboard area that Energy Fuels found impractical to keep covered or otherwise physically control, EPA never intended the 2019 interpretation to be applied as broadly as Energy Fuels' recent communications suggest the company is doing.[29]

In acknowledgement of the imprecise language in the 2019 Regulatory Interpretation, EPA reverses the "egregious violation" finding, but affirms the finding of an ongoing violation of Subpart W dating back to June 2020. This reversal will be reflected in the record, but will not result in a 60-day stay of the effective date of the Initial Unacceptability Notice we are finalizing today. EPA affirms the finding of an ongoing violation of Subpart W dating back to June 2020.

V. Conclusion

EPA reaffirms its decision not to allow the facility to accept CERCLA waste until the facility, which is operated by Energy Fuels, returns to physical compliance with the requirements of 40 C.F.R. Part 61, Subpart W, in accordance with the CERCLA Offsite Rule at 40 C.F.R. § 300.440.[30] Energy Fuels may now request a reconsideration by the Regional Administrator within 10 days of receiving this letter in accordance with 40 C.F.R. § 300.440(d)(7).

[29] *See* Clarification Letter at 3-4.

[30] That regulatory provision states that, "A facility found to be unacceptable to receive CERCLA wastes based on the relevant violations * * * may regain acceptability if * * * the facility has prevailed on the merits in an administrative or judicial challenge to the finding of noncompliance * * * upon which the unacceptability determination was based [or] the facility has demonstrated to the EPA Region its return to physical compliance for the relevant violations cited in the notice."