UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
CROW BUTTE RESOURCES, INC.	)	Docket No. 40-8943
MARSLAND EXPANSION	)	License SUA-1534
(In Situ Leach Facility, Crawford, NE)	)	

PETITION TO INTERVENE AND REQUEST FOR HEARING OF THE OGLALA SIOUX TRIBE

I. INTRODUCTION

Pursuant to 10 C.F.R. § 2.309, the notice published by the Nuclear Regulatory Commission (NRC or Commission) at 77 Fed. Reg. 231 (Nov. 30, 2012), and the Commission Order of November 26, 2012, Petitioner Oglala Sioux Tribe (Tribe or Petitioner) hereby requests a hearing and petitions to intervene in this proceeding regarding the application of Crow Butte Resources, Inc. (Crow Butte) to amend the Crow Butte license to include the Marsland Expansion Area, an in-situ leach (ISL) uranium mine in Dawes County, Nebraska. The Tribe's standing to intervene is described in Section II of this pleading, and the Tribe's contentions are set forth in Section III.

The Tribe submits this petition because the project may pose serious threats to the Tribe's cultural, historic, economic and conservation interests. As detailed herein, the Environmental Report, the Technical Report, and the Supplemental Report that comprise the application contain serious defects, such that the application as a whole fails to satisfy the requirements of federal law, including the Atomic Energy Act, the National Historic Preservation Act, and the National Environmental Policy Act, along with the implementing regulations for these laws. As discussed

in more detail in Section III on contentions, the primary concerns are the lack of compliance with both federal law and NRC regulations and guidance regarding protection of the Tribe's cultural and historic resources, and the lack of information necessary to determine the hydrogeology and geochemistry of the site. The latter includes the lack of a defensible baseline ground water characterization or a thorough review of the interconnections between aquifers in the area that may allow for cross-contamination with the aquifer slated for chemical mining.

With respect to the environmental impacts of ISL operations, the long-term track record of ISL mine sites in the United States is replete with examples of failure to accurately predict groundwater dynamics, especially with respect to prevention of horizontal or vertical excursions and the inability to restore ground water to pre-mining conditions. These impacts have occurred despite the repeated assurances from prospective mine operators that ISL mining is a safe and even "benign" activity. *See, e.g.*, http://www.eoearth.org/article/In_situ_leach_%28ISL%29_mining_of_uranium (World Nuclear Association co-author of article). The recent factual record demonstrates that these projects are not benign, and that grounds for serious concerns exist concerning proper regulation of ISL mining.

For instance, despite being directly subject to NRC regulatory authority, the Smith Ranch-Highland ISL operation was cited by the State of Wyoming in 2008 for multiple serious violations of law, some dealing with fundamental aspects of protection for public health, ground water, and against taxpayer liabilities. March 7, 2008 Notice of Violation (attached as Exhibit 1). These violations were far from insignificant. In its Investigative Report accompanying the Notice of Violation, the State of Wyoming reprimands the operation:

> Given that PRI's [Power Resources, Inc.] operation has for many years been the major uranium producer in Wyoming, there is an expectation that the operation might serve as a

> model for excellence in ISL mining. Unfortunately, that is not the case. There are a number of major long-standing environmental concerns at this operation that demand immediate attention.

Wyoming Department of Environmental Quality Report of Investigation (attached as Exhibit 2) at 1.

The Report of Investigation goes on to charge the facility with numerous violations, including "major deficiencies" in both of its state permits. Id. at 2. Among the more serious problems are inadequate reclamation, where "[i]t is readily apparent that groundwater restoration is not a high priority for PRI," in part because "both production and restoration timeframes have doubled or tripled and yet additional well fields are being brought into production." Id. at 3. Further, the Report details "an inordinate number of spills, leaks and other releases," such that "it appears that such occurrences have become routine." Id. at 4. Lastly, with respect to bonding, the Report finds that "[r]ough calculations based primarily on PRI's figures reveal an alarming scenario," such that the mine's approved reclamation and bonding plan "is totally infeasible and unsupported by any critical path timeline or water balance," resulting in a finding that "clearly the public is not protected." Id. at 4-5. These findings, just less than 5 years old, raise serious doubts for the Tribe as to the adequacy of the regulatory framework applicable to ISL uranium mining. At minimum, these concerns are ones that the federal regulatory system ought to have been well aware of and corrected long before they were ever allowed to reach such extremes.

Unfortunately, the apparent inability of ISL uranium mines to succeed in accomplishing ground water restoration is not an isolated occurrence. For example, the U.S. Geological Survey has recently confirmed that "[t]o date, no remediation of an ISR operation in the United States has successfully returned the aquifer to baseline conditions." Otton, J.K., Hall, S., *In-situ recovery uranium mining in the United States: Overview of production and remediation issues*

(Abstract), U.S. Geological Survey, 2009, IAEA-CN-175/87ISL (attached as Exhibit 3). This report goes on to express its authors' findings that "[o]ften at the end of monitoring, contaminants continue to increase by reoxidation and resolubilization of species reduced during remediation; slow contaminant movement from low to high permeability zones; and slow desorption of contaminants adsorbed to various mineral phases." Id. See also Hall, Susan, *Groundwater Restoration at Uranium In-Situ Recovery Mines, South Texas Coastal Plain*, U.S.G.S. Open-File Report 2009–1143 (2009) at 30 (attached as Exhibit 4).

As demonstrated, the NRC Staff routinely allows for reductions in ground water standards away from baseline water quality. Thus, it appears from all the available evidence that all NRC-regulated ISL mining has resulted in some degradation of ground water quality over the long-term. The question then becomes one of how much ground water degradation the NRC will allow, and how far the resulting contamination will spread. In view of this track record, and particularly in considering standing, the Board must assume a certain level of ground water contamination.

Apart from the risks associated with ISL mining, as discussed above, recent testimony before the Commission from NRC Staff and U.S. Environmental Protection Agency ("EPA") representatives demonstrates that the regulatory guidance and processes currently in place for ISL mining application reviews are in some instances sorely out of date, and being substantially revised at the current time. For instance, at a March 2, 2010 briefing to the Commission, NRC Staff explicitly recognized that its "regulatory infrastructure, the regulatory guidance, the Standard Review Plans" for ISL mine applications are out of date, and that "the staff is actively working on updating those documents." March 2, 2010 U.S. NRC Briefing on Uranium Recovery, at 6 (attached as Exhibit 5). The fact that projects such as the Dewey-Burdock Project

and this Crow Butte expansion project are currently moving through a regulatory regime that is admittedly out of date raises serious concerns with respect to the ability of such a project to adequately protect the public health and environment, along with the Tribe's other concrete interests.

Indeed, throughout the March 2, 2010 NRC briefing, the broad extent of the needed and ongoing revisions to the NRC's regulatory oversight of ISL mining became clear. NRC staff testified that because of the outdated nature of the ISL regulatory framework "[s]taff is currently revising the standard review plan for in-situ recovery application reviews and ten regulatory guides." NRC Briefing at 13. NRC staff also indicated that a major revision to the applicable regulatory requirements for ground water protection and restoration at ISL mines was imminent and would be submitted to the Commission as early as April of 2010. Id. at 9.

Representatives from EPA also testified at the March 2, 2010 briefing that the EPA is updating its fundamental regulations under 40 C.F.R. Part 192 with respect to ISL mining, which the NRC is bound by statute to implement at all ISL mine sites. With respect to the need for this update, EPA representatives confided that:

> These regulations have not been substantially changed to recognize the environmental challenges faced by significantly increased use of in-situ leaching recovery technology, as well as possible use of heap leaching by the uranium industry. Nor have they been revised to incorporate potentially relevant recent changes in EPA groundwater and drinking water standards, as well as the most recent updates in good science for radon and radiation protection since the rule was last revised.

Id. at 47-48. This is in addition to the changes EPA is making to its regulatory controls for ISL mines with respect to hazardous air pollutants, including radon under 40 C.F.R. Part 61, Subpart W, and "doing so with recognition of the environmental challenges faced by significantly increased use of ISL recovery technology by the uranium industry." Id. at 49.

In addition to this testimony regarding the outdated nature of the regulatory program,

EPA has recently submitted comments on an ongoing NEPA process for ISL uranium mining in Wyoming, expressing substantial concerns with respect to the integrity of the environmental analysis. March 3, 2010 Letter from Carol Rushin, Acting Regional Administrator, Region 8, U.S. EPA to Michael Lesar, Chief, Rulemaking and Directives Branch, NRC (attached as Exhibit 6). This EPA comment letter rates the NEPA documents for three ISL uranium mines in Wyoming as "inadequate" in part because of the failure of NRC to "evaluate the potential effects that non-attainment of baseline groundwater restoration would have on surrounding [underground sources of drinking water]." Among the primary concerns raised related to ground water are the frequent use of alternate concentration limits and a lack of sufficient discussion of the causes of excursions as ISL uranium mine sites. Id. at 4-5.

Overall, the significant problems evidenced at ISL mine sites in Wyoming and elsewhere, which are under direct NRC regulatory authority, and the candid admissions from both the NRC staff and the EPA that the regulatory structure for the protection of public health and the environment at ISL mine sites is out of date, elevates the Tribe's concerns with respect to the ability of the any Crow Butte expansion project to achieve such protections in the context of this regulatory process. As a result, the strictest review must be afforded to this project, and better yet, review should be delayed until a current and legally sound regulatory framework can be put in place.

II. STANDING

The Oglala Sioux Tribe is a federally-recognized Indian Tribe, located on the Pine Ridge Reservation. The Oglala Sioux Tribe is a body politic comprised of approximately 41,000 citizens, with territory of over 4,700 square miles in the southwestern portion of South Dakota. The Oglala Sioux Tribe is a freely and democratically-elected government of the Oglala Sioux

people, with a governing body duly recognized by the Secretary of Interior. The Oglala Sioux Tribe is the successor in interest to the Oglala Band of the Teton Division of the Sioux Nation, and is a protectorate nation of the Unites States of America. The Oglala Band reorganized in 1936 as the "Oglala Sioux Tribe of the Pine Ridge Indian Reservation" under section 16 of the Indian Reorganization Act of June 18, 1934, ch. 576, 48 Stat. 987, 25 U.S.C. § 476, and enjoys all of the rights and privileges guaranteed under its existing treaties with the United States in accordance with 25 U.S.C. § 478b. The Tribe's address is P.O. Box 2070, Pine Ridge, South Dakota 57770-2070.

Pursuant to 10 C.F.R. § 2.309(d)(1), a request for hearing must address: 1) the nature of the petitioner's right under the Atomic Energy Act ("AEA") to be made a party to the proceeding, 2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding, and 3) the possible effect of any order that may be entered in the proceeding on the petitioner's interest.

The AEA states that "the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding." 42 U.S.C. § 2239(a)(1)(A). Given this broad and inclusive language, the Atomic Safety and Licensing Board ("ASLB") has summarized these standing requirements as follows:

> "A petitioner's participation in a licensing proceeding hinges on a demonstration of the requisite standing. The requirements for standing are derived from section 189a of the Atomic Energy Act of 1954 (AEA), which instructs the NRC to provide a hearing "upon the request of any person whose interest may be affected by the proceeding." The Commission's implementing regulation, 10 C.F.R. § 2.309(d), directs a licensing board, in ruling on a request for a hearing, to consider (1) the nature of the petitioner's right under the AEA or the National Environmental Policy Act (NEPA) to be made a party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any decision or order that may be issued in the proceeding on the petitioner's interest. In that regard, the Commission has

> long applied the test employed in the federal courts in resolving standing issues — i.e., the petitioner must allege "a concrete and particularized injury that is … fairly traceable to the challenged action and [is] likely to be redressed by a favorable decision." In addition, the claimed injury must be arguably within the zone of interests protected by the governing statute. In order to determine whether an interest is in the "zone of interests" of a statute, "it is necessary 'first [to] discern the interests "arguably … to be protected" by the statutory provision at issue,' and 'then to inquire whether the [petitioner's] interests affected by the agency action are among them.' "

In The Matter of Crow Butte Resources, Inc. (In Situ Leach Facility, Crawford, Nebraska), 68 N.R.C. 691, 701-702 (2009)(citations omitted). When NEPA is among the relevant statutes, the zone of interests is quite wide and includes procedural protections and impacts to aesthetic and other non-economic values. See, *Rocky Mt. Oil & Gas Assoc. v. United States Forest Serv.*, 157 F. Supp. 2d 1142, 1144 (D. Mont. 2000), *aff'd*. 12 Fed. Appx. 498 (2001) *cert denied* 534 U.S. 1018 (holding that "the possibility of oil and gas technology spoiling the pristine scenery and diverse resources" and "value of place" are proper factors to consider when raised by the public in a NEPA analysis).

The Tribe's standing to participate in this proceeding is demonstrated by the attached declarations of Oglala Sioux Tribe government officials, Wilmer Mesteth, the Oglala Sioux Tribal Historic Preservation Officer (Declaration attached as Exhibit 7), and Denise Mesteth, Director of the Oglala Sioux Tribal Land Office (Declaration attached as Exhibit 8). These Declarations testify to the Tribe's interest in protecting its cultural and historical resources, along with its lands, natural resources, economic prosperity, and the health, safety, welfare of the tribal members as well as the public.

As set forth in the Declaration of Wilmer Mesteth, the Tribe seeks to participate in this proceeding to protect its historical, archaeological, and traditional cultural values and sites included within the proposed project area. The Tribe also seeks standing under the National Historic Preservation Act (NHPA) based on the Tribe's procedural rights in identifying,

evaluating, and establishing protections for historic and cultural resources. These substantive and procedural interests in protecting cultural and historic resources related to the Tribe's heritage have recently been held by the Commission to adequately establish standing of the Oglala Sioux Tribe to intervene in a source material licensing proceeding. *In The Matter of Crow Butte Resources, Inc. (In Situ Leach Facility, Crawford, Nebraska),* CLI-09-09, Nuclear Reg. Rep. P 31589, at 3-4 (May 18, 2009).

As stated in the Declaration of Wilmer Mesteth, the project lands are within the traditional aboriginal territory of the Oglala Sioux Tribe. This is confirmed by the fact that the project lands were included in the 1851 Fort Laramie Treaty and the 1868 Fort Laramie Treaty (15 Stat., 635). Further, as set forth in Mr. Mesteth's Declaration, and detailed in the Environmental Report for the Project, a significant number of cultural, historic, and archaeological resources have not been identified in the expansion project area. ER at 3-76. In addition, Crow Butte's Application materials indicate that are at least two identified Euroamerican sites with a recommendation of avoidance. ER 4-23.

The Tribe has not had the opportunity to be involved in the assessment or determination of the significance of the identified sites, nor had the opportunity to identify additional sites that may warrant evaluation or listing. See OST THPO Declaration pg. 2-4.

The Tribe also asserts a concrete interest in the protection of its lands, natural resources, economic prosperity, and the health, safety, and welfare of tribal members, which are all threatened by the proposed project. This basis for standing is premised on the Tribe's ownership of lands in proximity to the proposed Project such that the Project may cause air, water, and ground water impacts to the Tribe's land. As set forth in the Declaration of Denise Mesteth, Director of the Oglala Sioux Tribal Lands Office, the Tribe owns lands in the vicinity of the

proposed Project, which it leases for domestic, agricultural, water development, conservation, and other purposes. The Tribe relies on revenue from these leases to provide essential services for Tribal members. The Tribe also derives benefit and value, economically and otherwise, from its lands, and has a strong interest, economic and otherwise, in ensuring that these lands and the water resources associated with them remain in an unpolluted state. Thus, any impacts to these lands or to the air, water, or ground water associated with them from the proposed Project will negatively affect the Tribe's interests.

The attached Expert Opinion of Dr. Hannan E. LaGarry details the potential impacts to ground water associated with the proposed expansion project (Opinion attached as Exhibit 9). In particular, Dr. LaGarry points to the fractured geology of the area and other disturbances in the area that could serve as pathways for contaminated ground water from the Project area to migrate into adjoining aquifers, thus potentially contaminating other properties in the vicinity of the proposed expansion project. These properties include lands owned by the Tribe. As such, the Tribe has a particularized interest in this proceeding by virtue of its land ownership and economic and aesthetic interests in lands that it leases in the area.

These interests as described above will be protected should the project not obtain a license for any reason. Further, the Tribe's interests will be protected to the extent the Applicant is required to demonstrate full compliance with all federal laws and regulations.

III. CONTENTIONS

As required by the federal register notice and 10 C.F.R. § 2.309, the Tribe sets forth below the specific contentions that it seeks to have litigated in this proceeding. Each contention raises issues with respect to the sufficiency of the Application under NRC regulations, as specified therein, as well as compliance with the National Environmental Policy Act ("NEPA").

Although no NRC NEPA document has yet been prepared for this project, the Tribe references NEPA to preserve its ability to raise these same issues, or others based on any newly available information, once a NEPA document is prepared. See 10 C.F.R. § 2.309(f)(2). The Tribe also contends that the failure to have a completed site-specific environmental impact statement available to (and informing the process of) NRC Staff evaluation of the license application violates the NEPA and its implementing regulations.

Contention 1: **Failure to Meet Applicable Legal Requirements Regarding Protection of Historical and Cultural Resources, and Failure to Involve or Consult the Oglala Sioux Tribe as Required by Federal Law**

The Application fails to meet the requirements of 10 C.F.R. §§ 51.60 and 51.45, and the National Environmental Policy Act because it lacks an adequate description of either the affected environment or the impacts of the project on archaeological, historical, and traditional cultural resources. The Application also fails to demonstrate compliance under the National Historic Preservation Act, and the relevant portions of NRC guidance included at NUREG-1569 section 2.4.

Basis and Discussion:

This contention is supported by the Declaration of Wilmer Mesteth, Oglala Sioux Tribe Tribal Historic Preservation Officer (Declaration attached as Exhibit 7).

10 C.F.R. § 51.60 requires each applicant to submit with its application an environmental report containing the information specified in 10 C.F.R. § 51.45. 10 C.F.R. § 51.45(b) requires a "description of the environment affected" and a discussion of the "impacts of the proposed action on the environment." These requirements are also mandated under the National Environmental Policy Act. In this case, the Environmental Report, at 3-74 to 3-76, demonstrates that a significant number of archaeological, historical, and traditional cultural resources on site have

not been evaluated but compared to results of a few cultural resource investigations on some private land, White River, and the Cities of Chadron and Crawford about 10 miles to 15 miles to the north, and the results of those surveys can serve as a cultural context for comparison to the MEA; therefore, the potential impacts to these resources have not been addressed. Given the lack of involvement by the Tribe, however, as discussed below, this number may be higher.

NUREG-1569 Section 2.4 imposes several requirements in terms of Section 2.4.3 Acceptance Criteria that have not been met in this case. In particular, Section 2.4.3(1) requires a listing for all properties included in, or eligible for inclusion in, the National Register. As stated, the application materials admit that scores of sites have not been evaluated for listing eligibility. Section 2.4.3(3) specifically mandates consultation with tribal authorities on the likely impacts on Native American cultural resources, which has not occurred in this case. Similarly, section 2.4.3(4) requires evidence of contact with appropriate state historical preservation office and tribal authorities – information lacking in the application with respect to tribal contact. Lastly, section 2.4.3(5) explicitly contemplates a memorandum of agreement "among the state historic presentation officer, tribal authorities, and other interested parties regarding their satisfaction with regard to the protection of historic, archaeological, architectural, and cultural resources during site construction and operations." The MEA Environmental Report states at 3-76 that if ARCADIS recommendations were followed the proposed project will have no adverse effect on historic properties and no further cultural resource investigations are recommended. SHPO concurrence was granted by the Deputy State Historic Preservation Officer on May 19, 2011. However, the Nebraska SHPO concurrence letter concedes that the SHPO review does not constitute the opinions of any Native American Tribes that may have an interest in Traditional

Cultural Properties potentially affected by this project. ER 3-77 Given these inadequacies, the application should never have been deemed complete.

Among the additional requirements are those under the National Historic Preservation Act ("NHPA") and related Executive Orders. Under these authorities, the NRC is required to fully involve Native American Tribes in all aspects of decision-making affecting Tribal interests such as those directly impacted by the project. These mandates require NRC to consult with Tribes as early as possible in the decision-making process. Here, despite having the applicant's materials for approximately a year, and already having begun review of the project with respect to completeness of the application, the NRC has not yet engaged in the required consultation process. This is especially troubling as the applicant has included an entire report on what it believes is the significance of the archaeological, historical, and traditional cultural resources it has identified at the site, but at no time has the Tribe been involved in the determination as to the significance of these resources or the completeness of the proffered Report, as contemplated by the NHPA. The failure to engage the Tribe in a meaningful way at the earliest possible time presents a ripe contention in this proceeding.

The federal courts have addressed the strict mandates of the National Historic Preservation Act:

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

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

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

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

If an undertaking is the type that "may affect" an eligible site, the agency must make a reasonable and good faith effort to seek information from consulting parties, other members of the public, and Native American tribes to identify historic properties in the area of potential effect. *See* 36 CFR § 800.4(d)(2). See also *Pueblo of Sandia*, 50 F.3d at 859-863 (agency failed

to make reasonable and good faith effort to identify historic properties).

The NHPA also requires that federal agencies consult with any "Indian tribe ... that attaches religious and cultural significance" to the sites. 16 U.S.C. § 470(a)(d)(6)(B). Consultation must provide the tribe "a reasonable opportunity to identify its concerns about historic properties, advise on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, articulate its views on the undertaking's effects on such properties, and participate in the resolution of adverse effects." 36 CFR § 800.2(c)(2)(ii).

Apart from requiring that an affected tribe be involved in the identification and evaluation of historic properties, the NHPA requires that "[t]he agency official **shall ensure that the section 106 process is initiated early in the undertaking's planning**, so that a broad range of alternatives may be considered during the planning process for the undertaking." 36 CFR § 800.1(c) (emphasis added). The ACHP has published guidance specifically on this point, reiterating in multiple places that consultation must begin at the earliest possible time in an agency's consideration of an undertaking, even framing such early engagement with the Tribe as an issue of respect for tribal sovereignty. ACHP, Consultation with Indian Tribes in the Section 106 Review Process: A Handbook (November 2008), at 3, 7, 12, and 29.

Regarding respect for tribal sovereignty, the NHPA requires that consultation with Indian tribes "recognize the government-to-government relationship between the Federal Government and Indian tribes." 36 CFR § 800.2(c)(2)(ii)(C). *See also* Presidential Executive Memorandum entitled "Government-to-Government Relations with Native American Tribal Governments" (April 29, 1994), 59 Fed. Reg. 22951, and Presidential Executive Order 13007, "Indian Sacred Sites" (May 24, 1996), 61 Fed. Reg. 26771. The federal courts echo this principle in mandating

all federal agencies to fully implement the federal government's trust responsibility. See *Nance v. EPA*, 645 F.2d 701, 711 (9th Cir. 1981) ("any Federal Government action is subject to the United States' fiduciary responsibilities toward the Indian tribes").

In another proceeding before the Commission involving the Oglala Sioux Tribe, it was determined that the contention regarding compliance with the consultation requirements of the NHPA was not ripe. See *In The Matter of Crow Butte Resources, Inc. (In Situ Leach Facility, Crawford, Nebraska)*, CLI-09-09, Nuclear Reg. Rep. P 31589, at 9-11 (May 18, 2009). However, the legal and factual issues in this case are sufficiently distinguishable. Specifically, in this case, the Tribe argues that the NHPA requires consultation under Section 106 to begin as early as possible in the consideration of an undertaking.

Here, as discussed above, the application was initially submitted to the NRC in May of 2012. Further, the NRC Staff has already begun processing the application, including making an affirmative determination that the information contained in the application was acceptable to the agency. This analysis necessarily considered whether the applicant's efforts to identify and assess the impacts on historic and cultural resources, as presented in the application, meet the NRC's standards under the NHPA. To exclude the Tribe until a NEPA document is prepared harms the Tribe's ability to participate in the initial identification of historic/cultural properties and hampers its ability to effectively participate at the later stage when the specific impacts from a particular project are analyzed. *See, e.g.*, 36 CFR §§ 800.4 ("Identification of historic properties") and 800.5 ("Assessment of adverse effects"). Given these requirement of the NHPA, the harms to the Tribe began accruing immediately upon NRC consideration of the Application in the absence of tribal consultation. Thus, the harms to the Tribe are ongoing, and the Tribe's contention with respect to this issue is ripe.

Contention 2: Failure to Include Adequate Hydrogeological Information to Demonstrate Ability to Contain Fluid Migration

The 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. The application similarly fails to provide sufficient information to establish potential effects of the project on the adjacent surface and ground-water resources, as required by 10 C.F.R. § 51.45, NUREG-1569 section 2.7, and the National Environmental Policy Act.

Basis and Discussion:

This contention is supported by the Opinion of Dr. LaGarry (attached as Exhibit 9) and EPA comments (attached as Exhibit 6).

10 C.F.R. § 40.31 and 10 C.F.R. § 51.60 require an applicant to submit an environmental report with its license application. 10 C.F.R. § 51.45 and the National Environmental Policy Act require that the environmental report include a description of the affected environment and the impact of the proposed project on the environment, with sufficient data to enable the Commission to conduct its independent analysis. 10 C.F.R. Part 40, Appendix A, Criterion 4(e) requires that uranium processing facilities, including ISL uranium mining facilities, be located away from faults that may cause impoundment failure. Criterion 5G(2) requires an adequate description of the characteristics of the underlying soils and geologic formations.

The descriptions of the affected environment under the above authorities must be sufficient to establish the potential effects of the proposed ISL operation on the adjacent surface water and ground water resources. As discussed in NUREG-1569 at 2.7.1(3), the application must include a description of the "effective porosity, hydraulic conductivity, and hydraulic

gradient" of site hydrogeology, including any "other information relative to the control and prevention of excursions." At minimum, the applicant must develop an acceptable conceptual model of site hydrology adequately supported by the data presented in the site characterization. NUREG-1569 section 2.7.2. This data and model must demonstrate with scientific confidence that the area hydrogeology, including horizontal and vertical hydraulic conductivity, will result in the confinement of extraction fluids and expected operational and restoration performance.

In this case, 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. These deficiencies include unsubstantiated assumptions as to the isolation of the aquifers in the ore-bearing zones See Opinion by Dr. LaGarry at 2-4. :

The EPA in Exhibit 6, at 4-5, critiques the environmental review process conducted by NRC for ISL operations proposed in Wyoming. That discussion is directly applicable here, and provides evidence of the impacts associated with failure to properly assess the baseline site conditions and impacts of lixiviant injection, attempts at restoration, and excursions.

Based on this evidence, the application fails to provide an adequate site characterization of geology and hydrogeology and fails to demonstrate the ability of the applicant to determine effective porosity of the affected aquifers or to demonstrate the ability to confine the leaching fluids.

Contention 3: Inadequate Analysis of Ground Water Quantity Impacts

The application violates the National Environmental Policy Act in its failure to provide an analysis of the ground water quantity impacts of the project. Further, the application presents conflicting information on ground water consumption such that the water consumption impacts

of the project cannot be accurately evaluated. These failings violate 10 C.F.R. § 40.32(c), 40.32(d), and 51.45.

Basis and Discussion:

This contention is supported by the Opinion of Dr. LaGarry (attached as Exhibit 9).

10 CFR 40.32(c) requires the applicant's proposed equipment, facilities, and procedures to be adequate to protect health and minimize danger to life or property; 10 CFR 40.32(d) requires that the issuance of the license not be adverse to the common defense and security or to the health and safety of the public; and 10 CFR 51.45 and the National Environmental Policy Act require the applicant to provide sufficient data for a scientifically-defensible review of the environmental impacts of the operation and for the Commission to conduct an independent analysis. The application as submitted fails to meet these requirements in that it does not provide reliable and accurate information as to the project's ground water consumption. Thus, the applicant has not established that its procedures are adequate to protect, and to not be adverse to, human health or that they will minimize danger to life or property.

The Opinion of Dr. LaGarry sets forth the primary concerns related to the application's lack of credible analysis of ground water quantity impacts based upon lack of knowledge as to the Stratigraphy of Water-Bearing Rocks in Northwestern Nebraska. See Opinion at 2-4.

Contention 4: Requiring the Tribe to Formulate Contentions before an EIS is Released Violates NEPA

The procedure used by NRC to consider the Crow Butte application fails to satisfy the public participation and informed decision-making mandates of NEPA. The procedural requirements of NEPA are designed to benefit those who participate in agency decision-making processes and to require that the agency take a "hard look" at the impacts, alternatives, mitigation measures, and other aspects of a federal action at the earliest stages of the decision

process, in recognition that when a "decision is made without the information that NEPA seeks to put before the decision maker, the harm that NEPA seeks to prevent occurs." *See*: *Sierra Club v. Marsh*, 872 F.2d 497, 500 (1st Cir. 1989) *quoting Commonwealth of Massachusetts v. Watt*, 716 F.2d 946 at 953 (1st Cir. 1983)

By contrast, the procedure used in the present proceedings denies the Tribe and the NRC the information that a NEPA analysis provides. Importantly, this interdisciplinary analysis and information is provided during the NEPA process by the applicant, staff, and members of the public. All of these sources of information are recognized by NEPA, but the Tribe is prejudiced here when significant sources of information are not available until the NRC has taken final action to accept or deny its contentions. It is of no consequence that the NRC provides an opportunity to seek permission to pursue new or rejected contentions later in the proceedings, based on information revealed in the NEPA analysis. *See*: *Id.* ("Once large bureaucracies are committed to a course of action, it is difficult to change that course - even if new, or more thorough, NEPA statements are prepared and the agency is told to 'redecide.'").

Basis and Discussion

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. This statutory violation is not remedied by providing a *post hoc* NEPA analysis, as is contemplated by the NRC regulations. Failure to conform to the timing policies and requirements of NEPA wastes resources of both the NRC Staff and the Tribe. Although, the applicant stated that there are no indigenous people sites or artifacts were found in the project area. Regardless, a process for tribal identification of Traditional Cultural Properties is being

developed and will be implemented during review of the MEA Environmental Report to Satisfy NEPA. ER at 3-77

Conducting NEPA analysis early in the process is necessary to meet the requirement that NEPA analysis must precede the decision-making process, lest the agency unleash a "bureaucratic steam roller" aimed at approval, but without the public participation and informed decision-making requirements of NEPA." *See Davis v. Mineta*, 302 F.3d 1104, 1115 (10th Cir. 2002. In short, the procedures the NRC used for the present application fail to satisfy NEPA's purpose, which is to influence the decision making process "by focusing the [federal] agency's attention on the environmental consequences of a proposed project," so as to "ensure[ ] that important effects will not be overlooked or underestimated only to be discovered after resources have been committed or the die otherwise cast." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989).

Contention 5: Failure to Consider Connected Actions

The Crow Butte expansion proposal to further conduct ISL operations activities is being considered by multiple federal agencies. However, NRC, the lead agency for purposes of NEPA - has failed engage these other agencies and therefore has failed to comply with the "action-forcing" mandate and purpose of NEPA.

Basis and Discussion:

The mandate and purpose of NEPA is to influence the decision making process "by focusing the [federal] agency's attention on the environmental consequences of a proposed project," so as to "ensure[] that important effects will not be overlooked or underestimated only to be discovered after resources have been committed or the die otherwise cast." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989). The NEPA analysis must be prepared by the NRC in

a manner which timely addresses, identifies, and analyzes any actions that are "connected" to the project under review. *See* 40 C.F.R. § 1508.25; *Utahns for BetterTransp. v. United States Dep't of Transp.*, 305 F.3d 1152, 1182 (10th Cir. 2002), *modified in part on other grounds*, 319 F.3d 1207 (2003).

For example, Crow Butte has provided a status of an applications with the Environmental Protection Agency ("EPA") and other relevant state agencies for various permits. See ER Table 1.5-2. There appears to have been no attempt by the NRC (or EPA) to conduct any NEPA analysis of the proposal for deep injection of hazardous materials in conjunction with the pending AEA license application. The Class V deep injection well is a "connected action" and even though EPA is the permitting agency, the deep injection proposal must be analyzed in the same NEPA analysis as the full Crow Butte proposal. Even if the disposal plans could somehow avoid analysis as "connected action" the deep well disposal activities must still be fully analyzed in the "cumulative impacts" analysis.

Here, the Tribe would be harmed should NRC continue to ignore the EPA permitting process on the basis that the "EIS has neglected to mention a serious environmental consequence, failed adequately to discuss some reasonable alternative, or otherwise swept stubborn problems or serious criticism . . . under the rug.'" *Lee v. United States Air Force*, 354 F.3d 1229, 1242 (10th Cir. 2004) c*iting Sierra Club v. Peterson*, 228 F.3d 559 (5th Cir. 2000).

Contention 6: The Environmental Report does not Examine Impacts of a Direct Tornado Strike

The Environmental Report provides an encyclopedic recital of considerable irrelevant information, but fails to provide information on reasonably foreseeable impacts of the proposal. ER 3-66 As one example, although tornado strikes are common occurrences in the region, there is no recognition of this reasonably foreseeable impact, even though it is coupled with

catastrophic consequences. See http://www.crh.noaa.gov/unr/?n=svrtor NOAA Rapid City regarding tornado preparedness in region surrounding Rapid City, South Dakota). This is but one example of the applicant's failure to provide a complete Environmental Report and the NRC failure to comply with the NEPA requirements at the earliest stages of the proceedings.

Basis and Discussion

The CEQ has published NEPA regulations at 40 C.F.R. § 1502.22(b)(3), which are applicable to all federal agencies and which require the NRC "to consider low-probability environmental impacts with catastrophic consequences, if those impacts are reasonably foreseeable." Here, 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. Tornadoes are not uncommon occurrences in the region and planning for tornado impacts is a common practice among all levels of government. http://dps.sd.gov/emergency_services/emergency_management/natural_hazard_info.aspx

The impact of a tornado strike is not only reasonably foreseeable, a tornado has impacted radioactive materials at the Fansteel Plant in Muskogee, Okalohoma (NRC License No. SMB-911) where on June 1, 1999, an F1 tornado was accompanied by a storm that also produced very large hail. The tornado struck the Fansteel plant, and damaged numerous buildings. According to documents in NRC files, the liners of Pond Numbers 3, 8, and 9 were torn above the water line and a stored soils cover was ripped. Damage to the Sodium Reduction Building allowed bagged material to fall out of the building and tear opens with approximately 500 pounds of material released to the ground surface within a 10-foot-diameter area before being recovered and bagged. *See*: *Docket No: 40-7580, Safety Evaluation Report For License Amendment Application To Approve Decommissioning Dated July 24, 2003.*

Where it is reasonably foreseeable that a tornado could strike the proposed ISL facility and damage the control facilities, with the associated winds dispersing toxic and radioactive materials across the landscape, the NRC and the applicant have ignored an important, and foreseeable, environmental impact with potentially catastrophic consequences.

IV. CONCLUSION

For the foregoing reasons, the Tribe has demonstrated that it has standing and that its contentions are admissible. Therefore, the Tribe is entitled to a hearing on its contentions.

Respectfully Submitted,

/s/ Waonsilawin Cindy Gillis
Waonsilwin Cindy Gillis
Mario Gonzalez
Attorneys for Oglala Sioux Tribe
522 7th Street, Suite 202s
Rapid City, SD 57701
(605) 716-6355
cindy@mariogonzalezlaw.com

Dated at Rapid City, South Dakota
this 29th day of January, 2013.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
CROW BUTTE RESOURCES, INC.	)	Docket No. 40-8943
MARSLAND EXPANSION	)	License SUA-1534
(In Situ Leach Facility, Crawford, NE)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Petition to Intervene and Request for Hearing in the captioned proceeding were served via the Electronic Information Exchange ("EIE") on the 29th day of January 2013, which to the best of my knowledge resulted in transmittal of same to those on the EIE Service List for the captioned proceeding.

Signed electronically by

/s/ Waonsilawin Cindy Gillis
Waonsilwin Cindy Gillis
Mario Gonzalez
Attorneys for Oglala Sioux Tribe
522 7th Street, Suite 202s
Rapid City, SD 57701
(605) 716-6355
cindy@mariogonzalezlaw.com