UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:	)	
	)	Docket No.: 40-9075-MLA
POWERTECH (USA), INC.	)	Date: May 3, 2010
	)	
(Dewey-Burdock In Situ Uranium Recovery Facility)	)	

APPLICANT POWERTECH (USA) INC.'S RESPONSE TO PETITIONER OGLALA SIOUX TRIBE'S REQUEST FOR A HEARING/PETITION FOR INTERVENTION

I. INTRODUCTION

Pursuant to 10 C.F.R. § 2.309(h), Powertech (USA), Inc. (hereinafter "Powertech" or the "Applicant") hereby submits this response to an April 6, 2010, request for hearing/petition to intervene filed by the Oglala Sioux Tribe (Petitioner) (hereinafter the "Request") regarding Powertech's license application to construct and operate a proposed in situ leach uranium recovery (ISR) project in Custer and Fall River counties in the State of South Dakota (hereinafter the "proposed Dewey Burdock ISR project"). For the reasons discussed below, Powertech respectfully submits that Petitioner has failed to demonstrate that it has standing to intervene pursuant to 10 C.F.R. § 2.309(d). In the event that the Licensing Board determines that Petitioner has standing, Powertech respectfully submits that Petitioner has not proffered an admissible contention pursuant to 10 C.F.R. § 2.309(f). Accordingly, Petitioner's Request should be denied.

II. BACKGROUND AND PROCEDURAL HISTORY

On February 25, 2009, Powertech submitted a license application for an Atomic Energy Act of 1954, as amended (hereinafter the "AEA"), combined source and 11e.(2) byproduct material license to construct and operate its proposed Dewey-Burdock ISR project in South Dakota. After completing its ninety (90) day acceptance review, the United States Nuclear Regulatory Commission (NRC) Staff determined that Powertech's Dewey-Burdock license application required additional data and analyses prior to accepting it for detailed technical and environmental review. As a result, on June 19, 2009, Powertech voluntarily withdrew its license application pending submission of a Supplement containing additional data and analyses requested by NRC Staff. On August 10, 2009, Powertech submitted its Dewey-Burdock license application supplement and, after completion of a second ninety (90) day acceptance review, NRC Staff determined that Powertech's Dewey-Burdock license application, as supplemented, was acceptable for detailed technical and environmental review and it was docketed. The Supplement was not comprehensive in nature or scope, but rather was focused on specific requested data and analyses. Accordingly, the Dewey-Burdock license application as supplemented was and is not significantly different from the materials initially submitted.

After the Dewey-Burdock license application was made publicly available, on January 5, 2010, NRC Staff issued a Federal Register notice providing interested stakeholders and other members of the public with an opportunity to request a hearing on the application and to request access to sensitive unclassified non-safeguards information (SUNSI) associated with such application.[1] On January 15, 2010, counsel for Petitioner submitted a request for access to SUNSI documentation. After reviewing this request, NRC Staff determined that Petitioner was entitled to access to the SUNSI documentation. On March 16, 2010, NRC Staff filed a Motion

[1] *See* 75 Fed. Reg. 467 (January 5, 2010).

for Protective Order, including a draft protective order for Petitioner's representatives to execute, so that the requested SUNSI information could be disseminated to such representatives. After an exchange of several motions, Petitioner's representatives executed the final Protective Order and, on March 12, 2010, the requested SUNSI information was received by Petitioner.

On March 12, 2010, the Commission established an Atomic Safety and Licensing Board Panel (Board) and referred Petitioner's Request to the Board. On April 6, 2010, Petitioner's Request was submitted to the Licensing Board. In response to Petitioner's Request, Powertech hereby submits this Response and respectfully requests that the Licensing Board determine that Petitioner has failed to demonstrate standing to intervene pursuant to 10 C.F.R. § 2.309(d). In the event that the Board determines that Petitioner has standing, Powertech respectfully submits that Petitioner has not proffered an admissible contention pursuant to 10 C.F.R. § 2.309(f)(1). Accordingly, Petitioner's Request should be denied.

III. STATEMENT OF LAW

NRC regulations at 10 CFR Part 2 set forth the general parameters for parties seeking to intervene in a Commission proceeding on applications for materials licenses such as the combined source and 11e.(2) byproduct material license requested by Powertech. In order to be granted leave to intervene in this proceeding, a petitioner must demonstrate he or she has standing pursuant to 10 C.F.R. § 2.309(d) and has proffered at least one admissible contention pursuant to 10 C.F.R. § 2.309(f)(1). Each of these requirements will be addressed in turn below.

A. Standing Requirements

An interested party or other member of the public who requests a hearing or seeks to intervene in a Commission proceeding must demonstrate that he or she has standing to intervene.

See 10 C.F.R. § 2.309(d). Pursuant to this requirement, the Commission has set forth the following items that a request for a hearing or petition to intervene must contain:

(i) The name, address and telephone number of the petitioner;
(ii) The nature of the requestor's/petitioner's right under the [Atomic Energy] Act to be made a party to the proceeding;
(iii) The nature and extent of the requestor's/petitioner's property, financial or other interest in the proceeding; and
(iv) The possible effect of any decision or order that may be issued in the proceeding on the requestor's/petitioner's interest.

10 C.F.R. § 2.309(d)(1).

Standing is not a mere legal technicality. It is, in fact, an essential element in determining whether there is any legitimate role for a court or an agency adjudicatory body to deal with a particular grievance. *Westinghouse Electric Corporation*, (Nuclear Fuel Export License for Czech Republic, Temelin Nuclear Power Plants), CLI-94-7, 39 NRC 322, 331-332 (June 9, 1994). The Commission applies traditional judicial concepts of standing to requests for hearing or petitions for leave to intervene and has stated that these concepts should be applied by adjudicatory boards in determining whether a petitioner is entitled to intervene as a matter of right. *See e.g., Yankee Atomic Elec. Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 195 (1998); *Portland General Electric Co.*, (Pebble Springs Nuclear Plant, Units 1 and 2), ALAB-333, 3 NRC 804 (June 22, 1976); *see also Niagra Mohawk Power Corp.*, (Nine Mile Point Nuclear Station, Unit 2), 18 NRC 213, 215 (1983) (noting that contemporaneous judicial concepts should be used to determine whether a petitioner has standing to intervene). Thus, the propriety of intervention involves both "constitutional limitations" on an adjudicatory body's jurisdiction and "prudential limitations" on its exercise. *Coalition of Arizona/New Mexico Counties for Stable Economic Growth v. Department of Interior*, 1997 U.S. Dist. LEXIS 4212, *6 (10th Cir. 1997), *citing Warth v. Seldin*, 422 U.S. 490, 498 (1975).

The "irreducible constitutional minimum" standing test requires a potential litigant to demonstrate that: 1) the litigant has suffered actual or threatened injury, 2) that is caused by, or fairly traceable to, an act that the litigant challenges in the instant litigation, and 3) that is likely to be redressed by a favorable decision." *See e.g., Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560-61 (1992); *Yankee Atomic Elec. Co.* (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 6 (1996); *Georgia Institute of Technology*, 42 NRC 111, 115 (1995); *Envirocare of Utah, Inc.*, 35 NRC 167, 174-5 (1992). These three elements are commonly referred to as injury-in-fact, causation, and redressability.

Beyond the constitutional standing test set forth above, "prudential limitations" are also imposed on a potential intervenor's prospective standing. Prudential considerations include a party's not being permitted to assert a generalized grievance and a party's not being permitted to assert the rights of third parties. *See Warth*, 422 U.S. at 499. Specifically, prudential standing requirements require a showing that the injury is arguably within the "zone of interests" protected by statutes governing the proceeding. *Assoc. of Data Processing Serv. Orgs., Inc. v. Camp*, 397 U.S. 150 (1970); *Metropolitan Edison Co.*, 18 NRC 327, 332 (1983); *Gulf States Utilities Co.*, 40 NRC 43, 47 (1994).

With regard to injury in fact, which may be either actual or threatened, it must be both *concrete* and *particularized*, not *conjectural* or *hypothetical*. As a result, standing should be denied when the threat of injury is too speculative. *See Sequoyah Fuels Corp. and General Atomics*, 40 NRC 64, 72 (1994). To show the required injury-in-fact based on an assertion of future harm, NRC has held that future harm "must be threatened, certainly impending, and real and immediate." *Babcock & Wilcox*, 37 NRC 72, 81 (1993).

Petitioner also must establish a causal nexus between the alleged injury and the action subject to challenge in the proceeding. *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 & 2), LBP-98-27, 48 NRC 271, 276 (1998), *aff'd,* CLI-99-4, 49 NRC 185 (1999). Determination of a "causal nexus" under this standard depends, in part, on whether the chain of causation is "plausible." *Sequoyah Fuels,* CLI-94-12, 40 NRC at 75. Judicial and Commission standing jurisprudence requires "realistic threat…of direct injury." *Int'l Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-01-21, 54 NRC 247, 254 (2001). Absent an obvious potential for harm, "it becomes [petitioner's] burden to provide a 'specific and plausible' explanation of how the action will affect her." *See Nuclear Fuel Servs., Inc.* (Erwin, Tennessee), CLI-04-13, 59 NRC 244, 248 (2004) (finding no obvious potential for harm at petitioner's property 20 miles from the site of a facility that converted high-enriched uranium to low-enriched uranium).

In Commission proceedings involving materials licenses such as the instant case, there is no automatic presumption of standing based on geographic proximity to the proposed licensed site. Currently, the Commission applies a standard to such presumptions of standing "where there is a determination that the proposed action involves a significant source of radioactivity producing an obvious potential for offsite consequences." *Georgia Tech*, CLI-95-12, 42 NRC at 116, *citing Sequoyah Fuels*, CLI-94-12, 40 NRC at 75, n.22. A presumption of standing based on proximity to a proposed licensed site and the distance at which such a presumption would apply is determined "on a case-by-case basis, taking into account the nature of the proposed action and the significance of the radioactive source." *Id.* This geographic location at which such a presumption will be defined "depends on the danger posed by the source at issue." *Sequoyah Fuels*, CLI-94-12, 40 NRC at 75, n.22.

An organization can establish standing by demonstrating injury to itself as an entity or injury to its members. *Coalition of Arizona/New Mexico Counties for Stable Economic Growth*, 1997 U.S. Dist. at *8-9; *see also Georgia Tech*, CLI-95-12, 42 NRC at 115. In order to establish organizational standing, an organization must allege: (1) that the action will cause an injury-in-fact to either (a) the organization's interest or (b) the interests of its members; and (2) that the injury is within the zone of interests of the statute at issue. *Yankee Atomic Electric Co.*, (Yankee Nuclear Power Station) 39 NRC 95, 102 n. 2 (March 18, 1994). A showing of "representational standing" by an organization "[m]ust demonstrate how at least one member may be affected by the licensing action, must identify that member by name/address, and must show that the organization is authorized to request a hearing on that member's behalf." *N. States Power Co.* (Monticello; Prairie Island, Units 1 & 2; Prairie Island ISFSI), CLI-00-14, 52 NRC 37, 47 (2000). If injury to a member is the basis for an assertion of standing, it must be remembered that the mere interest in a problem without a showing that a member will be affected directly is insufficient to give an organization standing. *Allied General Nuclear Services*, (Barnwell Fuel Receiving and Storage Station), 3 NRC 420 (April 28, 1976).

B. <u>Admissibility of Contentions</u>

In addition to satisfying the Commission's requirement for standing pursuant to 10 C.F.R. § 2.309(d), Petitioner must proffer at least one admissible contention pursuant to 10 C.F.R. § 2.309(f)(1). Part 2.309(f)(1) mandates that Petitioner must satisfy each of the following requirements:

"A request for hearing or petition for leave to intervene must set forth with particularity the contentions sought to be raised. For each contention, the request or petition must:

(i) Provide a specific statement of the issue of law or fact to be raised or controverted;

(ii) Provide a brief explanation of the basis for the contention;

(iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;

(iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;

(v) Provide a concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the requestor/petitioner intends to rely to support its position on the issue; and

(vi) Provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. This information must include references to specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief."

10 C.F.R. § 2.309(f)(1).

The application of these six contention admissibility factors is "strict by design." *Dominion Nuclear Conn., Inc.*, (Millstone Nuclear Power Station, Units 2 & 3), CLI-01-24, 54 NRC 349, 358 (2001). The failure to satisfy each of the six contention admissibility factors results in grounds for dismissal of a particular contention. *Private Fuel Storage LLC* (Independent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 325 (1999). In other words, as stated by the Commission, "[i]f any one of these requirements is not met, a contention must be rejected." *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155 (1991).

The Commission's standards for admissible contentions do not permit filing "'a vague, unparticularized contention,' unsupported by affidavit, expert, or documentary support." *N. Atl. Energy Serv. Corp.* (Seabrook Station, Unit 1), CLI-99-6, 49 NRC 201, 219 (1999), *quoting Balt. Gas & Elec. Co.* (Calvert Cliffs Nuclear Power Plant), CLI-98-25, 48 NRC 325, 349 (1998). 10 C.F.R. § 2.309(f)(1)(i) states that a petitioner must submit proposed contentions that provide a "specific statement of the issue of law or fact to be raised or controverted." 10 C.F.R. § 2.309(f)(1)(i). Admissible contentions must state "with specificity" safety or legal reasons for why the application in question must be rejected. *Millstone*, CLI-01-24, 54 NRC at 359-60. Thus, in the case where a petitioner offers nothing more than "generalized suspicions, hoping to substantiate them later," such proposed contentions should be rejected. *Duke Energy Corp.* (McGuire Nuclear Station Units 1 & 2; Catawba Nuclear Station, Units 1 & 2), CLI-03-17, 58 NRC 419, 424 (2003) *quoting Duke Energy Corporation* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC at 328, 337-339. (1999).

As stated in 10 C.F.R. § 2.309(f)(1)(iii), admissible contentions must be within the scope of the proceeding as defined by the Federal Register notice offering an opportunity for a hearing. *See Florida Power and Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 & 4), CLI-00-23, 52 NRC 327, 329 (2000). Pursuant to 10 C.F.R. § 2.309(f)(1)(vi), an admissible contention must present a genuine dispute with the applicant on a material issue of law or fact, and any contention failing to satisfy this requirement can be dismissed. *See Sacramento Mun. Util. Dist.* (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 NRC 200, 247-248 (1993), *review declined* , CLI-94-2, 39 NRC 91 (1994). Failure to support a contention with adequate factual information and expert opinions requires that the contention be rejected. *See Arizona Public*

Service (Palo Verde Nuclear Generating Stations, Unit Nos. 1, 2, and 3), 34 NRC 149, 155 (1991).

10 C.F.R. § 2.309(f)(1)(vi) states that a petitioner is required to "provide sufficient information to show…a genuine dispute…with the applicant…on a material issue of law or fact." 10 C.F.R. § 2.309(f)(1)(vi) (2010). It is a petitioner's responsibility to specifically state how a license application is inadequate and to "explain why the application is deficient." *See* United States Nuclear Regulatory Commission, Final Rule, Rules of Practice for Domestic Licensing Proceedings—Procedural Changes in the Hearing Process, 54 Fed. Reg. 33168, 33,170 (August 11, 1989); *see also Palo Verde*, CLI-91-12, 34 NRC at 156

Mere speculation and bare assertions alleging that a matter should be considered will not suffice to allow the admission of a proffered contention. *See Fansteel, Inc.*(Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 203 (2003). The Licensing Board is not required to make assumptions of fact that favor Petitioner when they fail to provide the required support for their contentions. *See Georgia Tech,* (Georgia Tech Research Reactor), LBP-95-6, 41 NRC 281, 305 April 26, 1995). In addition, information offered by Petitioner to support a contention requires an explanation of its significance in order to be sufficient to admit such contention. *Fansteel,* CLI-03-13, 58 NRC at 204.

With respect to the scope of this proceeding as defined in the January 5, 2010 Federal Register notice and notice of opportunity for a hearing, it is limited to Powertech's license application to construct, operate, restore, and decommission an ISR project site at the proposed Dewey-Burdock site and to recover uranium from wellfields located at that site. *See* 75 Fed. Reg. 467. Thus, admissible contentions must be strictly limited to issues that are relevant to Powertech's proposal. *See Yankee Atomic Elec. Co.* (Yankee Nuclear Power Station), CLI-98-

21, 48 NRC 185, 204 (1998), and any contention falling outside the scope of this proceeding should be rejected. *See Portland Gen. Elec. Co.* (Trojan Nuclear Plant), ALAB-534, 9 NRC 287, 289-290, n.6 (1979).

IV. RELEVANT STATUTORY AND REGULATORY AUTHORITIES

A. Natural Geological and Hydrological, Statutory, and Regulatory Conditions for ISR Uranium Recovery Pursuant to an NRC License

1. The ISR Process

As a general proposition, the existence of natural geologic, hydrologic, and geochemical conditions in aquifers or portions thereof amenable to the ISR process (also referred to as ISL in the Powertech Dewey-Burdock license application), the ISR process itself, and NRC regulatory requirements for ISR operations, including specifically groundwater restoration, taken together provide a significant package of controls to prevent potential short and long-term adverse impacts to adjacent, non-exempt underground sources of drinking water (USDWs). Indeed, there are several naturally occurring geologic, hydrologic, and geochemical conditions that, in and of themselves, contribute significantly to the isolation of uranium and its associated heavy metals in a redistributed ore body from other portions of an aquifer that can potentially serve as a USDW. These conditions serve to complement and enhance the benefits of existing NRC regulatory controls for ISR operations and groundwater restoration requirements.

ISR operations were first tried on an experimental basis in the early 1960s with the first commercial facility commencing operations in 1974. ISR processes continuously re-circulate native groundwater from the aquifer in which the ore body resides after fortifying it with oxygen and/or carbon dioxide. Uranium deposits amenable to ISR processes occur in permeable sand or sandstones that typically are confined to some degree above and below by less permeable strata. Subsurface confinement is a natural environmental condition that acts to assist in the creation of

isolated deposits of uranium as a result of groundwater flow forced by the less permeable layers above and below through coarser sands in the middle. These uranium "roll-front" formations are formed over millions of years by the lateral movement "downdip" of groundwater bearing minute amounts of oxidized uranium in solution through the aquifer until precipitation of the uranium occurs along the boundary where the oxygenated waters encounter a zone of abundant reductant. Currently, this uranium "roll-front" deposition that has taken place in every such roll-front over millions of years is *ongoing on a regional basis every day*. Regional "roll-fronts" require broad areas of upgradient oxidation to keep uranium mobile until the oxygenated water moves downgradient and encounters a zone with sufficient reductant. It is at this regional *redox interface* where the oxygenated water is reduced and uranium is deposited in a reduced mineral phase in what is known as a *redistributed* ore body that ISR operations are conducted.

Uranium mineralization leaves a distinct radiochemical footprint or signature in the host rock and surrounding groundwater—that is, uranium occurs not only upon the rock matrices, but also in the groundwater within the ore body. In other words, given natural dissolution processes, uranium and its progeny that accumulate on the host sands also occur naturally in surrounding groundwater media. For a uranium ore body to be amenable to ISR processes using industry standard recovery chemistry, the ore zone must be saturated with relatively fresh water and the rock must have enough transmissivity for water to flow from injection to extraction wells. In other words, for ISR processes to work, the ore must be situated in a saturated, water-bearing interval referred to as an aquifer. *There are no ISR operations in ore bodies that are not in aquifers.*

Techniques for ISR operations, including well construction techniques, regular well testing techniques (i.e., mechanical integrity testing (MIT)), upper control limits (UCL) for

highly mobile constituents to provide “early warning” of potential excursions, extensive monitor well systems, and well field balance and production “bleed” have evolved to the point where these techniques complement and enhance the above-noted naturally occurring geologic and hydrologic conditions to provide ongoing, iterative mitigation measures with the flexibility to adjust to site-specific conditions in order to protect adjacent USDWs.

After an ore body that is amenable to ISR processes is identified, the licensee develops well-field designs to progressively remove uranium from the identified ore body. Well-field design is based on grids with alternating injection and extraction wells, monitor wells above and below the recovery zone, and a ring of monitor wells surrounding the entire recovery zone to detect any potential *excursions* of recovery solutions. Each well field is operated at the maximum continuous flow-rate achievable for that particular well field pattern area. Injection and extraction flow-rates are monitored and adjusted as necessary on a daily basis, so that injection can be balanced with extraction/production across the entire well field, with the injection flow lower than the extraction flow by the amount of the production “bleed” rate. The production “bleed” rate varies according to ore body geometry, well pattern and magnitude, and direction of the natural groundwater velocity. Proper well field balance, including the production “bleed,” maximizes recovery while protecting against excursions.

The *sequential* development of ISR well fields is an example of the “phased,” iterative nature of ISR projects. The development of these well-fields and the accumulation of a complete sampling database cannot take place until a *licensed* ISR operator installs baseline, production, and monitor wells. Engineers and geologists continually assess data as it is obtained and apply this new information to the next phase or activity, thus ensuring that subsequent exploration and delineation is based on the most up-to-date information possible to ensure proper well placement.

Prior to installing monitor wells, additional exploration and delineation has to be conducted to assure the wells are properly placed. As well fields are developed, all wells, including monitor wells, are pump tested to assure that they function appropriately prior to being sampled. Water quality sampling establishes water quality within and outside the ore zone (i.e., at the monitor wells) and the aforementioned UCLs which enable the licensee to readily determine if an excursion has occurred, because of the distinct differences between water quality in the recovery zone and that at the monitor wells. A "lessons learned" approach is implemented, as the results in one well field may cause the site engineer or geologist to change design in the next. This process is both progressive and iterative, as each well field is developed and tested with the mineral being progressively depleted from different parts of the ore body.

During active operations, native groundwater from the recovery zone in the aquifer is pumped to the surface for fortification with oxygen and carbon dioxide (lixiviant). This fortified water, which is similar to soda water (i.e., not water fortified with toxic chemicals), is then returned to the recovery zone through a series of *injection* wells in varying patterns in the well-fields. Water withdrawn from *extraction* wells in these patterns exceeds the water injected into the patterns creating a "cone of depression" that assures a net inflow of water into the recovery zone of the aquifer. This is to ensure no horizontal or vertical water movement from the small portion of the aquifer where ISR operations will occur, so that any adjacent, non-exempt USDWs will not be impacted by excursions of recovery solutions. The process also continually flushes fresh water into the recovery zone helping to inhibit the build-up of contaminants that could reduce the efficiency of recovery operations.

The extraction pumping causes the injected lixiviant to move through the uranium ore body oxidizing and solubilizing the uranium present in the host sandstone. The water from the

extraction wells is then run through ion-exchange (IX) columns containing synthetic resins, which remove the uranium in a process essentially identical to that used to remove minerals from "hard" drinking water in a conventional home water softener. The uranium is then stripped from the IX resins using a brine solution (again similar to the backwash that takes place in a home water softener). The uranium in this rich eluate is then precipitated chemically, dewatered, and dried to produce saleable *yellowcake.*

After uranium removal in the IX column, the water in the circuit is re-fortified and re-injected as part of a continuous process until the uranium in the ore zone is exhausted. Since native groundwater, already containing naturally occurring uranium and its progeny, is continuously refortified with oxygen and re-circulated through the sandstone to enhance uranium values removed in the IX columns, injection is balanced with extraction (i.e., extraction slightly exceeds injection to maintain an inward hydraulic gradient). Injection cannot proceed without an equal or greater amount of extraction; therefore, over-injection across the area cannot take place. To help keep the continuously operating system in balance, the extra water that is extracted is removed from the circuit as a production "bleed." The production "bleed," which contains elevated levels of radium, can be treated to remove the radium in settlement ponds using a barium-radium sulphate precipitation method. Ultimately, this waste water is discharged to holding ponds or tanks and from there it must be disposed of using deep well injection, solar evaporation, land application or some combination of these methods.

After active ISR operations cease, the groundwater in the recovery zone is restored *consistent with baseline* or other water quality criteria that are approved by NRC prior to the commencement of active ISR operations. The natural reductive and confining conditions noted above, standard ISR controls typically involved in license conditions, and NRC's requirement

that an ISR operator engage in active groundwater restoration in the recovery zone together serve as primary bases for mitigation of any potential long-term impacts to adjacent, non-exempt USDWs. Restoration efforts are designed to flush recovery solutions from the recovery zone to enhance its natural pre-operational reductant properties. Logic dictates that these reductant (i.e., the geochemical trap) properties which created the redistributed ore body in the first place will, over the long-term, be adequate to retard movement of mobilized constituents (particularly heavy metals such as uranium).

Upon completion of groundwater restoration, wells are sealed or capped below the soil surface using agency-approved plugging methods and the soil surface is restored. Surface process facilities are decontaminated, if necessary, and removed, and any necessary reclamation and re-vegetation of surface soils is completed. As a result, after site closure is completed and approved, there is no visual evidence of an ISR site, and the decommissioned site will be available for unrestricted (i.e., any future) use.

In addition to the production "bleed," liquid waste is generated during groundwater restoration when ISR operations have ceased. Groundwater sweep uses existing production well field patterns to flush the recovery zone with natural groundwater from outside of the recovery zone and to extract the flushed water from the ore zone for possible treatment and, ultimately, disposal. Removed groundwater can be treated using reverse osmosis (RO) to create *de-ionized* water which can be re-injected to accelerate groundwater restoration. In fact, more recent groundwater restoration efforts have often used a combination of these two techniques and, possibly, the injection of a reductant and pH modifier to optimize restoration results. Groundwater restoration returns water within the depleted recovery zone to approved levels determined by NRC to be adequate to minimize or eliminate post-restoration migration of

contaminants and any potentially significant, adverse impacts to adjacent, non-exempt USDWs. In other words, it is designed to re-activate pre-operational reductant capacity in the exempted production zone of the aquifer.

In over three decades of operations, there have been *no significant, adverse impacts to adjacent, non-exempt USDWs* outside the recovery zone and into the related area of review (AOR)[2] from ISR operations in the United States.[3] Well field balancing, use of the production "bleed," and extensive ongoing monitoring and frequent MITs at ISR sites have been highly successful in assuring that leach solution is contained within the recovery zone and in mitigating the impacts of any excursions. Before post-operational monitoring ceases, restoration is completed to minimize or eliminate the potential risk of excursion that could result in the migration of contaminants from the exempted recovery zone portion of the aquifer to adjacent, non-exempt portions of the aquifer.

Typically, ISR projects are operated in one of two facility types. First, an ISR project can be operated using a central processing facility and well fields that are directly adjacent to the processing facility. This allows the operator to license a defined site footprint and to construct adjacent well fields from which pregnant lixiviant may be directly pumped to the central processing facility. This recovery approach is utilized when the identified and defined uranium

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[2] The "area of review" is essentially a "buffer zone" prescribed by the United States Environmental Protection Agency's (EPA) underground injection control (UIC) program to provide additional protection for USDWs during ISR uranium recovery. 40 CFR § 146.6 requires that all ISR licensees must establish a fixed radius of not less than ¼ mile for the area surrounding the recovery zone. The regulation also states:

> "In determining the fixed radius, the following factors shall be taken into consideration: Chemistry of injected and formation fluids; hydrogeology; population and ground-water use and dependence; and historical practices in the area."

40 CFR § 146.6.

[3] *See* United States Nuclear Regulatory Commission, *Staff Assessment of Groundwater Impacts from Previously Licensed In-Situ Uranium Recovery Facilities,* (July 10, 2009)

ore body contains enough uranium to make the licensing, construction, and operation of a commercial scale central processing facility economically viable.

Second, in instances where uranium ore bodies do not contain enough uranium to justify the licensing, construction and operation of central processing facilities, ISR operators may use satellite or so-called "remote IX" technology to develop well-fields that can be at considerable distances from a central processing facility. The use of "remote IX" has been utilized to recover uranium in South Texas as early as 1980 and is currently used by various ISR companies in Wyoming and Texas. Each "remote IX" is a self-contained, stand-alone unit that recovers uranium using IX columns and resins. When the IX resins are fully loaded with uranium, they are pumped into transport conveyances (i.e., tanker trucks). After the uranium-bearing resins are pumped into the tanker trucks, they are transported to a central processing facility where the resins undergo the same processes described above.

2. EPA's Safe Drinking Water Act Underground Injection Control Program

To assure safe and effective underground injection throughout the United States, in 1974, the United States Congress enacted the Safe Drinking Water Act (SDWA),[4] which, in part, authorized establishment of the UIC program so that injection wells would not endanger current and future USDWs. The SDWA empowered EPA with the primary authority to regulate underground injection to protect current and future sources of drinking water. EPA also was authorized to provide States with the opportunity to assume primary authority over UIC programs in accordance with final regulations promulgated by EPA in 1980, which set minimum standards for State programs to meet to be delegated primary enforcement responsibility (i.e.,

[4] While NRC does not have jurisdiction over matters covered by EPA's mandate under the SDWA and its UIC program, it is important for the License Board to understand the comprehensive, and often redundant, regulatory program for ISR operations.

primacy) over such programs.[5] UIC regulations establish specific performance criteria for each well class (ISR injection and production wells generally are Class III wells) to assure that drinking water sources, actual and potential, are not rendered unfit for such use by underground injection of the fluids common to that particular class of wells.

Between 1981 and 1996, EPA granted primacy to 34 States for all injection wells (except those on Tribal lands). EPA implements the UIC program directly in 10 States and shares responsibility in six (6) other States. The State of South Dakota does not have *primacy* for the UIC program, so EPA directly implements UIC programs for all classes of wells for a proposed ISR project in South Dakota. Unless authorized by rule or by permit, any underground injection is unlawful and is in violation of the SDWA and UIC regulations.

Before NRC-licensed ISR operations can commence, an ISR operator must have obtained two authorizations: (1) an aquifer exemption for the aquifer or portion of the aquifer wherein ISR mining operations will occur and (2) a UIC permit. Underground injection is broadly defined as the technology of placing fluids underground in porous formations of rocks through wells or other similar conveyance systems. Thus, all ISR uranium recovery injection well activities require these relevant authorizations.

a. Aquifer Exemptions

As noted above, the UIC program was created to protect current or future USDWs. A USDW is defined as an aquifer, or portion thereof, which serves as a source of drinking water for human consumption, or contains a sufficient quantity of water to supply a public water system, and contains fewer than 10,000 mg/liter of total dissolved solids (TDS). The broad definition of a USDW was mandated by Congress in Section 1421(d)(2)[6] of the SDWA to ensure that future

[5] *See* 42 U.S.C. § 300h(1).
[6] *See* 42 U.S.C. § 300h(b)(1).

USDWs would be protected, even where those aquifers were not currently being utilized as a drinking water source or could not be used without some form of water treatment.

Within this regulatory framework, however, some aquifers or portions of aquifers, which can meet the broad regulatory definition of a USDW, cannot reasonably be expected to serve as a current or future source of drinking water. As a result, the UIC program regulations allow EPA to *exempt* portions of an aquifer from delineation as a USDW and allow for injection into such aquifers or portions thereof. EPA regulations at 40 CFR § 146.4 specifically state:

> "An aquifer or a portion thereof which meets the criteria for an 'underground source of drinking water' in § 146.3 may be determined under 40 CFR § 144.8 to be an *'exempted aquifer'* if it meets the following criteria:
>
> (a) It does not currently serve as a source of drinking water; and
> (b) It cannot now and will not in the future serve as a source of drinking water because:
> (1) It is mineral, hydrocarbon or geothermal energy producing, or can be demonstrated by a permit applicant as part of a permit application for a Class II or III operation to contain minerals or hydrocarbons that considering their quantity and location are expected to be commercially producible.
> (c) The total dissolved solids content of the ground water is more than 3,000 and less than 10,000 mg/l and it is not reasonably expected to supply a public water system."

40 C.F.R. § 146.4.[7]

According to EPA, aquifers meeting these criteria are generally associated with *in situ* mineral recovery and enhanced oil recovery. If an operator, licensee or permittee wishes to inject into a USDW for the purpose of recovering minerals (e.g., uranium), a demonstration must be made that the proposed aquifer meets at least one of the exemption criteria. EPA has issued guidance on the standards that must be satisfied to qualify for an aquifer exemption. To the best of Powertech's knowledge, there is no provision in the SDWA authorizing revocation of an aquifer exemption granted pursuant to 40 CFR § 146.4, nor has EPA promulgated regulations

[7] In its Response to Consolidated Petitioners Request for a Hearing dated April 12, 2010, Powertech incorrectly cited this regulation as "40 C.F.R. § 144.8." Powertech sincerely apologizes for that error and, as shown above, the correct citation has been noted.

establishing criteria for revocation of an aquifer exemption nor has it ever actually revoked such an exemption.

In addition, EPA's SDWA UIC regulations do not contain groundwater restoration standards for exempted aquifers, because such exempted aquifers will not and cannot be used as a *drinking water source* at any time after ISR operations are complete. However, as described in 40 CFR § 146.7, EPA's UIC regulations do require corrective action/remediation for any contamination of adjacent, non-exempt aquifers in accordance with the purpose of the SDWA and the UIC program which is to protect USDWs.

b. Underground Injection Control Permits

To obtain a UIC permit for a new Class III well, the owner/operator or licensee must file an application with the UIC Director for the relevant jurisdiction containing specific information listed in 40 CFR Part 146 or in applicable State requirements. Once a UIC permit application has been reviewed, the applicant will be notified of the items needed to complete the application, if any. After a complete application is received, an initial decision to grant or deny the permit is issued. UIC regulations also provide opportunities for public participation and comment.

A UIC permit for each site is a necessary prerequisite for the operation of any ISR uranium recovery project. Such a permit necessarily assumes that the aquifer or portion thereof to be used for underground injection *cannot now nor ever in the future be used as a USDW.* Without this fundamental assumption being reflected in an aquifer exemption, a UIC permit for ISR uranium mining will not be issued.

Pursuant to its NRC license, Powertech will be required to restore ISR recovery zone groundwater (exempted aquifer groundwater) consistent with *pre-operational or baseline water quality* or a maximum contaminant level (MCL) prescribed for given constituents under the

SDWA, *whichever is higher*, *or* an alternate concentration limit (ACL), as articulated in 10 C.F.R Part 40, Appendix A, Criterion 5(B)(5). These restoration standards are not intended to create a new drinking water source within the designated recovery zone; but rather, they are intended to minimize or eliminate the potential for post-restoration migration of recovery solutions from the exempted aquifer to adjacent, non-exempt aquifers, or portions thereof.

Thus, EPA's UIC program specifically recognizes that many aquifers or portions thereof cannot now or ever in the future serve as viable USDWs. In many cases, the contamination in such water sources is created by the presence of high concentrations of minerals (e.g., uranium) that may be recovered using underground injection methods. As such, the UIC program provides for aquifer exemptions, *which must be obtained prior to the commencement of underground injection* for the purposes of ISR operations.

3. NRC Licensing Process for ISR Facilities

NRC's licensing process for ISR facilities starts with the license application process. In an ISR license application, an applicant must provide technical and environmental reports containing data and analyses pertinent to the construction, operation, and decommissioning of a proposed ISR project. These reports are prepared pursuant to applicable NRC regulations and guidance and are designed to provide NRC Staff with appropriate data and analyses to make a licensing decision that is adequately protective of public health and safety and the environment based on the information available at the time of license application submission. Further, while the technical and environmental reports have a somewhat different focus, they are inextricably linked in that they contain common data and analyses that are relevant to the final licensing of a proposed project.

As a general matter, the NRC licensing process for ISR facilities reflects the "phased," iterative nature of the ISR process and, therefore, itself is phased and iterative. Indeed, Powertech's Dewey-Burdock license application describes a proposed ISR project that, as discussed in NRC's NUREG-1569 entitled *Standard Review Plan for In Situ Extraction License Applications*,[8] consists of "phased" implementation of multiple activities prior to, and after, the commencement of licensed ISR operations. In other words, due to the nature and development of ISR projects, implementation of project activities is "phased" from pre-operational characterization through construction, active ISR operations, groundwater restoration, and license termination.

NRC's NUREG-1569 discusses two different phases of proposed ISR projects: (1) Chapter 2, *Site Characterization* and (2) Chapter 5, *Operations*. Such "phasing" is equally applicable to such issues as historic and cultural resources and financial assurance. The *Site Characterization* phase involves a reasonably comprehensive analysis of geographic and topographic maps and drawings that identify the proposed ISR site and its relationship to, *inter alia*, geologic, hydrologic, historical and archaeological *features* etc. *See* NUREG-1569 at 2-1, 2-5, & 2-17. However, NUREG-1569 specifically notes that:

> "[r]eviewers should keep in mind that the development and initial licensing of an *in situ* leach facility is *not based on comprehensive information.…reviewers should not expect that information needed to fully describe each aspect of all the operations will be available in the initial application*."

Id. at 2-1 & 2-2 (emphasis added).

The pre-licensing *Site Characterization* phase of ISR projects is designed to provide *general* information regarding the location of an ISR-amenable ore body, the techniques or procedures to be used to recover the uranium, the procedures to be used to protect public health and safety and

[8] *See* United States Nuclear Regulatory Commission, NUREG-1569, *Standard Review Plan for In Situ Extraction License Applications,* (2003).

the environment or other relevant resources (e.g., historic and cultural resource inventories), and financial assurance cost estimates for the proposed ISR project for the first year after active operations begin. This phase is not, however, designed to provide detailed site-specific geologic and hydrologic data and analyses regarding such critical items as pre-operational baseline water quality for well field design and UCLs that require extensive future actions after a license is issued and a proposed project begins its "phased" development.

On the other hand, the post-licensing *Operations* phase of ISR projects, which Powertech's proposed Dewey Burdock ISR project has not yet reached, requires detailed site-specific data and analyses for items such as the location of initial well fields to determine pre-operational baseline water quality in the recovery zone and at monitor wells, to establish UCLs to identify potential excursions, and to assess whether such well fields, piping or other equipment or processes will impact identified or unidentified environmental or historic and cultural resources. For example, Powertech's *Operations* phase undoubtedly will require, by license condition and licensee commitment, the cessation of any site activities and the conduct of a cultural resources inventory if previously undetected historic or cultural properties are discovered during the development and construction of wellfields. Thus, per NUREG-1569, "phasing" is an essential and integral component of *all aspects* of ISR projects.

The sequential development of ISR well fields is an example of the iterative, "phased" nature of ISR projects. The development of these well fields is "phased" as the accumulation of a complete sampling database cannot take place until a project operator installs baseline, production, and monitor wells, which is not permitted by NRC until after a requested license is issued. *See* 10 C.F.R. § 40.32(e). Engineers and geologists must revisit the previous day's analysis before the next well is drilled as new information becomes available each day. Prior to

placing monitor wells, additional exploration and delineation has to be conducted to assure the wells are properly placed. As well fields are developed in an iterative fashion, all wells, including monitor wells, are tested to assure that they are functional prior to being sampled. Sampling establishes water quality within and outside the ore zone (i.e., at the monitor wells) enabling the licensee to determine readily if an excursion has occurred. The results in one well field may cause the site engineer or geologist to change design in the next. Thus, this process is both "phased" and iterative, as each well field is developed and tested with the mineral being progressively depleted from different parts of the ore body.

With respect to historic and cultural resources, a "phased" approach imposing an ongoing responsibility to protect such resources[9] has been endorsed by the Commission as an appropriate methodology for ISR project licensing. The Commission's approach, as set forth in *Hydro Resources,* concludes that "phased identification" of such resources is appropriate for ISR projects due to their "phased development." In any event, the responsibility is not static but rather ongoing that a licensee is required to continuously monitor for previously unidentified historic and cultural resources during all phases of such projects. *See Hydro Resources* (Crownpoint Uranium Project), 63 NRC 483, 487-488. This approach is also consistent with current National Historic Preservation Act (NHPA) requirements at 36 CFR § 800(b)(2) which specifically authorize the use of "phased identification" for projects that involve "large land areas" or where "access to properties are restricted." This authorization also allows agencies to

[9] As stated by the Board in *Hydro Resources,* "HRI's license contains a condition…that (1) prohibits HRI from performing any construction or development activities at any site until the NRC Staff has completed an appropriate NHPA review for that site, and (2) ensures the protection of any newly discovered cultural artifacts….In order to ensure that no unapproved disturbance of cultural resources occurs, any work resulting in the discovery of previously unknown cultural artifacts shall cease. The artifacts shall be inventoried and evaluated in accordance with 36 C.F.R. Part 800, and no disturbance shall occur until the licensee has received written authorization to proceed…." *See Hydro Resources,* (Crownpoint Uranium Project), 62 NRC 442, 454 (2005).

use "phased identification" when such process is specifically "provided for in…the documents used by an agency official to comply with the National Environmental Policy Act…." 36 CFR § 800.4(b)(2). Companies seeking to license ISR projects often engage relevant agency officials in a Memorandum of Agreement (MOA) that sets forth the parameters for evaluation of historic and cultural resources for a proposed ISR project. However, while "phased identification" is permitted in these circumstances, "an agency official shall proceed with the identification and evaluation of historic properties" when the remaining aspects of the proposed undertaking are refined. *Id.*

In the case of proposed ISR projects, "[t]he agency official may also defer final identification and evaluation of historic properties if it is specifically provided for in a memorandum of agreement executed pursuant to § 800.6…." . In the case of ISR projects, NRC is the agency involved in the protection of identified and unidentified historic and cultural resources and it is NRC Staff's responsibility to engage in appropriate consultation with other entities or officials and not that of a license applicant. As stated in *Crow Butte Resources,* "the *agency* must make a 'reasonable and good faith effort to identify any Indian tribes…that might attach religious and cultural significance to historic properties in the area of potential effects and invite them to be consulting parties." *Crow Butte Resources* (North Trend Expansion), 2009 WL 1864004, *19 (2009). Thus, as the Commission concluded in *Crow Butte Resources,* the conduct or lack thereof of "staff consultations" has nothing to do with the "deficiency in the application." *Id.* at *20.

Financial assurance is another example of the "phased" nature of the licensing and operation of proposed ISR projects. With respect to these financial assurance cost estimates, the "phased" nature of ISR projects requires that a license applicant provide cost estimates reflecting

the activities proposed to be conducted within defined timeframes (i.e., annually pursuant to Criterion 9) and the resulting site-specific actions for releasing a site for *unrestricted use* so that, in the event the license applicant is unable to fulfill its responsibilities under a given license, an independent contractor has the necessary funds available to complete all required tasks.

When submitting a license application, an applicant is required to provide the equivalent of a restoration action plan (RAP) and accompanying cost estimates to ensure adequate financial assurance will always be available to accomplish site decommissioning and decontamination (D&D) and groundwater restoration at any given stage of the proposed project in the event of licensee bankruptcy to assure that the site ultimately will be released for *unrestricted use*. *See* 10 C.F.R. Part 40, Appendix A, Criterion 9; *see also Hydro Resources*, CLI-00-8, 51 NRC 227 (2000). Pursuant to Criterion 9, licensees are required to submit *annual* financial assurance updates to reflect potential changes (upwards or downwards) in costs for specific licensed activities resulting from inflation, changes in equipment or personnel costs or new activities proposed to be started or completed prior to the proceeding annual update. *See Hydro Resources*, 51 NRC at 227. In order to be granted a license, an applicant must propose and receive NRC approval of financial assurance cost estimates for whatever phase of the project that will exist prior to the next annual update; but the applicant is not required to provide a financial assurance mechanism supporting that NRC-approved cost estimate until licensed operations commence.

V. ARGUMENT

A. Petitioner Has Failed to Demonstrate Standing to Intervene

After reviewing Petitioner's Request and each supporting affidavit, Powertech respectfully requests that the Licensing Board find that Petitioner has failed to satisfy the

Commission's requirements for standing under 10 C.F.R. § 2.309(d). Accordingly, Petitioner's Request should be denied.

Prior to addressing Petitioner's individual affidavits, there are at least two critical elements of the Licensing Board's inquiry into whether the Petitioner have the requisite standing to intervene in this proceeding. The first is whether there is a plausible mechanism or pathway through which contaminants from the proposed Dewey-Burdock ISR site potentially could reach areas where Petitioner could suffer some concrete, particularized injury-in-fact. For example, the Commission in *International Uranium Corp.*, a petitioner attempted to demonstrate standing by providing an expert affidavit regarding undetected potential leakage from the site's conventional uranium mill tailings impoundments. *See* CLI-01-21, 54 NRC at 254. The petitioner's supporting affidavit provided allegations of such potential undetected leakage and claimed that such leakage would contain contaminants that would cause him to suffer injury-in-fact. However, the expert affidavit failed to demonstrate any plausible mechanism or pathway by which such contaminants would travel and emerge at a location where the petitioner would be exposed and suffer such injury-in-fact. As a result, the Commission determined that the allegation constituted nothing more than mere "unfounded conjecture." *See id.* This determination is supported by the aforementioned *Nuclear Fuel Services, Inc.* case where the Commission stated that, absent an obvious potential for harm, "it becomes [petitioner's] burden to provide a 'specific and plausible' explanation of how the action will affect her." *See* 59 NRC at 248. Thus, based on these decisions, any allegations made by Petitioner regarding potential exposure to contaminants in groundwater from the proposed Dewey-Burdock ISR site will have to allege a plausible mechanism or pathway by which contaminants can migrate and reach a location where Petitioner can be exposed and potentially suffer injury-in-fact.

The second element is whether Petitioner can demonstrate that Powertech's proposed Dewey-Burdock ISR project as reflected in its license application (including its technical and environmental reports and supplement) will necessarily adversely affect historic and cultural resources in areas where disturbance is planned, much less in areas where no disturbance is proposed within the proposed site boundary. Indeed, given that SUNSI in the exhaustive historic and cultural resource report by Augustana College available to Petitioner provides specific locations of identified but not investigated sites which can be related to the areas of proposed disturbance, and in light of the provisions of the MOA between Powertech and the South Dakota State Archaeologist,[10] the question for standing should be whether Petitioner has identified a plausible, concrete and particularized threat of injury-in-fact.

With this said, Powertech will address each of Petitioner's individual affidavits and respectfully requests that the Licensing Board find that Petitioner has not demonstrated standing in accordance with 10 CFR § 2.309(d):

1. Affidavit of Denise Mesteth

The first affidavit submitted by Petitioner in support of its Request is the affidavit of Denise Mesteth, the Director of the Oglala Sioux Tribe Tribal Land Office. Ms. Mesteth states that she is responsible for the "management of Tribal lands, including evaluation, issuance, and administration of all leases on Tribal land." Denise Mesteth Affidavit at 1. Ms. Mesteth notes that the Tribe grants leases on lands in proximity to the proposed Dewey-Burdock ISR site and that these lands are used for domestic and agricultural purposes and that they support water development activities for domestic and agricultural uses. *Id.* Ms. Mesteth also states that "[t]he spiritual, cultural, and socioeconomic well-being of the Tribe and its members requires that

[10] Paragraph VI of the MOA entitled *Unanticipated Discoveries* states that if previously unidentified historic or archaeological sites are identified, "Powertech shall temporarily halt any surface disturbing activities in the immediate vicinity and contact ARC."

activities which affect these lands be conducted consistent with Tribal beliefs and values." *Id.* Ms. Mesteth's affidavit does not provide the basis for standing to intervene in this proceeding.

Sections 3 through 5 of Ms. Mesteth's affidavit contain nothing more than broad assertions that do not satisfy the Commission's regulations for standing. While it is apparent that Petitioner grants leases on its lands for other parties to use, there are no factual details offered in these Sections to demonstrate to the Licensing Board that a "concrete and particularized" injury-in-fact will be realized by Petitioner or any of its lessees. Indeed, the plain language of Ms. Mesteth's statement in Section 4 indicates that "the long-term value of the Tribe's lands" would be negatively impacted "*should* any of the lands…become threatened…." *See id.* (emphasis added). Section 5 of the affidavit also makes an essentially speculative statement that, "[t]he proposed mining activity *may* adversely impact the valuable land and water resources of the Oglala Sioux Tribe." Tribe Request at 2 (emphasis added). These statements do not allege any particular injury as a direct result of the proposed Dewey-Burdock ISR site to the Tribe that could be seen as a "concrete and particularized" injury-in-fact. Thus, these statements referenced above are insufficient to show standing. *See Yankee Atomic Elec. Co.*, 48 NRC at 195.

2. Affidavit of Wilmer Mesteth

The second affidavit submitted by Petitioner in support of its Request is the affidavit of Wilmer Mesteth, the Oglala Sioux Tribal Historic Preservation Officer (THPO) for the Pine Ridge Reservation. As the THPO, Mr. Mesteth states that he is responsible for the regular review of cultural resource reports and surveys, as well as their methodologies. Wilmer Mesteth Affidavit at 1. The remainder of Sections 1 through 3 of his affidavit summarizes historical

aspects of the Petitioner. *See id.* Given that the rest of Mr. Mesteth's affidavit is divided into multiple sections, Powertech will address each section below in turn:

i. Sections 5 & 6, & 8-14

Sections 5 and 6 of Mr. Mesteth's affidavit allege that Powertech has identified historic and/or cultural resources within the proposed Dewey-Burdock ISR site boundary and that the discovery of such sites, whether indicated in the Powertech license application or not, constitutes a threat to important Tribal interests. *See* Tribe Request at 1-2. Section 8 of Mr. Mesteth's affidavit alleges that "[i]ncluded within the territory the Powertech application contemplates are current or extinct water resources. Such resources are known to be cultural resources itself…and the likelihood that cultural artifacts and evidence of burial grounds exist in these areas is strong." Wilmer Mesteth Affidavit at 2. Sections 9 through 14 offer allegations regarding the adequacy of Powertech's historic, cultural, and archaeological assessment of the proposed Dewey-Burdock ISR site and the extent to which the Tribe was involved in the conduct of this assessment. *See id.* at 2-3. These statements are not sufficient for a grant of standing.

Sections 5, 6, and 11 of Mr. Mesteth's affidavit offer allegations that, because Powertech identified historic and cultural resources in its archaeological surveys and historic and cultural resource analyses, additional, unidentified historic and cultural resource sites will result in a threat to Tribal interests. Thus, these allegations claim that the mere potential for the presence of unidentified sites results in harm to the Tribe. These allegations do not offer any information regarding how the Tribe knows that additional sites are located in the area of the proposed Dewey-Burdock ISR site or any specific criticism of Powertech's archaeological and cultural resource analyses that should lead to any such conclusion. Petitioner's statement that harm could befall the Tribe "perhaps because the Applicant did not properly judge the significance of certain

artifacts or other resources" is nothing more than a conclusory statement that does not allege a "concrete and particularized" injury-in-fact. Further, even if a credible injury-in-fact has been alleged, Petitioner has not offered any explanation of how the actions of Powertech in constructing and operating the proposed Dewey-Burdock ISR site results in any harm to any previously unidentified historic and cultural resource site in light of Paragraph V[11] of the aforementioned MOA. Without more, these Sections are insufficient to support a claim of standing.

Section 8 of Mr. Mesteth's affidavit raises concerns regarding "current or extinct water resources" that potentially could be present within the area of the proposed Dewey-Burdock ISR site. *See* Wilmer Mesteth Affidavit at 2. This Section offers nothing more than a generalized, conclusory statement that current or extinct water resources may be present in this area and without any cited authority that such resources indicate the strong likelihood of cultural artifacts. Moreover, nowhere in this affidavit is there any allegation that Powertech's archaeological/cultural analyses have failed to evaluate such sites or how actions at the proposed Dewey-Burdock ISR site will result in potential negative impacts to such resources. Without more, this Section does not offer any allegations that would support a claim of standing.

Sections 9 through 10 and 12 through 14 of Mr. Mesteth's affidavit discuss the studies provided by Powertech in its license application regarding historic and cultural resources. More specifically, these Sections allege that Powertech's studies noted a large "density" of historic and cultural sites and that its Environmental Report offers information that Petitioner alleges is inconsistent with the studies' findings. *See* Wilmer Mesteth Affidavit at 2-3. These Sections

[11] Paragraph V of the MOA entitled *Duration* states "This MOA will be null and void if its terms are not carried out within five (5) years from the date of its execution. Prior to such time, Powertech may consult with the other signatory to reconsider the terms of the MOA and amend it in accordance with Stipulation VIII below."

also allege that Powertech should have involved the Tribe in a MOA similar to the one they entered into with the State of South Dakota. *Id.* at 3. Again, Sections 9 and 10 do not support a finding of standing as they only theorize that there must be additional historic and cultural resource sites in the proposed Dewey-Burdock ISR site because Powertech's surveys identified sites in the area. These statements, as well as the allegations that the Powertech studies do not offer an adequate assessment of potential historic and cultural resource sites, are nothing more than mere conclusory statements. This affidavit does not offer any explanation of how, even if there were any additional sites present, any actions taken on the part of Powertech to develop the proposed Dewey-Burdock ISR site would result in harm to the Tribe or its interests.

Mr. Mesteth's affidavit also provides no support for the proposition that Powertech must enter into an MOA with the Tribe. Any participation in an MOA related to the proposed Dewey-Burdock ISR project is the responsibility of NRC to propose to the Tribe which, at present, is not relevant to Powertech's license application as NRC has not completed its NEPA review, pursuant to the NHPA, per its phased approach thereto. Thus, Petitioner has not offered a plausible pathway that would lead to harm to the Tribe or its interests and, therefore, has not satisfied the Commission's requirements for standing.

ii. Sections 15-19

Sections 15 through 20 of Mr. Mesteth's affidavit offer a variety of allegations directly related to the adequacy of Powertech's historic, cultural, and archaeological assessment of the proposed Dewey-Burdock ISR site. Unlike the previous subsection, these allegations relate to the recent State of South Dakota historic and cultural resource hearing, as cited by Mr. Mesteth in Section 15 of his affidavit. *See* Wilmer Mesteth Affidavit at 3-4. Mr. Mesteth states that this hearing resulted in the revelation of information demonstrating that Powertech's assessment of

historic, cultural, and archaeological resources is defective. *Id.* These statements are not sufficient for a grant of standing.

These Sections essentially allege that Powertech's information offered as part of its effort to satisfy historic and cultural resource requirements is inconsistent and results in the potential for harm to the Petitioner's interests. Section 15 can be dismissed as it is merely a listing of the information reviewed by Mr. Mesteth. Sections 16 and 17 do not offer any allegation of injury-in-fact as they merely reference testimony of a member of the Tribe at the South Dakota hearing and testimony from an archaeologist—a hearing at which the Tribe's position regarding the alleged value of and potential damage to historic and cultural resources was rejected.

Sections 18 and 19 offer statements regarding information offered by Powertech and allegations of inconsistency with other information provided in the Dewey-Burdock license application. These allegations are factually incorrect and misrepresent the contents of the license application. For example, Powertech's license application reflects the fact that 161 new sites were identified with an additional 29 sites that were previously found and then discovered again. Then, there are an additional 28 sites that were not "relocated" meaning that they were not located on subsequent surveys. The sum of these sites is 218, which is what was offered in the Powertech Dewey-Burdock license application and is not materially different from Petitioner's allegation (Petitioner cites to testimony claiming 217 sites). Section 18 offers an allegation regarding a lack of historic and cultural resource studies or information from 2008 in Powertech's license application. This allegation is factually incorrect because Powertech's license application contains four volumes of information regarding studies from 2008. *See* Powertech License Application, *Level III Cultural Resources Evaluation of Powertech (US) Incorporated's Proposed Dewey-Burdock Uranium Project Locality within the Southern Black*

Hills, Custer and Fall River Counties, South Dakota. Since the information referenced in these Sections does not show some link between the proposed Dewey-Burdock ISR site and an alleged injury-in-fact, these Sections is insufficient for a showing of standing.

3. Affidavit of Dayton Hyde

The third affidavit submitted (referenced) by Petitioner in support of its Request is the affidavit of Dayton Hyde. Mr. Hyde's affidavit offers several allegations regarding the proposed Dewey-Burdock ISR project and, as such, Powertech will address each allegation in turn below. However, prior to addressing the affidavit in question, it is important to note that Mr. Hyde's role in the Petitioner's Request is as a lessee of parcels of land that Petitioner claims to lease. But, other than this factor, Mr. Hyde's affidavit does not differ, in any material way, from his affidavit submitted as part of a hearing request received by the Licensing Board on March 8 and 9, 2010 and responded to by both Powertech and NRC Staff on April 12, 2010.

i. Hyde Affidavit Sections 8 and 9

Section 8 of the affidavit offers generalized statements regarding potential impacts to wild horses on the affiant's Wild Horse Sanctuary if the Cheyenne River were to be contaminated. *See* Hyde Affidavit at 2. Section 9 alleges that "mine waste or other contaminants [sic] containing toxic and/or carcinogenic heavy metals and arsenic by the proposed Powertech mining operation" will migrate to portions of the Cheyenne River via Beaver and Pass Creeks and contaminate the Cheyenne River where Mr. Hyde's horses are located as a result of surface or surface impacting spills. *Id.* This allegation does not allege any mechanism that could lead to a failure of controls at the proposed Dewey-Burdock ISR project that would allow contaminants to migrate off-site and reach the Cheyenne River. Further, the allegation fails to explain that Mr. Hyde's proposed Wild Horse Sanctuary is located about thirty

five (35) river miles downstream from the proposed Dewey-Burdock ISR site, the intersections of the Beaver and Pass Creeks within the site, and the intersections of these Creeks and the Cheyenne River.[12] Thus, this allegation does not satisfy the Commission's requirements for standing, as it does not allege a causal nexus between an alleged injury and the proposed Dewey-Burdock ISR project, and it does not allege a plausible pathway by which contaminants at levels that could cause significant adverse impacts potentially could migrate to a location where Mr. Hyde or his interests could be affected. Indeed, for contaminants to migrate from the surface of the proposed Powertech site into the identified creeks and then to the Cheyenne River, presumably there would have to be some sort of significant flood event that likely would result in major dilution of contaminants in the creeks and the Cheyenne River from runoff from the aforementioned intersecting streams. This potential pathway is not plausible and, hence, not sufficient to demonstrate standing. *Compare Crow Butte*, LBP-08-24, slip op. at 12, 68 NRC 691, 705 (November 21, 2008). ("On the other hand, if it were not plausible for contaminants to leave the area that is being mined, petitioners generally could have no cognizable injury, and hence could not be accorded standing.")

ii. Hyde Affidavit Sections 11 and 12

Section 11 of the Hyde Affidavit alleges that "[t]he land here is highly fractured and there is no way that the mining companies can guarantee that the Inyan Kara, the Madison, and the other major aquifers will not become polluted and unusable to Man and animals." Hyde Affidavit at 3. Section 12 of the Hyde Affidavit makes generalized allegations that uranium mining operations are not safe and that "[i]t will be impossible to clean up our wells and aquifers

[12] Mr. Hyde's affidavit also does not make note of the fact that ten (10) intermittent streams other than Beaver and Pass Creek intersect the Cheyenne River before it reaches his property, including Bennett Canyon Creek, Driftwood Canyon Creek, Moss Agate Creek, Dry Creek, Red Canyon Creek, Cottonwood Creek, Sheep Canyon Creek, Plum Creek, Chilson Canyon Creek, and Hat Creek.

once they are contaminated." *Id*. These allegations are not specifically tailored to the proposed Dewey-Burdock ISR project and do not specifically allege an aspect of the project that could lead to the creation of contaminants that would become mobile and migrate to areas outside the proposed licensed area into the above-noted aquifers in a plausible manner that could cause harm to Mr. Hyde or his horses. *See Crow Butte*, LBP-08-24, slip op. at 12, 68 NRC at 705. Thus, this allegation is insufficient to satisfy the Commission's standing requirements.

iii. Hyde Affidavit Section 13

Section 13 of the Hyde Affidavit alleges generalized concerns about the ability of bonds or other financial assurance to address the potential for uranium recovery companies to take profits from recovery operations and leave a site contaminated. Hyde Affidavit at 3. This allegation does not satisfy the Commission's standard for standing, as it constitutes a collateral attack on 10 CFR Part 40, Appendix A, Criterion 9 on uranium recovery financial assurance requirements. Currently, pursuant to Criterion 9 and subsequent decisions in the *Hydro Resources* case (recently affirmed by the United States Court of Appeals for the Tenth Circuit), the Commission has regulations and legal/regulatory interpretations in place to address Mr. Hyde's concern. *See* 2010 WL 761075 (10th Cir. 2010). The statement that the proposed Dewey Burdock ISR project will result in Powertech "skip[ping] out, leaving cleanup cost to the public" directly contradicts Criterion 9 requirements that the Commission has affirmed for ISR projects. *See Northeastern Nuclear Energy Co.*, (Millstone Nuclear Power Station), CLI-01-10, 57 NRC 273, 287; *see also GPU Nuclear, Inc.*, (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 207 (2000) (stating that the Commission does not presume that a licensee will violate NRC regulations). Thus, for these reasons, this allegation is not sufficient to satisfy the Commission's requirements for standing.

B. Petitioner Has Failed to Proffer An Admissible Contention

1. Contention 1: Alleged Failure to Protect Historic and Cultural Resources and Alleged Failure to Consult with Oglala Sioux Tribe in Violation of Federal Law

Petitioner's Contention 1 relates to the historic and cultural resource review conducted by Powertech for the proposed Dewey-Burdock ISR site and consultations with the Petitioner on such reviews. Petitioner alleges that Powertech's Dewey-Burdock license application "lacks an adequate description of either the affected environment or the impacts of the project on archaeological, historical, and traditional cultural resources." Tribe Request at 12. This allegation, according to Petitioner, results in a failure "to demonstrate compliance under the National Historic Preservation Act, and the relevant portions of NRC guidance included at NUREG-1569 section 2.4." *Id.* Petitioner also alleges that "the NRC has not yet engaged in the required consultation process" with Petitioner. *Id.* at 14. For the reasons discussed below, Contention 1 should be rejected.

Initially, with respect to its claim that Powertech's license application violates 10 C.F.R. §§ 51.45 and 51.60 for failure to adequately describe the "affected environment" regarding historic and cultural resources, Petitioner misunderstands the requirements of these regulatory provisions. Part 51.45 addresses the types of information required for an environmental report and Part 51.60 implements this requirement. Part 51.45(e) merely requires that adverse information known to the applicant be included in an applicant's environmental report. Nowhere in this regulation does it specify the types of, and the extent to which, such adverse information should be disclosed. Indeed, Part 51.45(b)(1) states that potential impacts on the environment should be discussed "in proportion to their significance" and Part 51.45(b)(2) states that it should include any adverse impacts that cannot be avoided if the proposal is implemented. *See* 10

C.F.R. §§ 51.45 (b)(1 & 2). Thus, Part 51.45(b-d) provide parameters for information that should be submitted in an environmental report but do not prescribe any sort of "technical adequacy" requirement. The parameters in these subsections only describe the categories of potential impacts, to the extent relevant, that a license applicant should address in an environmental report.

Accordingly, Petitioner's claim that Powertech's Dewey Burdock license application violates these regulatory provisions is misguided. Powertech's Dewey Burdock license application contains extensive analyses of historic and cultural resources, including a comprehensive archaeological report prepared by Augustana College. More specifically, Sections 3.8 and 4.10 of the Environmental Report directly address the affected environment and potential impacts related to historic and cultural resources. Thus, since Parts 51.45 and 51.60 do not impose an "adequacy" requirement on a license applicant, this portion of Petitioner's Contention 1 should be rejected.

With respect to the second portion of Petitioner's Contention 1, the alleged failure of Powertech's license application to comply with the National Environmental Policy Act (NEPA) (NRC"s implementing regulations at 10 C.F.R. Part 51) and the NHPA, this allegation too is misguided, as it is not yet ripe for consideration by the Licensing Board. As stated above, consultation with the Tribe, or for that matter any other entity, on the proposed Dewey-Burdock ISR project is the job of NRC Staff and not Powertech. Pursuant to its 10 C.F.R. Part 51 regulations, NRC Staff conducts a thorough review of historic and cultural resources that will be completed with the issuance of its final SEIS. A similar contention was rejected by the Commission in *Crow Butte* when it stated that, "[i]n other words, the fact that staff consultations have not taken place is a result of the legal framework, not of any deficiency in the application.

Absent a genuine dispute over the sufficiency of the application, Contention C is inadmissible." *See* 2009 WL 1864004 at *20. Thus, since the NEPA review of Powertech's license application has only just been initiated, Petitioner cannot claim that NRC Staff's NEPA process, including its NHPA assessment, is deficient due to a failure to consult with the Tribe. Therefore, this portion of Contention 1 should be rejected

2. Contention 2: Alleged Failure to Include Necessary Information for Determining Pre-Operational Baseline Water Quality

Petitioner's Contention 2 relates to Powertech's description of pre-operational baseline water quality levels and the sampling of groundwater quality in the area of the proposed Dewey-Burdock ISR site. Petitioner alleges that Powertech's license application violates 10 C.F.R. § 51.45 and NEPA, because it "fails to provide an adequate baseline groundwater characterization or demonstrate that ground water samples were collected in a scientifically defensible manner, using proper sample methodologies." Tribe Request at 17.

First, as noted in the discussion above, ISR projects are phased and iterative such that detailed groundwater quality data is not and, indeed, cannot be collected and analyzed until the "post-licensing" *Operations* phase in accord with 10 C.F.R. § 40.32(e). During the *Site Characterization* phase, the applicant is only required to provide generalized information regarding pre-operational baseline water quality in the proposed recovery zone and at prospective monitor well locations. Second, Petitioner's Request frequently refers to the Declaration of Dr. Robert E. Moran in alleging that "the application fails to adequately describe the affected aquifers at the site and on adjacent lands and fails to provide the required quantitative description of the chemical and radiological characteristics of these waters necessary to assess the impacts of the operation…." *Id.* at 21. For the reasons discussed below, Contention 2 should be rejected.

Petitioner claims that Powertech has violated 10 C.F.R. § 51.45 with the contents of its environmental report regarding its analyses of pre-operational water quality and water levels. Indeed, Powertech's Environmental Report directly addresses pre-operational water quality data and analyses, as well as other items mentioned by Petitioner and its expert Dr. Moran. For example, Dr. Moran's Statement 17 regarding the inadequacy of the suite of chemical constituents analyzed in Powertech's license application is directly addressed by the Environmental Report, Appendix 3.4C entitled *Groundwater Quality Data Tables.* Dr. Moran's Statement 33 regarding surveys of springs and seeps is directly addressed by Powertech Environmental Report, Section 3.5.5.2 regarding wetlands and Appendix 5.3G entitled *Wetland Determination.* Dr. Moran's Statements 47-51 regarding minimization of potential impacts to groundwater are directly addressed by Environmental Report, Section 6.1.8.2 entitled *Groundwater Sampling Radiological Results.* Thus, Powertech's license application addresses the issues noted by Dr. Moran in compliance with Part 51.45.

Further, Contention 2 also does not offer any information demonstrating a significant link between its allegations and a specific potential health and safety or environmental impact. *See Pacific Gas and Electric Co.*, (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), LBP-02-23, 56 NRC at 413, 439-441, *petition for review denied,* CLI-03-12, 58 NRC 185, 191 (2003). Thus, based on the lack of information in this contention and the fact that the Commission's procedures in 10 C.F.R. § 2.309(f)(1)(ii-vi) do not allow for "'the filing of a vague, unparticularized contention,' unsupported by affidavit, expert, or documentary support," Contention 2 should not be admitted. *See N. Atl. Energy Serv. Corp,* CLI-99-6, 49 NRC at 219.

3. Contention 3: Alleged Failure to Include Hydrologic Information to Determine No Fluid Migration

Petitioner's Contention 3 relates to the manner in which Powertech's license application addresses the geological and hydrological aspects of the proposed Dewey-Burdock ISR site. Petitioner alleges that Powertech's "application fails to provide sufficient information regarding the geological setting of the area to meet the requirements of 10 C.F.R. § 40.31(f); 10 C.F.R. § 51.45; 10 C.F.R. § 51.60; 10 C.F.R. Part 40, Appendix A, Criteria 4(e) and 5G(2); the National Environmental Policy Act; and NUREG-1569 section 2.6." Tribe Request at 21. Petitioner frequently references the Declaration of Dr. Moran and alleges that "the application fails to present sufficient information in a scientifically-defensible manner to adequately characterize the site and off-site hydrogeology to ensure confinement of the extraction fluids." *Id.* at 22. For the reasons discussed below, Contention 3 should be rejected.

Again, as noted in the discussion of Contention 2, the pre-licensing *Site Characterization* phase, NRC only requires generalized information regarding pre-operational baseline water quality in the proposed recovery zone and at prospective monitor well locations on a regional basis and does not require detailed site-specific information until the "post-licensing" *Operations* phase. NUREG-1569 at 2.1. Given that Petitioner's Contention here relies on a number of individual Statements from its expert, Dr. Moran, Powertech will address each Statement in turn below:

i. Dr. Moran Statement 36

In his Statement 36, Dr. Moran claims that the conclusions offered by Powertech regarding "isolation of ore bearing zones, aquifers, and the lack of fluid excursions that will occur" are "unreasonably optimistic." Petitioner's Request at 23. Powertech's license application contains a significant amount of information regarding this issue. For example, the

license application contains detailed data and analyses regarding *regional* geologic structure, stratigraphy, and other aspects of the subsurface of the proposed Dewey-Burdock ISR site. *See e.g.*, Powertech Environmental Report at Sections 3.3.1.1, 3.3.1.2, 3.3.2.1, Plates 3.3-5 through 9. Thus, Dr. Moran's conclusory statement does not show that there is a genuine dispute on a material issue of fact. Therefore, this portion of Contention 3 should be rejected pursuant to 10 C.F.R. § 2.309(f)(1)(vi).

ii. Dr. Moran Statement 37 & 38

In his Statement 37, Dr. Moran offers a Statement regarding the subsurface conditions associated with the Dewey-Burdock uranium deposits. Petitioner's Request at 23. In his Statement 38, Dr. Moran offers additional general geologic and hydrologic information regarding the same uranium deposits. *Id.* As with Statement 36 above, this Statement does not offer any allegation or dispute on a material fact associated with Powertech's license application. Thus, since Petitioner fails to show that there is a genuine dispute on a material issue, this portion of Contention 3 should be rejected pursuant to 10 C.F.R. § 2.309(f)(1)(vi).

iii. Dr. Moran Statements 39 & 40

In his Statements 39 and 40, Dr. Moran offers allegations regarding how historic boreholes would result in migration of recovery solutions from the identified recovery zone off the licensed area.[13] As with Statement 36 above, these Statements do not offer any specific challenge to the data collection, the methodologies or the conclusions presented by Powertech in its license application and, thus, do not raise a genuine issue of material fact. Further, there is no

[13] It is important to note that Dr. Moran's criticism regarding lack of information on site geology and hydrology in Powertech's license application is inconsistent with his concerns about the historic boreholes, since such boreholes and newly drilled holes are the primary source of information for developing a database for subsurface conditions.

evidence to support these allegations demonstrating how they will result in harm to Petitioner. Thus, this portion of Contention 3 should be rejected pursuant to 10 C.F.R. § 2.309(f)(1)(vi).

iv. Dr. Moran Statements 41 & 42

In his Statements 41 and 42, Dr. Moran offers statements that information provided by Powertech indicates that there are hydraulic connections between aquifers in the area of the proposed Dewey-Burdock ISR site. Petitioner Request at 23. However, these Statements do not offer any genuine dispute of a material fact, as they do not challenge the data offered by Powertech, the manner in which Powertech gathered the data or the credibility of the analysis provided by Powertech. Indeed, these Statements do not demonstrate a link between the information cited in these Statements with potential adverse impacts. Thus, based on 10 C.F.R. § 2.309(f)(1)(vi), this portion of Contention 3 should be rejected.

v. Dr. Moran Statement 43

In his Statement 43, Dr. Moran offers a conclusory statement that "aquifer testing already performed demonstrates leakage between the various formations." Petitioner's Request at 24. This Statement offers no genuine dispute of material fact, as it does not cite to or dispute any portion of Powertech's license application which supports this allegation. Powertech's license application provides detailed information regarding aquifer pump testing as noted in Sections 3.4.3.1.7, 4.5.6, 4.6.2.6.2, and 4.6.2.6.3 of the Environmental Report and Sections 2.7.2.2.12, through 2.7.2.2.15.2 and Appendix 2.7-B 2008 of the Technical Report. Petitioner also fails to offer any legal basis for their claim other than alleging that provisions of NRC regulations that apply to the types of information that must be provided in an environmental report somehow also include an "adequacy" requirement which, as noted above, they do not. Thus, because Petitioner

fails to cite any materially factual issue or basis of law for its claim, this portion of Contention 3 should be rejected.

vi. Dr. Moran Statements 44 & 45

Petitioner's Contention 3 also refers to Dr. Moran's Statements 44 and 45 that discuss the production "bleed" to be used at the proposed Dewey-Burdock ISR site. Petitioner's Request at 24. Statement 44 merely states that Powertech's license application does not refer to operating data supporting the levels it proposes for production "bleed." Petitioner fails to account for several Sections of its environmental report that discuss the operational bases for production "bleed." Further, Petitioner does not offer any dispute with the information, whether referenced or not, provided by Powertech in its license application. Statement 45 essentially disputes the existence of an aquifer exemption boundary and the purpose which it serves. The grant of an aquifer exemption is within the jurisdiction of EPA under the SDWA and not within NRC's jurisdiction under the AEA, as amended. Thus, Petitioner fails to offer a legal basis for its allegations in Statement 45. Therefore, pursuant to 10 C.F.R § 2.309(f)(1)(vi), this portion of Contention 3 should be rejected.

4. Contention 4: Alleged Inadequacy of Groundwater Quantity Impacts

Petitioner's Contention 4 relates to Powertech's assessment of potential groundwater quantity impacts as a result of the proposed Dewey-Burdock ISR project. Petitioner alleges that "[t]he application violates the National Environmental Policy Act in its failure to provide an analysis of the ground water quantity impacts of the project." Tribe Request at 25. Petitioner also alleges that "the application presents conflicting information on ground water consumption such that the water consumption impacts of the project cannot be accurately evaluated." *Id.*

These failings allegedly violate 10 C.F.R. §§§ 40.32(c), 40.32(d), and 51.45. *Id.* For the reasons discussed below, Contention 4 should be rejected.

The Commission's regulations do not impose an "adequacy" requirement on a license applicant for the materials that are submitted to NRC for its review in an environmental report. Thus, as is the case with several of the other Contentions, Petitioner can find no relief under Part 51.45, because Powertech's license application addresses these issues. *See* Powertech Environmental Report, Sections 4.6.2.6, 4.6.2.7, and Tables 4.6-1-2. Indeed, Powertech specifically addresses potential groundwater consumption impacts throughout its Environmental and Technical Reports. *See e.g.,* Powertech Environmental Report at Sections 4.6.2.6, 4.6.2.7, and Associated Tables. Petitioner offers no evidence, even in the declaration of Dr. Moran that contradicts the viability of the data and information offered by Powertech in its license application. For example, Dr. Moran's Statement 13 alleges that there is a lack of consistency in groundwater consumption data in the license application. The groundwater consumption numbers in this statement do not reflect the same activity and, thus, cannot be deemed to be inconsistent. The 65 gpm estimate refers to active operations at the central processing facility site and the 320 gpm estimate refers to an estimate of flow exchange between storage ponds at the central processing facility. *See* Powertech Environmental Report, Section 3.1.5.1. This is indicative of Dr. Moran's failure to properly account for what sets of data and analyses apply to any given activity in the license application. As stated in *Duke Power:*

> "[A]n intervention petitioner has an *ironclad obligation* to examine the *publicly available documentary material pertaining to the facility in question* with sufficient care to enable [the petitioner] to uncover any information that could serve as the foundation for a specific contention. Stated otherwise, neither Section 189a. of the [Atomic Energy] Act nor section [2.309] of the Rules of Practice permits the filing of a vague, unparticularized

contention, followed by an endeavor to flesh it out through discovery against the applicant or staff."

See 16 NRC 460, 468 (1982), *vacated in part on other grounds,* CLI-83-19, 17 NRC 1041 (1983) (emphasis added).

Another example is Dr. Moran's Statement 12 which alleges that Powertech will use "tremendous volumes of local ground water." Petitioner's Request at 26. This statement does not offer any dispute of material fact. For these reasons, Petitioner does not demonstrate that a genuine dispute of material fact exists and, thus, the Contention does not satisfy 10 C.F.R. § 2.309(f)(1)(vi) and should be rejected.

5. Contention 5: Alleged Failure to Adequately Calculate Financial Assurance

Petitioner's Contention 5 relates to the financial assurance required by 10 C.F.R. Part 40, Appendix A, Criterion 9 and related guidance for the proposed Dewey-Burdock ISR project. Petitioner alleges that "[t]he application fails to provide a sufficient and acceptable financial assurance cost estimate…to assure the availability of sufficient funds to complete the reclamation plan and the activities in the application by an independent contractor." Tribe Request at 27. For the reasons discussed below, Contention 5 should be rejected.

Petitioner's Contention is based solely on their interpretation of 10 C.F.R. Part 40, Appendix A, Criterion 9 that an ISR license applicant such as Powertech is required to provide financial assurance for the entire lifecycle of a proposed ISR project. This interpretation is contradicted by the fact that proposed financial assurance cost estimates for potential parts of a proposed ISR project that may not occur for years to come is not material to an NRC Staff decision on the adequacy of Powertech's Dewey-Burdock license application. The Commission's regulations for financial assurance do not require a license applicant such as Powertech to submit financial assurance cost estimates for any site activities beyond the initial

stages of site construction and development. Petitioner points to no Commission regulations or guidance that mandates the calculation of financial assurance for the *entire* Dewey-Burdock project.

As stated above, in *Hydro Resources*, the Commission determined that an applicant must have an NRC-approved financial assurance cost estimate in place prior to a license being issued and an actual financial assurance mechanism in place prior to commencing active ISR operations. *See generally* 51 NRC 227. Additionally, the Commission determined that Criterion 9 requires a licensee to update financial assurance cost estimates every year prior to and during active operations and groundwater restoration. *See id*. In the context of ISR operations which, as noted above, are "phased" over the lifecycle of a proposed project, this regulatory requirement essentially renders Petitioner's Contention moot as Powertech will be required to provide updated NRC-approved financial assurance every year that accounts for the status of activities at the site until the next annual update including construction of new well fields, the restoration of exhausted well fields, and any other site activities that is to be conducted in that timeframe. Thus, Petitioner's allegation is simply based on an incorrect interpretation of Commission regulations and associated legal interpretations. Therefore, Petitioner offers no genuine dispute of law nor does it offer any demonstration of how the calculations offered by Powertech are linked to a specified harm and, as such, this Contention should be rejected.

6. Contention 6: Alleged Technical Insufficiency of License Application and Alleged Failure to Provide for Effective Public Review

Petitioner's Contention 6 relates to the manner in which Powertech's license application presents information related to the proposed Dewey-Burdock ISR project. Petitioner alleges that "[t]he application fails to present relevant information in a clear and concise manner that is readily accessible to the public and other reviewers, as required by the National Environmental

Policy Act, Regulatory Guide 3.46, and NUREG 1569." Tribe Request at 28. For the reasons discussed below, Contention 6 should be rejected.

Contention 6 should not be admitted for a variety of reasons. First, Petitioner misreads the obligations of a license applicant under NEPA (10 CFR Part 51 regulations) and applicable NRC guidance. NRC Staff has provided guidance to license applicants for preparation of license applications that are deemed appropriate to facilitate a proper review of the technical and environmental aspects of a proposed ISR project. Pursuant to this guidance, NRC Staff deemed Powertech's Dewey-Burdock license application, as supplemented, adequate for detailed technical and environmental review and, presumably, would not have done so if it is so disorganized that it cannot be usefully examined.[14]

Second, Petitioner's expert, Dr. Moran, fails to account for the fact that Powertech followed the above-referenced guidance and did so in a manner consistent with past NRC Staff practices for license applications. Dr. Moran's declaration is rife with allegations that Powertech could have minimized the size of its license application, should have provided page numbers for Appendices, and should have prepared summary tables to make the license application "easier" to review and understand. *See* Petitioner's Request at 28-30. These statements find no support in NRC regulations or guidance as Petitioner offers no citation to NRC's 10 C.F.R. Part 51 regulations to support its Contention and does not provide any evidence that Dr. Moran's definition of "clear" or "concise" is in any way supported by NRC requirements. Accordingly, Contention 6's statement that Powertech violates NEPA and NRC guidance because it is "disorganized" should be rejected, as Petitioner offers no legal basis for the Contention.

[14] It is important to note that, "[t]he completeness of [an] application is not a matter that this Board should or can decide…[as the] decision whether to accept the [application] for docketing is made by the NRC Staff." *See* NRC Enforcement Policy at 336, www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html, *quoting Concerned Citizens of Rhode Island v. NRC*, 430 F. Supp. 627, 634 (D.R.I. 1977).

Moreover, it is important to note that many of Dr. Moran's claims are expressly contradicted by the materials in Powertech's license application. For example, Dr. Moran's Statement 8 regarding the lack of "specific names" for surface water sites is contradicted by the presence of Table 2.7-20 entitled *Surface Water Quality Sampling Sites* which contains all surface water sampling site names. Powertech Technical Report at 2-192-194. Dr. Moran's Statement 9 regarding the alleged lack of summaries of wells is expressly contradicted by the presence of several summary tables in Sections 3, 4, and 6 of the Technical Report. The availability of these summary tables further demonstrates that Petitioner's Contention should be rejected for lack of a material factual dispute. *See* 10 C.F.R. § 2.309(f)(1)(vi).

7. Contention 7: Alleged Failure to Include Reviewable Plan for 11e.(2) Byproduct Material Disposal

Petitioner's Contention 7 relates to Powertech's plan to provide for off-site disposal of 11e.(2) byproduct material at a licensed disposal facility. Petitioner alleges that "[i]t is not sufficient…for an applicant to merely state that permanent disposal will occur in conformance with applicable laws." Tribe Request at 31. It is alleged that, "it is impossible to determine, based on the application, Environmental Report, and NEPA documents, whether any specific plans exist for the disposition of the 11e.(2) Byproduct that will be produced by Powertech and what impacts such disposition would entail." *Id.* at 32. Thus, Petitioner concludes that NRC "must…reject the license without further inquiry or assistance to an applicant who fails to meaningfully address this critical licensing requirement." *Id.* For the reasons discussed below, Contention 7 should be rejected.

Petitioner mischaracterizes what is required of an ISR license applicant when submitting a license application. When addressing the disposal of 11e.(2) byproduct material from a proposed ISR project site, there are two elements that must be provided in a license application

to satisfy the requirements of 10 C.F.R. Part 40, Appendix A and relevant NRC guidance: (1) the disposal of solid 11e.(2) byproduct material at an off-site, licensed 11e.(2) disposal facility and (2) detailed financial assurance cost estimates for such offsite disposal. The first element is mandated by Commission policy reflected in Criterion 2 that requires off-site disposal of 11e.(2) byproduct material generated at ISR facilities at an appropriately licensed 11e.(2) disposal facility to avoid the "proliferation" of small 11e.(2) byproduct material disposal sites. This policy is reflected in NUREG-1569, Section 3.1 which states, "[t]he review should be based on the concept that the site will be in compliance with 10 CFR Part 40, Appendix A, Criterion 2, which precludes long-term disposal of byproduct material onsite and ensures that the proliferation of small waste disposal sites is avoided." NUREG-1569 at Section 3.2, Page 3-2. The second element, as stated in NUREG-1569, Section 6.2 is that, "the review should confirm that the licensee will have an approved decommissioning radiation protection program in place before the start of reclamation and cleanup work and that an acceptable agreement is in place for off-site disposal of 11e.(2) byproduct material." NUREG-1569 at Section 6.2.1, Page 6-15. These portions of NRC's guidance provide evidence of the manner in which the Commission will review portions of an ISR license application pertaining to off-site 11e.(2) byproduct material disposal.

Further, Petitioner's citation to 10 C.F.R. Part 40, Appendix A, Criterion 1 in support of this Contention has no merit. Criterion 1 does not, in any way, deal with off-site disposal of solid 11e.(2) byproduct material at licensed disposal sites. As stated above, Criterion 2 mandates off-site disposal of such material at appropriately licensed facilities. Petitioner cites to no Commission or NRC Staff interpretation of Criterion 1 that mandates the submission of materials

requested by Petitioner. Thus, Petitioner offers no legal basis for this contention and, as such, it should be rejected.

Additionally, Powertech's Dewey-Burdock license application includes several sections providing detailed discussion of off-site 11e.(2) byproduct material disposal. Powertech's Environmental Report Sections 1.2.4, 4.4.3.4, 4.15.3.2, and 5.13.2 discuss this disposal with Section 1.2.4 laying out the broad parameters for such disposal: "The barren resin will be returned to the appropriate portion of the ion exchange circuit or, if exhausted, will be segregated as 11e.(2) byproduct material and transported pursuant to applicable DOT requirements to a licensed 11e.(2) disposal facility for final disposition per 10 CFR Part 40, Appendix A, Criterion 2 and Commission policy directives." Powertech's Technical Report Sections 3.1.8, 3.2.8.9, 4.4.1.1, 6.1.9, 6.3.3, and 7.5.4.4, as well as Section 6.3 of Powertech's Supplement also discuss off-site 11e.(2) byproduct material disposal. Throughout the Technical and Environmental Reports and the accompanying Supplement, Powertech commits to the following: prior to engaging in licensed ISR operations, Powertech will supply a waste disposal agreement with an appropriately licensed 11e.(2) byproduct material disposal facility to address the disposition of solid 11e.(2) byproduct material from the proposed Dewey-Burdock ISR project. Thus, Powertech's license application adequately addresses the issue of 11e.(2) byproduct material disposal. As a result, Petitioner's Contention is inconsistent with the Commission's requirements for ISR license applications and, as a result, does not raise a legal basis to satisfy the standard for an admissible contention.

8. Contention 8: Alleged Failure to Provide for Filing Contentions after NEPA Review is Complete

Petitioner's Contention 8 relates to NRC's 10 CFR Part 2 hearing process for license applications such as Powertech's and its relationship with NEPA. Petitioner alleges that NRC's

"procedure used in the present proceedings denies the Tribe and the NRC the information that a NEPA analysis provides." Tribe Request at 35. Petitioner alleges that "NRC Staff has violated NEPA by requiring that the tribe formulate and submit detailed contentions before the NEPA process is complete, denying the Tribe the benefit of NEPA analysis." *Id.* Petitioner concludes that "the procedures the NRC used for the present application fail to satisfy NEPA's purpose…." *Id.* at 36. For the reasons discussed below, Contention 8 should be rejected.

Initially, NRC is an independent regulatory agency which, while subject to the provisions of NEPA is not directly subject to the Council on Environmental Quality's (CEQ) implementing regulations, except to the extent they are procedural in nature. As stated in the Commission's 10 C.F.R. Part 51 preamble, "it is the Commission's view that NRC is not bound by those portions of CEQ's NEPA regulations which have a substantive impact on the way in which the Commission performs its regulatory functions." 49 Fed. Reg. 9352 (March 12, 1984). As a result, the Commission engaged in a rulemaking that resulted in the promulgation of 10 C.F.R. Part 51 that imposed requirements on applicants for licenses such as the one sought by Powertech. Nowhere in these regulations does the Commission impose a requirement that, in the instant case, a supplemental environmental impact statement (SEIS) tiered off NUREG-1910 entitled *Generic Environmental Impact Statement for In-Situ Leach Uranium Milling Facilities* must be prepared prior to the initiation of administrative litigation on a license application.[15] Thus, Petitioner cannot look to NEPA or the Commission's Part 51 regulations for support on this contention and, accordingly, Petitioner fails to offer a legal basis for this Contention and, thus, does not satisfy the requirements of 10 C.F.R. 2.309(f)(1)(vi).

[15] Indeed, the Commission's NUREG-1910 and the site-specific SEISs that will be tiered off its analyses and conclusions are in line with CEQ regulations at 40 C.F.R. § 1502.20 which expressly endorse the use of "tiering" in environmental reviews.

Further, this Contention represents an impermissible collateral attack on the Commission's regulations in 10 C.F.R. Part 2. The Commission's regulations at 10 C.F.R. Part 2 set forth the Commission's regulations for the administrative hearing process for license applications such as the one sought by Powertech. More specifically, Part 2 contains two regulatory provisions that directly contradict Petitioner's allegations. First, Petitioner's contention is explained by the language of 10 C.F.R. 2.309(f)(2) which states:

> "Contentions must be based on documents or other information available at the time the petition is to be filed, such as the application, supporting safety analysis report, environmental report or other supporting document filed by an applicant or licensee, or otherwise available to a petitioner. *On issues arising under the National Environmental Policy Act, the petitioner shall file contentions based on the applicant's environmental report. The petitioner may amend those contentions or file new contentions if there are data or conclusions in the NRC draft or final environmental impact statement, environmental assessment, or any supplements relating thereto, that differ significantly from the data or conclusions in the applicant's documents*."

10 C.F.R. § 2.309(f)(2) (2010).

This regulation was promulgated in 2004 pursuant to a rulemaking that provided members of the public and other interested stakeholders with an opportunity to provide public comment. Thus, pursuant to this regulation, the Commission has defined the manner in which members of the public or other interested stakeholders may challenge aspects of a proposed ISR project either prior to or after the issuance of an NRC Part 51 environmental review document (e.g., SEIS).

Second, 10 C.F.R. § 2.335 states that, with limited exceptions, "no rule or regulation of the Commission, or any provision thereof, concerning the licensing of…source material…or byproduct material, is subject to attack by way of discovery, proof argument, or other means in any adjudicatory proceeding subject to this part." 10 C.F.R. § 2.335(a). This regulation is intended to apply to all Commission regulations, including those applicable to Part 2 hearing processes. Thus, while Petitioner may be dissatisfied with the manner in which the Commission

structures its hearing processes, such dissatisfaction is irrelevant here due to Part 2.335(a)'s pronouncement that the Commission's regulations shall not be subject to challenge in this proceeding. Therefore, Contention 8 should be rejected.

It is also worth noting that an adjudicatory proceeding is not the only way in which Petitioner may either comment on or challenge a proposed licensing action such as Powertech's proposed Dewey-Burdock ISR project. Petitioner may avail itself of the provisions of 10 C.F.R. § 2.206 that states "[a]ny person may file a request to institute a proceeding pursuant to §2.202 to modify, suspend, or revoke a license, or for any other action as may be proper." 10 C.F.R. § 2.206(a). Petitioner also will have an opportunity to submit public comment on the proposed project's site-specific draft SEIS, when completed. Thus, Petitioner will have several opportunities to register its views on the proposed Dewey-Burdock ISR project.

9. Contention 9: Alleged Failure to Coordinate With Agencies under NEPA

Petitioner's Contention 9 relates to coordination of review of Powertech's proposed Dewey-Burdock ISR project by NRC with other agencies with jurisdiction over aspects of the proposed project. Petitioner alleges that "NRC, the lead agency for purposes of NEPA-has failed [to] engage these other agencies and therefore has failed to comply with the 'action-forcing' mandate and purpose of NEPA." Tribe Request at 36. It is alleged that Powertech has filed a Class V UIC permit application with EPA Region 8 and that neither NRC nor EPA have engaged in any NEPA analysis of the potential for deep-well disposal of 11e.(2) byproduct material or other liquid effluent in conjunction with the proposed Dewey-Burdock ISR project. *Id.* at 37. Thus, Petitioner claims that NRC would cause harm "should NRC continue to ignore the EPA permitting process" in its review of Powertech's Dewey-Burdock license application. *Id.* For the reasons discussed below, Contention 9 should be rejected.

Petitioner's Contention 9 is misguided due to the apparent failure to understand that the ISR process is regulated by several different regulatory programs. As discussed above, ISR projects involve different processes and, therefore, different statutory and regulatory regimes for their construction, operation, and decommissioning. *See* Powertech Response to Petitioner Request, Section IV *supra*. Depending on the location of the proposed ISR site and the types of operations sought to be authorized, one or more different statutory and regulatory regimes may be implicated. In the instant case, Petitioner raises a concern regarding coordination with EPA and its Region 8 office regarding Powertech's application for a Class V UIC permit for disposition of liquid 11e.(2) byproduct material. While Petitioner attempts to characterize this permit application as a "connected action" to the NRC license application under NEPA, this characterization falls short for two reasons. First, as stated above, NRC is an independent regulatory agency and implements the Commission's approach to NEPA in 10 C.F.R. Part 51 pursuant to its 1984 rulemaking. Based on this, NRC Staff is required to follow the mandate of these regulations during its review of Powertech's license application. Petitioner does not cite to any Part 51 regulation or any provision of Commission policy or guidance that requires NRC to coordinate its NEPA review of Powertech's license application with any federal, State or local regulatory or other agency. NRC regulations do not provide for any coordination requirements on a license application such as the one submitted by Powertech unless an agency requests permission to be a "coordinating" or "cooperating agency." In fact, however, during the conduct of its NEPA reviews, NRC routinely interacts with relevant federal, State, and local entities. Thus, Petitioner has failed to offer a legal basis for this contention and, therefore, does not satisfy 10 C.F.R. § 2.309(f)(1)(vi).

Second, EPA's statutory mandate under the SDWA requires that ISR operators such as Powertech provide permit applications, including adequate data and analyses, for Class V wells which are wholly independent of NRC's review of AEA license applications. If such a permit is not granted, then an ISR licensee will have to use alternative means to dispose of liquid waste from ISR operations. In addition, NRC does consider liquid waste disposal alternatives such as Class V wells in its NEPA analyses and does evaluate the potential radiological exposures of licensee workers who service such disposal wells pursuant to 10 C.F.R. Part 20. *See* 10 C.F.R. Part 20, Subpart C. Thus, NRC satisfies its jurisdictional responsibilities in this particular context.

Further, even if the Licensing Board were to determine that there is merit to Contention 9, the issues therein are not ripe for consideration at this time. EPA's input on the licensing of ISR facilities, including any evaluations of the use of Class V wells for the disposal of ISR liquid wastes, already has been solicited by NRC through its public comment process on NUREG-1910 and will be further solicited through its publication of a draft site-specific SEIS for the proposed Dewey-Burdock ISR project. Since this process has only just been initiated, Contention 9 also should be rejected as unripe for consideration.

10. Contention 10: Alleged Failure to Assess Potential Direct Tornado Strike

Petitioner's Contention 10 relates to the contents of Powertech's Environmental Report and the potential impacts associated with a "direct tornado strike" on the facilities to be constructed and operated as part of the proposed Dewey-Burdock ISR project. Petitioner generally alleges that "[t]he Environmental Report…fails to provide information on reasonably foreseeable impacts of the proposal." Tribe Request at 38. Petitioner claims that "neither the applicant's environmental report nor any NEPA document produced by the NRC has examined

the impacts which would occur if the proposed ISL facility received a direct or indirect hit from a tornado." *Id.* As a result, Petitioner concludes that, "the NRC and the applicant have ignored an important, and foreseeable, environmental impact with potential catastrophic consequences." *Id.* at 39. For the reasons discussed below, Contention 10 should be rejected.

Petitioner's Contention 10 relies on a claim of inadequacy of Powertech's environmental report based on NEPA/CEQ regulations. Initially, as stated above, the Commission is not directly subject to CEQ regulations; but rather NRC is bound by its NEPA regulations at 10 C.F.R. Part 51. The requirements for environmental reports are located at 10 C.F.R. § 51.45, which is not cited by Petitioner. Even assuming that this regulation was cited, Part 51.45 merely provides the parameters for the type of information required for an environmental report and does not speak to the adequacy of such information. Thus, any claims based on the "inadequacy" of Powertech's environmental report cannot find relief in CEQ regulations or Part 51.45.

Further, Petitioner's Contention 10 is misguided because Powertech's license application, which includes both an environmental *and* a technical report, provides an assessment of direct tornado strikes. NRC Staff environmental review of Powertech's license application is not confined to merely the environmental report; but rather is intended to cover the entirety of the Dewey-Burdock license application. With that said, Section 7.5.5 of Powertech's Technical Report provides information regarding NRC Staff's programmatic assessment in NUREG-6733/CR of direct tornado strikes, which concludes that no design or operational changes would be required for an ISR facility, but that chemical storage tanks should be located far enough apart to prevent contact during a potential tornado. Thus, the presence of this Section in Powertech's

license application proves that Petitioner's Contention is inaccurate and, therefore, should be rejected.

Moreover, Petitioner cites to data regarding direct tornado strikes that is irrelevant to this proceeding. Petitioner's Contention cites to potential tornado occurrences in the State of Oklahoma, where tornadoes are common but which is not where the proposed Dewey-Burdock ISR site is to be located. Petitioner also does not offer any specific data demonstrating that tornadoes are a frequent occurrence in the far west portion of South Dakota where the proposed project is to be located. Indeed, according to the National Oceanic and Atmospheric Administration (NOAA), less than one (1) tornado strike has been recorded in the Edgemont, South Dakota area between 1980-2005.

Further, the *Fansteel* case cited by Petitioner is easily distinguishable from the instant case. The Fansteel facility is not an ISR facility, but rather it is a fuel-cycle facility that processed and produced forms of AEA materials that are classified as special nuclear material. NRC regulations governing special nuclear materials are structured to address the greater potential for adverse health and safety impacts than those associated with AEA source material generated by ISR facilities such as Powertech's proposed Dewey-Burdock ISR project. Thus, Petitioner's citation to the *Fansteel* case should not afford them any support for Contention 10. Therefore, given that Powertech's license application accounted for the potential for a direct tornado strike and that Petitioner has failed to offer any credible factual or legal basis on this issue, Contention 10 should be rejected.

VI. CONCLUSION

For the reasons discussed above, Powertech respectfully submits that Petitioner has failed to demonstrate that they have standing to intervene pursuant to 10 C.F.R. § 2.309(d). In the event that it is determined that Petitioner has standing, Powertech respectfully submits that they have not proffered any admissible contentions pursuant to 10 C.F.R. § 2.309(f)(1). Accordingly, Petitioner's request should be denied.

Respectfully submitted,

/Signed (electronically) by/
Christopher S. Pugsley, Esq.

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Dated: May 3, 2010

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:	)	
	)	Docket No.: 40-9075-MLA
POWERTECH (USA), INC.	)	Date: May 3, 2010
(Dewey-Burdock In Situ Uranium Recovery Facility)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing "APPLICANT POWERTECH (USA) URANIUM CORPORATION'S RESPONSE TO PETITIONER OGLALA SIOUX TRIBE'S REQUEST FOR A HEARING/PETITION FOR INTERVENTION" in the above-captioned proceeding have been served via the Electronic Information Exchange (EIE) this 3rd day of May 2010, which to the best of my knowledge resulted in transmittal of the foregoing to those on the EIE Service List for the above captioned proceeding.

Respectfully Submitted,

/Executed (electronically) by and in accord with 10 C.F.R. § 2.304(d)/
Christopher S. Pugsley, Esq.

Dated: May 3, 2010

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