

June 4, 2013

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of:)	
)	
CROW BUTTE RESOURCES, INC.)	Docket No. 40-8943-MLA-2
)	
(Marsland Expansion Area))	ASLBP No. 13-926-01-MLA-BD01
)	

CROW BUTTE RESOURCES' NOTICE OF APPEAL OF LBP-13-06

Pursuant to 10 C.F.R. §§ 2.311(a) and (d), Crow Butte Resources, Inc., files this Notice of Appeal of the Atomic Safety and Licensing Board's Memorandum and Order, dated May 10, 2013, which, among other things, granted the Oglala Sioux Tribe's hearing request and admitted two contentions related to Crow Butte Resources' license amendment application for the Marsland Expansion Area. Attached is a brief in support of this appeal.

Respectfully submitted,

/s/ signed electronically by
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COUNSEL FOR CROW BUTTE
RESOURCES, INC.

Dated at San Francisco, California
this 4th day of June 2013

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BRIEF IN SUPPORT OF CROW BUTTE RESOURCES' APPEAL FROM LBP-13-06

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BRIEF IN SUPPORT OF CROW BUTTE RESOURCES' APPEAL FROM LBP-13-06

I. INTRODUCTION

Pursuant to 10 C.F.R. §§ 2.311(a) and (d), Crow Butte Resources, Inc. ("Crow Butte") hereby appeals the Licensing Board Memorandum and Order (Ruling on Intervention Petitions) ("LBP-13-06"), dated May 10, 2013. That ruling concerns an application by Crow Butte for an amendment to its existing license that would authorize Crow Butte to construct and operate a satellite uranium recovery facility at the Marsland Expansion Area ("MEA"). In LBP-13-06, the Board concluded that the Oglala Sioux Tribe ("OST") had established standing to participate in this proceeding and admitted two contentions.

For the reasons discussed below, the Commission should reverse the Board's decisions on standing and admissibility. OST failed to allege a cognizable injury that could support standing and did not avail itself of the opportunity to revise its standing declarations in light of new information. The Board also incorrectly applied the Commission's contention admissibility standards. OST failed to identify any specific portions of the application that are alleged to be deficient. The Board accepted contentions that amount to little more than "notice" pleading. OST's request for hearing and petition to intervene should be wholly denied.

II. FACTUAL BACKGROUND

Crow Butte is currently licensed to operate a uranium recovery facility in Crawford, Nebraska. By letters dated May 16 and June 8, 2012, Crow Butte submitted a request to amend Source Material License SUA–1534 to construct and operate a satellite uranium recovery facility at the MEA in Dawes County, Nebraska. An NRC acceptance review, documented in an email to Crow Butte dated October 5, 2012 (ADAMS Accession No. ML12285A142), found the application acceptable to begin a technical review. A notice of opportunity to request a hearing was published in the *Federal Register* with a deadline for filing petitions of January 29, 2013.¹ OST timely filed a petition to intervene and proposed six contentions.² Crow Butte and the NRC Staff filed responses on February 25, 2013,³ and OST replied on March 4, 2013.⁴

Thereafter, in an Order dated March 22, 2013, the Board sought the parties' views on the results of cultural field surveys of the Marsland site conducted in November-December 2012 by Native American tribes other than OST. The survey results were documented in a report prepared by the Santee Sioux Nation ("SSN Report"), dated March 5, 2013. The Board specifically sought the parties' views on the significance of the SSN report with respect to the

¹ "Crow Butte Resources, Inc. License SUA–1534, License Amendment To Construct and Operate Marsland Expansion Area," 77 Fed. Reg. 71454 (November 30, 2012).

² "Petition to Intervene and Request for Hearing of the Oglala Sioux Tribe," dated January 29, 2013.

³ "Applicant's Response to Petition to Intervene Filed by the Oglala Sioux Tribe," dated February 25, 2013; "NRC Staff Response to the Oglala Sioux Tribe's Request for Hearing and Petition to Intervene," dated February 25, 2013.

⁴ "Reply to NRC Staff and Applicant Responses to the Petition to Intervene and Request for Hearing of the Oglala Sioux Tribe," dated March 4, 2013.

standing of OST and the admissibility of their proposed contentions.⁵ Crow Butte and NRC Staff submitted filings addressing these matters on April 10, 2013.⁶ Crow Butte and NRC Staff both concluded that the SSN Report did not cure the defects in OST's standing or render any proposed contentions admissible. OST did not file a reply or otherwise address the SSN Report in any of its pleadings.

The Board issued LBP-13-06 on May 10, 2013. In LBP-13-06, the Board concluded that OST had established standing to participate in the proceeding and admitted two contentions (Contention 1, in part, and Contention 2). The Board denied the remainder of OST's proposed contentions.⁷

III. STANDARD OF REVIEW

A. Standing

Any person who requests a hearing or seeks to intervene in a Commission proceeding must demonstrate that he or she has standing.⁸ The Commission has long applied contemporaneous judicial concepts of standing to determine whether a party has a sufficient

⁵ Memorandum and Order (Establishing Schedule for Additional Pleadings to Address Information in Recent Tribal Cultural Resources Survey Report), dated March 22, 2013.

⁶ "Applicant's Supplemental Response on Standing and Contention Admissibility," dated April 10, 2013; "NRC Staff's Supplemental Pleading Regarding the Santee Sioux Nation Report," dated April 10, 2013.

⁷ LBP-13-06 also denied a petition submitted by Antonia Loretta Afraid of Bear Cook, Bruce McIntosh, Debra White Plume, Western Nebraska Resources Council, and Aligning for Responsible Mining (together, the "Consolidated Petitioners"). Crow Butte supports the Board's conclusions and orders in LBP-13-06 with respect to the Consolidated Petitioners. Accordingly, this appeal does not address the Board's rulings with respect to the Consolidated Petitioners.

⁸ 10 C.F.R. § 2.309(a).

interest to intervene as a matter of right.⁹ To establish standing, there must be an “injury-in-fact” that is either actual or threatened.¹⁰ The injury must be “concrete and particularized,” not “hypothetical.”¹¹ Further, a petitioner must establish a causal nexus between the alleged injury and the challenged action.¹² Judicial and Commission standing jurisprudence requires a “realistic threat ... of direct injury.”¹³

An organization may demonstrate standing by showing “either immediate or threatened injury to its organizational interests or to the interests of identified members.”¹⁴ Alternatively, an organization may assert “representational standing” on behalf of one or more of its members by demonstrating that the member has standing and that the organization is authorized to request a hearing on that member’s behalf.”¹⁵ Organizational standing requires a demonstration that the action at issue will cause an injury-in-fact to the organization’s interest

⁹ *Yankee Atomic Elec. Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 195 (1998).

¹⁰ *Id.*, citing *Wilderness Soc’y v. Griles*, 824 F.2d 4, 11 (D.C. Cir. 1987).

¹¹ *Sequoyah Fuels Corp. & Gen. Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 72 (1994).

¹² *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).

¹³ *Int’l Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-01-21, 54 NRC 247, 254 (2001). In materials licensing cases, there is no automatic presumption of standing based on geographic proximity. Rather, “a presumption of standing based on geographical proximity may be applied . . . where there is a determination that the proposed action involves a significant source of radioactivity producing an obvious potential for offsite consequences.” See *Georgia Institute of Technology* (Georgia Tech Research Reactor), CLI-95-12, 42 NRC 111, 116 (1995) (citing *Sequoyah Fuels*, CLI-94-12, 40 NRC at 75 n.22).

¹⁴ *Georgia Tech*, CLI-95-12, 42 NRC at 115.

¹⁵ *N. States Power Co.* (Monticello; Prairie Island, Units 1 & 2; Prairie Island ISFSI), CLI-00-14, 52 NRC 37, 47 (2000).

that is within the zone of interests of the Atomic Energy Act (“AEA”) or the National Environmental Policy Act (“NEPA”).¹⁶ The injury-in-fact necessary to establish organizational standing must be more than “a mere ‘interest in a problem,’ no matter how longstanding the interest and no matter how qualified the organization is in evaluating the problem.”¹⁷

B. Admissibility Of Contentions

To gain admission to a proceeding as a party, a petitioner must submit at least one valid contention that meets the requirements of 10 C.F.R. § 2.309(f)(1). The contention rule is “strict by design,”¹⁸ and failure to comply with any of the admissibility requirements is grounds for dismissal of a contention.¹⁹ The Commission’s procedures do not allow “‘the filing of a vague, unparticularized contention,’ unsupported by affidavit, expert, or documentary support.”²⁰ Likewise, Commission practice does not “permit ‘notice pleading,’ with details to be filled in later.”²¹

To be admissible, a contention must present a genuine dispute with the applicant on a material issue of law or fact, and any contention that fails directly to controvert the application or that mistakenly asserts the application does not address a relevant issue should be

¹⁶ *Sierra Club v. Morton*, 405 U.S. 727, 739 (1972).

¹⁷ *Id.* at 739.

¹⁸ *Dominion Nuclear Conn., Inc.*, (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001).

¹⁹ *Private Fuel Storage* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 325 (1999).

²⁰ *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).

²¹ *Id.*

dismissed.²² A petitioner must present the factual information and expert opinions necessary to support its contention adequately.²³ Neither mere speculation nor bare assertions alleging that a matter should be considered will suffice.²⁴ If a petitioner neglects to provide the requisite support for its contentions, it is not within the Board's power to make assumptions of fact that favor the petitioner.²⁵

IV. GROUND FOR REVERSAL OF THE BOARD RULING

For the reasons set forth below, the Board's conclusions on standing and on the admissibility of Contention 1 and Contention 2 are erroneous as a matter of law. The Commission should reverse the Board's ruling on these issues based on a misapplication of Commission precedent on standing and OST's failure to satisfy the Commission's standards for admissibility of contentions.

A. OST Has Not Demonstrated Standing

OST has failed to meet the requirements for organizational standing in this proceeding. In support of standing, OST explains that it is a federally-recognized Indian Tribe, located on the Pine Ridge Reservation in South Dakota. OST asserts that its standing to participate in this proceeding is demonstrated by the declarations of Wilmer Mesteth, who is the OST Historic Preservation Officer ("THPO"), and Denise Mesteth, who is the Director of the Oglala Sioux Tribal Land Office. The declarations express OST's broad interest in protecting its

²² *Sacramento Mun. Util. Dist. (Rancho Seco Nuclear Generating Station)*, LBP-93-23, 38 NRC 200, 247-48 (1993), *review declined*, CLI-94-2, 39 NRC 91 (1994).

²³ *Georgia Inst. of Tech. (Georgia Tech Research Reactor)*, LBP-95-6, 41 NRC 281, 305, *vacated in part and remanded on other grounds*, CLI-95-10, 42 NRC 1, *aff'd in part*, CLI-95-12, 42 NRC 111 (1995).

²⁴ *Fansteel, Inc. (Muskogee, Oklahoma Site)*, CLI-03-13, 58 NRC 195, 203 (2003).

²⁵ *Georgia Tech*, LBP-95-6, 41 NRC at 305.

cultural and historical resources, along with its lands, natural resources, economic prosperity, and the health, safety, and welfare of tribal members and the public.

Although OST is a federally-recognized Indian Tribe, it must still meet the standing requirements in 10 C.F.R. § 2.309(d)(1) because MEA is not located within the OST tribal boundaries. In other words, OST must meet the same requirements for establishing standing as any other petitioner.²⁶ While the Board intimates in LBP-13-06 that a tribal interest in cultural resources on established “aboriginal lands” is sufficient to provide the requisite injury in fact for standing,²⁷ no legal support is provided for this relaxation of normal standing requirements.²⁸ To the contrary and as the cases cited by the Board suggest, OST must show “either immediate or threatened injury to its organizational interests or to the interests of

²⁶ LBP-13-06 at 11, n.7, citing *Fla. Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 6 and 7), LBP-11-6, 73 NRC 149, 169-70 (2011); *N. States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), LBP-08-26, 68 NRC 905, 912-14 (2008); *Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), LBP-99-25, 50 NRC 25, 29-31 (1999).

²⁷ See *id.* (“OST’s statutorily recognized interest in the tribal cultural resources that may still be extant on its recognized aboriginal lands seemingly would provide a cognizable interest for the purpose of establishing its standing.”).

²⁸ The Board states (at 13) that its conclusion is “consistent with the Commission’s determinations in both the Crow Butte North Trend and Crow Butte Renewal proceedings regarding tribal standing based on alleged cultural resources injuries.” However, OST is not a party in the *North Trend* proceeding (it participates under 10 C.F.R. § 2.315). And, in the *License Renewal* proceeding, the Commission made clear that OST’s standing was based in part on “potential contamination of water resources” used by OST. See CLI-09-09 at 12 (“[W]e cannot say that the Board based standing solely on the Tribe’s interest in preserving artifacts on the Crow Butte site.”). The Board in the present case did not find that OST had standing based on impacts to water resources used by OST. The Board created an entirely new standard for tribal standing that apparently hinges on the scope of a tribe’s undefined “aboriginal lands.”

identified members” or assert “representational standing” on behalf of one or more of its members.²⁹ OST has not made either showing here.

OST has not demonstrated that the amendment will cause an injury-in-fact to OST’s interest in cultural resources or that OST’s alleged interest is more than “a mere ‘interest in a problem.’”³⁰ OST failed to present any evidence — through the declarations of the THPO, the Director of the Oglala Sioux Tribal Land Office, or otherwise — to demonstrate a link between OST’s interests and operations at Marsland, as required by *Sierra Club v. Morton*.³¹ OST also has not provided any information to suggest that its members have any direct connection with the project area.³² Nowhere in the pleadings or affidavits does OST state that it uses or visits the Marsland site for any purpose, much less any connection that would be significantly affected by Crow Butte’s proposed operations. OST also declined to participate in the cultural resources survey in late-2012, and has not pointed to any particular cultural resources that it alleges would be impacted by activities at Marsland. While OST may have some interest in protecting the cultural resources identified in the SSN Report, this interest is no different than the interest any other person or organization might have in protecting cultural and historical

²⁹ *Georgia Tech*, CLI-95-12, 42 NRC at 115. OST has not identified any members who would be affected and representational standing is not discussed further.

³⁰ *Sierra Club v. Morton*, 405 U.S. 727, 739 (1972).

³¹ *Id.* at 739-740. There is nothing to suggest a link between cultural resources at Marsland and OST, in particular. For example, there is no information to suggest that cultural resources found at the Marsland site relate to OST, and neither affidavit claims a link. In the absence of any direct injury to OST’s organizational interests, there is no “particularized” injury to support OST’s standing.

³² *Id.*

resources.³³ Such a generalized interest is insufficient to establish the “concrete or particularized injury” necessary for standing.

Most tellingly, despite being presented with an opportunity to bolster their standing arguments, OST failed to amend their petition or update their affidavits following completion of the SSN Report. The Board specifically requested OST’s views on the significance of the cultural resources identified in the SSN Report with respect to standing. OST did not respond. OST therefore did not present any new information establishing a direct nexus between OST and MEA, as required by *Sierra Club v. Morton*. Neither the THPO nor the Director of the Oglala Sioux Tribal Land Office updated their standing declarations to include statements regarding previous OST visits to the Marsland area or future intentions to visit cultural resources in the area. Nor did they make assertions regarding a particularized OST interest in the specific cultural resources identified in the SSN Report. As a result, OST has not established the requisite injury to OST that goes beyond the insufficient general “interest in a problem” regarding preservation of cultural resources. The Board was wrong to draw inferences from documents that were not addressed by, or incorporated into, OST’s pleadings.

B. The Admitted Portion of Contention 1 Does Not Satisfy Criteria For An Admissible Contention

As admitted by the Board, Contention 1 states:

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

³³ *Id.* at 739.

As a preliminary matter, Crow Butte agrees with the Board's decision in LBP-13-06 regarding dismissal of a portion of Contention 1 for failure to raise a material dispute with respect to the NHPA consultation requirement.³⁴ With respect to the portion of proposed Contention 1 addressing the description and analysis of cultural resources in the Environmental Report ("ER"), the Commission should reverse the Board for two reasons: (1) Contention 1 fails to demonstrate a genuine dispute with the application and (2) the Board impermissibly provided bases not supplied by OST to support admissibility.

Contention 1 fails to demonstrate a genuine dispute with the application. Neither the OST petition nor its supporting declarations pointed to any section or statement in the ER that is allegedly deficient, nor has OST demonstrated any genuine dispute with respect to the National Register of Historic Places ("NRHP") eligibility conclusions in the three cultural resource investigations of the Marsland site. Two pre-application cultural resources surveys were performed by Crow Butte's cultural resource contractor. The third survey was documented in the SSN Report. No sites were found to be eligible for the NRHP in any of the surveys. Any contention that fails to directly controvert the application must be dismissed.³⁵ Contention 1 should have been denied on this basis alone.³⁶

³⁴ At a minimum, the Board decision means that the portion of Contention 1 alleging a failure to comply with the NHPA should have been deleted from the text of the admitted contention. *Compare* LBP-13-06 at 30-31 to Appendix A.

³⁵ *Crow Butte Resources, Inc.* (North Trend Expansion Project), CLI-09-12, 69 NRC 535, 557 (2009); *USEC, Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 462-63 (2006).

³⁶ OST also has not provided any expert support for a dispute with the application. The THPO did state in his declaration that the presence of current or extinct water resources on the MEA creates a strong likelihood that cultural resource sites exist within the MEA. OST Petition, unnumbered exh. 7, at 2 (Declaration of Wilmer Mesteth). But, the cultural resource survey report prepared by Crow Butte's contractors acknowledges and agrees with the THPO on this point. *Marsland Expansion Area Uranium Project Class*

The Board also impermissibly provided bases for the contention that were not supplied by OST. The ER describes a cultural resources investigation performed by Crow Butte’s cultural resources contractor that recorded 15 newly-discovered euroamerican historic sites and five euroamerican historic isolated finds.³⁷ In its March 22 Order, the Board sought the parties’ views on the significance of the SSN Report with respect to the standing of OST and the admissibility of its proposed contentions.³⁸ While Crow Butte and NRC Staff submitted filings addressing these matters, OST did not file a reply or otherwise address the SSN Report’s impact on admissibility of Contention 1.³⁹ Nevertheless, the Board took it upon itself to try to “connect the dots,” and, relying on the SSN Report for support, admitted Contention 1. The Board stated that “to whatever degree [the THPO’s original declaration] might not be sufficient”⁴⁰ to support

III Cultural Resource Investigation, dated April 28, 2011, at 21 (ADAMS Accession No. ML12165a503) (“Locations along drainages and creeks where a higher, though still limited, probability of discovering buried prehistoric sites offered excellent bare ground visibility and bare cut-banks to observe subsurface strata.”); *id.* at 14 (“Prehistoric site densities can vary from extremely high in some settings, such as ridge tops and areas near large and reliable drainages, to nonexistent in settings that are ecologically homogenous or are distant from water.”). There is therefore no basis for dispute on this issue.

³⁷ ER at 3-76. The ER explains that none of the newly-recorded historic sites were recommended as eligible for the NRHP. *Id.* at 3-77. The ER also notes that “[n]o indigenous people sites or artifacts were found in the project area” (*id.* at 3-77) despite “anticipat[ing] discovering modern and historic trash debris or dumps, historic foundations and structures, and prehistoric lithic scatters or isolated finds situated sporadically across the [Marsland site].” *Marsland Expansion Area Uranium Project Class III Cultural Resource Investigation*, dated April 28, 2011, at 20 (ADAMS Accession No. ML12165A503). A prehistoric site is defined as two or more artifacts within 30 meters of one another or the presence of a feature. *Id.*

³⁸ The SSN Report identified nine sites and two items of interest at the Marsland site. The SSN Report did not provide a definition of a “site.”

³⁹ “Applicant’s Supplemental Response on Standing and Contention Admissibility,” dated April 10, 2013; “NRC Staff’s Supplemental Pleading Regarding the Santee Sioux Nation Report,” dated April 10, 2013.

⁴⁰ LBP-13-06 at 32.

Contention 1, the subsequent SSN Report shows OST's concern to be well founded.⁴¹ Thus, the Board expressly relied on the SSN Report's documentation of potential cultural resource sites at Marsland in admitting Contention 1, even though OST never referenced or incorporated that report into their pleadings. This contravenes the well-established principle that a licensing board may not supply missing information or draw inferences on behalf of the petitioner.⁴²

Ultimately, it is the responsibility of OST, not the Board, to provide the necessary information to satisfy the requirements for the admission of its contentions, including an explanation of the bases for those contentions.⁴³ If a petitioner neglects to provide the requisite support for its contentions, it is not within the Board's power to make assumptions or draw inferences that favor the petitioner, nor may the board supply information that is lacking.⁴⁴ But, this is exactly what the Board has done with respect to Contention 1. Because OST did not dispute (or even reference) the application's discussion of cultural resources or update its pleadings to reflect new information despite the opportunity to do so, the Commission should reverse the Board's decision on Contention 1.

C. Contention 2 Does Not Satisfy Criteria For An Admissible Contention

OST's affidavits and information in support of Contention 2 are insufficient to justify the Board's admission of this contention. The basis for Contention 2 is:

In this case, the application fails to present sufficient information in a scientifically defensible manner to adequately characterize the site and

⁴¹ *Id.*

⁴² *See supra*, notes 25 and 35; *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-01-35, 54 NRC 403, 422 (2001).

⁴³ *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-942, 32 NRC 395, 416-417 (1990).

⁴⁴ *CBR North Trend*, CLI-09-12, 69 NRC at 553; *Georgia Tech*, LBP-95-6, 41 NRC at 305.

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 2-4.⁴⁵

The LaGarry opinion, which was attached as Exhibit 1, has two substantive sections. The first section, entitled *Stratigraphy of Water-Bearing Rocks in Northwestern Nebraska*, is a generalized regional-scale dissertation on the stratigraphy of water-bearing rocks in northwestern Nebraska. LaGarry lists the various formations that exist in the vicinity of Marsland and provides some geologic context. These same formations are all discussed in the ER at Section 3.3.1, *Geology and Seismology*. LaGarry does not appear to take issue with any portion of the application's discussion of the stratigraphy at Marsland. In fact, LaGarry and Crow Butte reference many of the same documents.

The second section in the LaGarry opinion is entitled *Contaminant Pathways*. LaGarry describes three possible contaminant pathways: surface leaks and spills, underground leaks and spills (excursions), and lack of containment. He also provides one paragraph on lateral migration. The paragraphs on surface and underground leaks/spills and lateral migration are nothing more than a recitation of potential impacts. All of these same topics are addressed at length in the application. LaGarry also briefly discusses confinement, noting research by Diffendal (1994) and Swinehart and others (1985) that shows faults in the general vicinity of Marsland. These same studies are specifically addressed in ER Section 3.3.1.3, *Structural*

⁴⁵ OST Petition at 18. OST also cites an EPA letter that relates to draft NRC Staff environmental review documents for uranium recovery facilities located in Wyoming. The Petition states only that the EPA 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." The Petition makes no effort to link the EPA's concerns for those facilities to the Marsland application, nor does it cite to any specific portion of the Marsland application that is alleged to be deficient.

Geology. LaGarry does not cite any research indicating faulting at the Marsland site or claim that Crow Butte omitted any research from its ER. And, LaGarry does not point to any aspect of the application that he disputes.

Against this backdrop, the Board identifies four specific alleged deficiencies in the application that are supposedly supported by the opinion of LaGarry.⁴⁶ But, the issues identified by the Board were not articulated by OST or LaGarry, and none reflect a genuine dispute with the application. The LaGarry opinion does not contain a single citation to Crow Butte's application, or otherwise challenge any of the information presented in the application regarding site hydrogeology or confinement. Nor, as discussed above, can the LaGarry opinion be fairly read to "dispute" information or conclusions in Crow Butte's application. In addition, the information that the Board found to be missing is, in fact, in the application. As a result, Contention 2 should be denied.

As an initial matter, the Board's application of the admissibility standards to Contention 2 does not reflect current Commission practice. The Board itself recognizes that "OST does not cite to any specific portion of the [Crow Butte] application to support its allegations," but then concludes that this is "not an illogical or unreasonable approach" because OST is essentially pointing to all sections of the application relating to hydrogeology. But, in

⁴⁶ LBP-13-06 at 34. These four alleged deficiencies are as follows: "(1) the descriptions of the affected environment are insufficient 'to establish the potential effects of the proposed [ISR] operation on the adjacent surface water and ground water resources'; (2) 'a description of the 'effective porosity, hydraulic conductivity, and hydraulic gradient' of site hydrogeology,' is absent along with 'other information relative to the control and prevention of excursions'; (3) 'an acceptable conceptual model of site hydrology adequately supported by the data presented in the site characterization' has not been adequately developed to demonstrate 'with scientific confidence that the area hydrogeology, including horizontal and vertical hydraulic conductivity, will result in the confinement of extraction fluids and expected operation and restoration performance'; and (4) the ER contains 'unsubstantiated assumptions as to the isolation of the aquifers in the ore-bearing zones.'" *Id.*

Chapter 3 of the ER alone, there are nearly 50 pages of text that address hydrology and geology, along with at least 20 tables of supporting information and 40 figures. It is well established that the Board and the parties “cannot be expected to go on a veritable scavenger hunt to find the missing pieces needed for an admissible contention.”⁴⁷ A petitioner has a duty to identify the specific portions of the application that are alleged to be deficient. A failure to do so, as here, demands that the contention be denied.

The Board suggests that Contention 2 is admissible because Crow Butte is “on notice regarding what portions of the application it needs to defend.”⁴⁸ But, notice pleading is not permitted in NRC adjudications.⁴⁹ The Commission’s pleading standards are strict by design. It is not enough for a petitioner to claim that an application, on the whole and without reference to the application, is somehow deficient. OST must point to specific portions of the application that are alleged to be inadequate, and must point to specific supporting evidence for the claim.

The Board in effect shifts the required showing for admissibility from OST to Crow Butte and NRC Staff. At this stage of the proceeding, Crow Butte and NRC Staff do not have an affirmative obligation to show that an unsupported contention has no merit. It is the responsibility of OST to provide support for the contention.⁵⁰ The Board, however, faults Crow Butte and NRC Staff for not having “conclusively shown where in the application there is, as

⁴⁷ *Powertech USA, Inc.* (Dewey-Burdock In Situ Uranium Recovery Facility), LBP-10-16, _ NRC _ (slip op. at 31).

⁴⁸ LBP-13-06 at 39.

⁴⁹ *Amergen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 118-19 (2006).

⁵⁰ *Id.*

OST asserts there should be, a scientifically defensible characterization of onsite and offsite hydrogeology to ensure confinement of the extraction fluids.”⁵¹ The Board also suggests that it is Crow Butte who has a responsibility to “referenc[e] any technical support regarding the adequacy of just one pumping test as being sufficient to support its conclusion” and “show[] that the rate and duration of the pumping test was adequate to represent the hydraulic stress that will be placed on the Chadron Formation ore zone during long-term operational pumping.”⁵² The Board also faults NRC Staff for “provid[ing] no explanation of how these descriptions [of the site hydrogeology in Section 2.7.2.3 of the Technical Report (3.4.3.3 of the ER)] are sufficient to characterize the site adequately for assessing the viability of ISR operations.”⁵³ By suggesting that Crow Butte and NRC Staff have a duty to affirmatively demonstrate a non-issue — in circumstances where OST has provided nothing more than bare assertions and unsubstantiated allegations, and no citation to the application — the Board has effectively eliminated the basis and specificity requirements in 10 C.F.R. § 2.309.

In light of the above discussion, each of the supposed deficiencies identified by the Board for hearing are discussed below.

1. Sufficiency of Descriptions of Affected Environment

Contention 2, as admitted, alleges that the descriptions of the affected environment are insufficient with respect to potential effects on the adjacent surface and ground water resources. This assertion is overbroad and unsupported. The entire application is geared toward ensuring sufficient consideration of the effects on surface and ground water resources,

⁵¹ LBP-13-06 at 40. The entire application, which comports with NRC guidance, is designed precisely to show just that.

⁵² *Id.* at 40-41.

⁵³ *Id.* at 41.

including an exhaustive analysis of potential impacts following NRC Staff guidance in NUREG-1569. A contention alleging that an entire plan is inadequate must specify in some way each portion of the plan alleged to be inadequate.⁵⁴ Here, however, OST does not identify a particular section of the application that is allegedly deficient. As noted above, the LaGarry opinion does not cite to or reference any part of the application as support for Contention 2. OST has not claimed, for example, that Crow Butte overlooked rivers, streams, or aquifers that could be affected or failed to account for some geologic feature.⁵⁵ A contention that fails to highlight a disputed portion of the application is inadmissible.⁵⁶

2. *Omitted Information Regarding Hydrogeology*

The second deficiency identified by the Board is an alleged omission in the application with respect to hydrogeology and other information related to control and prevention of excursions. Specifically, the Board based its decision on an absence of a description of the effective porosity, hydraulic conductivity, and hydraulic gradient at the site.⁵⁷ But, the application sets forth exactly this information.

⁵⁴ *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), LBP-82-75, 16 NRC 986, 993 (1982).

⁵⁵ Even applying the Board's new admissibility test, Crow Butte is not "on notice" regarding this aspect of Contention 2. Neither OST's Petition nor LBP-13-06 explains the supposed deficiency. Does it involve the description of groundwater or surface water? Or, the potential for surface spills or underground fluid excursions? Does the application overlook some risk/hazard or fail to describe a potential environmental impact? The Commission requires specificity and does not permit litigation of unparticularized contentions precisely to avoid the problem presented by admitted Contention 2.

⁵⁶ *CBR North Trend*, CLI-09-12, 69 NRC at 557.

⁵⁷ LBP-13-06 at 34.

ER Section 3.4.3, *Groundwater*, contains an in-depth description of the site hydrology. With respect to hydraulic conductivity, the ER explains (at 3-41) that pump test results indicate a mean hydraulic conductivity of 25 feet/day in the basal sandstone of the Chadron formation. Estimates of hydraulic conductivity for other formations (*e.g.*, Pierre Shale, upper Chadron, and middle Chadron) are also provided. With respect to hydraulic gradient, the ER notes (at 3-44) that the gradient in the basal sandstone of the Chadron formation is 0.0004 feet/foot and 0.011 feet/foot in the Brule formation. Porosity is estimated to be 0.29 in the ER (at 5-20). Because the application contains the information that was alleged to be missing, there is no basis for admitting this portion of Contention 2.

3. *Adequacy of the Conceptual Model of Site Hydrology*

The third deficiency identified by the Board is the allegation that Crow Butte has not developed an acceptable conceptual model of site hydrology to demonstrate with scientific confidence the confinement of extraction fluids and expected operational and restoration performance.⁵⁸ But, neither OST nor the LaGarry opinion actually challenged any part of the conceptual model of site hydrology in the application. The LaGarry opinion does not take issue with (or even cite) any specific portion of Crow Butte's application.⁵⁹ Instead, the LaGarry opinion is a broad summary of *regional* geology with no obvious connection to the site-specific attributes at Marsland. Providing material or documents as a basis for a contention, without setting forth an explanation of its significance, is inadequate to support the admission of the contention. Neither mere speculation nor bare or conclusory assertions, even by an expert,

⁵⁸ OST Petition at 18.

⁵⁹ As noted above, a contention that fails to identify any portion of the application that is alleged to be deficient must be denied.

alleging that a matter should be considered will suffice to allow the admission of a proffered contention.⁶⁰

Moreover, Crow Butte's application specifically references research conducted by LaGarry.⁶¹ If OST has any specific concerns with Crow Butte's use of that research or its description of the local hydrology, it has an obligation to identify precisely which portions of the application are wrong. But, in the absence of any claim that a specific portion of the application is deficient, or even a reference to any information that is alleged to be incorrect, there is simply no issue to litigate.

4. *Unsubstantiated Assumptions as to the Isolation of Aquifers*

OST states that the ER includes "unsubstantiated assumptions" as to the isolation of the aquifers in the ore-bearing zones" and asserts that the deficiencies are supported by the LaGarry opinion.⁶² But, OST and the LaGarry opinion never identify which assumptions are allegedly unsubstantiated. The LaGarry opinion has not actually stated any disagreement with, or identified any genuine deficiency in, the application. This is not a situation involving an assessment of the "merits" of the LaGarry opinion.⁶³ Rather, the admissibility of Contention 2 turns on a threshold assessment of whether the dispute is "genuine" and reasonably specific. Contention 2 is neither.

Contention 2 fails to challenge any of the information presented in the application regarding isolation of aquifers (*i.e.*, confinement). Confinement is addressed in the ER at

⁶⁰ *USEC*, CLI-06-10, 63 NRC at 472.

⁶¹ *See, e.g.*, ER at 3-6, 3-8, 3-9, 3-10, 3-14, 3-15, and 3-21.

⁶² OST Petition at 18.

⁶³ LBP-13-06 at 34-36.

Section 3.4.3.2, *Aquifer Testing and Hydraulic Parameter Identification Information*.⁶⁴ Crow Butte performed an aquifer pumping test in accordance with a Regional Pumping Test Plan, which was approved by the Nebraska Department of Environmental Quality (“NDEQ”). The pump test was specifically designed to (1) assess the hydrologic characteristics of the production zone aquifer within the test area, including the presence or absence of hydraulic boundaries; and (2) demonstrate sufficient confinement (hydraulic isolation) between the production zone and the overlying aquifer for the purpose of uranium mining.⁶⁵ During the test, no discernible drawdown or recovery responses attributed to the test were observed in overlying Brule Formation observation wells. This led Crow Butte to conclude that adequate confinement exists between the overlying Brule Formation and the basal sandstone of the Chadron Formation.⁶⁶

The application (ER at 3-44 to 3-45) also identifies a number of additional lines of evidence for confinement including:

- Large differences in observed hydraulic head (330 to 500 feet) between the Brule Formation and the basal sandstone of the Chadron Formation indicate strong vertically downward gradients and minimal risk of naturally occurring impacts to the overlying Brule Formation (Section 3.4.3.1).
- Significant historical differences in geochemical groundwater characteristics between the basal sandstone of the Chadron Formation and the Brule Formation (Section 6.1.2.3).
- Site-specific XRD analyses, particle grain size distribution analyses, and geophysical logging confirm the presence of a thick (up to 940 feet), laterally continuous upper confining layer consisting of low permeability mudstone and claystone, and a thick (more than 750 feet), regionally

⁶⁴ Much of the information and discussion presented in the ER is repeated in the Technical Report (“TR”).

⁶⁵ ER at 3-41.

⁶⁶ *Id.* at 1-17, 3-41.

extensive lower confining layer composed of very low permeability black marine shale.

- Analyses of particle size distribution results suggest a maximum estimated hydraulic conductivity of 10^{-5} cm/sec for core samples from the upper confining layer.
- Hydraulic resistance to vertical flow is expected to be low due to the significant thickness of the upper confining zone within the MEA.
- The vertical hydraulic conductivity across the upper and lower confining layers is likely to be even lower than 10^{-5} cm/sec due to vertical anisotropy.⁶⁷

The LaGarry opinion does not address any of the evidence provided by Crow Butte in support of confinement. The LaGarry opinion describes the *regional* geology, as does Crow Butte. However, no differences between the two are identified. LaGarry also identifies the same potential contaminant pathways as Crow Butte. But, in contrast to Crow Butte's *site-specific* pump test data and other evidence that indicate adequate confinement, LaGarry did not provide any site-specific information on geology or contaminant pathways. Crow Butte's application describes detailed *site-specific* investigations and conclusions — based on borehole data, monitoring well and water quality data, pump test results, and laboratory testing data. OST and LaGarry have not claimed that any of that information is insufficient or that Crow Butte's conclusions lack support. This aspect of Contention 2 therefore cannot be admitted.

⁶⁷ Contrary to the Board's claims (at 41, n.30), these additional lines of evidence are not "general, provisional statements that lack technical support." Instead, they are technical conclusions based on the information developed by Crow Butte and others regarding subsurface conditions and inferences drawn from that information. They reflect the informed judgment of the engineering and geologic professionals that prepared the application. Assessments of subsurface conditions necessarily rely on such judgments, as it is impossible to "see" or "measure" underground conditions precisely. If OST believes that Crow Butte's conclusion are inadequate or unsupported, then OST has a duty to specify which conclusions are allegedly incorrect and provide a supporting basis. OST has not done that here.

Moreover, the Board appears to have provided bases for Contention 2 that were not supplied by OST. For example, the Board references “OST’s stated concern about the adequacy of this single [aquifer pump] test,” and asserts that Crow Butte “has not shown that the rate and duration of the pumping test was adequate to represent the hydraulic stress that will be placed on the Chadron Formation ore zone during long-term operational pumping.”⁶⁸ But, as summarized above, neither OST nor LaGarry dispute the conclusions of the aquifer pump test. In fact, neither OST nor LaGarry even mention the aquifer pump test or reference the application discussion of the pump test. Certainly, neither OST nor the LaGarry opinion make the challenge articulated by the Board. It is not within the Board’s power to make assumptions or draw inferences that favor the petitioner.⁶⁹

At bottom, OST failed to provide support for the contention or identify which portions of the application are supposedly deficient. The Commission should reverse the Board and find Contention 2 inadmissible.

V. CONCLUSION

For the foregoing reasons, the Commission should reverse the Board’s conclusions regarding OST’s standing and the admissibility of Contentions 1 and 2. OST’s petition should be denied.

⁶⁸ LBP-13-06 at 40-41.

⁶⁹ *Duke Cogema Stone & Webster*, LBP-01-35, 54 NRC at 422.

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Dated at San Francisco, California
this 4th day of June 2013

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of:)	
)	
CROW BUTTE RESOURCES, INC.)	Docket No. 40-8943-MLA-2
)	
(Marsland Expansion Area))	ASLBP No. 13-926-01-MLA-BD01
)	

CERTIFICATE OF SERVICE

I hereby certify that copies of “CROW BUTTE RESOURCES’ NOTICE OF APPEAL OF LBP-13-06” and “BRIEF IN SUPPORT OF CROW BUTTE RESOURCES’ APPEAL FROM LBP-13-06” in the captioned proceeding have been served via the Electronic Information Exchange (“EIE”) this 4th day of June 2013, which to the best of my knowledge resulted in transmittal of the foregoing to those on the EIE Service List for the captioned proceeding.

/s/ signed electronically by _____

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