

February 25, 2013

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:	)	
	)	Docket No. 40-8943-MLA-2
CROW BUTTE RESOURCES, INC.	)	
	)	ASLBP No. 08-867-02-OLA-BD01
(Marsland Expansion Area)	)	

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APPLICANT'S RESPONSE TO PETITION TO  
INTERVENE FILED BY CONSOLIDATED PETITIONERS

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I. INTRODUCTION

Pursuant to 10 C.F.R. § 2.309(h), Crow Butte Resources, Inc. (“Crow Butte” or “the Applicant”) files this response to the consolidated request for hearing/petition to intervene (“Petition” or “Pet.”) filed on January 29, 2013, by Antonia Loretta Afraid of Bear Cook, Bruce McIntosh, Debra White Plume, Western Nebraska Resources Council, and Alignment for Responsible Mining (collectively, “Petitioners”).<sup>1</sup> For the reasons discussed below, the Petition should be denied. Petitioners have not demonstrated standing and have not presented any admissible contentions.

II. BACKGROUND

Crow Butte is currently licensed to operate an in-situ uranium recovery facility near 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 Marsland Expansion Area (“MEA”) in Dawes County,

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<sup>1</sup> “Consolidated Request for Hearing and Petition for Leave to Intervene,” dated January 29, 2013.

Nebraska. An NRC administrative 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.<sup>2</sup> The Petitioners timely filed a petition to intervene and request for hearing.

A. Standing Requirements

Any person who seeks to intervene in a Commission proceeding must demonstrate that he or she has standing. The Commission has long applied judicial concepts of standing to determine whether a party has a sufficient interest to intervene as a matter of right.<sup>3</sup> To establish standing, there must be an “injury-in-fact” that is either actual or threatened.<sup>4</sup> As a result, standing will be denied when the threat of injury is too speculative. The alleged “injury-in-fact” also must lie within the “zone of interests” protected by the Atomic Energy Act (“AEA”) or the National Environmental Policy Act (“NEPA”), 42 U.S.C. §§ 4321, *et seq.*<sup>5</sup> A petitioner must also establish a causal nexus between the alleged injury and the challenged action.<sup>6</sup> A

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<sup>2</sup> “Crow Butte Resources, Inc. License SUA–1534, License Amendment To Construct and Operate Marsland Expansion Area,” 77 Fed. Reg. 71454 (November 30, 2012).

<sup>3</sup> *Yankee Atomic Elec. Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 195 (1998).

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

<sup>5</sup> *Quivira Mining Co.* (Ambrosia Lake Facility, Grants, New Mexico), CLI-98-11, 48 NRC 1, 6 (1998).

<sup>6</sup> *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 & 2), LBP-98-27, 48 NRC 271, 276 (1998), *aff’d*, CLI-99-4, 49 NRC 185 (1999).

determination that the injury is fairly traceable to the challenged action depends, in part, on whether the chain of causation is “plausible.”<sup>7</sup>

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.”<sup>8</sup> Whether a proposed action carries with it an “obvious potential for offsite consequence,” and, if so, at what distance a petitioner can be presumed to be affected, must be determined “on a case-by-case basis, taking into account the nature of the proposed action and the significance of the radioactive source.”<sup>9</sup>

An organization may demonstrate standing by showing “either immediate or threatened injury to its organizational interests or to the interests of identified members.”<sup>10</sup> For an organization to assert “representational standing” on behalf of one or more of its members, the organization “[m]ust demonstrate how at least one member may be affected by the licensing action, must identify that member by name/address, and must show that the organization is authorized to request a hearing on that member’s behalf.”<sup>11</sup> Organizational standing requires a demonstration that the action at issue will cause an injury-in-fact to the organization’s interests

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<sup>7</sup> *Sequoyah Fuels*, CLI-94-12, 40 NRC at 75.

<sup>8</sup> *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).

<sup>9</sup> *Id.*; *see also Exelon Generation Co., LLC and PSEG Nuclear, LLC* (Peach Bottom Atomic Power Station, Units 2 and 3), CLI-05-26, 62 NRC 577, 580 (2005).

<sup>10</sup> *Georgia Tech*, CLI-95-12, 42 NRC at 115.

<sup>11</sup> *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 AEA or NEPA.<sup>12</sup> 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.”<sup>13</sup>

B. Admissibility of Contentions

To gain admission to a proceeding as a party, a petitioner must submit at least one contention that meets the requirements of 10 C.F.R. § 2.309(f)(1). An admissible contention must:

- (i) Provide a specific statement of the issue of law or fact to be raised or controverted;
- (ii) Provide a brief explanation of the basis for the contention;
- (iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;
- (iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;
- (v) Provide a concise statement of the alleged facts or expert opinions which support the requestor’s/petitioner’s position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the requestor/petitioner intends to rely to support its position on the issue; and
- (vi) Provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact.

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<sup>12</sup> *Sierra Club v. Morton*, 405 U.S. 727, 739 (1972).

<sup>13</sup> *Id.* at 739.

The contention rule is “strict by design.”<sup>14</sup> The Commission’s procedures do not allow “the filing of a vague, unparticularized contention,’ unsupported by affidavit, expert, or documentary support.”<sup>15</sup> Likewise, Commission practice does not “permit ‘notice pleading,’ with details to be filled in later.”<sup>16</sup> A contention must present a genuine dispute with the applicant on a material issue. Any contention that fails directly to controvert the application or that mistakenly asserts the application does not address a relevant issue must be denied.<sup>17</sup> The petitioner must present the factual information and expert opinions necessary to support its contention adequately.<sup>18</sup> Failure to do so requires that the contention be rejected.<sup>19</sup> Neither mere speculation nor bare assertions alleging that a matter should be considered will suffice to allow the admission of a proffered contention.<sup>20</sup>

### III. DISCUSSION

For the reasons set forth below, none of the Petitioners have demonstrated standing or proffered an admissible contention.

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<sup>14</sup> *Dominion Nuclear Conn., Inc.*, (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001),

<sup>15</sup> *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).

<sup>16</sup> *Id.*

<sup>17</sup> *PPL Susquehanna LLC* (Susquehanna Steam Electric Station, Units 1 and 2), LBP-07-10, 66 NRC 1, 24 (2007).

<sup>18</sup> *See 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).

<sup>19</sup> *Palo Verde*, CLI-91-12, 34 NRC at 155.

<sup>20</sup> *Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 203 (2003).

A. The Petitioners Do Not Have Standing

A petitioner must demonstrate an injury that is “concrete and particularized,” not “conjectural” or “hypothetical.”<sup>21</sup> Conclusory allegations about potential radiological harm from the facility in general are insufficient to establish standing. Judicial and Commission standing jurisprudence requires “realistic threat ... of direct injury.”<sup>22</sup> As a result, a standing inquiry includes a threshold, fact-based question as to whether the alleged injury is concrete and causation is plausible. Here, there are significant geologic, hydrologic, and topographic differences between the Marsland site and the aquifers or water sources used by the Petitioners in their daily activities. These differences preclude standing based on claims of injury that would be caused by the proposed license amendment.

*1. Antonia Loretta Afraid of Bear Cook*

Ms. Afraid of Bear Cook states that she lives in Chadron, Nebraska, and also owns a home and vegetable farming operation alongside the White River in southwestern Pine Ridge Reservation (3 miles north of the Nebraska-South Dakota State line).<sup>23</sup> Ms. Afraid of Bear Cook states that water at her Chadron home comes from the surface (*i.e.*, upper) aquifer, the Brule formation. At her home on the Pine Ridge Reservation, water comes from a tribal pipeline drawing from the Arikaree aquifer some miles north of Pine Ridge Village, though she also uses White River water for vegetable gardening. Ms. Afraid of Bear Cook is a member of Aligning

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<sup>21</sup> *Sequoyah Fuels Corp. & Gen. Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 72 (1994).

<sup>22</sup> *International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-01-21, 54 NRC 247, 254 (2001).

<sup>23</sup> Declaration of Antonia Loretta Afraid of Bear Cook, dated January 24, 2013.

for Responsible Mining (“ARM”) and is “associated with” Western Nebraska Resources Council (“WNRC”).

Ms. Afraid of Bear Cook fails to establish standing in this proceeding. In her declaration, she does not provide any information to suggest a link between her interests and the proposed operations at Marsland, which is located approximately 30 miles from her home in Chadron and even further from her home on the Pine Ridge Reservation. Ms. Afraid of Bear Cook makes no allegations regarding potential release mechanisms (such as surface water spills) or reference to any particular source of contamination. Although Ms. Afraid of Bear Cook references use of the White River, there is not enough information to provide a plausible basis for how operations at Marsland could cause contamination of the White River or other concrete injury. Both surface water and the upper aquifer at the MEA (the Brule) flow to the south — towards the Niobrara River (and away from the White River and Pine Ridge Reservation).<sup>24</sup> Ms. Afraid of Bear Cook therefore has not established standing in this proceeding.

The Board in the *Crow Butte* license renewal proceeding found that Ms. Afraid of Bear Cook had established standing based on her claims of water use from wells that draw from the Arikaree aquifer on her property on the Pine Ridge Reservation.<sup>25</sup> In that case, the concern was that spills at Crow Butte would move northward, contaminate the White River, and, in turn, contaminate the upper aquifer at her property on the Pine Ridge Reservation. But, unlike in that case and as noted above, surface water and the upper groundwater aquifers at Marsland flow

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<sup>24</sup> ER at 3-21, 3-28, 3-44. The Niobrara River is in a different basin than the White River, which precludes any impacts on the Niobrara from affecting use of the White River. See Nebraska State Atlas (available at [http://www.nationalatlas.gov/printable/images/pdf/rivers/pagehyd\\_ne3.pdf](http://www.nationalatlas.gov/printable/images/pdf/rivers/pagehyd_ne3.pdf)). Contamination does not move “upgradient.”

<sup>25</sup> *Crow Butte Resources, Inc.* (License Renewal), LBP-08-24, 68 NRC 691, 709-710 (2008).

southward toward the Niobrara River (and away from the White River and the Pine Ridge Reservation). Moreover, despite similar factual circumstances, the Board in the North Trend proceeding *denied* standing for Thomas Kanatakeniate Cook, who is the spouse of Ms. Afraid of Bear Cook, based on the absence of a plausible injury.<sup>26</sup> Significantly, the Marsland area is considerably further from the Cook residences (and in a different drainage) than either of the mining areas at issue in the license renewal and North Trend proceedings.

2. *Bruce McIntosh*

Mr. McIntosh lives in Chadron, Nebraska, and is a member WNRC.<sup>27</sup> He states that he has lived, worked, and played in Dawes County for 67 years. Mr. McIntosh is concerned about potential natural inter-mixing of aquifers from the mining areas due to fracturing in the rock as well as the effects of fires caused by man-induced drought. Mr. McIntosh also states that he uses water for personal, household, and domestic purposes, including gardening, bathing, and drinking.

Mr. McIntosh fails to establish an injury in fact traceable to the MEA to support standing. His declaration does not provide any information on the source of the water that he uses (*e.g.*, municipal supply or well location) or otherwise claim any actual or threatened injury from the Marsland expansion, which is located 30 miles from Chadron. And, he makes no allegations regarding potential release mechanisms — he does not mention surface water spills in his declaration or reference any particular source of contamination. In short, there is nothing in his declaration to support a finding that Crow Butte’s proposed operations could “cause” contamination that would inhibit his use of water or otherwise cause him injury. And, to the

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<sup>26</sup> *Id.* at 710, n.80; *Crow Butte Resources, Inc.* (License Renewal), LBP-08-06, 67 NRC 241, 288 (2008).

<sup>27</sup> Declaration of Bruce McIntosh, dated January 29, 2013.

extent that he is alleging an injury related to fires and drought, Mr. McIntosh fails to provide an explanation of how Crow Butte's operations could cause such injury. Mr. McIntosh therefore does not have standing.

The Board in the *Crow Butte* license renewal proceeding also found that Mr. McIntosh lacked standing.<sup>28</sup> There, the Board found that Mr. McIntosh did not claim any actual or threatened cognizable injury attributable to Crow Butte's operations and denied standing. The same deficiency exists in this proceeding.<sup>29</sup>

### 3. *Debra White Plume*

Ms. White Plume lives in Manderson, South Dakota, and states that she uses water from the Arikaree aquifer for personal, household, and domestic purposes, including gardening, irrigation, bathing, and drinking.<sup>30</sup> However, Ms. White Plume does not provide information to suggest a concrete injury that would be caused by Crow Butte operations at Marsland. She does not establish any potential source of contamination in the Arikaree aquifer from the Marsland site, which is approximately 70 miles "as the crow flies" from Manderson, South Dakota. Nor does she provide a plausible basis for how operations at Marsland will lead to contamination of her well or otherwise cause her injury. Ms. White Plume therefore has not established standing in this proceeding.

Ms. White Plume was found to have standing in the North Trend proceeding based on her concerns that operations could contaminate the White River. On review, the

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<sup>28</sup> *CBR LR*, LBP-08-24, 68 NRC at 710.

<sup>29</sup> In the North Trend proceeding, the Board did not reach a decision regarding Mr. McIntosh's standing, finding instead that WNRC had standing through its representation of the interests of Dr. Anders. *CBR NT*, LBP-08-06, 67 NRC at 282.

<sup>30</sup> Declaration of Debra White Plume, dated January 29, 2013.

Commission recognized that it was a close call, noting that her articulated basis for standing was “significantly more attenuated” than the basis for other petitioners.<sup>31</sup> In the present proceeding, Ms. White Plume’s articulated bases for standing are even more attenuated. Ms. White Plume does not reference use or potential contamination of the White River in her declaration. And, as noted above, even if she had, surface water and the upper aquifer at the MEA (the Brule) flow to the south towards the Niobrara River (and away from the White River and the Pine Ridge Reservation).<sup>32</sup> Having failed to state a plausible pathway for contamination or other concrete injury, Ms. White Plume does not have standing.

#### 4. *Alignment for Responsible Mining*

David Frankel, the Legal Director of ARM, states that ARM has authorized its attorneys to represent ARM and file contentions on its behalf.<sup>33</sup> Mr. Frankel states that members of ARM, including Ms. Afraid of Bear Cook, use water from the Brule and Arikaree aquifers for personal, household, and domestic purposes, including drinking, bathing, gardening, and irrigation. Mr. Frankel also states that some members of ARM, including Antonia Loretta Afraid of Bear Cook, are Oglala and therefore have rights and interests concerning the proper

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<sup>31</sup> *Crow Butte Resources, Inc.* (North Trend), CLI-09-12, 69 NRC 535, 547 (2009). Ultimately, the Commission deferred to the Board’s ruling on standing. *Id.* In LBP-08-06, the Licensing Board found that Ms. White Plume had established standing based on specific reference to the White River and statements that she fished in the White River, which was arguably downgradient from the main mining area. 67 NRC at 288-289. Her home is not downgradient from Marsland.

<sup>32</sup> ER at 3-21, 3-28, 3-44. The Niobrara River is in a different basin than the White River, which precludes any impacts on the Niobrara from affecting use of the White River. *See* Nebraska State Atlas (available at [http://www.nationalatlas.gov/printable/images/pdf/rivers/pagehyd\\_ne3.pdf](http://www.nationalatlas.gov/printable/images/pdf/rivers/pagehyd_ne3.pdf)); *see also* Figure 1.1.-3, “Current Permit Area and Proposed Expansion Area.” Contamination does not move upgradient.

<sup>33</sup> Declaration of David Frankel, dated January 29, 2013.

identification and protection of traditional cultural resources at MEA. ARM seeks standing through its representation of Ms. Afraid of Bear Cook or, alternatively, as an organization.

In order to obtain standing, an organization must either demonstrate an effect upon its organizational interests or “show that at least one of its members would suffer injury as a result of the challenged action, sufficient to confer upon it . . . ‘representational’ standing.”<sup>34</sup> In its declaration, ARM does not allege a discrete injury to its organizational interests from operations at Marsland as is required by *Sierra Club v. Morton*.<sup>35</sup> Instead, ARM states only a generalized interest in preventing “abusive mining which is mining that does not comply with the International Precautionary Principle.”<sup>36</sup> This is insufficient to establish organizational standing.<sup>37</sup> And, with respect to representational standing, Ms. Afraid of Bear Cook does not have standing as an individual for the reasons discussed above. She therefore cannot provide the necessary standing for ARM. ARM therefore fails to demonstrate either representational or organizational standing in this proceeding.

##### 5. *Western Nebraska Resources Council*

Bruce McIntosh, Vice-Chair of WNRC, states in his declaration that WNRC has authorized its attorneys to represent WNRC in this proceeding and file contentions on its behalf.<sup>38</sup> Mr. McIntosh states that WNRC has existed since its inception for the sole purpose of

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<sup>34</sup> *Hydro Res., Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), LBP-98-9, 47 NRC 261, 271 (1998), *rev'd on other grounds*, CLI-98-16, 48 NRC 119 (1998) (internal citations omitted).

<sup>35</sup> 405 U.S. at 727.

<sup>36</sup> Pet. at 6. There is no mention of an organizational injury related to cultural resources.

<sup>37</sup> ARM was also denied organizational standing in *Powertech (USA), Inc.* (Dewey-Burdock In Situ Uranium Recovery Facility), LBP-10-16, \_ NRC \_ (slip op. at 20).

<sup>38</sup> WNRC Declaration (McIntosh) at 1.

participating in public hearings by regulatory agencies concerning permitting and licensing of the operations at Crow Butte Resources. Mr. McIntosh states that some unspecified members of WNRC use water, which comes from the Brule and Arikaree aquifers, for personal, household, and domestic purposes, including drinking, bathing, gardening, and irrigation. WNRC seeks standing through its representation of Mr. McIntosh or, alternatively, as an organization.<sup>39</sup>

As discussed for ARM, in order to obtain standing, an organization must demonstrate either an effect upon its organizational interests or show that at least one of its members has standing.<sup>40</sup> In its declaration, WNRC does not allege a discrete injury to its organizational interests from operations at Marsland as is required by *Sierra Club v. Morton*.<sup>41</sup> Instead, WNRC states only a generalized interest in “participating in public hearings by regulatory agencies concerning permitting and licensing of the operations at Crow Butte Resources, Crawford, NE, and enforcement of such permits and licenses.”<sup>42</sup> This is insufficient to establish organizational standing. And, neither Mr. McIntosh nor Ms. Afraid of Bear Cook<sup>43</sup> have standing as individuals and therefore cannot provide standing for WNRC. WNRC therefore fails to demonstrate either representational or organizational standing in this proceeding.

B. The Proposed Contentions Are Not Admissible

Each of the proposed contentions will be discussed below. However, two recurring defects occur throughout. First, many contentions on their face fail to address the

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<sup>39</sup> Pet. at 7.

<sup>40</sup> *HRI*, LBP-98-9, 47 NRC at 271 (internal citations omitted).

<sup>41</sup> 405 U.S. at 727.

<sup>42</sup> WNRC Declaration (McIntosh) at 1.

<sup>43</sup> Mr. McIntosh states in the declaration that Ms. Afraid of Bear Cook is “associated with” WNRC and that she is a “member.” Regardless, she does not have standing.

contention pleading criteria set forth in 10 C.F.R. § 2.309(f)(1). These criteria are mandatory and must be scrupulously followed. As the Commission has stated with respect to these regulatory provisions, “[i]f any one of these requirements is not met, a contention must be rejected.”<sup>44</sup> Ultimately, it is the responsibility of the petitioners, not the Licensing Board, to provide the necessary information to satisfy the requirements for the admission of their contentions, including an explanation of the bases for those contentions.<sup>45</sup>

Second, the Petitioners have wholly failed to identify any specific deficiencies in the application. Instead, they cut and paste sections of the Marsland application or simply refer the parties to the LaGarry opinion without any explanation as to how it raises a dispute with the application. The LaGarry opinion does not take issue with (or even cite) any specific portion of Crow Butte’s application. Instead, it is nothing more than a 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.<sup>46</sup>

Against this backdrop and for the reasons discussed below, none of Petitioners’ proposed contentions are admissible.

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<sup>44</sup> *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155 (1991).

<sup>45</sup> *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-942, 32 NRC 395, 416-417 (1990).

<sup>46</sup> *Fansteel, Inc.* (Muskogee, Oklahoma, Site), CLI-03-13, 58 NRC 195, 205 (2003).

1. *Contention A: Failure to Quantify and Describe Preoperational Baseline Water Quality and Failure to Analyze and Describe Cumulative Impacts of Multiple DDWs.*

The Petitioners provided four bases in support of proposed Contention A. However, none of the bases supports an admissible contention.

- (1) *The Application violates 10 C.F.R. § 51.45, 51.60, and the National Environmental Policy Act, requiring a description of the affected environment, in that it fails to accurately quantify and describe the pre-operational baseline water quality within the MEA, in violation of Section 51.45(c) and 10 CFR Part 40 Appendix A, Criterion 5(B)(3)(a)(iii).*

While the Petitioners describe this as a contention of omission (Pet. at 13), the application in fact discusses the pre-operational baseline water quality in Section 6.1.2, *Baseline Groundwater Monitoring*, of the ER.<sup>47</sup> The ER presents the results of the radiological and non-radiological analyses for private water supply wells near the site as well as the monitoring wells installed within the MEA for purposes of assessing the site. And, the analytical methods used for water quality testing are described in the ER (e.g., Section 6.1.2.4, *Quality of Groundwater Measurements*). Moreover, the LaGarry opinion, which the Petitioners claim supports the proposed contention (Pet. at 13), does not contain any discussion of baseline water quality measurements.

Because there is no omission and because the Petitioners do not provide any support for a dispute with the information provided in the application, this basis cannot support proposed Contention A.<sup>48</sup>

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<sup>47</sup> Much of the information and discussion presented in the ER is repeated in the Technical Report (“TR”).

<sup>48</sup> Although a contention relating to baseline water quality was admitted in the *Dewey-Burdock* proceeding (LBP-10-16 at 64), the proposed contention in that proceeding was supported by a detailed opinion of Dr. Moran (ADAMS Accession No. ML100960635).

- (2) *It further violates such sections by failing to analyze or describe the cumulative impacts of Applicant's existing DDWs in combination with the DDW planned for the MEA.*

Although the Petition (at 13) asserts that the application fails to analyze the cumulative impacts of the deep disposal well proposed for the MEA, there is no further discussion of this basis in the Petition. The Petition does not provide a basis for considering cumulative impacts from the deep disposal well at MEA or describe the cumulative impacts that are said to be overlooked. This basis is also not supported by the LaGarry opinion, which does not mention the deep disposal well. Because it fails to demonstrate any dispute with the application, this basis cannot support an admissible contention.

Further, though the Petition is styled as a contention of omission (Pet. at 13), the application discusses impacts from the deep disposal well throughout the ER. The ER notes that the liquid waste generated at the satellite facility, which will use the deep disposal well, will be a combination of production bleed and reverse osmosis waste.<sup>49</sup> In Section 2.3.1.3, *Waste Management*, the ER evaluates liquid waste disposal alternatives and concludes that use of deep waste disposal wells is the best disposal option.<sup>50</sup> The ER notes that the deep disposal well at the MEA would be completed at an approximate depth of 4,000 to 5,000 feet and isolated from any underground source of drinking water by approximately 1,500 feet of Pierre Shale. Section 3.12.2.1, *Liquid Waste Generated*, lists the sources of waste for the deep disposal well. And, in Section 4.13.2.2, *Liquid Waste Disposal*, the ER concludes that “[n]o adverse environmental impacts are expected from this type of disposal because the liquid waste is permanently isolated

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There is no such expert support for the contention here and therefore no basis for a genuine dispute with the application.

<sup>49</sup> ER at Figure 1.3-7.

<sup>50</sup> *Id.* at 2-5 to 2-6.

in an unusable geologic formation.”<sup>51</sup> The impacts of the deep disposal well on land use (Section 4.1), accidents (Section 4.4.3.3), vegetation (Section 4.5.2), and radiological exposures (Section 4.12.2.2) are also discussed in the ER.

Because this basis for proposed Contention A fails to dispute, or even recognize, the discussion of the impacts of the deep disposal well in the ER, this basis cannot support an admissible contention.

- (3) *The Application documents repeatedly attempt to convey the impression that the ground water quality is already degraded, rather than compile statistically defensible data from both the ore zones and non-mineralized zones. Much of the Application discussion concerning ground water quality seems focused on showing that the site waters are already contaminated or of low quality. This would not be surprising given the presence of the uranium mineralization which would have caused increased concentrations of numerous chemical constituents above true, pre-mining baseline.*

This basis is nothing more than a statement of Petitioners’ views — it does not challenge any of the site-specific data provided by Crow Butte in the application or claim that an important safety issue has been overlooked. Instead, the Petitioners cut/paste more than 30 pages of excerpts from the application (pages 15-47) without disputing any particular conclusion in the application. Conclusory statements regarding alleged deficiencies in an application cannot support an admissible contention. Having failed to demonstrate a genuine dispute with the application on a material issue, this basis cannot support admission of proposed Contention A.

- (4) *Some of the Application discussion is admitted by Applicant to be based on information previously filed with respect to Applicant’s other projects – CPF, NTEA, TCEA. However, it is inappropriate to make reference to other proceedings or attempt to incorporate materials from other proceedings. The TCEA is according to the Application not a focus of Applicant and on hold. The NTEA proceeding is pending. Nothing about those two proceedings*

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<sup>51</sup> *Id.* at 4-45.

*should be a basis for materials in the Application. The Application needs to stand on its own. Therefore it violates Section 51.45, 51.60, NEPA, and 10 CFR Part 40 Appendix A, Criterion 5(B)(3)(a)(iii).*

This basis also does not demonstrate a genuine dispute with the application. The Petitioners cite no legal support for their assertion that it is “inappropriate” to reference data collected by Crow Butte in the region surrounding the MEA for other projects or proceedings.<sup>52</sup> Petitioners point to nothing that would prevent an applicant from providing *more* information in an application. The Petition fails to explain how this additional information involves a material deficiency in the application that could lead to relief in its proceeding.

Moreover, with respect to the Petitioners’ assertion that the MEA application must “stand on its own,” the data collected at Central Processing Facility (“CPF”), North Trend Expansion Area (“NTEA”), and Three Crow Expansion Area (“TCEA”) was not provided as substitute for data collected in the MEA. Instead, the data was provided for the purpose of comparing the MEA groundwater data to other data collected at other sites in the area.<sup>53</sup> This is useful context in that it helps Crow Butte and the NRC Staff understand whether (and to what extent) differences among the sites may influence the environmental and technical reviews of the MEA application. It would be irresponsible to ignore this large body of recent data that is potentially relevant to the NRC evaluation. This basis cannot support proposed Contention A.

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<sup>52</sup> Pet. at 26.

<sup>53</sup> See, e.g., ER at 6-6.

2. *Contention B: Lack of Adequate Confinement Inimical To Public Health and Safety; Failure to Quantify and Describe the “Flare” of Lixiviant and Resulting Oxidation and Mobilization of Contaminants to Pathways to People, Animals, Birds, Fish, and Plants*

The Petitioners provided four bases in support of proposed Contention B.

However, none of the bases supports an admissible contention.

- (1) *The lack of adequate confinement of the host aquifer makes the proposed operation inimical to public health and safety in violation of Section 40.31(d). Further, Applicant’s failure to describe faults and fractures between aquifers, through which the groundwater can spread uranium, thorium, radium 226 and 228, arsenic, and other harmful substances, violates Section 51.45(c) and (e).*

This basis cannot support proposed Contention B. While Petitioners argue that there is a “lack of adequate confinement” in the host aquifer and, further, that Crow Butte fails “to describe faults and fractures between aquifers,” they do not dispute the portions of the application that contain this information or provide any expert support for their assertions.

Confinement is addressed in the ER at Section 3.4.3.2, *Aquifer Testing and Hydraulic Parameter Identification Information*. During the initial permitting and development activities within the MEA, an aquifer pumping test was performed between May 16 and May 20, 2011.<sup>54</sup> The pumping test was performed in accordance with the Regional Pumping Test Plan, dated September 27, 2010, and March 16, 2011, 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

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<sup>54</sup> The final report on pumping test activities in the MEA (Marsland Regional Hydrologic Testing Report - Test #8; AQUI-Ver 2011) is included in Appendix F.

purpose of ISR mining.<sup>55</sup> During the test (pumping and recovery periods), no discernible drawdown or recovery responses attributed to the test were observed in overlying Brule Formation observation wells, which supports the conclusion that adequate confinement exists between the overlying Brule Formation and the ore-bearing basal sandstone of the Chadron Formation.<sup>56</sup>

The ER (at 3-44 to 3-45) 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 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.

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<sup>55</sup> ER at 3-41.

<sup>56</sup> *Id.* at 1-17, 3-41.

The opinion of Dr. LaGarry does not directly dispute any of the information provided in the application to demonstrate confinement. He does not even cite to the application or ER. In contrast with the information in the ER, which is based on site-specific data and pump tests, the LaGarry opinion relies on supposition (with no supporting evidence).<sup>57</sup> Such conclusory statements and bare assertions cannot support an admissible contention; the Commission insists on detailed descriptions of the petitioners' positions on proposed contentions in order to establish a genuine dispute for hearing.<sup>58</sup>

The basis also asserts that the ER fails to describe “faults and fractures between aquifers.”<sup>59</sup> But, neither the Petition nor the LaGarry opinion raises a genuine dispute with the ER discussion of faulting at the MEA. Section 3.3.1.3, *Structural Geology*, describes the regional geology, including faulting and fractures in the area.<sup>60</sup> And, Section 4.3.1 concludes that “[n]o faults are present within the project area that would be subject to potential reactivation due to fluid injection.” The opinion of Dr. LaGarry does not directly address these conclusions or point to any faults or fractures that ought to have been, but were not, considered. There is nothing here to litigate.

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<sup>57</sup> Dr. LaGarry’s research does not appear to have an engineering or hydrological focus. His opinion does not indicate that he is a licensed professional engineer or a licensed professional geologist. In the absence of a professional license, it is not clear that Dr. LaGarry is qualified to offer an opinion on the issues raised in this proceeding.

<sup>58</sup> *Shieldalloy Metallurgical Corp. (Cambridge Ohio Facility)*, CLI-99-12, 49 NRC 347, 353 (1999).

<sup>59</sup> Pet. at 47.

<sup>60</sup> The ER describes a feature, referred to as the White River Fault, which located between the Central Processing Facility and the North Trend Expansion Area. This presence of this fault formed the basis of an admitted contention in the North Trend proceeding. However, the MEA application concludes that this fault is not present in the vicinity of the MEA. ER at 3-18; *see also* Figure 3.3-12, *Structural Features Map of the Crawford Basin*.

Because the Petition and LaGarry opinion do not identify any part of the application that is alleged to be deficient or raise a genuine dispute with the evidence-based conclusions in the ER, this basis cannot support proposed Contention B.

- (2) *Applicant's admission that there is a 'flare' of between 20%-80% in which lixiviant is expected to travel beyond the MEA means that naturally occurring uranium will likely be oxidized and mobilized by such lixiviant in unknown and unpredictable ways that may be in pathways to consumption by people, animals, birds, fish and plants. The failure to describe these impacts also violates NEPA and Section 51.45 and 51.60. The failure to monitor for mobilized contaminants downstream, especially in the Niobrara River, is further inimical to public health and safety in violation of Section 40.31(d). Applicant is required to quantify the flare for purposes of calculating a surety. Based on Applicant's experiences in restoring mine units at the CPF, it should be able to quantify and describe the size of the flare experienced in mine units being restored. Applicant has estimated \$1.6 million cost to restore each mine unit at the MEA so it should be able to describe how many volumes of water and restoration activity were required to deal with the impacts of the flare in mine units being restored. Failure to do so violates Section 51.45, 51.60; 10 C.F.R. Part 40, Appendix A, Criteria 4(e) and 5G(2).*

This basis cannot support admission of Contention B. First, contrary to Petitioners' assertions, the mere existence of flare does not suggest that the lixiviant will travel beyond the Marsland site. The flare is specifically taken into account in managing wellfield operations and establishing surety bond estimates for Marsland. Wellfields at the MEA will be balanced daily on an individual pattern basis to minimize excursions beyond the flare zone.<sup>61</sup> The maintenance of a hydrologic bleed and the close proximity of the monitor well ring, less

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<sup>61</sup> ER at 5-20. The flare exists at the edge of the wellfield, which is located, along with the monitoring wells, inside the boundaries of the larger Marsland site.

than 300 feet from the mining patterns, ensure control of mining fluid.<sup>62</sup> The Petition does not dispute any of these facts and conclusions.

Second, contrary to Petitioners' assertions, the application does address downstream water quality monitoring. As described in Section 6.1.3.4, *Crow Butte Sampling of the Niobrara River*, Crow Butte established two water quality sampling locations on the Niobrara River, with one sampling point established upstream (west) of the MEA license boundary and one point located downstream (east) of the license boundary (*see* Figure 3.4-4). The sampling points are located such that they could be used to assess the impacts of any releases to the river from the operations at the MEA site. In addition, monitoring wells will be installed in the Brule Formation to monitor water quality in the event of failure of an injection well or production well, and to prevent potential communication of mining fluids with surface water.<sup>63</sup> Consequently, there is no omission in the ER that could support admission of proposed Contention B.<sup>64</sup>

Third, contrary to the Petition, Crow Butte does quantify and describe the size of the flare in the MEA application. According to Section 5.4.1.4, *Groundwater Restoration Methods*, the application assumes a flare factor of 20 percent. This falls within the range of flare

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<sup>62</sup> *Id.* at 5-19. The operational monitoring well network is intended to identify instances where lixiviant travels outside the wellfield area, but long before it would travel beyond the Marsland site boundary. *See id.* at 6-24 (“The groundwater excursion monitoring program is designed to detect excursions of lixiviant into the ore zone aquifer outside of the wellfield being leached and into the overlying water-bearing strata.”).

<sup>63</sup> *See, e.g., id.* at 3-40, 3-46, 5-19, 6-26 (describing monitoring well program). Monitoring wells are required under the Class III injection well program. *Id.* at 6-26.

<sup>64</sup> If a petitioner submits a contention of omission, but the allegedly missing information is indeed in the license application, then the contention does not raise a genuine issue. *Florida Power & Light Co.* (Turkey Point Plant Unit Nos. 3 & 4), LBP-90-16, 31 NRC 509, 521 n.12 (1990).

factors listed in NUREG-1569.<sup>65</sup> The ER notes that the technical basis for the flare factor used in the MEA application is operational experience and hydrological modeling at the Central Processing Facility.<sup>66</sup> The Petition does not dispute the flare factor used in the application. As a result, this cannot support admission of proposed Contention B.

- (3) *The Application does not accurately describe the environment affected by its proposed mining operations or the extent of its impact on the environment as a result of its use and potential contamination of water resources, through mixing of contaminated groundwater in the mined aquifer with water in surrounding aquifers and drainage of contaminated water into the White River and the Niobrara River.*
- (4) *Applicant's proposed mining operations will use and contaminate water resources, resulting in harm to public health and safety, through mixing of contaminated groundwater in the mined aquifer with water in surrounding aquifers and drainage of contaminated water into the White River and the Niobrara River.*

According to the Petition, “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.”<sup>67</sup> The Petition asserts that these deficiencies include “unsubstantiated assumptions as to the isolation of the aquifers in the ore-bearing zones and failure to account for natural and man-made hydraulic conductivity through natural formations, existing wells, and the historic drilling of other drill holes in the aquifers and ore-bearing zones in question.”<sup>68</sup> Contrary to these unsupported statements, and as discussed above, there are several lines of evidence relied upon in the ER to support adequate confinement,

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<sup>65</sup> ER at 5-21.

<sup>66</sup> *Id.*

<sup>67</sup> Pet. at 53.

<sup>68</sup> *Id.*

including a site-specific pump test.<sup>69</sup> The LaGarry opinion does not address these lines of evidence or dispute the conclusions drawn from the pump test data. He does not even cite the Marsland application. The LaGarry opinion is a generalized regional-scale dissertation on the stratigraphy of water-bearing rocks in northwestern Nebraska without any obvious connection to the specific attributes of the project under review by the NRC Staff. To be admissible, a contention must directly controvert a fact or conclusion in the application and provide some factual support to demonstrate a genuine dispute. Neither criteria is met here.

The Petition also alleges, without support, that the application does not adequately define the baseline water levels or water quality conditions of neighboring wells. As noted above, the MEA application includes a detailed discussion of baseline water quality data.<sup>70</sup> The application also includes water quality data from private water supply wells located near the MEA.<sup>71</sup> Information on selected wells, including formation, depth, and usage, is provided in Appendix A. Available well registration and well completion records are provided in Appendix E. None of this information is disputed.

Further, monitoring wells will be installed in the Brule Formation to monitor water quality in the event of failure of an injection well or production well, and to prevent potential communication of mining fluids with surface water.<sup>72</sup> The Petition does not acknowledge these measures, much less dispute the effectiveness of these measures for

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<sup>69</sup> ER at 4-41, 3-44 to 3-45.

<sup>70</sup> *Id.* at 6-4 to 6-9.

<sup>71</sup> *Id.* at 6-5 (Section 6.1.2.1, *Private Water Supply Wells*).

<sup>72</sup> *See, e.g., id.* at 3-40, 3-46, 5-19, 6-26 (describing monitoring well program). Water quality is sampled bi-weekly at all monitoring well locations.

preventing contamination of the Niobrara River.<sup>73</sup> Having failed to raise a genuine dispute with the application, these bases cannot support admission of proposed Contention B.

The text of bases (3) and (4) for Contention B is nearly identical to Environmental Contentions A and B proffered by Petitioners in the *Crow Butte* license renewal and North Trend proceedings.<sup>74</sup> Those contentions were found to be inadmissible in the license renewal proceeding, but admissible in North Trend.<sup>75</sup> Admission in North Trend alone does not establish admissibility in the present case, because the circumstances are different.<sup>76</sup> The same contentions were also proffered and rejected by the Board in the *Dewey-Burdock* proceeding.<sup>77</sup>

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<sup>73</sup> The Petition does not provide any information regarding potential contamination of the White River. Surface water and groundwater in the upper aquifer (Brule) in the vicinity of the MEA generally flow to the southeast across toward the Niobrara River (away from the White River). ER at 3-21, 3-28, 3-44. This reflects the geographic and hydraulic differences at Marsland relative to the original mining area and the North Trend Expansion Area, where the Brule drains towards the White River. The White River and the Niobrara drainages do not meet anywhere near the MEA (*see* <http://geology.com/lakes-rivers-water/nebraska.shtml>). There is therefore no basis for a dispute regarding potential contamination of the White River for activities at MEA.

<sup>74</sup> *CBR LR*, LBP-08-24, 68 NRC at 729; *CBR NT*, CLI-09-12, 69 NRC at 573.

<sup>75</sup> *CBR LR*, LBP-08-24, 68 NRC at 730; *CBR NT*, CLI-09-12, 69 NRC at 573.

<sup>76</sup> Regardless of the textual similarity among the contentions, the structural geology in the Marsland area is different than the North Trend expansion area. Uncertainties surrounding the White River Fault, which is located between North Trend and the main mining area, provided the factual basis for the contentions in the North Trend proceeding. Following admission of those contentions, Crow Butte performed extensive investigations of the White River Fault. However, this fault is not present in the vicinity of the MEA. ER at 3-18. And, no other factual basis is provided.

<sup>77</sup> *Powertech USA, Inc.* (Dewey-Burdock In Situ Uranium Recovery Facility), LBP-10-16, \_ NRC \_ (slip op. at 28-32). The *Dewey-Burdock* Board found the bases for the contention wholly lacking, explaining that “a licensing board cannot be expected to go on a veritable scavenger hunt to find the missing pieces needed for an admissible contention.” *Id.* at 31. The Board held that the contentions in *Dewey Burdock*, like those in *Crow Butte* license renewal, lacked the extensive support for the contentions proffered in the North Trend proceeding. *Id.* at 31, 32.

As in *Crow Butte* license renewal and *Dewey-Burdock*, the Petition does not provide sufficient explanation of the basis or bases for these contentions, does not provide alleged facts or expert opinions to support Petitioners' position, and fails to raise a genuine dispute with the Marsland application. Accordingly, proposed Contention B is inadmissible.

- (5) *What results from CBR's existing restoration on existing mine units? Applicant should discuss the results of existing restoration in terms of volumes of water and actual versus projected time and money to complete and confirm that the projections for MEA have been updated to be based on the actual experiences of Applicant in restoring mine units to date. A failure to do so makes the Application in violation of Section 40.9(a) and (b), Section 51.45, 51.60 and NEPA.*

This basis does not raise a genuine dispute with the application and is not supported by any expert testimony.<sup>78</sup> The Petitioners do not allege that the calculations in the Marsland application (at Appendix P) are incorrect or dispute the conclusions reached therein. There is neither regulatory nor safety basis provided, nor any expert or factual support for this portion of the contention. Instead, this basis reflects the Petitioners' views on what the regulatory requirements ought to be.<sup>79</sup> A contention that simply alleges that some matter ought to be considered, without more, does not provide the basis for an admissible contention.<sup>80</sup>

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<sup>78</sup> Pet. at 58-59.

<sup>79</sup> The Petitioners' arguments in this basis are in direct conflict with those made elsewhere in the Petition. In the fourth basis for proposed Contention A (Pet. at 26), the Petitioners argue that it is "inappropriate" to include data from other Crow Butte sites in what the Petitioners assert should be a "standalone" document. Here, the Petitioners argue that Crow Butte must include data from other Crow Butte operations.

<sup>80</sup> See *Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 NRC 200, 246 (1993).

3. Contention C: Inadequate Analysis of Ground Water Quantity Impacts

The Petitioners provided three bases in support of proposed Contention C. However, none of the bases supports an admissible contention.

- (1) *The Application violates the National Environmental Policy Act in its failure to provide an analysis of the ground water quantity impacts of the project. These failings violate 10 C.F.R. § 40.32(c), 40.32(d), and 51.45.*

This basis alleges that the application fails to “provide reliable and accurate information as to the project’s ground water consumption.”<sup>81</sup> According to the Petition, this is a contention of omission and, as a result, does not require expert support. To the contrary, the ER does in fact address groundwater consumption. Section 4.4.3.1, *Groundwater Consumption*, states that groundwater consumption from operation is expected to be on the order of 0.5 to 2.0 percent of the total mining flow and notes that consumptive volume will increase during aquifer restoration, especially the groundwater sweep phase.<sup>82</sup> The ER also notes that, based on drawdown data from years of operation in the current license area, and on the formation characteristics from the MEA Pumping Test, the drawdown effect on the Chadron aquifer as a result of operations has been and is expected to remain minimal.<sup>83</sup> Overall, potential impacts on groundwater quality due to consumptive use outside the license area are expected to be negligible.<sup>84</sup> Consequently, there is no omission and no basis for proposed Contention C.<sup>85</sup>

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<sup>81</sup> Pet. at 60.

<sup>82</sup> ER at 4-10.

<sup>83</sup> *Id.*

<sup>84</sup> *Id.* at 1-17.

<sup>85</sup> Although contentions relating to groundwater quantity impacts were admitted in the *Dewey-Burdock* (LBP-10-16 at 67-69) and *Ross* (LBP-12-12 at 37-38) proceedings, the proposed contentions in those proceedings were supported by the detailed opinion of Dr.

- (2) *The Application contains inadequate analysis of Ground Water Quantity Impacts. The Application violates 10 C.F.R. §§ 40.32(c),(d), and 51.45 by failing to analyze the impacts of groundwater consumption on public health and safety and property. Petitioners submit that the Application presents conflicting groundwater consumption information, thereby making this information impossible to evaluate accurately.*
- (3) *Elsewhere (see TR 2.2.3) population usage was described in gals per day – here it is gals per min – but that minimizes the numbers unless the reader does a calculation – not clear or concise – not easy to understand – to calculate it –  $2\% \times 6,000 \text{ gpm} \times 60 \text{ min} \times 24 \text{ hrs} = 172,800 \text{ gallons per day}$ .*

These bases for Contention C cannot support an admissible contention. The Petition does not dispute any of the data or conclusions in the application regarding groundwater consumption. To the extent that the contention is based on differences in the units presented for groundwater consumption in the application, the Petition does not point to any regulatory requirement that data be presented in a particular fashion. Any dispute about the units used in the application is not material to the findings that the NRC must make. The remainder of the bases consists of excerpts from the ER without any explanation as to their significance.<sup>86</sup> Because these bases fail to demonstrate a genuine dispute with the application on a material issue, proposed Contention C is inadmissible.

4. *Contention D: Failure to Provide Adequate Analysis and Description of Cultural Resources*

The Petitioners provided two bases in support of proposed Contention D. However, neither basis supports an admissible contention. As discussed below, proposed Contention D fails because it does not identify a deficiency in the application.

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Moran. There is no such expert support for the contention here and therefore no basis for a dispute with the application.

<sup>86</sup> Pet. at 61-69.

- (1) *The Application is not in conformance with 10 C.F.R. § 40.9 and 10 C.F.R. § 51.45 because the Application does not provide analyses that are adequate, accurate, and complete in all material respects to demonstrate that cultural and historic resources . . . are identified and protected pursuant to Section 106 of the National Historic Preservation Act. As a result, the Application fails to comply with Section 51.60.*
- (2) *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.*

In proposed Contention D, the Petitioners assert that “a significant number of archaeological, historical, and traditional cultural resources on site have not been evaluated; therefore, the potential impacts to these resources have not been addressed.”<sup>87</sup> The Petition also states that the survey must be inadequate since the team found “no archaeological, historical, or traditional cultural resources at the site.”<sup>88</sup> The proposed contention is supported by the Redmond letter, which suggests that the cultural resource survey was inadequate because it was “conducted in the frozen winter month of February at which time about 85% of the ground is covered with ice and snow making it unlikely for any survey to find cultural resources.”<sup>89</sup>

First, contrary to the Petition’s assertion that no archaeological, historical, and traditional cultural resources were located at Marsland (Pet. at 69), the cultural resources investigation, which included an intensive pedestrian block cultural resources inventory of approximately 4,500 acres, recorded 15 newly discovered euroamerican historic sites and five

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<sup>87</sup> Pet. at 69-70.

<sup>88</sup> *Id.* at 70.

<sup>89</sup> *Id.*

euroamerican historic isolated finds.<sup>90</sup> The ER explains that none of the newly-recorded historic sites were recommended as eligible for the National Register of Historic Places.<sup>91</sup> The ER notes that “[n]o indigenous people sites or artifacts were found in the project area”<sup>92</sup> 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 MEAUP.”<sup>93</sup> Neither the Petition nor the Redmond letter acknowledges these conclusions, much less raises a genuine dispute regarding their accuracy. There is therefore no basis for a dispute with the application.

Second, contrary to the Petitioners’ assertions and the Redmond letter, the *Marsland Expansion Area Uranium Project Class III Cultural Resource Investigation* specifically describes the survey conditions:

E. Weather and Ground Conditions

Weather was cold and windy for most of the survey with a brief stint of snowfall and snow cover. Survey was not conducted when frost or snow cover exceeded 20 percent ground coverage. Other than delaying the ability to complete inventory before the 2010 year end, the weather and ground conditions did not alter field methods. Note-taking was abbreviated in the field at times do to extreme cold temperatures or during

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<sup>90</sup> ER at 3-76.

<sup>91</sup> *Id.* at 3-77.

<sup>92</sup> *Id.* at 3-77.

<sup>93</sup> *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 2 or more artifacts within 30 meters of one another or the presence of a feature. *Id.* The report also notes that “[l]ocations 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 21.

extreme wind, but daily field notes were supplemented and elaborated at each day's end.<sup>94</sup>

The photographs accompanying the report also demonstrate the general absence of significant snow cover during the survey period. And, at page 10, the report notes that “[o]verall, conditions were very good for the discovery of cultural materials and fair for the documentation of cultural materials in northwestern Nebraska.”

The *Marsland Expansion Area Uranium Project Addition Cultural Resource Investigation*, dated March 5, 2012, also describes the survey conditions:

E. Ground Visibility

Bare ground visibility varied from moderate to excellent throughout most of the MEAUP Addition area averaging 70 percent along the tree lined drainages and increasing to 90 percent along drainage cuts and rocky slopes above drainages. For most of the MEAUP Addition area, vegetation coverage provided good visibility for the discovery and documentation of cultural materials.<sup>95</sup>

At bottom, the suppositions and bare assertions in the Petition and the Redmond letter do not raise a genuine dispute with the application. Their assertions regarding supposed deficiencies in the cultural resource investigation are wholly unsupported and contrary to the contemporaneous assessments of survey conditions included in the application. Proposed Contention D is therefore inadmissible.

5. *Contention E: Failure to Properly Consult with Tribal Authorities Concerning Traditional Cultural Properties*

The Petitioners provided one basis in support of proposed Contention E. However, this basis does not support an admissible contention.

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<sup>94</sup> *Id.* at 21.

<sup>95</sup> *Id.* at 5.

- (1) *The Application fails to include a description of proper consultation with all affected Indian Tribes concerning cultural resources at the MEA in violation of NEPA, NHPA, Section 51.45, 51.60, and 10 CFR Part 40 Appendix A.*

As with Contention D, proposed Contention E fails because it does not identify a deficiency in the application. The National Historic Preservation Act (“NHPA”) requires a federal agency to take into account the effects that certain proposals may have on properties listed, or eligible for listing, under the National Register of Historic Places. The agency must consult with tribes in two situations. First, where the action is going to take place on tribal lands, the agency must consult with the “Tribal Historic Preservation Officer” (if one has been designated to assume the duties normally performed by the State Historic Preservation Officer on tribal lands).<sup>96</sup> Second, *the agency* must make a “reasonable and good faith effort to identify any Indian tribes ... that might attach religious and cultural significance to historic properties in the area of potential effects and invite them to be consulting parties.”<sup>97</sup>

While the applicant may contact local tribes before submitting an application, as Crow Butte did here,<sup>98</sup> an applicant’s consultation would not relieve the agency of its compliance responsibility. Regardless of the applicant’s efforts, the burden rests on the NRC to fulfill the consultation requirements.<sup>99</sup> In other words, the fact that NRC Staff consultations have not yet

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<sup>96</sup> 36 C.F.R. § 800.3(c).

<sup>97</sup> 36 C.F.R. § 800.4(f)(2).

<sup>98</sup> Crow Butte’s cultural resources contractor, SRI, sent letters to tribes, including the Oglala Sioux, on December 9, 2011 (ADAMS Accession No. ML120120054), requesting information about places of religious and cultural significance that may be affected by Crow Butte’s proposed in situ uranium recovery operations at Marsland in order to facilitate the NRC’s government consultations with Oglala Sioux Tribe as required by Section 106 of the NHPA.

<sup>99</sup> CLI-09-09, 69 NRC at 350-351; CLI-09-12, 69 NRC at 566.

taken place is a result of the legal framework, not of any deficiency in the application.<sup>100</sup> Absent a genuine dispute over the sufficiency of the application, proposed Contention E is inadmissible.

This basis is similar to ones that were previously rejected by the Commission in both the license renewal and North Trend proceedings.<sup>101</sup> As the Commission explained in those cases, the burden rests on the NRC, not Crow Butte, to fulfill the consultation requirements. A proposed contention alleging failure to comply with the NHPA is not admissible simply because the agency has not yet had the opportunity to act.<sup>102</sup>

#### IV. CONCLUSION

For all of the above reasons, Petitioners lack standing and have not submitted an admissible contention. Accordingly the petition to intervene and request for hearing should be denied.

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<sup>100</sup> The NRC Staff has initiated the Section 106 process for Marsland. The NRC Staff sent a letter to Mr. John Yellow Bird Steele, President, Oglala Sioux Tribe, on September 5, 2012 (ADAMS Accession No. ML12248A294), inviting the Tribe to participate as a consulting party under Section 106 of the NHPA and assist in the identification and evaluation of historic properties that may be affected by the Marsland project. The NRC Staff also sent a letter to the Tribal Historic Preservation Officer on October 31, 2012 (ADAMS Accession No. ML12311A501), requesting tribal participation in a field study to identify historic properties of religious and cultural significance at the Marsland site.

<sup>101</sup> *Crow Butte Resources, Inc.* (License Renewal), CLI-09-09, 69 NRC 331, 348-351 (2009); *CBR NT*, CLI-09-12, 69 NRC at 565-566.

<sup>102</sup> At present, the focus of the proceeding is on Crow Butte's application, not the adequacy NRC Staff reviews. As the Commission explained, OST may file a contention relating to NHPA compliance when the NRC Staff consultation is complete. *CBR LR*, CLI-09-9, 69 NRC at 351.

Respectfully submitted,

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Dated at San Francisco, California  
this 25th day of February 2013

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:	)	
	)	Docket No. 40-8943-MLA-2
CROW BUTTE RESOURCES, INC.	)	
	)	ASLBP No. 08-867-02-OLA-BD01
(Marsland Expansion Area)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of “APPLICANT’S RESPONSE TO PETITION TO INTERVENE FILED BY CONSOLIDATED PETITIONERS” in the captioned proceeding have been served via the Electronic Information Exchange this 25th day of February 2013.

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