**BEFORE THE ENVIRONMENTAL APPEALS BOARD**
**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**WASHINGTON, D.C.**

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| | ) |
| In re: | ) |
| | ) |
| Powertech (USA) Inc. | ) |
| Dewey-Burdock Uranium In-Situ | ) |
| Recovery Project, | ) |
| Class III Area Permit No. | ) |
| SD31231-00000; AND | ) |
| Class V Area Permit No. | ) |
| SD52173-00000 | ) |
| | ) |

PETITION FOR REVIEW

Comes now the Oglala Sioux Tribe and petitions the Environmental Appeals Board to review the Environmental Protection Agency Region 8's issuance of an Underground Injection Control (UIC) Class III area permit and Class V area permit for the Powertech (USA) Inc. Dewey-Burdock In-Situ Recovery Project in Custer and Fall River Counties, South Dakota.



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## INTRODUCTION AND ISSUES PRESENTED FOR REVIEW

Pursuant to 40 C.F.R. § 124.19(a), Oglala Sioux Tribe ("Tribe" or "Petitioner") petitions for review of the Environmental Protection Agency's ("EPA") issuance of an Underground Injection Control ("UIC") Class III Area Permit (Permit No. SD31231-00000) and Class V Area Permit (Permit No. SD52173-00000) issued to Powertech (USA) Inc. ("Powertech" or "applicant") for the proposed Dewey-Burdock Uranium In-Situ Recovery Project ("Project") on November 24, 2020 by EPA Region 8. The permits at issue in this proceeding are required[1] for otherwise prohibited activity. The permits authorize Powertech to inject lixiviant and wastewater into the local aquifer to conduct an in-situ leach ("ISL") uranium mining operation in the Black Hills of South Dakota.

Petitioner contends that EPA's permitting analysis is based on clearly erroneous findings of fact and conclusions of law and are counter to EPA regulations and obligations under the Safe Drinking Water Act ("SDWA")(42 U.S.C. §§ 300f, *et seq.*), the National Historic Preservation Act ("NHPA")(16 U.S.C. §§ 470, *et seq.*), the National Environmental Policy Act ("NEPA")(42 U.S.C. §§ 4321, *et seq.*), and the Administrative Procedure Act ("APA")(5 U.S.C. §§ 701, *et seq.*). Specifically, petitioners present the following challenges:

> (1) Failure to demonstrate compliance with the requirements of the National Historic Preservation Act, 16 U.S.C. §§ 470, *et seq.* and implementing regulations;
>
> (2) Failure to demonstrate compliance with the cumulative effects analysis required by 40 C.F.R. § 144.33(c)(3), the "functional equivalence" doctrine, and NEPA's "systematic, interdisciplinary approach" to federal decisionmaking. 42 U.S.C. § 4332(2)(A)).

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[1]Determinations in the November 24, 2020 Aquifer Exemption Record of Decision confirm these UIC Class III and Class V permits are required. On December 3, 2020, EPA's Valois Robinson clarified that the facts and legal issues relevant to the Aquifer Exemption "must be filed in accordance with 42 USC § 300j-7, not 40 CFR § 124.19, because it is a final agency action independent from the permit. See *In re Florence Copper*, 17 EAD 406, 419 (EAB 2017)." The Aquifer Exemption will be addressed in a separate appeal that is due January 22, 2021.



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(3) Failure to demonstrate compliance with the Safe Drinking Water Act and implementing regulations, including 40 CFR § 144.12, 40 CFR § 146.33(a), and 40 CFR § 146.6(a)(ii), regarding demonstration of ability to contain the mining fluid within the exempted aquifer and protect underground sources of drinking water.

(4) Failure to abide by the procedural rulemaking requirements of the Administrative Procedure Act, 5 U.S.C. §§ 701, *et seq*.

The Tribe filed two separate sets of written comments during the permitting process (Comments attached as Attachments 1 and 2) at issue here. In October 2020, EPA Region 8 Management abruptly and unlawfully cancelled technical meetings between Tribal government officials and EPA staff that were designed to provide the Tribe's leadership and federal decisionmakers with additional information and guide government-to government consultation on a range of issues that included groundwater and significant impacts to cultural resources.

The Oglala Sioux Tribe is a body politic comprised of approximately 41,000 citizens with territory of over 4,700 square miles on the Pine Ridge Reservation in the southwestern portion of South Dakota. The Tribe is the freely and democratically-elected government of the Oglala Sioux people, with a governing body duly recognized by the Secretary of Interior. The Tribe is the successor in interest to the Oglala Band of the Teton Division of the Sioux Nation, and is a protectorate nation of the United States of America. The Oglala Band reorganized in 1936 as the "Oglala Sioux Tribe of the Pine Ridge Indian Reservation" ("Oglala Sioux Tribe" or "Tribe") under section 16 of the Indian Reorganization Act of June 18, 1934, ch. 576, 48 Stat. 987, 25 U.S.C. § 476, and enjoys all of the rights and privileges guaranteed under its existing treaties with the United States in accordance with 25 U.S.C. § 478b.

The lands encompassed by the Powertech proposal are within the Tribe's aboriginal lands and within the boundaries of the Great Sioux Reservation, as defined in the Treaty of Fort Laramie of April 29, 1868. (15 Stat. 635). These unceded treaty lands contain significant



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historic and cultural resources, such as burials, items of cultural patrimony, artifacts, sites, and other material culture, etc., that belong to and/or could be associated with the Tribe upon proper identification, documentation, evaluation, and recordation.

By enacting NEPA (42 U.S.C. §§ 4321 *et seq.)*, NAGPRA, (25 U.S.C. §§ 3001 *et seq.*), NHPA (16 U.S.C.S. §§ 470 *et seq.*) and other statutes, the United States has assured that the Tribe's cultural resources will be protected, even when they are not within reservation boundaries. Impacts to significant cultural and historic resources have been confirmed by incomplete site surveys, but there have been no competent surveys carried out by the Tribe or persons with relevant cultural expertise to identify and ensure proper resource protection. Further, the Tribe owns land in the direct vicinity of the proposal which could be negatively affected through groundwater contamination. As such, the Tribe has several protected interests. Harm to the water resources, burials and artifacts, and ongoing cultural activities are foreseeable and imminent due to the failure of the applicant and EPA Region 8 staff to complete steps required to properly survey and judge the significance of these important resources.

In short, this petition seeks to avoid irreparable injury to the very identity of the Tribe, caused by the actions of the applicant and condoned by EPA personnel with federal trust duties to the Tribe. The incomplete consideration of significant cultural resources, historic properties, and prehistoric artifacts in the Tribe's treaty and aboriginal territory implicates important tribal interests such that the mining activities allowed by EPA's permitting actions cause significant harm to the Tribe's inherent and federally-recognized interests.

## THRESHOLD PROCEDURAL REQUIREMENTS

Petitioners satisfy the threshold requirements for filing a petition for review under 40 C.F.R. part 124:



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1. Petitioner provided evidence that establishes standing to petition for review of the permit decision in its June 19, 2017 and December 9, 2019 written comments submitted while participating in the public comment period on the permit (Attachments 1 and 2). See 40 C.F.R. § 124.19(a). The information exchanged during the EPA-terminated effort to engage government-to-government consultation also confirms administrative standing.

2. The issues raised in the Petition were raised during the public comment period and during attempts at consultation, and therefore were preserved for review. Specifically, and as discussed *infra*, both sets of comments submitted by Petitioner in 2017 and 2019 detail EPA Region 8's lack of a compliant cumulative effects analysis, NEPA violations, the lack of compliance with the consultation and archaeological/cultural resource protection and mitigation requirements of the NHPA, and failure to comply the statutory and regulatory requirements of the SDWA and the procedural rulemaking requirements of the APA. Further, the comments submitted in both 2017 and 2019 included a number of attachments in support of the comments, including expert reports, hearing transcripts, and internal EPA documents obtained via the Freedom of Information Act ("FOIA").

## BACKGROUND[2]

EPA Region 8 approved a UIC Program Area Permit to construct and operate up to 14 Class III injection wellfields within the Dewey-Burdock Project Area, involving surface facilities and ground disturbance that includes construction of approximately 1,461 separate injection wells, 869 separate production wells, and related operations/maintenance infrastructure. The 14 wellfields will be used for the injection of a chemical lixiviant to dissolve uranium from ore

[2] The factual descriptions herein are taken from EPA permitting documents in the administrative record that describe the Project. Specifically, EPA's Fact Sheets, Underground Injection Control Area Permit, Aquifer Exemption Record of Decision, and EPA Response to Comments. .



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deposits in the underlying aquifer. EPA Region 8 has also granted a UIC Program Class V Area Permit allowing the construction and operation of up to four (4) deep injection wells within the Dewey-Burdock Project Boundary to be used for the disposal of treated uranium ISL process wastewater into a separate underlying aquifer.

The uranium leaching process uses Class III injection wells to introduce a lixiviant into subsurface aquifers containing uranium ore deposits that leaches the uranium and multiple other toxic heavy metals from the ore deposits. Production wells pump the solution of groundwater and uranium-bearing lixiviant up to a processing plant, where the dissolved uranium is removed using an ion-exchange resin. After uranium removal, the solution is recirculated and reinjected into the aquifer via injection wells.

Once the ion-exchange resin is loaded with uranium, the loaded resin is stripped and the resulting barren resin is used again to recover more uranium. The uranium-bearing solution is pumped through a precipitation process, where the uranium is precipitated as a yellow, solid uranium oxide yellowcake. The yellowcake is then packaged in sealed containers for shipment to a site where it is further processed for use in electrical generation or nuclear weapons.

The solutions used in the Class III injection are eventually exhausted, treated, and the waste fluids from this process are injected into the proposed Class V deep injection wells or by disposed of via land application. Some, but not all, versions of the Powertech proposal involve radium settling ponds to remove radionuclide solids. There is no definite plan for disposal of radioactive solids or liquids.

In theory, the applicant is able to maintain hydraulic control of each Class III wellfield by injecting a lower volume of solution into the aquifer than the production wells remove. The difference between the volume of solution being removed and the volume being injected is the



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*wellfield bleed*. Bleed is defined as excess Class III operations (or restoration) solution withdrawn from the producing (or post-production) aquifer to maintain a cone of depression that is assumed to continually pull native groundwater toward the center of the wellfield. Wellfield bleed is an additional waste fluid from the Class III operations.

Powertech plans to operate each Class III wellfield until uranium recovery is no longer economical. Powertech estimates that individual wellfields will operate for about 2 years. After the uranium production in each wellfield is complete, a groundwater restoration process begins for that aquifer. The contaminated groundwater is pumped from the aquifer and treated using reverse osmosis. The restoration process also uses a cone of depression that produces bleed fluids. The restoration bleed and the reject water from the reverse osmosis treatment are injected into the Class V deep injection wells. A definite plan to dispose of these radioactive and toxic solids has not been approved.

As described in detail in Petitioner's comments, and admitted by EPA Region 8, there is no evidence of any operator successfully restoring an aquifer used as a Class III uranium ISL well field to pre-mining conditions. Further, the permitting regime established by EPA Region 8 in this case allows Powertech to secure the permits without first demonstrating the ability for Class III and Class V wells to contain the uranium and heavy metal solution within the underlying aqueous geology. Instead, EPA Region 8 deferred consideration of relevant permitting factors until after final permitting, thereby avoiding public involvement and opportunity for comment.

Critically, EPA made no attempt to address mitigation or alternative design/siting of the proposed injection and waste facilities, and related infrastructure, even though the site is known to be replete with significant cultural resources (including burials) of great importance to the



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Lakota people, including Petitioner Oglala Sioux Tribe. No competent survey for cultural resources has occurred in the areas proposed for the extensive drilling involved in construction and operation of the permitted injection wells.

## ARGUMENT

### Standard of Review

"[T]o establish that review of a permit is warranted, [40 C.F.R.] § 124.19(a) requires a petitioner to both state the objections to the permit that are being raised for review, and to explain why the [permitting authority's] previous response to those objections ... is clearly erroneous or otherwise warrants review." *In re Puerto Rico Elec. Power Auth.*, 6 E.A.D. 253, 255 (EAB 1995). Further:

> In evaluating a permit appeal, the Board examines the administrative record on which the permit was based to determine whether the permit issuer exercised his or her considered judgment. [...] Specifically, the permit issuer must articulate with reasonable clarity the reasons for its conclusions and the significance of the crucial facts it relied upon in reaching those conclusions. [...]. As a whole, the record must demonstrate that the permit issuer duly considered the issues raised in the comments and [that] the approach ultimately adopted by the [permit issuer] is rational in light of all information in the record.[...]

*In re Avenal Power Center, LLC*, 15 E.A.D. 384 (EAB 2011) (slip. op. at 4) (internal quotations omitted).

### EPA Region 8's Decisions Violate the National Historic Preservation Act

The federal courts have addressed strict NHPA mandates, 16 U.S.C. §§ 470, *et seq.*:

> Under the NHPA, a federal agency must make a reasonable and good faith effort to identify historic properties, 36 C.F.R. § 800.4(b); determine whether identified properties are eligible for listing on the National Register based on criteria in 36 C.F.R. § 60.4; assess the effects of the undertaking on any eligible historic properties found, 36 C.F.R. §§ 800.4(c), 800.5, 800.9(a); determine whether the effect will be adverse, 36 C.F.R. §§ 800.5(c), 800.9(b); and avoid or mitigate any adverse effects, 36 C.F.R. §§ 800.8[c], 800.9(c). The [federal agency] must confer with the State Historic Preservation Officer ("SHPO") and seek the approval of the Advisory Council on Historic Preservation ("Council").



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*Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 805 (9th Cir. 1999). See also, 36 C.F.R. § 800.8(c)(1)(v)(agency must "[d]evelop in consultation with identified consulting parties alternatives and proposed measures that might avoid, minimize or mitigate any adverse effects of the undertaking on historic properties....").

The Advisory Council on Historic Preservation ("ACHP"), the independent federal agency created by Congress to implement and enforce the NHPA, determines the methods for compliance with the NHPA's requirements. See *National Center for Preservation Law v. Landrieu*, 496 F. Supp. 716, 742 (D.S.C.), *aff'd per curiam*, 635 F.2d 324 (4th Cir. 1980). The ACHP's regulations "govern the implementation of Section 106," not only for the Council itself, but for all other federal agencies. *Id.* See also *National Trust for Historic Preservation v. U.S. Army Corps of Eng'rs*, 552 F. Supp. 784, 790-91 (S.D. Ohio 1982).

NHPA Section 106 requires federal agencies, prior to approving any "undertaking," to "take into account the effect of the undertaking on any district, site, building, structure or object that is included in or eligible for inclusion in the National Register." 16 U.S.C. § 470(f). Section 106 applies to properties already listed in the National Register, as well as those properties that may be eligible for listing. See *Pueblo of Sandia v. United States*, 50 F.3d 856, 859 (10th Cir. 1995). Section 106 provides a mechanism by which governmental agencies may play an important role in "preserving, restoring, and maintaining the historic and cultural foundations of the nation." 16 U.S.C. § 470.

If an undertaking is the type that "may affect" an eligible site, the agency must make a reasonable and good faith effort to seek information from consulting parties, other members of the public, and Native American tribes to identify historic properties in the area of potential



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effect. 36 C.F.R. § 800.4(d)(2). See also, *Pueblo of Sandia*, 50 F.3d at 859-863 (agency failed to make reasonable and good faith effort to identify historic properties).

The NHPA also requires that federal agencies consult with any "Indian tribe ... that attaches religious and cultural significance" to the sites. 16 U.S.C. § 470(a)(d)(6)(B). Consultation must provide the tribe "a reasonable opportunity to identify its concerns about historic properties, advise on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, articulate its views on the undertaking's effects on such properties, and participate in the resolution of adverse effects." 36 C.F.R. § 800.2(c)(2)(ii). The Tribe must be involved in all three efforts: 1) identifying historic or cultural resources; 2) evaluating impacts on historic or cultural resources and those resources' eligibility for inclusion on the National Register of Historic Places (NRHP); and, 3) developing project alternatives or mitigation measures to protect those resources that are or may be eligible.

The administrative record, including EPA's decision documents and EPA's Response to Comments (attached for reference at Attachment 35), demonstrate that EPA has failed to comply with the consultation and historic resources protection requirements of the NHPA. Specifically, there has never been a competent Lakota cultural resources survey of the Dewey-Burdock site. This incontrovertible fact was established by the Nuclear Regulatory Commission's Atomic Safety and Licensing Board (ASLB) issued its ruling in LBP-15-16 in 2015. *In The Matter of Powertech (USA), Inc.* (Dewey-Burdock ISR Project), LBP-15-16, 81 NRC 618, 655 (2015)("the Board finds and concludes that the FSEIS has not adequately addressed the environmental effects of the Dewey-Burdock project on Native American cultural, religious, and historic resources."). The inadequacy of existing surveys has been repeatedly upheld by both the ASLB and the Nuclear Regulatory Commission itself. See, e.g.,



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CLI-16-20, 84 N.R.C. 219 (2016). By relying on incompetent cultural resources survey and uninformed analyses of the property and dismissing the Tribe's attempts to rectify this error, EPA has failed to comply with its obligations under NHPA to meaningfully consult with the Tribe as to the identification, evaluation, or mitigation of impacts to those cultural resources.

As discussed herein, the efforts and opportunity to meet these duties was formally abandoned in October 2020, shortly before the permits issued in November 2020, when EPA abruptly cancelled scheduled consultation efforts with the Tribe. Prompted by EPA's second set of draft permits issued in late 2019, and due to COVID-19 challenges in early 2020, EPA staff and the Tribe scheduled consultation meetings to begin in June 2020. EPA understandably cancelled those meetings when COVID-19 travel restrictions prohibited the agency from any travel. See EPA Response to Comments #253 (page 302).

The efforts recommenced with a general introductory virtual presentation by EPA to a non-quorum portion of the Oglala Sioux Tribal Council on August 28, 2020. The result of that meeting, in accordance with the Oglala Sioux Tribe Ordinance #11-10, binding on the Tribe's staff (Attachment 3), was Council's authorization for the Tribe's technical staff to assign resources necessary to engage in discussions with EPA regarding the Tribe's specific concerns, including the need for competent cultural resource surveys. The technical meeting was scheduled to occur on October 2, 2020. The result of the technical meetings would, in turn, inform government-to-government consultation between the full Council and appropriate federal officials, as contemplated by Ordinance #11-10.

A week prior to the August 28 meeting, the Tribe concluded that both EPA and Bureau of Land Management ("BLM") were involved in what appeared to be separate and overlapping federal consultation efforts, and it would benefit all parties to have the consultation meetings in



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a combined setting. EPA staff emailed the Tribe on September 10, 2020 indicating agreement to coordinate with BLM (who had also agreed) and the Tribe. See September 11 2020 email thread between EPA and the Tribe (Attachment 4).

However, the email also alerted the Tribe to the fact that unspecified EPA managers were influencing and attempting to expedite the consultation, with EPA staff "being strongly encouraged 😬 by my managers to move forward with this" and to complete the entire process by October 2, 2020. *Id.* Nevertheless, EPA staff continued to implement a combined process and recognized the applicability of Ordinance #11-10 on September 18, 2020. See September 18, 2020 letter from EPA to the Tribe (Attachment 5). The letter also communicated that EPA management was pushing for completion within a matter of days, regardless of the extent or content of the Tribe's input, to conform with "EPA plans to make its final decisions on the UIC permit applications shortly after that October 2, 2020 date." *Id.*

In quick succession in accordance with EPA's request, on September 23, 2020, the Tribe's technical staff scheduled a planning meeting with EPA staff and BLM staff to discuss the Tribe's detailed proposed agenda for the October 2, 2020 meeting. See proposed October 2, 2020 agenda (Attachment 6). During the planning call on September 23, all parties agreed to engage in a substantive technical discussion of the topics identified for October 2, 2020.

Unfortunately, in late September, the Pine Ridge Reservation experienced a dramatic rise in the COVID-19 infection rate, so much that the Oglala Sioux Tribe President issued a September 27, 2020 Order requiring all Tribal employees to test and if exposed, quarantine until a negative result was obtained. On the same day, the Tribe's COVID-19 Task Force issued a formal order advising all Pine Ridge Reservation residents to prepare immediately for a Reservation-wide lockdown (the actual lockdown eventually occurred at a later date). The



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Tribe's Water Resource Administrator, lead technical staff for the EPA and BLM meetings, sent EPA and BLM an email including these orders and notifying the federal government staff about the fast-evolving situation. He informed EPA and BLM that he had been exposed, was scheduled for a test, but would have to quarantine in accordance with the President's directive. See September 28, 2020 email from the Tribe to EPA-BLM (Attachment 7). On September 29, 2020, the Tribal Secretary informed all parties that the Tribe had determined that preparations and actual convening of the October 2, 2020 meeting was not possible due to lack of staff, quarantines, and risk to Tribal members. See September 29, 2020 email from the Tribe to EPA-BLM (Attachment 8).

On October 14, 2020, the Tribe's lead technical staff provided an email update to EPA and BLM staff notifying the parties that while he had finished his quarantine period, the health situation on the Pine Ridge Reservation had continued to deteriorate, that the Tribe's COVID-19 Task Force had renewed its recommendation for a Reservation-wide lockdown, and he would advise when the Tribe's technical staff were cleared to resume preparations and re-convene the technical meetings. See October 14, 2020 email from the Tribe to EPA-BLM (Attachment 9). Notably, none of the communications regarding the Tribe's COVID-19 emergencies appear to have been included in EPA's prepared consultation timeline.

A week later, on October 21, 2020, in disregard of the Tribe's ongoing health crisis, EPA Region 8 sent a letter to the Oglala Sioux Tribe President cancelling all consultation efforts and declaring EPA's unilateral abandonment of all tribal consultation efforts. See October 21, 2020 letter from EPA to the Tribe (Attachment 10). The Tribe responded with a detailed letter describing the dire health situation on the Reservation and asking EPA to reconsider considering the Tribe's accommodation of EPA's travel restrictions that cancelled the June



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2020 meetings. See November 2, 2020 letter from Oglala Sioux Tribe President to EPA (Attachment 11). On November 19, 2020, EPA tersely rejected any and all further efforts at consultation, despite the fact that not one single technical meeting had occurred, and no competent on-the-ground cultural resources information or surveys had been developed or included in EPA's permitting process. See November 19, 2020 letter from EPA Region 8 to the Tribe (Attachment 12). The record confirms that EPA managers successfully moved the permits forward and completed the permitting process on November 24, 2020, without carrying out government-to-government consultation. See September 11, 2020 email thread between EPA and the Tribe (Attachment 4).

EPA has not met its obligations under NHPA Section 106 to make a reasonable and good faith effort to seek information from the Tribe and the public regarding cultural resources at the proposed mine site. Cutting off consultation before any technical meetings occurred, in violation of the Oglala Sioux Tribe Ordinance #11-10 and in the middle of a public health crisis is unreasonable, capricious, and demonstrates a lack of good faith.

Given NRC Staff's similar failure to ensure a competent cultural resources survey and analysis, EPA cannot lawfully rely on NRC Staff's legally infirm NHPA and NEPA efforts with regard to identification of cultural resources. The Tribe remains ready, willing, and able to assist EPA meet its federal duties. Given the NRC ASLB's ruling regarding the lack of identification of Lakota cultural resources, EPA unlawfully relies on the erroneous statement in the 2019 NHPA Draft Compliance and Review Document:

> Based on the information the EPA has reviewed to date, and subject to any further developments in the course of the NRC administrative review process, the EPA believes that the identification of historic properties completed under the auspices of the NRC through the Class III Cultural Resources Survey appears sufficient for the APE defined by the NRC.

EPA NHPA Compliance and Review Document at 2.

Consistent with EPA management's capricious termination of the consultation, and without record support, "EPA has concluded that completing a separate, parallel NHPA compliance effort would not meaningfully alter the protection of historic properties in connection with this undertaking" and that it has simply signed on to the Programmatic Agreement (PA) developed by NRC Staff in an attempt to fulfill its NHPA duties. EPA Response to Comments #263. EPA explicitly relies on the discredited survey conducted by NRC. *Id.*

The undeniable lack of a competent cultural resources survey renders EPA's conclusory statement untenable. A PA that lacks the support of a competent survey does not legally suffice. Specifically, the PA was finalized in 2014 when NRC Staff issued its original Record of Decision and license. The 2014 PA recitals expressly rely on surveys that NRC adjudication later confirmed were factually and legally invalid. Final PA at 3 (Attachment 13)("WHEREAS, surveys to identify historic properties have been completed for the project including Class III archaeological surveys and tribal surveys to identify properties of religious and cultural significance."). The referenced surveys were incomplete and conducted by archeologists without the necessary cultural resource background. *In The Matter of Powertech (USA), Inc.* 81 NRC 618, 655 (2015).

EPA's unlawful reliance on the PA is confirmed by ASLB's finding that NRC Staff had objectively failed to conduct *any* competent "surveys to identify properties of religious and cultural significance." *Id.* The D.C. Circuit also confirmed that the NRC adjudication "left in place the findings that the Staff had failed to comply with NEPA and the National Historic Preservation Act." *Oglala Sioux Tribe v. NRC,* 896 F.3d 520, 526 (D.C. Cir. 2018). As such, the 2014 PA rests on NRC NEPA and NHPA violations and cannot support EPA's assertions of



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NHPA (or NEPA) compliance. See also, Attachment 1 (Tribe's June 19, 2017 comments) at 14-18 for detailed analysis of the inadequacy of the existing survey that formed the basis for the ASLB, NRC, and D.C. Circuit rulings.

In addition to Section 106 NHPA duties, NHPA Section 110 also ensures proper identification and evaluation of cultural resources. 16 U.S.C. § 470h–2. See Attachment 2 (Tribe's 2019 comments) at bates 0009. These duties extend beyond those imposed by the Section 106 consultation process and cannot be satisfied by mere outreach letters. As the D.C. Circuit confirmed, NEPA imposes a separate but closely related set of duties on federal agencies when addressing cultural resources. *Oglala Sioux Tribe,* 896 F.3d at 526.

NRC found the existing cultural resource surveys are inadequate to meet NEPA's statutory mandates, and EPA has made no serious effort to address these deficiencies – rendering EPA's analysis legally deficient with respect to a cultural resource impacts analysis under both the NHPA and NEPA. NRC Staff similarly attempted to evade its duties by arguing that the cultural resources information is "unavailable." The NRC decisions are again pending in the U.S. Court of Appeals for the D.C. Circuit. Nevertheless, EPA may not rely on the unlawful PA and cynical tactics to the render cultural resources data unavailable. NRC's findings are highly specific to its own administrative maneuvering, timing, and financial constraints imposed by the applicant's unwillingness (and potential inability) to fund the required surveys, as required by NRC's full cost recovery provisions.

Despite progress made in 2020 by the technical staffs toward discussion of cultural resources surveys and analysis, EPA management unilaterally cut off consultation without complying with NHPA. The resulting permits must be remanded.



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**EPA Region 8's Decisions Violate the Functional Equivalence Standard for National Environmental Policy Act (NEPA) Compliance**

The National Environmental Policy Act 42 U.S.C. §§ 4321, *et seq*. ("NEPA") requires all federal agencies, including EPA in the UIC context, to take a "hard look" at the environmental impacts from all major federal actions. NEPA "prevent[s] or eliminate[s] damage to the environment and biosphere by focusing government and public attention on the environmental effects of proposed agency action." *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 371 (1989). Courts recognize that "environmental values protected by NEPA are of a high order -- because Congress has told us so." *Oglala Sioux Tribe*, 896 F.3d at 529.

When radioactive material is involved, NEPA is a critical means to disclose, analyze, and ensure agency regulations and permits make "reasonable assurance that permanent disposal of the resulting waste will be available" before the waste is created. *New York v. NRC*, 681 F.3d 471, 476 (2012) *citing Minnesota v. NRC,* 602 F.2d 412 (D.C. Cir. 1979). NEPA analysis is not limited to potential disposal methods, but extends to the "effects of a failure to secure permanent storage." *Id*. at 148.

NEPA requires that federal agencies fully consider all direct, indirect, and cumulative environmental impacts of the proposed action. 40 C.F.R. §§1502.16; 1508.8; 1508.25(c). Direct effects are caused by the action and occur at the same time and place as the proposed project. §1508.8(a). Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. §1508.8(b). *Id*. Cumulative impacts are: "[T]he impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions." §1508.7. For instance, for mining operations, the agency must fully review the impacts from off-site ore or waste



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processing and transportation. *South Fork Band Council of W. Shoshone of Nev. v. U.S. Dep't of the Interior,* 588 F.3d 718, 725 (9th Cir. 2009).

Federal courts have rejected a common agency view "that cumulative impacts from non-Federal actions need not be analyzed because the Federal government cannot control them. That interpretation is inconsistent with 40 C.F.R. § 1508.7, which specifically requires such analysis." *Center for Biological Diversity v. NHTSA*, 508 F.3d 508, 517 (9th Cir. 2007). For example, an agency was required to consider the impacts of power turbines in Mexico in their EIS reviewing a U.S. transmission line because the projects were "two links in the same chain." *Border Power Plant Working Group v. Dep't of Energy*, 260 F. Supp. 2d 997, 1016 (S.D. Cal. 2003).

EPA maintains a somewhat special status with regard to NEPA. Federal courts have allowed EPA to forgo strict and formal compliance with NEPA under a doctrine labeled "functional equivalence." The term "functional equivalent" was coined by the D.C. Circuit in *Portland Cement Assoc. v. Ruckelshaus*, 486 F.2nd 375 (1973), *cert. denied* 417 U.S. 921 (1974). Its requirements can be concisely summarized:

> The functional equivalency test provides that, where a federal agency is engaged primarily in an examination of environmental questions, and where substantive and procedural standards ensure full and adequate consideration of environmental issues, then formal compliance with NEPA is not necessary, [and] functional compliance [is] * * * sufficient.

*Warren County v. North Carolina*, 528 F. Supp. 276, 286 (E.D. N.C. 1981).

The central requirement of the functional equivalence test is that the Agency's procedures provide for the same consideration of diverse environmental issues as required by NEPA. *International Harvester Co. v. Ruckelshaus*, 478 F.2nd 615, 650 n. 130 (D.C. Cir. 1993). As interpreted by the Environmental Appeals Board, "functional equivalence could be present in cases where the statute mandated 'orderly consideration of diverse environmental factors,' rather



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than the five specific NEPA-EIS elements. *Amoco Oil Co. v. EPA*, 501 F.2d 722, 750 (D.C. Cir. 1974)." *In re: Phelps Dodge Corporation, Verde Valley Ranch Development*, 10 E.A.D. 460 (May 21, 2002).

The SDWA does not exempt EPA's UIC program from any NEPA mandate. Rather, in anticipation that permitting would be implemented consistent this judicially created doctrine, EPA's UIC *regulations* provide that "all [UIC] permits are not subject to the environmental impact statement provisions of … [NEPA]." 40 C.F.R. § 129.9(b)(6).

**NEPA's Cumulative Impacts Mandate is Not Satisfied**

The UIC regulatory exemption does not excuse the required "orderly consideration of diverse environmental factors" embodied in EPA regulations requiring that the agency must evaluate "[t]he cumulative effects of drilling and operation of additional injection wells…." 40 C.F.R. § 144.33(c)(3).

The administrative record, including EPA's decision documents and EPA's Response to Comments, fails to demonstrate that EPA adequately analyzed the cumulative effects of the granting of the Class III and Class V UIC area permits. Specifically, the Tribe's comments show how EPA's analysis failed to consider and evaluate cumulative effects to cultural resources in the impacted area, groundwater quantity effects in the impacted area, the cumulative effects associated with other mines/projects in the region, and the effects of waste transportation and disposal. See Attachment 1 at 15-18; Attachment 2 at bates 0002-0005, 0046-0048, 0053, 0061-0062.

Petitioners assert that EPA's analysis lacks a competent cumulative effects analysis to impacted environmental resources such as groundwater, air, wildlife, and cultural resources. The consultation was just also beginning to address the cumulative effects, which would have



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included the Traditional Ecological Knowledge EPA staff does not otherwise possess. EPA admits that it "did not include a cultural resources discussion in the" Cumulative Effects Analysis of the Dewey-Burdock Uranium In-Situ Recovery Underground Injection Control Area Permits ("CEA"). EPA Response to Comments #297.

EPA has not satisfied NEPA's cumulative effects standard. In other cases where the EAB has upheld an EPA cumulative effects analysis, it found that the agency had considered a diverse range of environmental impacts. For instance, in *In re Avenal Power Center, LLC*, 15 E.A.D. 384 (EAB 2011), the Board upheld an EPA cumulative effects analysis in the air pollution context because of the "extensive discussion of the various projects and mitigation strategies underway in the area surrounding the proposed facility that are intended to mitigate the impacts of multiple existing sources" and mitigation strategies EPA could take "in conjunction with state and local governments." See *id.*, slip. op. at 15. The CEA here does not contain such an "extensive discussion" and EPA's Response to Comments do not contain the type of detail necessary to demonstrate compliance with NEPA's cumulative effects review requirements.

The CEA fails to account for all foreseeable cumulative effects of the project. For instance, the applicant has recently released documents that demonstrate planned expansions of the disturbed area from the project in the form of entire additional wellfields. See Map included in the applicant's November 2018 press release (Attachment 14) compared to the map from the 2014 NRC Final Supplemental Environmental Impact Statement (Attachment 15). The applicant's December 4, 2019 press release announced an increase in the amount of uranium ore it proposes mine from the property. See Azarga/Powertech December 4, 2019 press release (Attachment 16). The radium settling ponds remain as "preliminary designs," despite their integral role in Class III production and Class V disposal operations. EPA Cumulative Effects

Analysis (CEA) at 29-30. Storage issues, including radon emissions are not addressed, but rather left for in the Clean Air Act, NESHAP Subpart W permit, with no plan for permanent disposal of the radioactive solids.

Because these issues were not addressed during the permitting process, the Tribe was left without the necessary opportunity to analyze and comment on the expanded and incomplete project, in violation of EPA regulations. See 40 C.F.R. § 124.11. EPA's Response to Comments asserts that it can ignore Powertech's announcements that it had expanded the mining plan because Powertech's plans are speculative. EPA Response to Comments at #336. However, these plans are not speculative – Powertech has publicly announced them in documents prepared pursuant to securities laws. The expanded mining area requires an updated review and delineation for which additional EPA analysis must be conducted to meet the SDWA and NEPA's cumulative impact mandates, followed by public comment and review that must be provided to meet NEPA's requirement that the scope of analysis correspond with the scope of the actual proposal.

The CEA also fails to adequately discuss or review the cumulative effects associated with the transport of radioactive byproduct waste material to the White Mesa Mill in Utah. While the documents acknowledge White Mesa as the likely destination for the waste (EPA Response to Comments #283) and includes waste disposal transport in its analysis of local truck traffic air impacts, the document does not review the associated impacts associated with such things as inevitable spills or the associated cumulative impacts at the White Mesa Mill, which has experienced and continues to experience significant problems.

EPA simply asserts that off-site radioactive waste disposal is outside the scope of its cumulative effects analysis, arguing that the only issue it must contend with is impacts at the



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immediate site. EPA Response to Comments ##238, 330. However, disposal of waste is a necessary activity that results from the construction and operation of the permitting injection wells. Further, significant environmental justice issues are presented by a project involving radioactive waste impacts in that disproportionately impact Native American Tribes' interests and their members' interests in the Black Hills and in the Four Corners region (*e.g.* Ute Mt. Ute, Hopi, and Navajo) where Energy Fuel's White Mesa disposal facility is located.

Contrary to EPA, the assumed disposal capacity at White Mesa mill, or the ability of the mill to meet regulatory standards, does not provide reasonable assurance of adequate waste disposal capacity for the permits. See EPA Response to Comments at ##283, 330. It is foreseeable that the mill may close due to economic or regulatory demands or that current capacity may be contracted by other ISL projects or used for other processing wastes or direct disposal streams. Yet, there is no analysis of the "effects of a failure to secure permanent storage" for the solid and liquid radioactive wastes created by EPA-permitted activities. *New York*, 681 F.3d at 476. EPA documents replicate other agencies' illegal and illogical approach to reactor waste disposal EPA has rightly criticized. The licensed and potential disposal capacity of the White Mesa cells is a valuable (albeit toxic) commodity. A proper cumulative effects analysis may reveal that the disposal capacity required for existing ISL licensees/UIC permittees exceeds existing (and planned) disposal capacity. EPA's cumulative effects analysis must address this issue.

EPA contends that other sites may be adequate for disposal (Response to Comments ##330, 331), but it is uncontested that Powertech asserts the White Mesa site is the preferred disposal site. EPA Response to Comments #283. In any case, the waste must be disposed of off-site and EPA cannot simply ignore transportation and disposal issues, or the prospect that



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permanent disposal is unavailable. *New York*, 681 F.3d at 476.

The cumulative effects analysis also fails to account for other existing and foreseeable projects not just in and around the Black Hills that cumulatively impact the Tribe culturally and spiritually, but also additional projects proposed near the Dewey-Burdock property. For instance, Powertech has proposed opening satellite mines, including in the Dewey Terrace area, that would feed the processing facilities at the Dewey-Burdock site. Indeed, the company is on record specifically stating that the Dewey Terrace project is proposed as "a nearby satellite project, within 10 miles of the Dewey Burdock Project, the Company's initial development priority." See Powertech press release dated October 31, 2017 (Attachment 17). This project is in addition to others, such as the Aladdin and Savageton project the company promotes. The impact of these satellite mines must be incorporated into the cumulative effects analysis.

Powertech confirmed the Dewey-Burdock facility, as designed, provides yellowcake processing capacity for ongoing and planned uranium development in the region, even identifying specific projects that would provide future feedstock:

> It is likely that he CPP at the Burdock site will continue to operate for several years following the decommissioning of the Proposed Action well fields. The CPP may continue to process uranium from other ISL projects such as the nearby Powertech (USA) satellite ISL projects of Aladdin and Dewey Terrace planned in Wyoming, as well as possible tolling arrangements with other operators.

See Dewey-Burdock Project Application for NRC Uranium Recovery License Fall River and Custer Counties South Dakota Technical Report (excerpt) at page 1-8 (Attachment 18); see also Powertech (USA) Inc. Dewey-Burdock Project Class III Underground Injection Control Permit Application at page 10-14 (Attachment 19).

Powertech has specifically asserted that processing ore from the Aladdin and Dewey Terrace facilities are part of the "Proposed Action" included in the Dewey-Burdock NRC license



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application:

> The Proposed Action is for the plant to continue to receive and process uranium loaded resins from other Proposed Projects such as Powertech's nearby Aladdin and Dewey Terrace Proposed Satellite Facility Projects planned in Wyoming or from other licensed ISL operators or other licensed facilities generating uranium-loaded resins that are compatible with the Powertech (USA) production process.

See Dewey-Burdock Project Application for NRC Uranium Recovery License Fall River and Custer Counties, South Dakota, Environmental Report, February 2009 (excerpt) at page 1-25 (Attachment 20). The direct, indirect, and cumulative impacts of the "Proposed Action," including handling of these foreseeable waste streams from yellowcake production during site reclamation, is not addressed and EPA provided no opportunity for public comment.

These foreseeable processing and tolling arrangements, along with the additional Class III wells necessary for the expanded mining plans, require a careful analysis of the actual effect of EPA's approvals. EPA admits that a cumulative analysis of such additional mining operations would be required but attempts to evade the analysis by simply calling the additional mining "speculative" at this time and that they can be addressed in the future. EPA Response to Comments ##285, 313. However, EPA cannot avoid NEPA analysis of a relevant factor that Powertech itself included in its own project description and routinely publicly pronounces in legally binding securities documents.

Further, the mineral exploration and development activities around the Black Hills must undergo cumulative effects review, given the spiritual and cultural import Lakota people place on the Black Hills as a whole. For instance, publicly available records demonstrate oil and gas exploration/development operations in the direct vicinity of the proposed Dewey- Burdock project. See State of South Dakota approval in Case No. 5-2019 (Attachment 21). EPA must review this, and all similar, projects as part of the cumulative effects analysis. In addition,



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several gold mining companies are proposing mineral development projects on the east side of the Black Hills, particularly in the Rochford area, which is compounded by the long- standing contamination from the Homestake properties in the same area. Other mining development in and around the Black Hills region must be evaluated, including the Cameco operations in Nebraska and the proposed Bear Lodge rare earth minerals mine.

The Black Hills Ordnance Depot also requires cumulative impacts analysis. Issues of soil and ground water contamination associated with this site are well documented. The cumulative impact analysis must address potential exacerbation of ground water contamination associated with chemicals from the Depot caused by the proposed Dewey- Burdock project, including areas of increased and lowered pressures caused by Class III injection and ground water pumping both for mining purposes and for freshwater use, along with pressurized zones created by deep injection disposal. EPA's response to this issue is to simply state that the Depot will not be disturbed by the Dewey-Burdock facility. EPA Response to Comments V (Outside the Scope section). However, no basis is put forward for this conclusion.

The Tribe had looked forward to consulting with BLM and EPA on the NEPA deficiencies in the CEA, but EPA seceded from that effort and unlawfully issued the permits that are under review.

**NEPA's Hard Look Standard is not Satisfied**

The NEPA deficiencies extend beyond the inadequate CEA. EPA issuance of the UIC permits violates the basic NEPA premise that compliance with the "hard look" mandate must occur before, not after, permitting. *Oglala Sioux Tribe*, 896 F.3d at 529.

Although EPA's jurisdiction extends beyond SDWA authority, EPA's permitting documents simply contemplate that other permits and plans will be examined at some later date



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based on unspecified "commitments and requirements Powertech has agreed to implement in the various permitting and licensing application documents." CEA at 171. NEPA violations flow from issuing the UIC permits in reliance on nebulous commitments and requirements of other permitting, without providing an orderly consideration of diverse environmental factors related to other EPA permitting duties, including:

- Clean Air Act emissions permitting, some of which was carried out by NRC and SDED pursuant to EPA-criticized data and permit requirements determinations. CEA at 102-115. For example, NRC "results did not entirely conform with the standard of the NAAQS, which utilizes the eight highest value for each receptor for each year, and as such, can be somewhat misleading." CEA at 117.

- Impacts to Class I areas, including Mount Rushmore and Jewel cave, and Sensitive Class II areas such as Badlands National Park. CEA at 106-108.

- National Emission Standards for Hazardous Air Pollutants approval (40 C.F.R. Part 61) for radon emissions and the pre-construction approval of the impoundments and ponds used for 11(e)(2) byproduct. CEA at 116.

- Endangered Species Act Section 7 consultation with Fish and Wildlife Service on all EPA permitting actions that "may affect" listed species. CEA at 157.

- Cultural resources impacts deferred to NRC. EPA Response to Comments #263.

Deferring NEPA's "systematic, interdisciplinary approach" (42 U.S.C. § 4332(2)(A)) to disclosure and analysis of these other permits and related mitigation measures is a NEPA-violative promise to address these matters at some point in the future, instead of within an "orderly consideration of diverse environmental factors" that satisfies the NEPA elements. *Amoco Oil Co. v. EPA*, 501 F.2d 722, 750 (D.C. Cir. 1974).

The functional equivalence doctrine allows EPA to make its permitting decisions outside of NEPA's detailed EIS requirements. *Id.* However, relying on mere assurances without evaluation of how effective these vaguely described "commitments and requirements Powertech has agreed to implement" may be, particularly where EPA has permitting jurisdiction, does not



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satisfy EPA's NEPA obligations to use a "systematic, interdisciplinary approach." 42 U.S.C. § 4332(2)(A). Moreover, as discussed *supra*, a diverse group of technical specialists had just begun to address these issues, especially how they may also impact cultural resources and groundwater, in government-to-government consultation before EPA management unilaterally halted consultation.

Other aspects of EPA's analysis fall short of EPA's "hard-look" duty to analyze impacts, alternatives, mitigation measures of the proposed action. For example, EPA avoids analysis of spills and clean up by assuming that effective mitigation measures and best management practices ("BMPs") contained in an as-yet undeveloped South Dakota's National Pollution Discharge Elimination System ("NPDES") permit will protect water and cultural resources. EPA Response to Comments ##188, 215 (p. 254), 243 (p. 285). Similarly, EPA assumes that Fish and Wildlife Service ("FWS") will adopt a raptor monitoring and mitigation plan for confirmed raptor activity in the project area, including three Bald Eagle nests, that involve the Tribe's cultural resources. *Id.* at #365. These examples confirm that EPA has not met the NEPA-imposed duty to fully analyze Powertech's proposal before acting, even when another agency has permitting authority. *South Fork Band Council*, 588 F.3d at 726 *citing Klamath-Siskiyou Wildlands Center v. BLM*, 387 F.3d 989, 998 (9th Cir. 2004).

EPA's fractured approach to NEPA analysis, especially considering significant cultural resource impacts and EPA's water and air permitting duties at the Dewey-Burdock Project, shields defects identified by various EPA specialists from each other instead of complying with NEPA's interdisciplinary and action-forcing mandates.



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**EPA's Decision Violates the Federal Safe Drinking Water Act**

The Safe Drinking Water Act ("SDWA"), 42 U.S.C. §300f, *et seq.*, was established to protect the quality of drinking water in the U.S., by regulating impacts to all waters actually or potentially suitable for drinking use, whether from above ground or underground sources. Part of this statutory program is the regulation of Underground Injection Control ("UIC") wells. 42 U.S.C. § 300h. The statute allows states to implement the UIC program subject to EPA approval. 42 U.S.C. § 300h-1. If a state's plan has not been approved, or the state has chosen not to assume program responsibility, then EPA must implement the program. 42 U.S.C. § 300h-2.

EPA has established six classes of UIC wells based on similarity in the fluids injected, construction, injection depth, design, and operating techniques and issued regulations that establish performance criteria for each class. 40 C.F.R. § 146.5. In this case, the relevant classes are Class III (inject fluids associated with solution mining of minerals beneath the lowermost USDW) and Class V (deep injection). South Dakota does not currently have an approved plan for Class III or Class V wells, thus EPA is the relevant permitting agency. The Dewey-Burdock project is the first time EPA has ever directly permitted an ISL uranium mine. EPA Response to Comments #182.

EPA began, and then abandoned, efforts to adopt regulations that would comprehensively apply all EPA authority, particularly Uranium Mill Tailings Radiation Control Act (UMTRCA) of 1978, to protect groundwater impacted by ISL uranium mines.

https://www.epa.gov/radiation/40-cfr-part-192-proposed-rulemaking-and-background-documents

Instead of the following the recommendations contained in the proposed rules, EPA continues to apply its regulatory authorities on an on *ad hoc* basis, without the benefit of a comprehensive

approach. EPA segmentation of SDWA analysis and permitting from other EPA expertise and authority applicable to uranium leaching does not relieve EPA of its duty to consider and comply with all relevant federal authority when carrying out SDWA permitting. The ineffective SDWA analysis and determinations reflect the fractured EPA approach to ISL permitting recognized by EPA officials during the abandoned Part 192 rulemaking. *Id.*

EPA's SDWA regulations at 40 C.F.R. § 146.33(a) require that no Class III UIC well may "initiate fractures in the confining zone or cause the migration of injection or formation fluids into an underground source of drinking water." EPA must include in its "Area of Review" "the project area plus a circumscribing area the width of which is the lateral distance from the perimeter of the project area, in which the pressures in the injection zone **may** cause the migration of the injection and/or formation fluid into an underground source of drinking water." 40 C.F.R. § 146.6(a)(ii)(emphasis added). Further, SDWA regulations require that no operator may "operate, maintain, convert, plug, abandon, or conduct any other injection activity in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water.... The applicant for a permit shall have the burden of showing that the requirements of this paragraph are met." 40 C.F.R. § 144.12. The Tribe raised each of the following SDWA issues in its 2017 comments. See Attachment 1 at 21-33.

**Inadequate Baseline Groundwater Information**

Powertech relies on the same data regarding the baseline water quality for its EPA permit applications as it did for its NRC license applications. The applicant has provided no significant baseline water quality information since the NRC license proceedings were conducted. Indeed, in response to comments from the Tribe during the NRC process specifically detailing the problems with lack of adequate baseline water quality data, NRC Staff confirmed that the applicant

collected data from 2007 to 2009 and that "the NRC staff used this information when drafting the affected environmental section of the SEIS as well as analyzing impacts of the proposed action." FSEIS at E-32.

This incomplete data does not enable EPA to analyze cumulative effects of the injection wells. 40 CFR § 144.33(c)(3). EPA Response to Comments #63 confirms that this information has not been collected to establish meaningful background conditions:

> Part IV of the Class III Area Permit requires the Permittee to develop a conceptual site model (CSM) based on site-specific data that represents the geology, hydrologic properties, and geochemical characteristics and processes at the Dewey-Burdock Project to minimize uncertainty of model predictions concerning the potential for ISR contaminants to cross the aquifer exemption boundary. Groundwater samples will be collected from upgradient and downgradient of the wellfield to determine background geochemical conditions....

See also Response to comment #296. Thus, while the existing administrative record contains data from 2007-2009, the background water quality for use in the actual regulatory process for the facility will be established at a future date, outside of any public process, and without the benefit of the public's review and comment.

This approach undermines the UIC permitting process, prevents EPA from accurately assessing the potential impacts from the project, and prevents the public from being able to effectively review and comment on the project. See 40 CFR § 124.11. The result is a lack of compliance not only with the statutory requirements of NEPA, but with the SDWA and the UIC regulations.

The expert Rebuttal Testimony of Dr. Robert Moran (submitted during the NRC licensing process and attached to the Tribe's EPA comments) confirms that EPA has not adequately described the baseline conditions at the site using reasonably comprehensive data. Attachment 22. For instance, Dr. Moran specifically opined that despite expectations that post-



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license collection of data is sufficient to fill in any gaps that currently exist, such a process deprives expert agencies, the public and the parties to this proceeding (and EPA staff) the opportunity to meaningfully review and evaluate the impacts from the proposed project during the permitting process. *Id.* at 2. EPA admits as such in its Response to Comments #74 where it confirms that "the water quality of the exempted portion of the aquifer is relevant to the issue of whether contaminants can cross the aquifer exemption boundary into the adjacent USDW." Further, in Response to Comment #72, EPA acknowledges that "in order for the model to ensure that the injection activity can meet the prohibition of fluid movement in 40 CFR § 144.12 and substitute for physical monitoring, it needs to be populated with site-specific data…."

Further, any assertions that this additional data cannot be obtained without full construction of final well-fields is unsupported and contradicted by the expert testimony of Dr. Moran. Dr. Moran opined that adequate baseline data can be gathered "without constructing the ultimate wellfield monitoring network." Attachment 22 at 2. Dr. Moran pointed to previous studies undertaken by TVA and Knight Piesold that conducted pump tests to gather baseline data prior to permit approval. *Id.* Dr. Moran stated that Powertech's consultant Mr. Demuth "confuses hydrological testing that is needed to establish, analyze, and disclose the hydrogeological setting as part of the NEPA-based NRC permit-approval with the more specialized production tests Powertech will conduct on constructed wellfields." *Id.* In short, there is no legal, technical, or practical basis to forgo gathering this needed data as part of the UIC application process.

At the NRC licensing hearing Dr. Moran's testimony confirmed that additional data is necessary for a "complete" baseline analysis, including the collection of data for water quality constituents not presented in the company's application materials, such as strontium and lithium. See August 20, 2014 Transcript at 1007, line 24 to 1008, line 1 (Attachment 23). Consistent with

Dr. Moran's testimony, applicant witness Mr. Demuth admitted that additional data is necessary to provide complete baseline data. *Id.* at 1012, lines 16-20. EPA confirms the need for additional data in order to determine whether the requirements of the SDWA can be satisfied in Response to Comments #69A, where it conceded that "[b]oth UIC permits require extensive data collection that EPA will review before authorizing injection into the Class III and Class V injection wells. The Class III Area Permit contains extensive data collection required to develop the Conceptual Site Model required under Part IV, Section A and to develop the Injection Authorization Data Package Reports required under Part II, Section H." EPA Response to Comment #67 also confirms that EPA Region 8 does not have current data on the water quality at the site for the Class V injection wells – and that information will not be gathered until a later date. As a result, the applicant has not met its burden under 40 CFR § 144.12(a) with respect to the Class V well application.

Further buttressing this argument is the Declaration of Dr. Richard Abitz that was attached to Petitioner's 2017 comments, detailing the requisite standards for scientific validity in a baseline analysis. Attachment 24 at 2. EPA relied on Powertech submittals that fail to adequately describe the affected aquifers under the site and adjacent lands and omits the required quantitative description of the chemical and radiological characteristics of these waters necessary to meet its burdens, leaving EPA unable to lawfully assess the cumulative effects of the well construction and operation, including potential changes in water quality caused by the operations. These failures violate 40 CFR §§ 144.33(c) and 144.12(a).

**Inadequate Hydrogeological Analysis**

EPA's analysis fails to provide sufficient information regarding the hydrologic and geological setting of the area to enable it to assess cumulative impacts or determine whether the

proposed activities will impact an USDW. Instead, EPA allowed the applicant to submit the required hydrogeologic data *after* the public process is completed, *after* Tribal consultation ended, and *after* issuing the final permit. This permit now/analyze later approach violates the SDWA, EPA's UIC regulations, NEPA, and the APA. *Oglala Sioux Tribe*, 896 F.3d at 529.

This issue is addressed head-on by Dr. Moran, who provided expert testimony on the significant contradictory evidence in Powertech's data. See Dr. Moran Opening Testimony at 18-22 (Attachment 25). Specifically, Dr. Moran opined on the overwhelming body of evidence undermining the conclusion that the production zone is hydraulically isolated from surrounding aquifers. *Id.* at 18-19. Dr. Moran further demonstrated that numerous potential pathways for groundwater conductivity, including inter-fingering sediments, fractures and faults, and/or collapse structures, and the 4000 to 6000 unidentified exploration boreholes present at the mine site. *Id.* at 20. Dr. Moran concluded that "these inconsistencies make clear that Powertech . . . failed to define the detailed, long-term hydrogeologic characteristics and behavior of the relevant Dewey-Burdock aquifers and adjacent sediments." Id.

The lack of data extends to the lack of analysis of evidence of "fault zones" in the proposed mining area (*id.* at 20-21) as well as the existence of a "trench" in the potentiometric surface of the Fall River aquifer that could result in migration pathways for which the application fails to address. *Id.* at 21-22.

Similarly, Dr. Moran's Rebuttal Testimony reinforces this issue, pointing out that Powertech's own personnel have contradicted the scientific integrity of the initial pump test data which form the basis of the applicant's analysis. Attachment 22 at 4. Powertech consultants also contradicted themselves with regard to the impact of the unidentified boreholes, arguing in some places that they may have closed by themselves, but then also that they are open, and that the



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effect of the boreholes has rendered the existing pump test data suspect. *Id.* at 3. Further, Dr. Moran affirmed that the data currently forming the basis of the hydrogeological analysis underpinning EPA's permits is "inadequate to establish a hydrogeological … baseline." *Id.* at 3. Dr. Moran concluded, based on an extensive review of the information presented, including conclusions by every other scientist (except Powertech's) that has reviewed the historic pump tests at the site, that the supposed aquitards at the site are indeed leaky. *Id.* at 6. Dr. Moran's analysis and testimony went into extensive detail to refute the lack of acceptable industry-standard methodology and assumptions employed by Powertech's Mr. Demuth in his conclusions as to the lack of confining ability of the formations at the site. *Id.* at 6-7.

These issues of fluid containment were also explored during the NRC hearing, during which serious question was cast on whether the existing analysis and assumptions relied upon by the applicant could demonstrate an ability to contain the mining fluid. As a starting point, Powertech's witness Mr. Lawrence readily admitted that in order to ensure containment of the fluid, the operator would need for the Fuson Shale to be relatively impermeable. Attachment 23 at 1047, lines 20-23. However, as observed by Judge Barnett, "[i]nterpretations of both the 1979 and 2008 pumping test results were found to be consistent with a leaky confined aquifer model. … Based on the results of the numerical model, the Applicant concluded that vertical leakage through the Fuson shale is caused by improperly installed wells or improperly abandoned boreholes. So it does appear in the FSEIS that it acknowledges that it is leaky, whether it is coming from boreholes or whatever else, it is leaky." *Id.* at 1050, line 18 to 1051, line 5. In response, NRC Staff witness Mr. Prikryl responded: "Yes, that's correct." *Id.* p. 1051, line 8. Applicant witness Mr. Lawrence also agreed: "Yes, there were certainly conditions that demonstrated communication." *Id.* at 1051, lines 15-16.



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EPA concedes in Response to Comments #4 that "EPA agrees that additional physical surveys, including additional wellfield pump tests, should be conducted for the reasons the commenters stated; this is already a requirement in Part II of the Class III Area Permit. Section 4.6 of the Fact Sheet for the draft Class III Area Permit discusses EPA's evaluation of potential breaches in the Fuson confining zone that will be addressed during the wellfield pump tests…." Despite the expert testimony, EPA provides no lawful reason to delay critical data gathering through physical surveys until after the permits are issued.

Adopting permit requirements that defer required surveys and analysis negates the ability of the public to provide meaningful comment on EPA's UIC permitting process. 40 CFR § 124.11. The deferral also confirms that Powertech failed to meet its burden under 40 CFR § 144.12(a) to demonstrate the proposed operation can prevent "the movement of fluid containing any contaminant into underground sources of drinking water…." Importantly, this provision specifically refers to the burden on the "applicant" signifying that the requisite demonstration must be made before the permit is issued.

Moreover, Powertech's submittals and EPA permit documents provide no information on the location of the leaking boreholes. There is no justification for EPA's decision to defer data collection and analysis to demonstrate whether they in fact could find and plug the boreholes, rerun the test(s) and demonstrate the ability to retain confinement. This lack of analysis fails to meet the 40 CFR § 144.12(a) standard and leaves the public in the dark as to whether this mitigation will work or what the potential impacts may be should the remedy not be successful. NEPA imposes similar duties to explain determinations on information deemed "not reasonably available," in detail, in a NEPA-compliant document. 40 C.F.R. § 1502.22. EPA did not attempt to meet this standard.



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Upon further questioning by Judge Barnett, the applicant witness Mr. Demuth admitted that the applicant's test data did show a lack of sufficient confinement at least in portions of the project area "where we have a well which is completed in both zones and allows it to communicate." Attachment 23 at 1054, lines 11-13. In that case, Mr. Demuth stated, "there may be one or two unplugged exploration boreholes which are identified in the application. So in that area, the wellfield, any wellfield test is going to have to be examined very carefully." *Id.* at 1054, lines 12-17. Thus, the applicant witnesses admit that sufficient study has not been completed to demonstrate the ability to contain the mining fluids, but rather a later, post-permit, detailed scientific review will be necessary to "examine" this issue "very carefully." Where such serious questions exist as to such fundamental issues as the ability to contain mining fluids, those issues must be explored and resolved prior to issuance of final EPA permits.

Deferring the collection and review of critical, and admittedly necessary, information until after the permits are issued show that the "applicant" has not satisfied its burden in 40 CFR § 144.12(a) and not provided sufficient information for EPA to lawfully discharge its cumulative effects analysis obligations in 40 CFR § 144.33(c)(3) in violation of the SDWA and UIC regulations. This process also violates NEPA and the APA.

Similarly, Dr. LaGarry's testimony at the NRC hearing demonstrated that the applicant's analysis, which also forms the basis of its UIC application materials, failed to account for faults and fractures in the geology at the site which could cause similar leaky conditions as have been confirmed in the confining layers at the site. See Attachment 23 at 1065 line 7 to 1067, line 10. Upon follow up from Judge Cole, Dr. LaGarry confirmed that in his professional opinion, "that one [report] that was just shown that we were just discussing, the TVA concluded that the leakage might have been caused by an unplugged borehole or some previously as yet



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undescribed structural feature in that very page we were just reviewing." *Id.* at 1069, line 24 to 1070, line 4.

Dr. LaGarry credibly opined that "[s]o this TVA report recognizes that the whole area is fractured and that breccia pipes form along these fractures, but they didn't make it into the scientific literature for maps. But if I was to take a geological mapping field crew out there, we would find them because we're looking for them." *Id.* at 1074, lines 4-9. See also, *id.* at 1074, line 14 to 1077, line 23 (Dr. LaGarry discussing the commonly overlooked faults and fractures in the area). In EPA Response to Comments #4, with regard to fractures and joints, EPA offered only that "[t]he wellfield pump tests required under Part II, of the Class III Area Permit will evaluate confining zone integrity and identify preferential flow directions in the injection interval. Therefore, EPA does not have concerns about joint systems compromising integrity of confining zones at the Dewey Burdock Project Area."

Dr. LaGarry's (and Dr. Moran's) testimony is consistent with the TVA report, the USGS report, the USGS-derived Gott map, all submitted to EPA and all of which show faults, and fractures in the immediate area of the proposed project, and thus is far more credible testimony that the geology is highly variable in the area given the scientific evidence. At minimum, this corroboration between the Tribe's expert testimony and the extensive geological reports demonstrates EPA's failure to conduct the necessary physical surveys before permitting to confirm or deny the presence of these geological features – especially considering the applicant's pump tests proving leaky confining layers. Instead, EPA's permit materials rely on the applicant's assumptions, unsupported by empirical data or detailed site investigation, that somehow in a sea of geological fractures and faults surrounding the Black Hills and particularly in this area, the applicant's chosen site is free of geological irregularity that would affect fluid



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containment simply because there is no "smoking gun" in the reports showing a major fault directly crossing the site. In this case, the SDWA and UIC regulations put the burden on the "applicant" to make the requisite demonstration, and NEPA and the APA require EPA to do more to reconcile the evidence in order to meet its statutory obligations. Deferring this analysis to a later date through wellfield hydrogeologic data packages or injection authorization data packages is not lawful.

The NRC process was based on an incompetent record. At the conclusion of the NRC hearing, Powertech confirmed it had withheld significant data regarding bore holes at the proposed mine site. EPA must affirmatively request and conduct a comprehensive review of this data in order to make any conclusions regarding bore holes with regard to the SDWA and UIC requirements. Any failure by EPA to conduct its own review of this available information would violate EPA's statutory and regulatory responsibilities under the SDWA, UIC regulations, NEPA, and APA. Indeed, 40 CFR § 146.34(a)(2) and (3) specifically require that EPA review this data on historic boreholes "prior to the issuance of a permit" for a new Class III well.

Regarding this post-hearing bore hole data, Dr. LaGarry provided a detailed expert review of that information which confirms his hearing testimony that there are substantial questions as to the hydrogeologic conditions at the site that warrant additional investigation and analysis. Attachment 26. In that document, Dr. LaGarry testifies that his review of the bore hole data demonstrates that the data discloses, at minimum: 140 open, uncased holes; 16 previously cased, redrilled open holes; 4 records of artesian water; 13 records of holes plugged with wooden fenceposts; 6 records of holes plugged with broken steel; 12 records of faults within or beside drilled holes; and 1 drawing of 2 faults and a sink hole within a drilled transect. *Id.* at 2. Dr. LaGarry goes on to testify as to the likely consequence of these conditions, all of which support



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the Tribe's assertions that additional investigation of the site is necessary in order to satisfy the SDWA and UIC statutory and regulatory requirements, and in order for the applicant to meet its burden under 40 CFR § 144.12(a) to demonstrate an ability to contain the mining fluids.

The applicant, and EPA, have failed to obtain and analyze data necessary to an adequate baseline geology and hydrogeology analysis and as a result EPA failed to adequately analyze the impacts associated with the construction and operation of the permitting injection wells, particularly on groundwater resources and with respect to the applicant's ability to contain mining fluid.

**Failure to Comply with the Administrative Procedure Act**

Agency records relevant to the proposed Dewey-Burdock project demonstrate that EPA Region 8 has used the Powertech proposal to develop de facto regulations under the guise of "guidance" with respect to how the agency will implement its SDWA permitting authority, particularly portions of the UIC program that apply to ISL mining and processing of uranium. This issue was raised in the Tribe's 2017 and 2019 comment submission. See Attachment 1 at 18-21; Attachment 2 at bates 0053. This information first came to light in documents obtained via a Freedom of Information Act (FOIA) request submitted in February 2009 on behalf of multiple conservation and Native American organizations in both Colorado and South Dakota. Several significant documents from this period are omitted from the records EPA has made available publicly with respect to this project.

Indeed, EPA arbitrarily states its refusal to include any such documents in the administrative record for this proceeding because it considers the record to begin only when the latest draft of the application was finalized in 2013. EPA Response to Comments #185. The Tribe asserts that all of the documents and records, including all emails, reflecting the

coordination between EPA and Powertech and any of its consultants must be made part of the administrative record for this proceeding. This is especially true given that EPA deemed the Class V application administratively complete as early as 2010 (Attachment 27) and the Class III application cover page states it was submitted as complete in 2008 (Attachment 28).

Regardless, each of these documents were referenced in and attached to Petitioner's comments as evidence of relevant factors EPA ignores by improperly omitting them from the existing public record. The attempt to ignore the public comments and other relevant factors revealed in the FOIA release demonstrates that the agency's actions are arbitrary and capricious under the APA. The agency's decision is arbitrary and capricious as it "failed to consider an important aspect of the problem" and "offered an explanation for its decision that runs counter to the evidence before the agency." *Motor Vehicle Mfrs. Ass'n of U.S. v. State Farm Mut. Auto Ins.* Co., 463 U.S. 29, 43 (1983).

Notably, the federal courts have a remedy for this type of agency tactic. "When the agency record is inadequate, 'the proper course, except in rare circumstances, is to remand to the agency for additional investigation or explanation.'" *Sierra Club-Black Hills Group v. U.S. Forest Service*, 259 F.3d 1281, 1289 (10th Cir. 2011) *quoting Florida Power & Light Co. v. Lorion*, 470 U.S. 729, 744 (1985). Similarly, "if limitations in the administrative record make it impossible to conclude the action was the product of reasoned decisionmaking, the reviewing court may supplement the record or reman the case to the agency for further proceedings." *Olenhouse v. Commodity Credit Corp.*, 42 F.3d 1560, 1575 (10th Cir. 1994). The omission of relevant information from the record demonstrates that EPA's refusal to consider an important aspect of the problems at hand warrants withdrawal of the permit and remand.



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In any case, even the subset of documents obtained by the Tribe reveals EPA's, Powertech's, and the mining industry's close coordination in developing regulatory requirements for the UIC permitting process – to the exclusion of the public and the Tribe. In 2008, EPA was engaged with Powertech in the pre-application period for what EPA admits is the first time the agency has ever been the direct permit agency for Class III well for an in-situ leach uranium mine. EPA Response to Comments #182. At that time, EPA explained that, "[f]ederal regulations for UIC Class III facilities tend to be very general and do not provide detailed information helpful to companies developing permit applications and aquifer exemption requests." See EPA FY08 OPRA ISL Uranium activities – VS2 Oct28-08 (Attachment 29)("FY08 OPRA document")(also confirming that the Dewey-Burdock "UIC Class III ISL Permit[] will be the first nationally that EPA would issue and directly regulate under a direct implementation program."). As a result, according to EPA, "Region 8 UIC Program met with Powertech early on. Region 8 has developed permit application guidance documents and policy statements regarding criteria and processes used for permit application review, developing permit requirements, and for evaluating and approving exemption of a USDW aquifer for ISL mining." *Id.*

In EPA Response to Comments #184, EPA asserts that its process was legitimate because "Region 8 did not solicit input from the general mining industry but did engage in discussions with the applicant and its consultant…." However, the FY08 OPRA document specifically states that "[i]n developing permit application guidance documents and policy statements, UIC staff also consulted or met with a number of mining companies with interests in Region 8, with consultants and experts on ISL mining, aquifer characterization and modeling, and with staff from state UIC programs and other EPA Regions." *Id.* at 2 (¶V).

Thus, the record demonstrates that EPA Region 8 undertook an extensive effort to establish major components of the regulatory process without involving any affected communities or Tribes. As EPA Region 8's staff are aware, the proposed Dewey-Burdock project has created considerable controversy and drawn opposition from citizens, local governments, Native American tribal groups and governments, medical organizations, local business, agricultural interests, and conservationists based on the significant threats these uranium mines pose to groundwater, local economies, public health, and cultural resources. To exclude these parties from the process is irresponsible and unlawful.

Importantly, the proposed "guidance" is highly substantive in nature and establishes significant precedent on critical issues with respect to EPA's regulation of ISL uranium mines. For example, through negotiations with industry, EPA Region 8 effectively defined the terms "area of review", "zone of influence", and "aquifer exemption boundary" as they will apply to all future EPA Region 8 UIC Class III applications. Such decisions not only establish the equivalent of an obligatory policy for Region 8, but also have national policy implications and long-term environmental impacts. See AOR ZOI Definitions v3 6 20 2008 (Attachment 30).

EPA released emails in an admittedly cumbersome format (see EPA FOIA release cover letter apologizing for cumbersome format (Attachment 31)) that describe the extent to which EPA engaged industry stakeholders but not the public. See i.e., Powertech-EPA rulemaking on definitions (Attachment 32 at bates 0020)(bates stamp numbers added for clarity)(Powertech representatives thanking EPA staff for providing "new write-up for the Area of Review, Zone of Influence and Aquifer Exemption Boundary determinations" and requesting that the industry representatives "distribute to others as you deem appropriate."). EPA attempts to characterize the discussions as designed to inform the operator of EPA requirements, but the emails

demonstrate the opposite – the industry providing EPA its preferred regulatory definitions. See Attachment 32 at bates 0027 (EPA thanking industry and stating that "[y]our expertise and knowledge helped us out tremendously"); bates 0029 (EPA asking industry representatives the effect an excursion (leak) of toxic mining fluid under state law will have on a possible shut-down of the operation); bates 0031 (industry informing EPA that the industry's lawyer will provide his "insight"); bates 0043 (confirming EPA staff has used the discussion with industry to create new requirements/guidelines that will be used for all future similar Class III applications)

EPA included additional technical and weighty aspects of the discussion. For instance, EPA staff discussed in depth with industry representatives broader aspects of the agency's authority and how it should proceed. See Powertech Dewey Burdock emails (Attachment 33)(bates stamps added for clarity) at 0071-0072 (EPA and industry representatives discussing EPA's "nebulous" authority over well field aquifer restoration and EPA staff expressing its "shock and horror we found that our regulation 144.12(b)" allows EPA to take broad enforcement action in the case of leaks and communicating to industry representatives that "this has very big implications for where to establish the proposed aquifer exemption boundary. We should have a big meeting to discuss what this means.").

The emails also demonstrate that EPA developed its regulatory approach to allow the permits to issue first, then allow the applicant to demonstrate that the site was amenable to mining through a closed-door process. *Id.* at bates 0123-0125 (showing EPA staff culling South Dakota regulations and developing its own regulatory to match the process – but without the benefit of any public participation); bates 0241-0242 (EPA staff asking industry representatives to review and approve EPA requirements for formation testing programs);

Thus, it appears that as early as 2007, Region 8 management directed staff to improperly engage a process to draft changes to the UIC regulations without the benefit of the substantive and procedural protections of notice and comment rulemaking, and with an eye toward approving Powertech's application. This process neglects the rulemaking requirements of the APA and the SDWA requirement that only the Administrator may promulgate SDWA regulations (see 42 U.S.C. § 300h(a)) and that "[a]ny regulation under this section shall be proposed and promulgated in accordance with section 553 of title 5 (relating to rulemaking)...." 42 U.S.C. § 300h(a)(2).

While not all federal agency policy pronouncements require APA notice and comment rulemaking, the federal courts have held that the critical factor in whether an agency policy is properly considered an agency rule requiring APA compliance on one hand or mere guidance on the other is the extent to which the policy is binding on future agency conduct. Compliance with the APA's notice and comment rulemaking provisions is required whenever such a policy establishes a "binding norm" that effectively dictates the agency's regulatory discretion with respect to individual permitting decisions. See *Pacific Gas and Electric Co. v. Federal Power Commission*, 506 F.2d 33, 38 (D.C.Cir.1974); *American Min. Congress v. Marshall*, 671 F.2d 1251 (10th Cir. 1982).

The new rules developed by Region 8 constitute a "binding norm" in this instance. As noted above, EPA Region 8's efforts involved detailed analysis defining critical terms in EPA's UIC regulations, which are to be applied to future UIC Class III permit applications. Such definitive terms create binding norms, and these concepts must be defined by regulations promulgated through APA notice and comment rulemaking and approved by the Administrator, as required by law. EPA emails confirm that EPA staff well understood the precedential nature



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of their efforts with industry representatives. See Powertech-EPA rulemaking emails (Attachment 34) at bates 0100 ("At last I have finished obsessing about this checklist for figures. It is in the DRAFT phase, so please let me know if it is helpful & goes along with what you were anticipating. You get to be the pioneering guinea pig that will make life easier for others following in your path."); see also Attachment 33 at 0157 (EPA staff providing industry representatives documents and informing that the agency had "finally finished obsessing about this checklist for figures in the permit application. It is still in DRAFT form, so please let me know if it coincides with what you were thinking or if there is a way to make it more helpful for permit applicants"); bates 0240 (EPA staff indicating that the Powertech application submission will be a "test" for EPA's new permitting requirements to "see how they hold up in reference to reality").

APA rulemaking is critical to ensure proper public involvement in the protection of groundwater in proposed in-situ uranium mining – particularly where EPA staff is designing its regulatory process for the "guinea pig that will make life easier for others following in your path." As such, APA-based rulemaking in this instance is beneficial and legally required. The sharp controversy the Powertech ISL uranium mining project has generated in South Dakota confirms that public involvement and participation in nationwide rulemaking process is essential. At minimum, the foregoing discussion demonstrates the need for EPA Region 8 to produce the full administrative record of these discussions so that this Board, and the Tribe (and public), can assess the full scope of the discussions and negotiations that gave rise to EPA Region 8's newly developed UIC application criteria and regulatory changes.

EPA's preference for industry-promoted "guidance" over APA rulemaking extends past the SDWA, as evidenced by EPA's subsequent, but aborted, efforts to adopt a comprehensive set



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of regulations to guide EPA's ISL permitting. https://www.epa.gov/radiation/40-cfr-part-192-proposed-rulemaking-and-background-documents. In 2018, EPA abandoned the Administrator's 2017 proposed rules that address similar ISL issues of national significance and interest. *Id.* EPA's full set of rulemaking records, not just those on the website, are relevant to the EAB's present review, as they likely contain similar efforts to avoid regulation in favor of "guidance."

Rulemaking, not Powertech-specific permitting, is the place to subject EPA's statutory authority over the fragmented ISL decisionmaking process to APA and NEPA scrutiny. Instead of the *de facto* SDWA rulemaking carried out by Powertech and Region 8, compliance with SDWA, NEPA, APA, and other federal duties requires a national rulemaking to ensure strong involvement from the public and stakeholders for the protection of underground sources of drinking water and other resources from the impacts of ISL uranium mining across its various statutory authorities. In the meantime, the permits should be withdrawn (40 C.F.R. § 124.19(j)), with further permitting activities enjoined to provide the Administrator an opportunity to review these matters to determine how to best address EPA's ISL authorities. As a willing participant in the unlawful rulemaking efforts, Powertech can claim no harm from an EPA moratorium on ISL permitting until EPA meets its SDWA, NEPA, APA and other ISL permitting duties.

## CONCLUSION

Given the lack of compliance with the NHPA, NEPA, SDWA, and APA, the Board should accept review in this case and remand the challenged permit back to EPA to fulfill its statutory and regulatory obligations.

*/s/ Jeffrey C. Parsons*
Jeffrey C. Parsons
Senior Attorney
Roger Flynn
Managing Attorney



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Western Mining Action Project
P.O. Box 349
Lyons, CO 80540
Tel: (303) 823-5738
Fax: (303) 823-5732
Email: wmap@igc.org

Travis E. Stills
Managing Attorney
Energy & Conservation Law
1911 Main Ave, Ste 238
Durango, CO 81301
(970) 375-9231
stills@frontier.net

Date: December 24, 2020

Attorneys for Petitioner
Oglala Sioux Tribe

## STATEMENT REQUESTING ORAL ARGUMENT

Petitioner Oglala Sioux Tribe requests that the Environmental Appeals Board hold oral argument in this matter. The issues involved are complex and are based on a voluminous administrative record that reaches back over thirteen (13) years.

## STATEMENT OF COMPLIANCE WITH WORD LIMITATION

This petition for review complies with the requirement that petitions for review not exceed 14,000 words.

This petition for review, excluding attachments, is approximately 13,813 words in length.



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## LIST OF ATTACHMENTS

Complete versions are being provided electronically to the EAB Clerk's office.

Attached are the following exhibits, numbered in order of appearance in the petition:

| | |
|---|---|
| Attachment #1: | Comments submitted by Petitioner Oglala Sioux Tribe to EPA on June 19, 2017 (with attachments) |
| Attachment #2: | Comments submitted by Petitioner Oglala Sioux Tribe to EPA on December 9, 2019 (with attachments) |
| Attachment #3: | Oglala Sioux Tribe Ordinance #11-10 |
| Attachment #4: | September 11, 2020 email thread between EPA and the Oglala Sioux Tribe |
| Attachment #5: | September 18, 2020 letter from EPA to the Oglala Sioux Tribe |
| Attachment #6: | Proposed October 2, 2020 agenda |
| Attachment #7: | September 28, 2020 email from the Oglala Sioux Tribe to EPA-BLM |
| Attachment #8: | September 29, 2020 email from the Oglala Sioux Tribe to EPA-BLM |
| Attachment #9: | October 14, 2020 email from the Oglala Sioux Tribe to EPA-BLM |
| Attachment #10: | October 21, 2020 letter from EPA to the Oglala Sioux Tribe |
| Attachment #11: | November 2, 2020 letter from Oglala Sioux Tribe President to EPA |
| Attachment #12: | November 19, 2020 letter from EPA Region 8 to the Oglala Sioux Tribe |
| Attachment #13: | Final Programmatic Agreement |
| Attachment #14: | Map included in the applicant's November 2018 press release |
| Attachment #15: | Map from the 2014 NRC Final Supplemental Environmental Impact Statement |
| Attachment #16: | Azarga/Powertech December 4, 2019 press release |
| Attachment #17: | Powertech October 31, 2017 press release |



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| Attachment #18: | Dewey-Burdock Project Application for NRC Uranium Recovery License Fall River and Custer Counties South Dakota Technical Report (excerpt) page 1-8 |
| Attachment #19: | Powertech (USA) Inc. Dewey-Burdock Project Class III Underground Injection Control Permit Application page 10-14 |
| Attachment #20: | Dewey-Burdock Project Application for NRC Uranium Recovery License Fall River and Custer Counties, South Dakota, Environmental Report, February 2009 (excerpt) page 1-25 |
| Attachment #21: | State of South Dakota approval in Case No. 5-2019 |
| Attachment #22: | Rebuttal Testimony of Dr. Robert Moran |
| Attachment #23: | August 20, 2014 Hearing Transcript |
| Attachment #24: | Declaration of Dr. Richard Abitz |
| Attachment #25: | Opening Testimony of Dr. Robert Moran |
| Attachment #26: | Post-Hearing Testimony of Dr. Hannan LaGarry |
| Attachment #27: | April 28, 2010 letter from EPA to Powertech (USA) Inc. Dewey-Burdock Class V Area Permit Administrative Review Determination |
| Attachment #28: | Powertech (USA) Inc. Class III UIC Area Permit Application cover page |
| Attachment #29: | FY08 OPRA ISL Uranium activities – VS2 Oct28-08 |
| Attachment #30: | AOR ZOI Definitions v3 6 20 2008 |
| Attachment #31: | EPA FOIA release cover letter |
| Attachment #32: | Powertech-EPA rulemaking on definitions |
| Attachment #33: | Powertech Dewey Burdock emails |
| Attachment #34: | Powertech-EPA rulemaking emails |
| Attachment #35: | EPA Response to Comments |



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## CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Petition for Review in the matter of Powertech (USA) Inc., Dewey-Burdock Uranium In-Situ Recovery Project, Permit No.: Class III Area Permit No. SD31231-00000, And Class V Area Permit No. SD52173-00000, were served, by email in accordance with the Environmental Appeals Board's September 21, 2020 Revised Order Authorizing Electronic Service of Documents in Permit and Enforcement Appeals, on the following persons, this 24th Day of December, 2020:

Deb Thomas, Regional Administrator (Acting)
and Deputy Regional Administrator
Darcy O'Connor
Director, Water Division
U.S. EPA Region VIII

By email: thomas.debrah@epa.gov
r8eisc@epa.gov
oconnor.darcy@epa.gov

Powertech (USA) Inc.
John Mays, Registered Agent (Colorado)
Mark Hollenbeck, Registered Agent (SD)
Chris Pugsley, Thompson & Pugsley PLLC

By email: jmays@powertechuranium.com
mhollenbeck@powertechuranium.com
cpugsley@athompsonlaw.com

*/s/ Jeffrey C. Parsons*__
Jeffrey C. Parsons
Senior Attorney
Western Mining Action Project
P.O. Box 349
Lyons, CO 80540
Tel: (303) 823-5738
Fax: (303) 823-5732
Email: wmap@igc.org

Attorney for Petitioner
Oglala Sioux Tribe

Date: December 24, 2020



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