

January 30, 2015

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
)	
CROW BUTTE RESOURCES, INC.)	Docket No. 40-8943-OLA
)	
(License Renewal for the In Situ Leach Facility, Crawford, Nebraska))	ASLBP No. 08-867-08-OLA-BD01

NRC STAFF'S COMBINED ANSWER TO NEW CONTENTIONS
FILED BY CONSOLIDATED INTERVENORS AND THE OGLALA SIOUX TRIBE

INTRODUCTION

On January 5, 2015, Consolidated Intervenors (CI) and the Oglala Sioux Tribe (OST) filed new contentions challenging the NRC Staff's final Environmental Assessment (EA) for the renewal of the Crow Butte Resources, Inc., in-situ uranium recovery facility.¹ For the reasons discussed below, with the exception of the portion of Contention 13 regarding consultation under the Endangered Species Act (ESA), the Board should reject these contentions because they fail to meet the requirements for admission of new contentions. In addition, the Board should require the OST to follow the requirements of 10 C.F.R. § 2.309(f)(3) if it wishes to adopt CI's contentions.

BACKGROUND

Crow Butte Resources, Inc. (CBR or Applicant) holds NRC source materials license SUA-1534, which authorizes operation of an in-situ uranium recovery (ISR) facility in Dawes

¹ "Consolidated Intervenors' New Contentions Based on the Final Environmental Assessment (October 2014)" (Jan.5, 2015) (CI New Contentions); "The Oglala Sioux Tribe's Renewed and New Contentions Based on the Final Environmental Assessment (October 2014)" (Jan. 5, 2015) (OST New Contentions).

County, Nebraska.² On November 27, 2007, CBR submitted an application requesting renewal of NRC source materials license SUA-1534 for a 10-year period.³ The environmental information in the license renewal application (LRA) was provided to inform the Staff's independent environmental review of a license application and thereby to assist the Staff in meeting the requirements of the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. §§ 4321 et seq.

In response to the Staff's *Federal Register* notice of the opportunity to request a hearing or petition to intervene in the license renewal proceeding,⁴ CI and OST filed timely hearing requests⁵ and were admitted as parties to this proceeding.⁶ After the Commission's decision on the parties' appeals of contention admissibility,⁷ four contentions remained: CI Technical Contention F and OST Environmental Contentions A, C and D.⁸

In December 2012, the NRC Staff issued its Safety Evaluation Report (SER) on the license renewal application.⁹ In October 2014, after conducting its NEPA review pursuant to the

² CBR currently possesses NRC Source Materials License SUA-1534 (Nov. 5, 2014) (ADAMS Accession No. ML13324A101).

³ "Application for 2007 License Renewal, USNRC Source Materials License SUA-1534, Crow Butte License Area" (Nov. 27, 2007) (LRA) (ADAMS Accession Nos. ML073480266 & ML073480267).

⁴ Notice of Opportunity for Hearing, Crow Butte Resources, Inc., Crawford, NE, 73 Fed. Reg. 30,426 (May 27, 2008).

⁵ Request for Hearing and/or Petition to Intervene (July 28, 2008) (OST Petition); Consolidated Request for Hearing and Petition for Leave to Intervene (July 28, 2008) (CI Petition).

⁶ *Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), LBP-08-24, 68 NRC 691, 760 (2008) (LBP-08-24).

⁷ *Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331 (2009).

⁸ Order (Canceling Oral Argument, Ruling on Summary Disposition of Consolidated Petitioners' Miscellaneous Contention G, Requiring Filing of Affidavits) at 3 (May 27, 2009) (unpublished) (ADAMS Accession No. ML091470499).

⁹ Safety Evaluation Report for License Renewal of the Crow Butte Resources ISR Facility, Dawes County, Nebraska, Materials License No. SUA-1534 (December 2012) (ADAMS Accession No. ML103470470). The SER was subsequently revised and reissued in August 2014 to revise several license conditions and the discussion of them in the SER. (ADAMS Accession No. ML14149A433). Subsequent references to the SER in this response refer to the revised (2014) SER.

regulations in 10 C.F.R. Part 51, the Staff issued the final EA and Finding of No Significant Impact (FONSI).¹⁰ The EA describes the proposed action and the affected environment, and assesses the impact of the proposed action on 12 resource areas. The EA also includes an analysis of cumulative impacts from past, present or reasonably foreseeable future actions. On January 5, 2015, CI and the OST filed their new contentions based on the EA.

LEGAL STANDARDS

I. Admissibility Requirements for New/Amended Contentions

A. Good cause (10 C.F.R. § 2.309(c)(1))

New or amended contentions submitted after the initial date for hearing requests must meet the requirements of 10 C.F.R. § 2.309(c)(1). To do so, a party must demonstrate good cause by showing that the following three conditions are met:

- (i) The information upon which the filing is based was not previously available
- (ii) The information upon which the filing is based is materially different from information previously available
- (iii) The filing has been submitted in a timely fashion based on the availability of the subsequent information.

These standards apply to both environmental and safety contentions filed after the deadline in 10 C.F.R. § 2.309(b).¹¹ New environmental contentions must be “based on a significant difference between [the environmental information in the LRA] and the draft or final NRC NEPA document” and must also be “based on new information that is materially different from previously available information.”¹² A contention based on the Staff’s NEPA document cannot

¹⁰ Final Environmental Assessment for the License Renewal of U.S. Nuclear Regulatory Commission License No. SUA-1534 (October 2014) (ADAMS Accession No. ML14288A517); License Renewal of Crow Butte ISR, Uranium In-Situ Recovery Project, 79 Fed. Reg. 64,629 (October 30, 2014).

¹¹ Amendments to Adjudicatory Process Rules and Related Requirements, 77 Fed. Reg. 46,562, 46,566 (Aug. 3, 2012) (final rule).

¹² *Id.* at 46,567.

be admitted unless it rests on data or conclusions that “differ significantly” from those in the environmental information in the LRA.¹³ Finally, a new NEPA contention is not an occasion to raise additional arguments that could have been raised previously.¹⁴

B. Contention admissibility requirements (10 C.F.R. § 2.309(f)(1))

In addition to meeting the requirements of 10 C.F.R. § 2.309(c)(1), new or amended contentions must also satisfy the six contention admissibility requirements of 10 C.F.R.

§ 2.309(f)(1). That section requires that each contention:

- (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
- (vi) Provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact.

The contention admissibility requirements are “strict by design”¹⁵ and “do not permit . . . ‘notice pleading, with details to be filled in later.’”¹⁶ It is the intervenor’s burden to come forward

¹³ *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 & 2, Catawba Nuclear Station, Units 1 & 2), CLI-02-28, 56 NRC 373, 385 (2002).

¹⁴ *Id.* at 385-86; *see also Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-00-27, 52 NRC 216, 223 (2000) (denying a late contention where the only assertion was that “certain concerns that were not dealt with in the ER have additionally not been dealt with in the DEIS,” with no showing of “new or different data or conclusions” in the DEIS); *Cleveland Elec. Illuminating Co.* (Perry Nuclear Power Plant, Units 1 & 2), LBP-82-79, 16 NRC 1116, 1118 (1982) (finding no good cause for late filing where the DEIS contained no new information relevant to contention).

¹⁵ *Northeast Nuclear Energy Co.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 359 (2001).

¹⁶ *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 338 (1999).

with support for its contention,¹⁷ and the intervenor has an “ironclad obligation to examine the publicly available documentary material pertaining to the facility in question with sufficient care to enable the petitioner to uncover any information that could serve as the foundation for a specific contention.”¹⁸ A board must reject a contention that rests on an incomplete or inaccurate reading of the application or staff’s review document.¹⁹ Finally, if an intervenor provides a document as a basis for a contention, the intervenor must explain the significance of the document and how it supports the contention.²⁰

Further, an intervenor must do more than allege generally that there are deficiencies in the EA. An intervenor must read all pertinent portions of the document it is challenging and state both the challenged position and the intervenor’s opposing view.²¹ To demonstrate a genuine, material dispute, the intervenor must address the specific analysis in the document and explain how it is incorrect.²² Or, in the case of an asserted omission, the intervenor must provide supporting reasons explaining why the missing information is required.²³ An expert

¹⁷ *Amergen Energy Company, LLC* (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 260-61 (2009); see also *Rules of Practice for Domestic Licensing Proceedings—Procedural Changes in the Hearing Process*, 54 Fed. Reg. 33,168, 33,171 (August 11, 1989) (final rule).

¹⁸ *McGuire-Catawba*, CLI-02-28, 56 NRC at 386.

¹⁹ *Cf. Georgia Institute of Technology* (Georgia Tech Research Reactor), LBP-95-6, 41 NRC 281, 300 (1995) (rejecting a contention based on mistaken reading of the Safety Analysis Report).

²⁰ See *USEC, Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 472 (2006) (“references to articles or correspondence, without ‘explanation or analysis’ of their relevance, [do] not provide an adequate basis” for admitting a contention); *id.* at 457 (“it is not up to the boards to search through pleadings or other materials to uncover arguments and support never advanced by the petitioners themselves; boards may not simply “infer” unarticulated bases of contentions”); *Fansteel, Inc.* (Muskogee, Oklahoma, Site), CLI-03-13, 58 NRC 195, 204-05 (2003) (stating that it is insufficient to refer generally to voluminous documents with no further analysis and supporting evidence showing why particular sections of those documents provide the basis for a contention).

²¹ *Millstone*, CLI-01-24, 54 NRC at 358.

²² 10 C.F.R. § 2.309(f)(1)(vi).

²³ *Id.*; see also *NextEra Energy Seabrook, LLC* (Seabrook Station Unit 1), CLI-12-05, 75 NRC 301, 307 (2012) (“contentions shall not be admitted if at the outset they are not described with reasonable specificity or are not supported by some alleged fact or facts demonstrating a genuine material dispute”).

opinion that merely concludes that the EA is deficient, inadequate, or incorrect, without providing a reasoned basis for that conclusion, is inadequate.²⁴

II. Legal Standards related to Staff's NEPA review

The Staff prepares an EA according to the regulations in 10 C.F.R. Part 51 and the guidance in NUREG-1748, "Environmental Review Guidance for Licensing Actions Associated with NMSS Programs." Under NEPA, the Staff is required to take a "hard look" at the environmental impacts of a proposed action.²⁵ The hard look standard does not, however, require the Staff to address every environmental effect that could potentially result from the proposed action.²⁶ For example, the Staff need not discuss remote and highly speculative consequences.²⁷ Rather, the Staff need only provide "[a] reasonably thorough discussion of the significant aspects of the probable environmental consequences[.]"²⁸

NRC precedent likewise delimits the scope of the Staff's NEPA review. As the Commission has explained, "NEPA does not call for certainty or precision, but an *estimate* of anticipated (not unduly speculative) impacts."²⁹ The proper inquiry under the "hard look" standard is not whether an effect is "theoretically possible," but whether it is "reasonably probable that the situation will obtain."³⁰ Staff NEPA documents are not intended to be research

²⁴ See *USEC*, CLI-06-10, 63 NRC at 472.

²⁵ *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989).

²⁶ *Ground Zero Ctr. for Non-Violent Action v. U.S. Dept. of Navy*, 383 F.3d 1082, 1089-90 (9th Cir. 2004) (citing *NoGWEN Alliance of Lane County, Inc. v. Aldridge*, 855 F.2d 1380, 1385 (9th Cir. 1988)).

²⁷ *Trout Unlimited v. Morton*, 509 F.2d 1276, 1283 (1974); *Warm Springs Dam Task Force v. Gribble*, 621 F.2d 1017, 1026-27 (9th Cir. 1980).

²⁸ *Trout Unlimited*, 509 F.2d at 1283.

²⁹ *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-20, 62 NRC 523, 536 (2005) (LES) (emphasis in original).

³⁰ *Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-455, 7 NRC 41, 49 (1978).

documents,³¹ and NEPA does not require the Staff to analyze every conceivable aspect of a proposed project.³² NEPA also does not require that the Staff commit virtually infinite study and resources to a proposed project.³³ Although it is always possible to gather more data in a particular area, the Staff “must have some discretion to draw the line and move forward with decisionmaking.”³⁴

Furthermore, editing Staff NEPA documents to meet an intervenor’s preferred language or emphasis “is not a function of [the NRC] hearing process,”³⁵ and boards “do not sit to ‘flyspeck’ environmental documents or to add details or nuances.”³⁶ New contentions must provide more than “bare assertion lacking any support and the requisite specificity.”³⁷ Intervenors must do more than simply “point to a number of scenarios and supposed environmental effects.”³⁸

Finally, identifying mistakes in an EA does not, by itself, create an admissible contention. Rather, the intervenor must show the “significance and materiality” of a mistake.³⁹ As long as

³¹ *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-22, 72 NRC 202, 208 (2010) (citation omitted).

³² *Private Fuel Storage, LLC* (Independent Spent Fuel Storage Installation), CLI-02-25, 56 NRC 340, 349 (2002) (PFS).

³³ *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 315 (2010) (footnote omitted).

³⁴ *Id.*

³⁵ *System Energy Resources, Inc.* (Early Site Permit for Grand Gulf ESP Site), CLI-05-4, 61 NRC 10, 19 (2005) (internal citations omitted).

³⁶ *Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-05-29, 62 NRC 801, 811 (2005); *see also Grand Gulf ESP*, CLI-05-4, 61 NRC at 19 (stating that “boards do not sit to parse and fine-tune” the staff’s NEPA documents).

³⁷ *Clinton ESP*, CLI-05-29, 62 NRC at 810.

³⁸ *See id.* (finding a contention inadmissible where petitioners offered “[n]othing ... to indicate that any of these effects have been even superficially analyzed by them to support [their] assertion”).

³⁹ *Id.*

the EA “on its face ‘comes to grips with all important considerations’ nothing more need be done.”⁴⁰

DISCUSSION

I. OST Adoption of CI Contentions

The OST stated in its pleading that it “joins, adopts and restates . . . in large part” the final EA contentions submitted by CI.⁴¹ The remainder of the OST’s pleading consists of one new contention, OST Contention F, followed by a restatement of CI’s 14 contentions. The OST provides additional arguments with respect to CI Contentions 1, 2 and 3, and restates the remaining contentions (Contentions 4-14) virtually verbatim from the CI pleading.⁴²

Although OST indicated that it “joins” the CI contentions, the NRC rules of practice do not provide for joinder. The rules allow for adoption or co-sponsorship of contentions, but nowhere in the pleading did OST address the requirement that a party seeking to adopt a contention of another party “must either agree that the sponsoring [party] shall act as representative with respect to that contention, or jointly designate with the sponsoring [party] who shall have the authority to act . . . with respect to that contention.”⁴³

This Board has previously discussed the difference between joinder and adoption or co-sponsorship, stating that “neither contention adoption nor co-sponsorship allows the adopting or co-sponsoring party to litigate the contention in question independently of the sponsoring

⁴⁰ *Id.*

⁴¹ OST New Contentions at 1.

⁴² Compare OST New Contentions at 48-116 with CI New Contentions at 32-104. The discussions of contentions 4 through 14 in the OST and CI pleadings differ only in minor, non-substantive wording differences, e.g., “The Tribe” instead of “Consolidated Intervenor,” and OST’s incorporation by reference of CI exhibits.

⁴³ 10 C.F.R. § 2.309(f)(3); see also Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2221 (Jan. 14, 2004) (final rule) (“if a requestor/petitioner seeks to adopt the contention of another sponsoring requestor/intervenor, the requestor/petitioner must agree that the sponsoring requestor/petitioner shall act as the representative with respect to that contention.”).

party.”⁴⁴ The OST should not be allowed to simply state its intention to “join” or “adopt” CI’s contentions. Rather, if OST wishes to adopt or co-sponsor CI’s contentions, OST should be required to address the requirements in 10 C.F.R. § 2.309(f)(3). At this time the Staff considers CI to be the sponsor of Contentions 1 to 14.⁴⁵ But because the OST pleading encompasses and expands on the CI pleading, for simplicity the Staff will cite solely to the OST pleading in the remainder of this response. For similar reasons, the Staff will refer to arguments appearing in both the CI pleading and the OST pleading as “Intervenors” arguments.

II. Admissibility of New Contentions

A. OST Contention F (NRC Jurisdiction/Treaty Rights)

In OST Contention F, the OST asserts that the final EA fails to discuss or demonstrate that the NRC has lawful jurisdiction over the land where the Crow Butte facility is located.⁴⁶ At the heart of this contention is the OST’s assertion that it still owns that land and its resources.⁴⁷ As discussed below, this contention is inadmissible because the question of land ownership was previously addressed by this Board, and affirmed by the Commission, based on binding Supreme Court case law. Also, to the extent that the OST disputes the Supreme Court’s decision and seeks resolution of that dispute here, such a request is outside the scope of this proceeding, and is also untimely.

In LBP-08-24, the Board rejected the Oglala Delegation of the Great Sioux Nation’s treaty-based claims of ownership, finding that the Supreme Court’s decision in *United States v.*

⁴⁴ Order (Denying Motion for Joinder) at 2-3 (Dec. 30, 2008) (unpublished).

⁴⁵ However, in this response the Staff addresses the additional arguments presented by the OST for Contentions 1-3.

⁴⁶ OST New Contentions at 4.

⁴⁷ *Id.*

Sioux Nation of Indians was controlling.⁴⁸ In Contention F, the OST acknowledges the Supreme Court's holding in *Sioux Nation* that a statute which abrogated portions of the 1868 Fort Laramie Treaty constituted a taking by the United States that required just compensation.⁴⁹ However, the OST rejects the Supreme Court's conclusion that Congress's plenary power allows it to abrogate treaties with Native American tribes.⁵⁰ The OST presents various arguments in support of its stance and concludes that the Supreme Court's decision in *Sioux Nation* was incorrect and that the NRC may not issue a license to CBR without obtaining prior consent of the OST.⁵¹

The OST asserts the "prior consent" requirement based on statements in the United Nations Declaration on the Rights of Indigenous Peoples (UN DRIP).⁵² Although the United States signed the UN DRIP in 2013, it has no binding legal effect.⁵³ The OST also refer to sections of International Labour Organisation (ILO) Convention 169, but the United States has not ratified that convention.⁵⁴ Similarly, the recommendations in decisions of the Inter-American Committee on Human Rights (IACHR) and the United Nations Committee on the Elimination of

⁴⁸ *Crow Butte*, LBP-08-24, 68 NRC at 710-11, citing 448 U.S. 371 (1980). The Commission affirmed the Board's decision on this issue, stating that the Board "correctly relied on the Supreme Court's ruling" and that the petitioner had "offered no basis by which the Commission could disregard the Supreme Court's holding with respect to Congress' power to break a treaty." *Crow Butte*, CLI-09-9, 69 NRC at 337.

⁴⁹ OST New Contentions at 6.

⁵⁰ *Id.*

⁵¹ *Id.* at 6-14.

⁵² See OST New Contentions at 10-11.

⁵³ According to the U.S. Department of State, the UN DRIP is "not legally binding or a statement of international law" See www.state.gov/s/tribalconsultation/declaration.

⁵⁴ See "Up-to-date Conventions not ratified by United States," available at http://www.ilo.org/dyn/normlex/en/f?p=1000:11210:0::NO:11210:P11210_COUNTRY_ID:102871.

Racial Discrimination (CERD) cited by OST have been rejected by the United States and have no binding effect.⁵⁵

As noted in prior Board and Commission decisions, the NRC is bound by the Supreme Court's decision in *Sioux Nation*. Because the NRC has no authority to decide whether the OST's assertions challenging *Sioux Nation* are valid,⁵⁶ or to apply recommendations of international tribunals, those assertions are outside the scope of this proceeding. Therefore, the contention fails to meet 10 C.F.R. § 2.309(f)(1)(iii). Furthermore, the OST has not identified a specific requirement in NEPA or 10 C.F.R. Part 51 requiring such issues to be addressed in an NRC NEPA document.⁵⁷ And even if this contention was not defective for the reasons already discussed, it is not based on new information that was unavailable in 2008, or information that is materially different than previously available information. As such, this contention could have been raised at the outset of the proceeding and is untimely under 10 C.F.R. § 2.309(c)(1).

B. Contentions 1 and 2 (Cultural Resources/Failure to Consult)

Contentions 1 and 2 both allege deficiencies in the Staff's analysis of cultural resources, including deficiencies of the Staff's National Historic Preservation Act (NHPA) consultation obligations. Broadly, Intervenors argue that (1) OST was not meaningfully consulted and (2) the

⁵⁵ The U.S. rejected the findings of the IACHR's Dann decision in their entirety, stating that the American Declaration is not legally binding on the U.S., and declining to take further action. "Response of the Government of the United States to October 10, 2002 Report No. 53/02 Case No. 11.140 (Mary and Carrie Dann)," available at www.cidh.oas.org/Respuestas/USA.11140.htm. The U.S. response to the CERD decision stated that the CERD recommendations were "inconsistent with the status of these lands under U.S. law." See "Periodic Report of the United States of America to the [CERD]" at 112-119 (April 23, 2007), available at www.state.gov/j/drl/reports/treaties/index.htm#ftn4. Additionally, there is no private right of action under the International Convention on the Elimination of All Forms of Racial Discrimination (ICERD) because it is not a self-executing treaty; therefore, federal courts have no jurisdiction to hear claims brought under the ICERD. *Johnson v. Quander*, 370 F.Supp.2d 79, 100-101 (D.D.C 2005), aff'd 440 F.3d 489 (D.C. Cir. 2006).

⁵⁶ See *Hydro Resources, Inc.* (P.O. box 777, Crownpoint, NM 87313), CLI-06-29, 64 NRC 417, 420 (2006) (HRI) (stating that the NRC has no authority to decide jurisdictional disputes).

⁵⁷ See *id.* (stating that "it is not the function of the EIS process to resolve existing or potential jurisdictional disputes.").

EA lacks an adequate description of the affected environment or the impacts of the renewal on cultural resources. For the reasons discussed below, Contentions 1 and 2 are inadmissible because they lack factual support and fail to demonstrate a genuine dispute with the EA.

1. Legal Standards Governing Identification and Consultation

The Advisory Council on Historic Preservation (ACHP) is the agency charged with implementing the NHPA, and has promulgated regulations governing the identification of cultural resources and the consultation efforts an agency must make. Under the ACHP's regulations, before entering into an "undertaking" a federal agency must make a reasonable and good faith effort to identify historic properties that may be affected by the undertaking.⁵⁸ The agency's "identification efforts may . . . include background research, consultation, oral history interviews, sample field investigation, and field survey."⁵⁹

The ACHP has published guidance further defining the "reasonable and good faith" standard.⁶⁰ Under this guidance, "a reasonable and good faith effort to identify historic properties [must] include some level of effort—at a minimum, a review of existing information on historic properties that are located or may be located within the [area of potential effects] (APE) (36 C.F.R. § 800.4(a)(2))."⁶¹ The ACHP explains that a reasonable and good faith effort "may consist of one or more methodologies and should be designed so that the federal agency can ensure that it produces enough information, in enough detail, to determine what the undertaking's effects will likely be on historic properties."⁶² In its guidance, the ACHP also explains:

⁵⁸ 36 C.F.R. § 800.4(b)(1).

⁵⁹ *Id.*

⁶⁰ *Meeting the "Reasonable and Good Faith" Identification Standard in Section 106 Review (ACHP)* (available at http://www.achp.gov/docs/reasonable_good_faith_identification.pdf) (last retrieved January 29, 2015).

⁶¹ *Id.* at 2.

⁶² *Id.*

[A] reasonable and good faith identification effort does *not* require:

- The ‘approval’ of a [State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (THPO),] or other consulting party. The ACHP, SHPO/THPO and other consulting parties advise and assist the federal agency official in developing its identification efforts, but do not dictate its scope or intensity.
- Identification of every historic property within the APE. One of the reasons the ACHP’s regulations contain a post-review discovery provision (36 C.F.R. § 800.13) is that a reasonable and good faith effort to identify historic properties may well not be exhaustive and, therefore, some properties might be identified as the project is implemented.
- Investigations outside of, or below, a properly documented APE. The Section 106 process does not require that the agency search for all historic properties in a given area. Because the APE defines the geographic limits of federal agency responsibility for purposes of Section 106 review, identification efforts are carried out within its boundaries.
- Ground verification of the entire APE. In many cases, areas can be considered to have a certain probability of containing historic properties based on current knowledge. This or similar characterizations can be used to justify where within the APE most identification efforts will or should be targeted. Predictive models that have been tested and found to be reasonably efficient can also assist federal agencies to meet the ‘reasonable and good faith’ identification standard.⁶³

With respect to consultation, the ACHP’s regulations make clear that an agency provides tribes with a reasonable opportunity to identify their concerns when it takes the following steps. First, the agency must make a “reasonable and good-faith effort” to identify tribes that may potentially be affected by an undertaking.⁶⁴ Second, the agency must provide a tribe:

a “reasonable opportunity to identify its concerns about historic properties, advise on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, articulate its views on the undertaking’s effects on

⁶³ *Id.* at 3 (emphasis in original).

⁶⁴ 36 C.F.R. § 800.2(c)(2)(ii)(A).

such properties, and participate in the resolution of adverse effects.⁶⁵

2. NRC Staff's Identification and Consultation Efforts

On January 13, 2011, the NRC Staff sent letters to 18 Tribes, including OST, with an invitation to formal NHPA consultation for the license renewal environmental review.⁶⁶ That letter also directed the Tribes to CBR's LRA, explained that the Staff was conducting its NEPA review, and specifically asked the Tribes to share their knowledge of culturally significant areas within CBR's project site.⁶⁷ OST was one of several Tribes to respond by formally requesting status as a consulting party under NHPA Section 106.

On May 12, 2011, the NRC sent letters to 24 Tribes, including OST, with an invitation to an information-gathering meeting at the Pine Ridge Reservation and a site visit to the CBR facility.⁶⁸ OST was one of six consulting Tribes to attend and participate in the meeting and site visit on June 8, 2011. Multiple proposed licensing actions, including the CBR license renewal, were discussed at the meeting.⁶⁹ On October 20, 2011, the NRC sent a letter to OST with the official transcript of the June 8 meeting and an unredacted report on the Class III archeological surveys conducted for the Crow Butte facility.⁷⁰ On October 28, 2011, the NRC sent a letter to

⁶⁵ 36 C.F.R. § 800.2(c)(2)(ii)(A).

⁶⁶ Letter from Larry Camper, NRC, to Theresa Two Bulls, President, Oglala Sioux Tribal Council (January 13, 2011) (ADAMS Accession No. ML110130269).

⁶⁷ *Id.*

⁶⁸ Letter from Larry Camper, NRC, to Wilmer Mesteth, OST (May 12, 2011) (ADAMS Accession No. ML111320232).

⁶⁹ Transcript for Informal Information-Gathering Meeting Pertaining to Dewey-Burdock, Crow Butte North Trend, & Crow Butte License Renewal, In-Situ Uranium Recovery Projects (June 8, 2011) (ADAMS Accession No. ML111721938).

⁷⁰ Letter from Kevin Hsueh, NRC to James Laysbad, THPO, OST (October 20, 2011) (ADAMS Accession No. ML112440115).

OST with information on planned consultation activities going forward.⁷¹ On January 19, 2012, the NRC sent letters inviting the consulting Tribes, including OST, to attend a meeting on February 14 and 15, 2012, to discuss potential Traditional Cultural Properties (TCPs).⁷² Several individuals affiliated with OST attended this meeting, including two attorneys for OST.⁷³

On October 31, 2012, the NRC sent letters to all consulting Tribes, including OST, with an invitation to complete a TCP survey of the CBR facility and proposed expansion areas in the vicinity of the APE. Those letters detailed that as compensation for participating in the survey:

Cameco will provide \$125 per day per diem for up to three individuals from each Tribe, 55 cents per mile for one vehicle to travel from the Tribal headquarters to Chadron, Nebraska, and back, as well as mileage for daily round-trips from Chadron to the project areas. Cameco will also provide an honorarium of \$10,000 to each Tribe that chooses to participate, to be distributed at the Tribe's discretion to individuals participating in the fieldwork.⁷⁴

Two consulting Tribes, the Santee Sioux Nation and the Crow Nation, accepted the invitation to complete the TCP field survey. OST did not elect to participate. The TCP field survey was conducted November 14-21 and November 26 through December 7, 2012.⁷⁵ All consulting Tribes were notified by letters dated January 3, 2013, that the TCP field surveys had been

⁷¹ Letter from Kevin Hsueh, NRC, to James Laysbad, THPO, OST (October 28, 2011) (ADAMS Accession No. ML112980555).

⁷² Letter from Kevin Hsueh, NRC, to Tribal Historic Preservation Officers (January 19, 2012) (ADAMS Accession No. ML120330066).

⁷³ Attendance Sheet for the Tribal Consultation Meeting for the Proposed Dewey-Burdock, Crow Butte North Trend, and Crow Butte License Renewal In-Situ Uranium Recovery Projects at 2 (February 14, 2012) (ADAMS Accession No. ML12130A104). The attendance sheet lists Mario Gonzalez and Jennifer Baker. Mr. Gonzalez had previously entered an appearance as counsel of record for OST in this proceeding. Notices of Appearance of Elizabeth Moria Lorina and Mario Gonzales [sic] on Behalf of Oglala Sioux Tribe (September 3, 2008) (ADAMS Accession No. ML082470764). Ms. Baker identified herself on the attendance sheet as "Oglala Sioux Tribe Attorney."

⁷⁴ Letter from Kevin Hsueh, NRC, to Tribal Historic Preservation Officers at 2 (October 31, 2012) (ADAMS Accession No. ML12311A501).

⁷⁵ Santee Sioux Nation Tribal Historic Preservation Office TCP Report for Crow Butte Project, Dawes County, Nebraska at 1 (SSN Report) (ADAMS Accession No. ML13093A123).

completed and that the participating Tribes were preparing reports for the NRC.⁷⁶ After the two participating Tribes submitted their report to the NRC concluding that there were no eligible sites of cultural or religious significance to the Tribes, the NRC sent letters to the consulting Tribes, including OST, providing them with an unredacted copy of the TCP survey report and asking for comments.⁷⁷ Some consulting Tribes responded to the report and provided the NRC with comments, but OST was not among them.⁷⁸ Similarly, the NRC sent all consulting Tribes a copy of the Staff's preliminary documentation of its NHPA review for the CBR license renewal in October 2013, and received no specific comments from OST.⁷⁹

3. Intervenors' Contentions

a. Consultation

Intervenors first argue that OST was not meaningfully consulted. OST argues separately that under the UN DRIP, "meaningful consultation" requires obtaining area Tribes' prior informed consent to the renewal of CBR's license. As discussed above in the Staff's response to OST Contention F, the UN DRIP is not legally binding.⁸⁰ Furthermore, as the ACHP has explained in its guidance for complying with Section 106 of the NHPA, "a reasonable and good faith identification effort does *not* require . . . [t]he 'approval' of a SHPO/THPO or other consulting party."⁸¹

⁷⁶ Letter from Kevin Hsueh, Chief, ERB, DWMEP, FSME, NRC, to Tribal Historic Preservation Officers (January 3, 2013) (ADAMS Accession No. ML13003A280) at 2.

⁷⁷ Letter from Kevin Hsueh, Chief, ERB, DWMEP, FSME, NRC, to Richard Iron Cloud, OST (April 1, 2013) (ADAMS Accession No. ML13091A139).

⁷⁸ EA at 57.

⁷⁹ *Id.*

⁸⁰ *See supra* at 10.

⁸¹ *Meeting the "Reasonable and Good Faith" Identification Standard in Section 106 Review (ACHP)* at 3 (emphasis in original).

Intervenors also mischaracterize the EA's explanation of the consultation process, stating that "[t]he Final EA describes the 'consultation' process as one involving a single large collective meeting involving the NRC, several tribes and representatives of more than one uranium company . . . in June 2011."⁸² But the EA identifies several consultation mechanisms outside of that meeting, including solicitation of tribal knowledge of cultural properties, invitations to participate in the TCP survey, notification of the survey's completion, and acceptance of comments.⁸³ Intervenors' bare assertion that the Staff relies solely on the June 2011 meeting to meet its consultation obligations is without factual support.

Intervenors further claim that "no offer was made to involve OST tribal representatives and elders in the TCP surveys being conducted at Crow Butte's expense,"⁸⁴ and that "the Tribe asked that tribal representatives be involved in the surveys being conducted by CBR and being used by the NRC Staff but it was refused and instead it was offered a chance to conduct its own TCP surveys at its own expense."⁸⁵ This claim is wholly unsupported by the record, and Intervenors offer no additional factual basis for it. As detailed above, OST was sent a letter inviting it to participate in the November-December 2012 TCP surveys—which included compensation in the form of a per diem, travel costs, and a \$10,000 honorarium—and OST did not accept the invitation. Intervenors argue that OST may not have responded to the invitation because it was unrepresented by an attorney at the time, stating that it is a "violation of NEPA and the assumed federal trust responsibility to conduct TCP surveys in this way when the OST is completely unrepresented."⁸⁶ But Intervenors do not explain why representation by an

⁸² OST New Contentions at 19.

⁸³ EA at 53-56.

⁸⁴ *Id.* at 21.

⁸⁵ *Id.* at 36.

⁸⁶ *Id.* at 24.

attorney is required for meaningful consultation or point to any requirement in NEPA or the NHPA to that effect. The purpose of consultation is to benefit from the expertise of the tribal members themselves, which is why the Staff's letters to the tribes were sent to tribal officers. Moreover, the Tribe did not raise lack of representation as a hindrance to consultation activities at the time consultation efforts were undertaken. And although not required, OST was in fact represented by counsel for at least part of the NRC's consultation efforts.⁸⁷

Finally, Intervenors take issue with the EA's reference to a consultation meeting in February 2012, attended by 19 consulting Tribes. Intervenors argue that because the EA does not specifically "state whether [OST] was one of those 19 tribes and . . . the offices held by the person who attended," the EA "fails to state enough information for there to be a legal conclusion that there have occurred meaningful consultations between OST and the NRC Staff."⁸⁸ But Intervenors do not explain why such a level of detail is required in an EA's documentation of consultation activities.⁸⁹

b. Reliance on TCP Surveys

Second, Intervenors argue that the Staff's NEPA conclusions are deficient, based on the age of past field surveys and alleged problems with the 2012 TCP survey. Intervenors argue that the 1982 and 1987 surveys are too old to support the Staff's NEPA conclusions and that more recent surveys are required.⁹⁰ As the EA explains, the 1982 and 1987 surveys are not the sole source of information regarding cultural properties in the license renewal area. The Staff based its NEPA conclusions on "a class III archeological survey, a TCP survey completed by

⁸⁷ See *supra* n.73.

⁸⁸ OST New Contentions at 25.

⁸⁹ Regardless, OST was represented at this meeting by several individuals, including two attorneys. See *supra* n.73.

⁹⁰ OST New Contentions at 28.

Santee Sioux Nation, a completed literature review and overall Tribal consultations,”⁹¹ constituting the required reasonable and good faith effort to identify cultural properties and reasonable opportunity for tribal consultation.

Intervenors also invoke the 2013 Redmond Opinion (Exhibit G) as support for the allegation that the TCP survey was deficient.⁹² But “materials cited as the basis for a contention are subject to scrutiny by the board to determine whether they actually support the facts alleged.”⁹³ The Redmond Opinion was based on Dr. Redmond’s review of a cultural resources inventory of only the Marsland Expansion Area, commissioned by CBR—not the TCP survey of the license renewal and three potential expansion areas at issue here.⁹⁴ Furthermore, the cultural resources inventory referred to by Dr. Redmond took place between November 2010 and February 2011.⁹⁵ The results of the TCP survey at issue here, which was conducted in November and December 2012, were not even finalized when the 2013 Redmond Opinion was issued. Therefore, the Redmond Opinion is inapplicable to the TCP survey conducted as a result of the NRC’s consultation efforts with the Tribes. For example, Intervenors argue that subsurface testing should have been conducted as part of the survey, and that not doing so violates TCP survey standards and protocols. Intervenors’ demand for subsurface testing relies

⁹¹ EA at 87.

⁹² OST New Contentions at 21-24.

⁹³ *Calvert Cliffs 3 Nuclear Project* (Calvert Cliffs Nuclear Power Plant, Unit 3), LBP-10-24, 72 NRC 720, 750 (2010) (citation omitted).

⁹⁴ See CI Exhibit G at 1 (“I have reviewed the CBR . . . environmental report for the Marsland Expansion Area dated May 2012 . . . [and] the research submitted by Graves, et al . . .”).

⁹⁵ Environmental Report for the Marsland Expansion Area, Part 1 of 4 (May 31, 2012) (ADAMS Accession No. ML12160A513) at 3-76; see also ARCADIS, Marsland Expansion Area Uranium Project Addition Cultural Resource Inventory (March 5, 2012) (ADAMS Accession No. ML12165A502).

on the Redmond Opinion's statement that "this project will eventually cause significant ground disturbance."⁹⁶ But as described in the EA, that is not true for the renewal area.⁹⁷

Intervenors also rely on the Redmond Opinion for its argument that snow cover rendered the survey attempts ineffective. Dr. Redmond states that in his experience, snow and ice cover is common in the area between November and February. Again, however, Dr. Redmond's description applies only to the cultural resources inventory commissioned by CBR. Intervenors' submission of historical weather data for the winter of 2010⁹⁸ is similarly inapplicable to the TCP survey at issue here, which was conducted in late November and early December 2012. Weather records from that period (Staff Exhibit 1) show that this was a period of unseasonable warmth, with snow cover for only three days (November 26-28).⁹⁹ Intervenors provide no factual basis to conclude that snow cover caused a problem with the TCP survey of the license renewal and expansion areas in 2012.

Finally, Intervenors argue that it was improper for the NRC Staff to rely on the findings of the TCP survey conducted by the Santee Sioux Nation and Crow Nation in November and December of 2012, "to the detriment of the OST."¹⁰⁰ But Intervenors provide no explanation why relying on the survey report is detrimental to OST. Furthermore, Intervenors have provided no specific concerns about the report, either in early 2013 when OST was provided an unredacted copy or in their new and amended contentions before the Board here. Ultimately,

⁹⁶ CI Exhibit G at 1. OST also does not identify what "survey standards and protocols" they are referring to, and the Redmond Opinion itself does not mention "survey standards and protocols." Nor do Intervenors explain why subsurface testing is required under NEPA or the NHPA when it is well beyond the identification methods ACHP has found satisfactory.

⁹⁷ *E.g.*, EA at 64 ("No additional land disturbances are expected to occur from the proposed action . . .").

⁹⁸ OST New Contentions at 34; CI Exhibits H-1, H-2, H-3, and H-4.

⁹⁹ NRC Staff Exhibit 1. This exhibit provides records of Climatological Observations for NOAA weather stations at Fort Robinson (for November 2012) and Chadron (for November and December 2012) which include recorded snow and ice cover.

¹⁰⁰ OST New Contentions at 29.

Intervenors' contentions lack a factual basis and fail to demonstrate a genuine dispute of material fact.

C. Contention 3 (Environmental Justice)

Contention 3 asserts that the environmental justice (EJ) analysis in the EA is flawed because the Staff considered the population within a 4-mile radius of the facility, and based on that found no need to perform a more detailed EJ analysis.¹⁰¹ The OST asserts that the EA “fails to take the requisite ‘hard look’ at whether relicensing the Crow Butte facility would cause disproportionate and adverse impacts on minority and low-income populations,” and that the Staff should have considered populations within a 50-mile radius, particularly the OST.¹⁰² This contention is inadmissible because it lacks sufficient factual support and fails to raise a genuine dispute with the EA.

NEPA requires the staff to take a “hard look” and potential environmental impacts. In NRC practice, “[t]he essence of an [EJ] claim . . . is disparate environmental harm.”¹⁰³ The Commission has defined environmental justice as follows:

Environmental justice, as applied at the NRC . . . means that the agency will make an effort under NEPA to become aware of the demographic and economic circumstances of local communities where nuclear facilities are to be sited, and take care to mitigate or avoid special impacts attributable to the special character of the community.¹⁰⁴

Further, under EO 12898, agencies are to consider EJ implications “only when disparate environmental effects are ‘high and adverse.’”¹⁰⁵

¹⁰¹ *Id.* at 47.

¹⁰² *Id.* at 40.

¹⁰³ *Private Fuel Storage, LLC (Independent Spent Fuel Storage Installation) CLI-02-20*, 54 NRC 147, 153 (2002).

¹⁰⁴ *Id.* at 156.

¹⁰⁵ *Id.* at 154. The Commission’s EJ policy statement makes clear that EO 12898 does not create any new rights and thus cannot provide a legal basis for admitting a contention in an NRC proceeding. Policy

The NRC's 2004 EJ Policy Statement discusses and endorses guidelines for defining the geographic area for EJ assessment and for identifying low-income and minority communities within the review area.¹⁰⁶ The policy statement provides specific numeric guidance on how the staff determines when to consider EJ in greater detail, and states that "the staff should continue to use such guidance"¹⁰⁷ For materials facilities, the policy statement identifies a 4-mile radius from the center of the proposed site as the potentially affected area for facilities located in rural areas.¹⁰⁸ The policy statement recognizes that the different distances used for materials facilities and reactors "are consistent with the area of potential impact normally considered in NRC environmental and safety reviews."¹⁰⁹

Intervenors assert that the Staff's use of a review area within a 4-mile radius of the CBR facility was inappropriate.¹¹⁰ As stated in the EA, the Staff followed the guidance in Appendix C of NUREG-1748 in selecting a 4-mile radius for the EJ review area.¹¹¹ The Staff's selection of review area, as well as its process for identifying minority and low-income populations to determine if a more detailed EJ review was necessary, was consistent with NUREG-1748 and the 2004 EJ Policy Statement.¹¹² Intervenors have offered no justification for their assertion that

Statement on the Treatment of Environmental Justice Matters in NRC Regulatory and Licensing Actions, 69 Fed. Reg. 52,040, 52,044 (August 24, 2004) ("2004 EJ Policy Statement. ") In the context of EJ-related matters, the only possible basis for an admissible contention is NEPA." *Id.*

¹⁰⁶ *Id.* at 52,047-48.

¹⁰⁷ *Id.* at 52,048.

¹⁰⁸ *Id.* at 52,047.

¹⁰⁹ *Id.* at 52,048.

¹¹⁰ OST New Contentions at 47.

¹¹¹ EA at 91.

¹¹² In addition to being consistent with guidance, the review area chosen for the Staff's EJ analysis is comparable to those used in EJ in other recent ISR licensing actions, as well as those used in recent licensing of other types of materials facilities. See, e.g., NUREG-1910, Supplement 5, "Environmental Impact Statement for the Ross ISR Facility in Crook County, Wyoming" at 4-96 (ADAMS Accession No. ML14056A096); NUREG-1945, "Environmental Impact Statement for the Proposed Eagle Rock Enrichment Facility in Bonneville County, Idaho" at 3-96 (ADAMS Accession No. ML11014A005).

the Staff should have chosen a different review area or performed a more detailed analysis. In particular, Intervenors have not pointed to any specific harm that would be felt disproportionately by the OST or members of CI who reside on the Pine Ridge reservation.

Furthermore, although the Pine Ridge Reservation is located well outside of the EJ review area, the EA identified the Native American community at Pine Ridge as a low-income and minority population and concluded that there would be no disproportionately high or adverse effects on that community based on its considerable distance from the CBR facility.¹¹³ Intervenors have provided no specific examples of disproportionately high or adverse impacts on members of that community to counter the Staff's conclusion. Mere assertions that there may be impacts or that a more detailed review is needed are not sufficient.¹¹⁴

The OST further asserts that the EJ analysis is incomplete because the OST is only discussed in EA sections related to cultural resources, and is not mentioned in various other sections of the EA, including "Affected Environment" sections on land use, surface and groundwater use, and socioeconomics, and other "Environmental Impacts" sections.¹¹⁵ The OST has not provided any basis for addressing EJ in other sections of the EA.¹¹⁶ Nor has the OST identified any disproportionately high or adverse impacts on the OST associated with those resource areas that would stem from renewal of the CBR license. Therefore, the OST has failed to provide adequate support for this asserted deficiency, and has failed to raise a genuine dispute with the EA.

Next, the OST asserts that the Staff's cultural resources discussion in the EA is deficient because it does not discuss specific topics, such as the spiritual ties of the Lakota peoples to

¹¹³ EA at 92.

¹¹⁴ Clinton ESP, CLI-05-29, 62 NRC at 810.

¹¹⁵ OST New Contentions at 45-46.

¹¹⁶ Had the Staff identified the need for a detailed EJ review, that review would have been included in the EJ section of the EA.

the Crow Butte area, customs and traditions that are impacted by Crow Butte's activities, and the impact of "forced deprivation of those lands" on the Lakota people.¹¹⁷ But the OST has not explained why such discussion is necessary, or why the discussion of Native American cultural resources in Sections 3.9, 4.8, and 4.13 of the EA is inadequate. The NEPA "hard look" standard does not require the Staff to write a research document or examine every possible aspect of a project.¹¹⁸ The OST has not identified a "significant inaccurac[y] or omission[]" that gives rise to an admissible contention.¹¹⁹ Therefore, this asserted defect does not raise a genuine dispute with the EA.

Finally, the OST cites the UN DRIP and the decisions of the IACHR and CERD discussed in OST Contention F.¹²⁰ For the reasons discussed in the Staff's response to that contention, the UN DRIP and those decisions are not binding authority, and consideration of them is outside the scope of this proceeding.¹²¹

D. Contention 4 (Baseline Water Quality)

Contention 4 asserts that the EA violates NRC regulations and NEPA because it "fails to provide an adequate baseline groundwater characterization or demonstrate that ground water and surface water samples were collected in a scientifically defensible manner."¹²² Intervenor claim that new baseline measurements are required for the 10-year license renewal period, that those measurements must be obtained under specific protocols, and that the EA must report that information in sufficient detail to "replicate the results."¹²³ Intervenor also assert that the

¹¹⁷ *Id.*

¹¹⁸ *Pilgrim*, CLI-10-22, 72 NRC at 208; *PFS*, CLI-02-25, 56 NRC at 349.

¹¹⁹ *See Grand Gulf ESP*, CLI-05-4, 61 NRC at 13.

¹²⁰ OST New Contentions at 47-48.

¹²¹ *See supra* at 10.

¹²² OST New Contentions at 48.

¹²³ *Id.* at 49-50, 60, 62-63.

EA omits recent data on surface water sampling, fails to discuss effects of spills and leaks, and does not follow recommendations or address deficiencies presented in 2008. As discussed below, this contention is inadmissible because it fails to meet the good cause standards in 10 C.F.R. § 2.309(c)(1) and fails to raise a genuine dispute with the EA, as required under 10 C.F.R. § 2.309(f)(1)(vi).

1. Baseline Water Quality

Intervenors generally claim that the EA does not take a “hard look” at, and does not include, necessary information to adequately determine baseline groundwater and surface water quality.¹²⁴ Although Intervenors acknowledge that baseline measurements were taken, Intervenors assert that it is “inappropriate to rely on decades old baseline measurement from past license applications for prior licensing actions.”¹²⁵ Intervenors claim that NEPA requires new baseline measurements for the 10-year license renewal period, a comparison of new baselines with old ones, reporting of data and analysis under “scientifically defensible” protocols, and reporting of “enough information to replicate the results.”¹²⁶

With regard to these claims, Intervenors have not demonstrated that they have satisfied the good cause standard in 10 C.F.R. § 2.309(c)(1). To support these claims, Intervenors rely on documents submitted in support of Intervenors’ original petitions to intervene in 2008: the Abitz Opinion (Exhibit C) and the JR Engineering Opinion (Exhibit D).¹²⁷ But these documents allege deficiencies in the LRA, not the EA, and there is no indication that Dr. Abitz or the authors

¹²⁴ *Id.* at 48.

¹²⁵ *Id.* at 49. Intervenors appear to believe the 1982 NDEQ study (Exhibit E) contains the baseline data for this project, but that is incorrect. As stated in the EA, CBR provided initial baseline water quality information with its original commercial license application in 1987. EA at 33, 39.

¹²⁶ *Id.* at 49-50, 60, 62-63.

¹²⁷ CI originally filed Exhibit C as support for its Technical Contention D, “Failure to follow statistical protocols,” which was not admitted. The opinion of JR Engineering was filed in support of Technical Contention E, “Failure to use best available technology,” which was also not admitted.

of the JR Engineering opinion have reviewed the EA. Because these documents were provided in support of contentions against the LRA, any assertions based on those documents could have been raised in Intervenor's original 2008 petitions to intervene.¹²⁸ Accordingly, these assertions are based on previously available information, and fail to meet § 2.309(c)(1)(i). Furthermore, by stating that "the same technical defects carry over from the LRA to the EA,"¹²⁹ Intervenor admits that they have not identified information or conclusions on these issues in the EA that are materially different than those in the LRA. Nor have Intervenor offered any additional supporting documents that were previously unavailable and provide materially different information. Thus, these assertions also fail to meet 10 C.F.R. § 2.309(c)(1)(ii).

In addition to being untimely, the assertions regarding baseline water quality fail to raise a genuine dispute on a material issue of law or fact, as required by 10 C.F.R. § 2.309(f)(1)(vi). Intervenor cites Criterion 7 of 10 C.F.R. Part 40, Appendix A, which requires that, "[a]t least one year prior to any major site construction, a preoperational monitoring program must be conducted to provide complete baseline data on a milling site and its environs" (emphasis added). Criterion 7 does not state that new baseline information must be obtained prior to renewing a license. Section 3.5.1.2 of the EA explains that CBR submitted baseline data on surface water and groundwater with its original license application in 1987.¹³⁰ Furthermore, CBR has provided baseline information prior to construction of each new wellfield.¹³¹ The wellfield-specific baseline measurements are used to determine appropriate restoration values under 10 C.F.R. Part 40, Appendix A, Criterion 5B(5).

¹²⁸ A new NEPA contention is not an occasion to raise additional arguments that could have been raised against the LRA. *McGuire-Catawba*, CLI-02-28, 56 NRC at 385.

¹²⁹ OST New Contentions at 51.

¹³⁰ EA at 33, 39.

¹³¹ LRA at 6-5 to 6-18.

Similarly, the case law Intervenor's cite does not support their assertion that new baseline information is required for license renewal. The *Half Moon Bay* case emphasizes establishment of a baseline before a project begins, because after that point, "the 'pre-project environment' becomes a thing of the past" and it becomes impossible to evaluate a project's effects.¹³² In this case, the "pre-project environment" in terms of water quality existed before any major site construction and operation of the CBR facility. As explained above, CBR has provided the necessary "pre-project" baseline information. Nothing in the cited cases suggests that a new baseline is needed to renew the license of an operating facility.

Finally, Criterion 7 also requires that an operational monitoring program be conducted to assess compliance with applicable standards and regulations and evaluate environmental impacts of operation. As stated in Sections 4.6.1.2, 4.6.2.2.4, and 4.6.2.2.6 of the EA, CBR performs monitoring of surface waters, monitoring for excursions in overlying and mined aquifers, and monitoring of private wells within one mile of a wellfield.¹³³ The Staff reviewed CBR's environmental monitoring reports during its safety and environmental reviews, and concluded that there were no significant trends or differences attributable to CBR operations.¹³⁴ Intervenor's have not explained how the EA's characterization of the affected environment and impacts is deficient, or why additional information is necessary. And Intervenor's have provided no evidence of changes due to ISR operations that would require new baseline conditions to be established. Moreover, establishing new baseline conditions in the mined aquifer would be counterproductive, because ISR operations have changed the concentrations of constituents in the mined aquifer. Hence, any new baseline measurements would not reflect "pre-project" conditions. Thus, for the reasons discussed above, Intervenor's' assertions regarding new baseline measurements fail to raise a genuine dispute with the EA and are inadmissible.

¹³² *Half Moon Bay Fisherman's Market Ass'n v. Carlucci*, 857 F.2d 505, 510 (9th Cir. 1988).

¹³³ EA at 70, 78, 81.

¹³⁴ SER at 129-130; EA at 70, 81.

2. Failure to Provide Recent Information on Surface Water Quality

Intervenors also assert that the EA fails to include the most recent information on uranium levels in English and Squaw Creeks in Figures 4-1 and 4-2 of the EA, and that this failure violates NEPA.¹³⁵ Specifically, Intervenors contend that providing data from 1998 to 2010 is insufficient and that data from 2010 to 2014 must be provided.¹³⁶ Intervenors also assert that the EA “fails to describe the additional monitoring of the English Creek and other downstream sediments to determine if they are increasing in concentrations.”¹³⁷

With regard to the asserted failure to include recent information, Intervenors have not met the requirement of 10 C.F.R. § 2.309(f)(1)(vi) because they fail to explain why more recent information is necessary. Intervenors merely speculate that more recent data may show higher levels of uranium.¹³⁸ As discussed in Section 4.6.1.2 of the EA, the Staff reviewed results of quarterly monitoring of surface waters at the CBR site from 1990 to 2010, which showed that concentrations of radionuclides remained at or below preoperational background levels, and results of sediment sampling from 1982 to 1986 (preoperational) and 1998 to 2010 (during operations).¹³⁹ The Staff reviewed the same information during its safety review and concluded that there were no discernable trends attributable to impacts from the CBR facility.¹⁴⁰ NEPA’s “hard look” standard does not require the staff to provide the most current data available; the Staff has discretion to “draw the line” on data collection and move forward with decisionmaking.¹⁴¹ In this case, the Staff reasonably determined that 12 years of recent

¹³⁵ OST New Contentions at 52-53.

¹³⁶ *Id.*

¹³⁷ *Id.* at 54.

¹³⁸ *Id.* at 52.

¹³⁹ EA at 70.

¹⁴⁰ SER at 129-130.

¹⁴¹ *Pilgrim*, CLI-10-11, 71 NRC at 315.

monitoring data, plus preoperational data, was sufficient to assess trends in sediment samples and operational impacts on surface water. Therefore, for the reasons stated above, this assertion does not raise a genuine dispute with the EA.

With regard to the asserted failure to describe additional monitoring of sediments, Section 4.6.1.2 of the EA describes the annual sampling of sediments that is conducted.¹⁴² Therefore, the EA contains this information and Intervenor's have not alleged any deficiencies in that information. As such, this assertion fails to raise a genuine dispute with the EA.

3. Failure to Disclose Impacts from Spills and Leaks

Intervenor's next assert that the EA is deficient because it does not state that the environmental impacts from spills which remained undetected for at least 3 years are unknown.¹⁴³ Intervenor's cite Exhibit F, a list of spills and leaks submitted as part of Intervenor's 2008 petition to intervene, as support for this contention.¹⁴⁴ For the same reasons discussed in section II.D.1 *supra* for Exhibits C and D, asserted deficiencies based on Exhibit F are untimely under 10 C.F.R. § 2.309(c)(1), because they are based on the LRA and could have been raised at the outset of the proceeding. Furthermore, Intervenor's do not explain how Exhibit F supports this asserted deficiency. Intervenor's do not identify particular spills of concern, or explain how Exhibit F shows that impacts are "unknown." In sum, this claim amounts to a bare assertion that lacks support and specificity, and fails to raise a genuine dispute with the EA.

4. Failure to Follow Recommendations of Intervenor's Experts

Finally, Intervenor's assert that the EA is deficient because the Staff did not follow various recommendations or address asserted deficiencies noted by Dr. Abitz and JR

¹⁴² EA at 70.

¹⁴³ OST New Contentions at 57.

¹⁴⁴ *Id.*

Engineering.¹⁴⁵ As discussed in section II.D.1 *supra*, any asserted deficiencies raised in the 2008 opinions of Dr. Abitz and JR Engineering are untimely, because they are based on the LRA and could have been raised at the outset of the proceeding. Intervenors have not explained why the Staff is required to discuss in the EA how (or whether) it considered those specific recommendations or asserted deficiencies associated with the LRA. Also, Dr. Abitz and JR Engineering did not review the EA and thus have not explained how, or whether, their comments apply to the Staff's environmental review. And, in any event, agencies are permitted to rely on the reasonable opinions of their own experts rather than those of other experts who express a conflicting view.¹⁴⁶

E. Contention 5 (Adequate Confinement/Selenium in Evaporation Ponds)

Contention 5 asserts that the EA does not include sufficient information regarding the hydrologic and geological settings. Intervenors contend in general that the EA “fails to present sufficient information in a scientifically-defensible manner to adequately characterize the site and off-site hydrogeology” to allow a meaningful review of potential impacts on groundwater resources.¹⁴⁷ More specifically, Intervenors assert that the EA contains “unsubstantiated assumptions” regarding confinement, fails to account for faults and fractures, and retains the same geologic nomenclature used in the LRA.¹⁴⁸ Intervenors also claim the EA is inadequate because the Staff did not follow recommendations in Dr. LaGarry's 2008 opinion regarding

¹⁴⁵ OST New Contentions at 62. The Staff notes that the statement by Dr. Abitz asserting that uranium should not have been excluded as an excursion parameter (OST New Contentions at 64) is a basis for OST's previously admitted Environmental Contention A. *Crow Butte*, LBP-08-24, 68 NRC at 717 and n.132. As limited by the Board and affirmed by the Commission, that contention addresses two issues: the frequency of monitoring for contaminants and the exclusion of uranium as an indicator of excursions. *Crow Butte*, CLI-09-9, 69 NRC at 347.

¹⁴⁶ See *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 378 (1989) (“When specialists express conflicting views, an agency must have discretion to rely on the reasonable opinions of its own qualified experts . . .”).

¹⁴⁷ OST New Contentions at 66.

¹⁴⁸ *Id.* at 66, 71.

geologic nomenclature and confinement, and assert several specific deficiencies in the EA's discussion of confinement.¹⁴⁹ Finally, although this contention is primarily concerned with adequate confinement, Intervenor also assert in Contention 5 that the EA is deficient because it fails to discuss possible impacts of selenium on wildlife.¹⁵⁰ For the reasons discussed below, this contention is inadmissible because it is untimely and fails to raise a genuine dispute with the EA.

1. Timeliness of Adequate Confinement Claims

In 2008, the Board admitted OST Environmental Contentions C and D, which raised issues related to communication among aquifers (i.e., lack of adequate confinement) and potential effects of that communication on surface and groundwater.¹⁵¹ Those contentions were supported by the 2008 LaGarry Opinion (Exhibit B).¹⁵² Now, CI are attempting to raise similar issues, relying on the 2008 LaGarry Opinion, the 2008 JR Engineering Opinion (Exhibit D) and an "updated" opinion by Dr. LaGarry (Exhibit A).¹⁵³

Issues raised in the 2008 opinions of Dr. Lagarry and JR Engineering are all based on reviews of the LRA, not the EA, and are thus based on information that was available at the time the original petition was filed. Therefore, these documents constitute previously available information and any issues supported by those opinions could have been raised previously. To the extent that this contention is based on those documents, it is untimely.

¹⁴⁹ *Id.* at 73-80.

¹⁵⁰ *Id.* at 81-82.

¹⁵¹ See *Crow Butte*, LBP-08-24, 68 NRC at 724-27. CI also submitted contentions on "mixing of aquifers," but the Board rejected those contentions because they were not adequately supported. *Id.* at 729-31, 736. In its decision The Board recognized that CI's inadmissible contentions raised issues similar to those raised by OST Contentions C and D. *Id.* at 731 n.216.

¹⁵² *Crow Butte*, CLI-09-9, 69 NRC at 351-354.

¹⁵³ OST New Contentions at 66. Although Intervenor also cite the Abitz Opinion, it is not mentioned again in this contention.

Furthermore, the 2015 LaGarry Opinion does not add any materially different new information to the 2008 opinion, but, as Intervenors admit, “*re-iterates the concerns he expressed in 2008* with the benefit of additional data and research.”¹⁵⁴ A review of the 2015 LaGarry Opinion confirms that it expresses the same concerns that were identified and discussed in his 2008 opinion: (1) “lack of confinement resulting from secondary porosity in the form of faults and joints,” (2) artesian flow, and (3) horizontal flow of water beyond the uranium bearing strata.¹⁵⁵ Intervenors have not explained how any “additional data and research” in the 2015 LaGarry Opinion identify new issues or provide materially different information than the 2008 opinion or other previously available information. The new information consists of a statement that small earthquakes can affect secondary porosity and alter flow pathways of groundwater, and a table listing numerous topographic maps.¹⁵⁶ The maps listed in the table, which were all published in 2005 or earlier, are not information that was previously unavailable to Intervenors. And in any case, a list of maps without any explanation of their contents or relevance to the issues raised cannot support a contention.¹⁵⁷ Similarly, Intervenors have not demonstrated that the statement about small earthquakes is new or previously unavailable information. This statement is expressed in the context of “secondary porosity,” which is a concern raised in 2008. Also, the concept of earthquakes altering ground water paths is not a recent discovery, and both the 2008 and 2015 opinions cite studies stating that the area is tectonically active.¹⁵⁸

¹⁵⁴ *Id.* (emphasis added).

¹⁵⁵ Exhibit A at 2; Exhibit B at 3-4.

¹⁵⁶ Exhibit A at 3, 4-5.

¹⁵⁷ *USEC*, CLI-06-10, 63 NRC at 472; *Fansteel*, CLI-03-13, 58 NRC at 204-05.

¹⁵⁸ Exhibit B at 3; Exhibit A at 2. The 2015 opinion also cites a 2006 study stating that the area is tectonically active “to this day.” Exhibit A at 2-3.

In summary, the 2015 LaGarry Opinion does not present information that was previously unavailable or that is materially different than information available in 2008. Intervenors have not demonstrated that this contention is based on different or previously unavailable information, nor have they shown that the information in the EA is materially different than information in the LRA. Thus, Intervenors have not demonstrated that the issues raised in the 2015 LaGarry opinion concerning secondary porosity (joints and faults), artesian flow, and horizontal flow could not have been raised at the outset of this proceeding. A new NEPA contention is not an opportunity to provide additional arguments that could have been made originally.¹⁵⁹ Therefore, the claim that the EA fails to adequately discuss those issues is untimely under 10 C.F.R. § 2.309(c)(1).

2. Failure to Follow Expert Recommendations

Intervenors assert that the EA is deficient because the Staff continued to use the same geologic nomenclature as CBR in the EA, despite the information provided in the 2008 LaGarry Opinion.¹⁶⁰ This issue is already the subject of admitted CI Technical Contention F,¹⁶¹ and does not raise a new issue in this proceeding. Furthermore, the assertion that the Staff did not address the nomenclature issue is incorrect. As part of its safety review, the Staff reviewed proposed new nomenclature and information from the United States Geological Survey (USGS) and the state of Nebraska and determined that it was appropriate to retain the nomenclature used in the LRA and prior reviews.¹⁶² The EA retained the LRA's nomenclature based on the results of the safety review. And, as the Staff noted in the SER, "nothing in the naming conventions for the geologic units in Nebraska or at the Crow Butte facility changes the

¹⁵⁹ *McGuire-Catawba*, CLI-02-28, 56 NRC at 385-86.

¹⁶⁰ OST New Contentions at 71, Exhibit A at 4.

¹⁶¹ See LBP-08-24 at 738-740.

¹⁶² SER at 15.

interpretation of the physical or hydraulic features of the rock units.”¹⁶³ Intervenor did not file a new or amended contention based on the discussion of nomenclature in the SER, and under 10 C.F.R. § 2.309(c)(1)(iii), such a contention would be untimely now, two years after the SER was originally issued.

Intervenor also assert that the EA is deficient because the Staff did not follow other suggestions in the 2008 LaGarry Opinion.¹⁶⁴ But the NEPA “hard look” standard does not require the NRC to follow suggestions provided in an opinion supporting contention admissibility, or to discuss how or whether it did so in an EA. In Section 3.5.2.3 of the EA, the Staff provided a thorough discussion of the characteristics of the aquifers, confinement, and evaluation of the White River geologic feature, based in part on information from the LRA and the Staff’s safety review in Section 2.4 of the SER. Thus, the Staff reached reasonable conclusions in the EA concerning these topics and potential impacts on surface water and groundwater.

3. Specific Deficiencies with EA Section 3.5.2.3

Intervenor next assert several specific deficiencies with respect to Section 3.5.2.3 of the EA that are untimely and fail to identify a genuine dispute with the EA.¹⁶⁵ Intervenor have not demonstrated that these assertions are based on previously unavailable information, or information that is materially different than previously available information. Specifically, Intervenor have not shown that information about aquifer characteristics, pumping tests and aquifer confinement in the EA is significantly different from information provided in the LRA. Therefore, asserted deficiencies with respect to these topics could have been raised in 2008 and fail to meet 10 C.F.R. §§ 2.309(c)(1)(i) and (ii). And although the discussion in the EA of the

¹⁶³ *Id.*

¹⁶⁴ OST New Contentions at 73.

¹⁶⁵ *Id.* at 75-79.

Staff's independent evaluation of the White River structural feature is materially different from the information in the LRA, it is essentially the same as the discussion of that evaluation in the SER, which was originally published in 2012. Therefore, disputes with that analysis could have been raised at that time and are untimely under 10 C.F.R. § 2.309(c)(1)(iii).

The asserted deficiencies with Section 3.5.2.3 of the EA also lack adequate support and fail to raise a genuine dispute with the EA. First, Intervenors fault Section 3.5.2.3.2 of the EA for not explaining what constitutes a "minor amount of leakage," and speculate that CBR's pump test results showing no leakage were due to equipment failures or lack of sensitivity.¹⁶⁶ They also assert that CBR should be required to conduct new pump tests because the previous tests are old and pump testing technology has improved.¹⁶⁷ But they provide no support for these assertions other than to say that in 2008, JR Engineering and Dr. LaGarry recommended additional pumping tests.¹⁶⁸ Because Intervenors provide no specific information supporting the assertion that the four pump tests performed by CBR were deficient in any way, they fail to raise a genuine dispute with the EA.

Second, Intervenors speculate about environmental harms from interactions between Squaw Creek and the surface aquifer (Shallow Brule), citing language in Section 3.5.2.3.2 of the EA.¹⁶⁹ Again, they provide no further explanation or support for this assertion. That section of the EA explains that the mined aquifer – the Basal Chadron -- is separated from the shallow Brule sand by a "thick impermeable layer."¹⁷⁰ Because Intervenors provide mere assertions without support, these assertions fail to raise a genuine dispute with the EA and do not form the basis for an admissible contention.

¹⁶⁶ *Id.* at 75-76.

¹⁶⁷ *Id.* at 78-79.

¹⁶⁸ *Id.* at 76.

¹⁶⁹ *Id.*

¹⁷⁰ EA at 38.

Third, Intervenor asserts that the Staff accepted the theory that the White River structural feature is a “fold” without data, research or analysis.¹⁷¹ Contrary to this assertion, Section 3.5.2.3.3 of the EA describes the independent analysis that the Staff used to reach its conclusion that the White River structural feature is a fold.¹⁷² Intervenor has not taken issue with that analysis except to state that it uses data from the North Trend Expansion Area instead of the main CBR site.¹⁷³ However, as stated in the EA, the White River Fault is located along the southeast boundary of the North Trend area.¹⁷⁴ Hence, the Staff used the North Trend data for its modeling because that is where the fault is located. Because Intervenor misconstrued the discussion in the EA, they have failed to raise a genuine dispute on this issue.

Finally, Intervenor asserts, without further support, that Section 4.6.1.2 of the EA fails to state that surface waters could be impacted by leakage from the mined aquifer.¹⁷⁵ Intervenor does not explain why such a statement was required, and therefore they fail to raise a genuine dispute with the EA. Moreover, Section 3.5.2.3.2 of the EA discusses the basis for finding that the upper confining layer provides adequate confinement, making interaction between the mined aquifer and overlying aquifers or surface waters unlikely. Therefore, the impacts that Intervenor propose are not “reasonably probable,” and it was not necessary to discuss them in Section 4.6.1.2 of the EA.¹⁷⁶

¹⁷¹ OST New Contentions at 63.

¹⁷² EA at 38-39.

¹⁷³ OST New Contentions at 78.

¹⁷⁴ EA at 38.

¹⁷⁵ OST New Contentions at 79.

¹⁷⁶ *Seabrook*, CLI-12-05, 75 NRC at 341.

4. Impacts of Selenium on Wildlife

As part of Contention 5, Intervenors also assert that the EA is deficient because it fails to discuss selenium.¹⁷⁷ Intervenors assert that selenium is harmful to birds, especially waterfowl, and that selenium-contaminated groundwater could seep into low areas and create wetlands that might attract migratory birds.¹⁷⁸ Intervenors assert that the Staff did not follow advice of a 2007 letter from the U.S. Fish and Wildlife Service (FWS) regarding selenium (Exhibit N), and that, therefore, the Staff's consultation with FWS was "ineffective" and violated NEPA.¹⁷⁹ Intervenors also claim that because a 1982 regional groundwater study found very low levels of selenium in northwest Nebraska, and because ISR operations are known to increase selenium concentrations, the NRC should have established a new baseline value for selenium.¹⁸⁰

This portion of Contention 5 is untimely under 10 C.F.R. § 2.309(c)(1). The LRA discusses expected changes in water quality in the mined aquifer during operations and specifically mentions that levels of selenium would be expected to increase.¹⁸¹ The LRA also provides a table of average baseline values which indicates that average baseline Se is 2 ppb with typical increases to 70 ppb during mining.¹⁸² Thus, information was previously available in the LRA regarding increases in selenium concentrations during ISR operations, and Intervenors have not demonstrated that the 2009 USGS report (Exhibit K), which Intervenors quote as support for this claim, provides materially different information. Furthermore, Exhibit N, the letter from FWS to NRC, was sent in September 2007 and became publicly available in ADAMS

¹⁷⁷ OST New Contentions at 81-82.

¹⁷⁸ *Id.* at 81.

¹⁷⁹ *Id.*

¹⁸⁰ *Id.* at 82 (citing Exhibit E at 51).

¹⁸¹ LRA at 2-177, 6-4.

¹⁸² *Id.* at 2-177 to 2-178.

shortly thereafter.¹⁸³ Therefore, this claim is based on information that was previously available and intervenors could have raised their concerns about selenium and wildlife in their original petition in 2008. They are foreclosed from doing so now by 10 C.F.R. § 2.309(c)(1).¹⁸⁴

Intervenors' claims regarding selenium also fail to raise a genuine dispute with the EA. Intervenors must explain why omitted information is necessary in order to demonstrate a genuine dispute, and intervenors must explain how documents support a contention.¹⁸⁵ Intervenors assert that the Staff's consultation with FWS was ineffective, and that the Staff did not follow FWS's advice. But the letter from FWS was input to the NRC's Generic Environmental Impact Statement on In-Situ Leach Uranium Milling Facilities (GEIS),¹⁸⁶ not part of FWS consultation for the CBR license renewal.¹⁸⁷ Therefore, intervenors' assertion that the Staff's consultation with FWS was ineffective is inaccurate.

Intervenors also fail to demonstrate that selenium in evaporation ponds will lead to impacts that are sufficiently significant or probable to warrant discussion in the EA. The "hard look" standard requires "a reasonably thorough discussion of the *significant* aspects of the *probable* environmental consequences."¹⁸⁸ As noted above, the letter from FWS provided comments as input to the GEIS, and the Staff considered these comments when preparing the GEIS.¹⁸⁹ Section 4.2.5.2 of the GEIS addressed the issue of impacts to migratory birds and other wildlife from selenium in evaporation ponds, and concluded that such impacts would be

¹⁸³ ADAMS Accession No. ML072540098.

¹⁸⁴ See also *McGuire-Catawba*, CLI-02-28, 56 NRC at 385-86 (stating that a new NEPA contention is not an opportunity to raise additional arguments that could have been made originally).

¹⁸⁵ 10 C.F.R. § 2.309(f)(1)(vi); *USEC*, CLI-06-10, 63 NRC at 472.

¹⁸⁶ NUREG-1910, Generic Environmental Impact Statement on In-Situ Leach Uranium Milling Facilities (May 2009).

¹⁸⁷ Exhibit N at 1.

¹⁸⁸ *Trout Unlimited*, 509 F.2d at 1283 (emphasis added).

¹⁸⁹ GEIS at G-160 to G-161, G-207, G-212 to G-213.

small.¹⁹⁰ The conclusion was based on past experience at NRC-licensed ISL facilities, which have not identified impacts to wildlife from evaporation ponds, and the presence of synthetic pond liners that inhibit the growth of vegetation that might serve as a food source and exposure pathway.¹⁹¹ As stated in section 4.12.2.1 of the EA, the ponds at the CBR facility have impermeable synthetic liners.¹⁹² The EA also states that the prevalence of waterfowl in the project area is “extremely low” due to lack of suitable habitat.¹⁹³ Because Intervenors have not met their burden of explaining why the omitted information is required, they have not raised a genuine dispute with the EA.

F. Contention 6 (Groundwater Quantity)

Intervenors assert that the EA “fail[s] to provide an analysis of the ground water quantity impacts” of the proposed action, and that the EA “presents conflicting information on ground water consumption.”¹⁹⁴ Intervenors conclude Contention 6 by quoting blocks of text from Sections 4.6.2.2.1 and 4.6.2.3 of the EA and then stating simply that the contention is admissible.

First, as a threshold matter, the assertion that the EA “fail[s] to provide an analysis of the ground water quantity impacts” is plainly incorrect. The EA specifically addresses the project’s expected impacts to ground water quantity in Sections 4.6.2.2.1 and 4.6.2.3, and further discusses expected cumulative impacts to ground water quantity in Sections 4.13.6.2.1, 4.13.6.2.2, and 4.13.6.2.3.¹⁹⁵ As this Board has explained, “[i]t is fundamental that a contention

¹⁹⁰ *Id.* at 4.2-34.

¹⁹¹ *Id.*

¹⁹² EA at 102.

¹⁹³ EA at 61.

¹⁹⁴ OST New Contentions at 83.

¹⁹⁵ EA at 74-75, 81-83, 116, 117-119.

of omission will fail where the allegedly missing information, in fact, is in the [challenged document].”¹⁹⁶

Second, Intervenor quote Section 4.6.2.2.1 of the EA, which states that “[i]mpacts to ground water quantity during ISR operations can be caused by consumptive water use.”¹⁹⁷ That section of the EA also states that the facility is licensed to process 9,000 gallons of leach solution per minute. Intervenor note that this figure does not include the consumption of water for restoration and decommissioning, citing the EA’s statement to that effect in Section 2.1. Intervenor’s objection is misplaced. Section 4.6.2.2.1 describes the impacts of consumptive use during *operations*; the impacts to ground water from restoration and decommissioning activities are described in Sections 4.6.2.3 and 4.6.2.4, respectively. Intervenor do not explain why this constitutes “conflicting information on ground water consumption,” and have not demonstrated a genuine dispute with an issue of material fact.

Third, Intervenor challenge the conclusion in Section 4.6.2.3 of the EA that short-term impacts from consumptive ground water use during aquifer restoration may be moderate, but overall impacts will be small as water levels in the Basal Chadron aquifer recover. The EA explains that “[u]nder the most conservative estimates of drawdown in this area, the Brule and Basal Chadron aquifers would remain saturated,” and that “recovery rates of confined aquifers, such as the Basal Chadron aquifer, are generally far more rapid than those observed in water table aquifers.”¹⁹⁸ Elsewhere, the EA explains that:

Although the piezometric surface was lowered in the Basal Chadron aquifer over the previous license period, the aquifer remained under a significant amount of pressure. Water levels in wells penetrating the Basal Chadron aquifer continue to rise very

¹⁹⁶ *Crow Butte*, LBP-08-24, 68 NRC at 748 (citation omitted).

¹⁹⁷ OST New Contentions at 83.

¹⁹⁸ EA at 119.

close to the land surface or actually flow under artesian pressure.¹⁹⁹

Intervenors seem to imply that the overall impacts will be greater than small. But they do not provide any facts or reasons allegedly omitted in the EA that would support a greater finding. Nor do they explain why the facts and analysis presented in the EA would require a greater finding. Instead, Intervenors simply quote several paragraphs from Sections 4.6.2.2.1 and 4.6.2.3 of the EA—highlighting certain sentences—and then assert that the contention is admissible. Intervenors have failed to specify what reasoning or conclusions in the EA are deficient or provide facts to support the contention. Therefore, Contention 6 is inadmissible under 2.309(f)(1)(v) and (vi).

G. Contention 7 (Technical Sufficiency/Clarity)

Intervenors argue that the EA commits several fatal omissions, and that the EA does not present information in a clear and concise manner. In particular, Intervenors argue that the EA is deficient “with regard to presentation of the scientific and technical bases for a large number of assumptions made in the Final EA, some of which are simply adoptions of Crow Butte’s assumptions stated in the LRA.”²⁰⁰ Intervenors cite three examples from the EA to illustrate this claim.

First, Intervenors point to Section 3.4.3 of the EA, “Seismology.” That section identifies and discusses the potential for seismic activity in northwest Nebraska. Intervenors assert that Section 3.4.3 fails to mention two earthquakes that occurred in 2011 and that were reportedly felt in Crawford, Nebraska, and that this omission puts the EA in violation of NEPA.²⁰¹ As explained in the Staff’s response to Contention 14, which raises this same issue, this concern

¹⁹⁹ *Id.* at 75.

²⁰⁰ OST New Contentions at 87.

²⁰¹ OST New Contentions at 88.

does not support an admissible contention because Intervenors have not shown that the omission of the 2011 earthquake information is significant.²⁰²

Second, Intervenors identify a typographical error in Section 4.10.2 of the EA, in which the year “2007” was mistyped as “2207.” Intervenors assert that “there is no basis for the public to insert which year was intended.”²⁰³ Section 4.10.2 of the EA discusses the license renewal’s expected impacts to wetlands. It states that “stream sediment sampling for Squaw and English Creeks indicate that measured concentrations of radiological parameters (e.g., uranium) between 1998 and 2207 [sic] are consistent with preoperational monitoring, which indicates that these levels are anomalous natural background concentrations.”²⁰⁴ The statement includes a citation to Crow Butte’s 2007 License Renewal Application, referenced as “CBR 2007A.”²⁰⁵ Given that the “2207” typographical error appears in a statement citing the 2007 application, and given that the statement that refers to completed stream sediment sampling, it is apparent that the intended year was “2007.” CI’s concern does not demonstrate a genuine dispute with a significant issue of material fact and does not support admission of the contention.

Third, Intervenors refer to Section 3.4.1.7 of the EA, which discusses the Arikaree stratigraphic group. Intervenors note that in the first sentence, the Staff inadvertently states that the Arikaree and Oglalla groups are absent in “the immediate *North Trend* project area.”²⁰⁶ Intervenors do not state, however, that the EA immediately goes on to provide “a general description for each group . . . because they do occur on a regional scale,” rendering this

²⁰² See *infra* at 64-66.

²⁰³ OST New Contentions at 89.

²⁰⁴ EA at 94.

²⁰⁵ *Id.*

²⁰⁶ EA at 27 (emphasis added). In fact, the Arikaree and Oglalla groups are absent in both the North Trend and license renewal project areas. See LRA at 2-77, Figure 2.6-1, “Bedrock Geology Map, Dawes County.”

concern moot.²⁰⁷ The location and characteristics of the Arikaree and Oglalla groups are further discussed in Sections 3.4.1.8, 3.4.1.9, 3.4.1.10, 3.4.2, and 3.4.3.²⁰⁸ Intervenors do not assert that the actual description of the Arikaree and Oglalla groups in the EA is deficient. Therefore, this example also does not demonstrate a genuine dispute with a significant issue of material fact and does not support admission of the contention.

In addition, Intervenors state that the Abitz Opinion²⁰⁹ identifies 46 other “issues that warrant a more detailed evaluation.”²¹⁰ But the Abitz Opinion was authored in 2008 as an opinion regarding the LRA. While Intervenors assert that the issues identified in the LRA by Dr. Abitz are “carried forward” into the EA, the reliance on the Abitz Opinion makes this contention plainly untimely under 10 C.F.R. § 2.309(c)(1). New contentions must be based on information that was not previously available, and on information that is materially different from previously available information.²¹¹ The Abitz Opinion and the LRA (the document the opinion actually addresses) are not new information, and under 10 C.F.R. § 2.309(c)(1) cannot support a new contention.

H. Contention 8 (Air Quality)

Contention 8 asserts that the EA fails to adequately describe air quality impacts due to a number of omissions from the EA.²¹² This contention relies on statements from the 2008 Abitz Opinion, which asserts various deficiencies with the LRA. The asserted deficiencies include a recommendation to perform particulate monitoring to determine dose from airborne effluent, failure to collect site-specific particulate (PM10) data, failure to discuss air impacts during

²⁰⁷ *Id.*

²⁰⁸ *Id.* at 27-29.

²⁰⁹ CI Exhibit C.

²¹⁰ OST New Contentions at 89.

²¹¹ 10 C.F.R. § 2.309(c)(1)(i)-(ii).

²¹² OST New Contentions at 92-95.

decommissioning, failure to discuss air quality impacts from evaporation ponds, and failure to provide certain information associated with MILDOS modeling.²¹³ As discussed below, this contention is inadmissible because it does not meet the requirements of 10 C.F.R. §§ 2.309(c)(1) and 2.309(f)(1)(vi).

This entire contention is based on information in the LRA, and is supported only by the Abitz Opinion, a document provided in support of Intervenors' original contentions in 2008. Thus, all of the issues raised in this contention are based on previously available information and could have been raised at that time. Therefore, the standard in § 2.309(c)(1)(i) has not been met. Furthermore, Intervenors have not based the contention on any materially different information (i.e., data or conclusions in the EA that differ from the LRA, or other documents that were unavailable in 2008). In fact, Intervenors contend that the deficiencies are "carried forward" from the LRA to the EA. Therefore, the standard in § 2.309(c)(1)(ii) has not been met. On this basis alone, the contention is inadmissible.

Furthermore, a contention requires "sufficient information to show that a genuine dispute exists," and in the case of an omission, an intervenor must explain why alleged missing information is required.²¹⁴ Simply asserting that a violation of NEPA occurred because information is not included is insufficient. With regard to site-specific PM10 information, the Abitz Opinion simply states that it is required, without providing a reasoned basis for the asserted requirement.²¹⁵ And the asserted omissions of discussion of air quality impacts from particulate and mist in evaporation ponds and details of MILDOS modeling do not cite any requirements for such information or explain why such information must be included. The NEPA "hard look"

²¹³ *Id.* at 93-95.

²¹⁴ 10 C.F.R. § 2.309(f)(1)(vi).

²¹⁵ *USEC*, CLI-06-10, 63 NRC at 472.

standard does not require exhaustive detail or discussion of every possible impact;²¹⁶ the EA is not intended to be a research document.²¹⁷

Intervenors have also asserted several omissions that are discussed in the EA. With regard to dose from airborne effluent, Intervenors fail to acknowledge that total effective dose calculations for air pathways are presented in Section 4.12.2.2 of the EA,²¹⁸ and Intervenors have not taken issue with those calculations. Therefore, they have not raised a genuine dispute on that issue. Intervenors also assert that there is no discussion of decommissioning impacts on air quality in Section 4.6.2.4 of the EA.²¹⁹ However, those impacts are discussed elsewhere in the EA. Section 4.4.1 of the EA states that air quality impacts from decommissioning are expected to be small.²²⁰ Section 4.13.4 of the EA states that impacts from decommissioning are expected to be smaller than those from construction, and that dust suppression practices will be employed.²²¹ And finally, Section 4.4.1 states that a separate, site-specific environmental review will be required when CBR's decommissioning plan is submitted for approval.²²² Intervenors have not identified deficiencies with these statements. Therefore, they have not raised a genuine dispute with the EA on this issue.

I. Contention 9 (Mitigation Measures)

Intervenors argue that the EA fails to analyze the effectiveness of proposed mitigation measures. Intervenors state that "to the extent NRC relies on mitigation for any impacts, such mitigation must be specifically spelled-out, at least in reasonable detail, and the effectiveness of

²¹⁶ *LES*, CLI-05-20, 62 NRC at 536; *PFS*, CLI-02-25, 56 NRC at 349.

²¹⁷ *Pilgrim*, CLI-10-22, 72 NRC at 208.

²¹⁸ EA at 103.

²¹⁹ OST New Contentions at 94.

²²⁰ EA at 68.

²²¹ *Id.* at 111.

²²² *Id.* at 68.

the proposed mitigation must be analyzed,” but the EA “makes no attempt to evaluate the effectiveness of *any* of the proposed mitigation.”²²³

NEPA itself does not mention mitigation measures.²²⁴ The Supreme Court has, however, stated that “a reasonably complete discussion of possible mitigation measures is an important ingredient of an EIS, and its omission therefrom would undermine NEPA’s ‘action-forcing’ function.”²²⁵ Accordingly, even though it does not say so explicitly, NEPA requires an agency to analyze mitigation measures when preparing an EIS.²²⁶ The applicable legal standard for an EIS is whether agency has reasonably described possible mitigation measures and “discusses the extent to which adverse effects can be avoided.”²²⁷ Where it is obvious how mitigation measures will reduce impacts, the environmental document need not explicitly discuss their effectiveness.²²⁸ As one court recently stated, “[t]he discussion and effectiveness of mitigation measures does not need to be highly detailed.”²²⁹ In cases where an agency prepares an EA and FONSI that relies on mitigation measures, at least one NRC Board has found that “there must be some assurance that the mitigation measures constitute an adequate buffer against the negative impacts from the authorized activity to render such impacts so minor

²²³ OST New Contentions at 97 (emphasis in original).

²²⁴ 42 U.S.C. §§ 4321 *et seq.*

²²⁵ *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 352 (1989).

²²⁶ The CEQ’s regulations also direct an agency to consider mitigation measures in an EIS. 40 C.F.R. § 1502.14(f).

²²⁷ *Methow Valley*, 490 U.S. at 352.

²²⁸ See *Oregon Natural Desert Ass’n v. Jewell*, No. 3:12-CV-00596-MO, 2013 U.S. Dist. LEXIS 130466 (D. Or. Sept. 11, 2013) (“The FEIS discusses the effectiveness of some mitigation measures and the effectiveness of other measures is obvious.”).

²²⁹ *Moapa Band of Paiutes v. BLM*, No. 10-CV-02021-KJB-(LRL), 2011 U.S. Dist. LEXIS 116046 (D. Nev. Oct. 6, 2011).

as to not warrant an EIS.”²³⁰ Recent guidance from the CEQ agrees with this finding “where an agency chooses to base the use of less extensive NEPA analysis on mitigation.”²³¹

Frequently, mitigation measures will be imposed by the requirements of a license or permit issued by the NRC or another federal or state government agency. It is well-established that the NRC does not assume that a licensee will violate its obligations, including the obligations of its license.²³²

Intervenors present a “non-exhaustive list” of sections in the EA that allegedly contain deficient mitigation analysis.²³³ In each of these sections, according to Intervenors, the mitigation analysis “consists of the NRC Staff’s belief that CBR will comply with its own procedures or procedures otherwise described in the Final EA but not subject to any form of ‘hard look.’”²³⁴ Specifically, Intervenors challenge Sections 4.6.1.1 (Construction Impacts on Surface Water), 4.6.1.2 (Operational Impacts on Surface Water), 4.6.1.3 (Aquifer Restoration Impacts on Surface Water), 4.6.2.2.1 (Ground Water Quantity Impacts from Consumptive Use), 4.6.2.2.2 (Ground Water Quality Impacts from Spills and Leaks), 4.6.2.2.3 (Ground Water Quality Impacts from Waste Storage Ponds), 4.6.2.2.5 (Ground Water Quality Impacts to Deep

²³⁰ *Detroit Edison Co.* (Fermi Nuclear Power Plant, Unit 3), LBP-12-23, 76 NRC 445, 467 (2012) (internal citations omitted).

²³¹ Final Guidance for Federal Departments and Agencies on the Appropriate Use and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact, 76 Fed. Reg. 3,843, 3,844 (January 21, 2011).

²³² See *Private Fuel Storage* (Independent Spent Fuel Storage Installation), CLI-01-9, 53 NRC 232, 235 (2001) (“[T]he NRC does not presume that a licensee will violate agency regulations wherever the opportunity arises”); *GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 207 (2000) (“NIRS also fails to offer documentary support for its argument that AmerGen is likely to violate our safety regulations. Absent such support, this agency has declined to assume that licensees will contravene our regulations.”).

²³³ OST New Contentions at 98-100.

²³⁴ *Id.* at 100.

Aquifers), and 4.6.2.3 (Aquifer Restoration Impacts on Ground Water).²³⁵ For each challenged section, either (1) the EA addresses the effectiveness of mitigation measures or (2) Intervenors' arguments do not apply to mitigation. Therefore, none of these challenges demonstrates a genuine dispute of material fact.

1. Section 4.6.1.1 (Construction Impacts on Surface Water)

Intervenors' characterization of Section 4.6.1.1 of the EA misstates the Staff's analysis.

Section 4.6.1.1 states:

Construction activities related to the CBR facility to date have had a minimal impact on the local surface water. CBR routinely implements administrative and engineering controls of stormwater discharge during construction activities under their National Pollutant Discharge Elimination System (NPDES) permit (CBR, 2009). Under NDEQ General Construction Stormwater NPDES Permit NER 100000, CBR is required to implement procedures that control runoff and the deposition of sediment in surface water features during construction activities. Spills of petroleum products or hazardous chemicals into surface waters or related habitats must be reported to NDEQ. CBR also has in place a Storm Water Pollution Prevention Plan (SWPPP) that provides a detailed description of the sediment and erosion controls, in addition to descriptions of potential pollutant sources, spill prevention and control measures, and outfall controls.²³⁶

This description does not simply rely on the existence of mitigation measures for the NRC Staff's conclusion that potential construction activities will likely result in small environmental impacts. Rather, the Staff describes the mitigation measures that CBR has implemented to date in accordance with its National Pollutant Discharge Elimination System (NPDES) permit and Nebraska Department of Environmental Quality (NDEQ) requirements (and which CBR will continue to implement during the renewal period) and notes that CBR's past construction activities subject to those mitigation measures have had a minimal impact on surface water.

²³⁵ To the extent that Intervenors put forth a general challenge to the mitigation analyses in other sections of the EA, doing so does not form the basis of an admissible contention. To demonstrate a genuine, material dispute, an intervenor must address the specific analysis in the EA and explain how it is incorrect. 10 C.F.R. § 2.309(f)(1)(vi); see *also* USEC, CLI-06-10, 63 NRC at 472.

²³⁶ EA at 69.

Because those mitigation measures will remain in place, no greater impacts are expected. Therefore, the Staff has analyzed the effectiveness of applicable mitigation measures, and Intervenors' claim to the contrary is without factual basis or support.

2. Section 4.6.1.2 (Operational Impacts on Surface Water)

Intervenors' characterization of Section 4.6.1.2 is similarly flawed. This section of the EA states that "[s]torm water discharges are controlled through the [Storm Water Pollution Prevention Plan (SWPPP)] that is part of the NPDES permit issued by the NDEQ" and describes the mitigation measures required by the NPDES permit.²³⁷ The EA also describes the Spill Prevention, Control, and Countermeasure (SPCC) plan implemented by CBR, which "includes procedures for reporting accidental discharges, spill response, and cleanup measures,"²³⁸ and refers to Section 3.1.3.4 of the SER to support its finding that "flow monitoring and spill response procedures are expected to limit the impact of potential spills to surficial aquifers."²³⁹ As discussed in the SER, the Staff verified CBR's monitoring and control of flow rates and injection trunk line pressure during inspections, and that in the case of spills, "the applicant has investigated the impacts immediately following the leak/spill and taken corrective actions to clean up these releases as required by NDEQ."²⁴⁰

Therefore, the Staff's conclusion that potential impacts to surface water from operations are likely to be small is "[b]ased upon minimal historical impacts, permitting and reporting requirements," including the effectiveness of those measures to date.²⁴¹ Again, the Staff has

²³⁷ *Id.*

²³⁸ *Id.* at 70.

²³⁹ *Id.* at 69.

²⁴⁰ SER at 38.

²⁴¹ EA at 72.

analyzed the effectiveness of applicable mitigation measures, and Intervenor's claim to the contrary is without factual basis or support.

3. Section 4.6.1.3 (Aquifer Restoration Impacts on Surface Water)

The EA explains that "[s]torm water quality would be controlled under the SWPPP in the same manner as during operations."²⁴² As discussed above, the Staff described the experience-based effectiveness of such mitigation measures. While Intervenor's assert that Section 4.6.1.3 does not "reference . . . other impacts to surface water,"²⁴³ this is plainly incorrect. The EA discusses the licensee's current "dispos[al] of the permeate and brine [from aquifer restoration] into the two waste disposal ponds and then into two NDEQ-permitted non-hazardous on-site deep disposal wells," explaining that the ponds "comply with the design installation, and operation criteria specified in the NRC Regulatory Guide 3.11."²⁴⁴ Regulatory Guide 3.11, "Design, Construction, and Inspection of Embankment Retention Systems at Uranium Recovery Facilities," discusses the methods and effectiveness of these measures.²⁴⁵

The Staff's conclusion that impacts on surface water from aquifer restoration will be small is "[b]ased on CBR's implementation of [those] mitigation measures in the past and its compliance with both the NRC and NDEQ permit requirements." The Staff has analyzed the effectiveness of applicable mitigation measures. Intervenor's claim to the contrary is without factual basis or support.

²⁴² *Id.*

²⁴³ OST New Contentions at 100.

²⁴⁴ EA at 72; *see also* Regulatory Guide 3.11, "Design, Construction, and Inspection of Embankment Retention Systems at Uranium Recovery Facilities (Rev. 3) (Nov. 2008) (ADAMS Accession No. ML082380144) (RG 3.11).

²⁴⁵ *E.g.*, RG 3.11 at 4 ("The latest advances in geotechnical engineering, together with engineering experience and knowledge in the field of water storage dams and retention structures, can be used in the design and construction of uranium recovery retention systems. The basic concepts of conventional water storage impoundments can be suitably modified to produce economical designs that will ensure the stability of the retention system and minimal contamination.").

4. Section 4.6.2.2.2 (Ground Water Quality Impacts from Spills and Leaks)

Intervenors acknowledge that the Staff's conclusion that overall long-term impacts on ground water from spills and leaks will be small is based on mitigation measures including leak-tested PVC piping supported by repairs and maintenance, and that "if CBR detects any leaks or spills CBR is required to undertake immediate spill response actions in accordance with onsite standard testing procedures."²⁴⁶ However, Intervenors argue that "there have been many cases of undetected spills and leaks in the past that have had measurable impacts."²⁴⁷ Intervenors do not provide a source here for these undetected spills and leaks, but elsewhere refers to a list of leaks in CI Exhibit F (submitted with CI's 2008 petition to intervene).²⁴⁸ That list contains no information about "measurable impacts," and Intervenors provide no further information to support this assertion. Consequently, Intervenors have failed to demonstrate a genuine dispute of material fact based on factual support, and this argument cannot form the basis of an admissible contention.

5. Section 4.6.2.2.3 (Ground Water Quality Impacts from Waste Storage Ponds)

Section 4.6.2.2.3 describes the usage of waste storage ponds to contain wastewater, as well as corrective actions in place in case of a waste storage pond leak or overflow:

To mitigate the likelihood of pond failure, all ponds at the CBR facility are designed and built using impermeable synthetic liners. A leak detection system is installed, and all ponds are inspected on a regular basis. In addition, shallow monitoring wells are installed around the ponds. In the event that a leak is detected, the contents of the pond with the problem are transferred to another pond while repairs are made.

To date, several leaks associated with the inner pond liner have occurred (NRC 2014). In each case, these leaks were quickly discovered during routine inspections, primarily as a result of leak detectors in the under drain system. Corrective actions included

²⁴⁶ OST New Contentions at 101.

²⁴⁷ *Id.*

²⁴⁸ OST New Contentions at 57.

lowering the pond level and locating the leak to allow repairs. Based on the ground water quality data measured in the shallow monitoring wells surrounding the ponds, none of the pond leaks impacted the shallow ground water and it is assumed the second pond liner functioned as designed and prevented a release of the pond contents. All pond leaks, their causes, and corrective actions taken are reported to the NRC and NDEQ.²⁴⁹

The EA also explains that pond levels are required to be closely monitored as part of the daily inspection, and that the amount of effluent in the ponds was reduced in 2010, providing sufficient capacity to handle diverted flow if necessary.²⁵⁰ Again, the Staff has based its conclusion that long-term impacts will be small on the proven effectiveness of these mitigation measures, and Intervenor's bare assertion to the contrary does not establish a genuine dispute of material fact.

6. Section 4.6.2.2.5 (Ground Water Quality Impacts to Deep Aquifers)

Intervenors argue that the conclusion in Section 4.6.2.2.5 that Environmental Protection Agency (EPA) and NDEQ Underground Injection Control (UIC) requirements will keep impacts negligible during continued operations is based solely on the existence of those requirements.²⁵¹ But as the EA notes, these measures have been in place during operations and "[t]o date, no impacts to deep aquifers have been detected and permitting requirements would keep these impacts negligible in continuing ISR operations."²⁵² Based on the previous effectiveness of these mitigation measures, the Staff concludes that deep aquifers will continue to be protected. Furthermore, it is appropriate for the Staff to analyze the effectiveness of these mitigation measures based on CBR's assumed compliance with requirements imposed by the

²⁴⁹ EA at 77.

²⁵⁰ *Id.* at 78.

²⁵¹ OST New Contentions at 101.

²⁵² EA at 81.

NRC and other state and federal agencies.²⁵³ Ultimately, Intervenors do not explain why the Staff's discussion of mitigation effectiveness is deficient.

7. Section 4.6.2.3 (Aquifer Restoration Impacts on Ground Water)

In its challenge to Section 4.6.2.3, Intervenors simply quote the EA's statement that the applicable mitigation measures are the same "monitoring and mitigation activities for ground water aquifers during operations described in Section 4.6.2.2."²⁵⁴ As explained above, the Staff consistently analyzed the effectiveness of the appropriate mitigation measures in the subsections of Section 4.6.2.2. Intervenors have provided no additional argument or support to demonstrate a genuine dispute with a material fact.

8. Section 4.6.2.2.1 (Ground Water Quantity Impacts from Consumptive Use)

Intervenors argue that the NRC staff fails "to properly analyze impacts and mitigation measures" in Section 4.6.2.2.1 because the EA "states that the USAGE and QUALITY of groundwater mitigates the QUANTITY of consumptive use." Specifically, Intervenors argue that (1) the Staff's determination that the mined aquifer is confined could be false because a sensor might have been faulty in a 1982 pump test, and (2) the "USE and QUALITY of water are completely unrelated to the QUANTITY of water being consumed by Crow Butte."²⁵⁵

First, Intervenors provide no factual support for their assertion that a faulty sensor is to blame for the determination that the mined aquifer is confined. Second, neither of Intervenors' arguments relate to effectiveness of mitigation measures. The fact that the use of water from the Basal Chadron aquifer by other parties is limited because of poor water quality is not a mitigation measure, but simply a factor that contributes to overall consumptive use. Contrary to

²⁵³ Cf. *Strata Energy, Inc.* (Ross In Situ Recovery Uranium Project), __ NRC __, LBP-15-3 (January 23, 2015) (ADAMS Accession No. ML15023A566) at 82 ("there is nothing in the record to suggest that SEI (or the staff) will not act in good faith to ensure that SEI's regulatory responsibilities, including its license conditions, are honored, and the Board cannot assume non-compliance") (citing *Oyster Creek*, CLI-00-6, 51 NRC at 207).

²⁵⁴ OST New Contentions at 101.

²⁵⁵ *Id.* at 101-02.

Intervenors' assertion, the EA does not describe this factor as a mitigation measure. Finally, Intervenors appear to misunderstand the relationship between the water quality in the Basal Chadron and CBR's consumptive use of the water in the mined aquifer. Contrary to Intervenors' assertion that they are "completely unrelated," the poor water quality in the Basal Chadron and the associated limited use of that water mean that CBR's consumptive use will have a limited impact on ground water quantity in the area. Intervenors' arguments do not demonstrate a genuine dispute of material fact, and their factual assertions are without support.

9. Section 3.11.1 (Non-Radiological Activities Associated with Current Operations)

Intervenors challenge the EA's finding that no excursions in the Basal Chadron Sandstone have threatened water quality as "mak[ing] no sense" because excursions might have reached beyond the ring of monitoring wells.²⁵⁶ Again, this concern is unrelated to the Staff's explanation of mitigation effectiveness. But more importantly, this argument fails to meet the requirements in 10 C.F.R. § 2.309(c)(1), because it is not based on information that was previously unavailable or that is materially different from previously available information. Intervenors' claim relies on the 2008 opinion of Dr. Abitz, which was based on a review of the LRA, not the EA, and was based on information that was available when the original petitions to intervene were filed in this proceeding.

Because the arguments raised in Contention 9 are either unsupported, fail to raise a genuine dispute on a material issue, mischaracterize the Staff's analysis of the effectiveness of mitigation measures, or are untimely, they do not establish an admissible contention.

J. Contention 10 (Cumulative Impacts)

Intervenors assert that the "Final EA fails to adequately analyze cumulative impacts associated with the proposal."²⁵⁷ They state that in the EA, the Staff "must address not only

²⁵⁶ *Id.* at 102.

²⁵⁷ *Id.* at 103.

past uranium mining in the region by CBR or others, but also present [any] foreseeable uranium development—including the North Trend Expansion Area, the Marsland Expansion Area and the Three Crows Expansion Area,” and that the EA only does so with respect to cultural resources.²⁵⁸

The asserted basis for this contention is plainly incorrect and is unsupported by an examination of the EA. While Intervenor claim that the EA only considers the expansion areas’ impacts on cultural resources, the EA discusses cumulative impacts—including reasonably foreseeable impacts from CBR’s proposed expansion areas—to each resource area.²⁵⁹ As this Board has previously explained, “[i]t is fundamental that a contention of omission will fail where the allegedly missing information, in fact, is in the [challenged document].”²⁶⁰ Consequently, Contention 10 does not demonstrate a genuine dispute with the EA on an issue of material fact and is inadmissible.

K. Contention 11 (Alternatives)

Intervenor argue that the EA fails to adequately analyze all reasonable alternatives, and that “numerous unexplored and unreviewed alternatives exist.”²⁶¹ To support an admissible contention, Intervenor “must show that a particular alternative was not discussed in the [EA] and provide some support that the alternative is reasonable.”²⁶² Under NEPA, an agency need not discuss alternatives that are “infeasible, ineffective, or inconsistent with the basic policy

²⁵⁸ *Id.* at 104.

²⁵⁹ EA at 104-128.

²⁶⁰ *Crow Butte*, LBP-08-24, 68 NRC at 748 (citation omitted).

²⁶¹ OST New Contentions at 106.

²⁶² *Powertech USA, Inc.* (Dewey-Burdock In Situ Uranium Recovery Facility), LBP-13-9, 78 NRC 37, 89 (2013) (citing *Union Electric Co.* (Callaway Plant, Unit 1), LBP-12-15, 76 NRC 14 (July 17, 2012)).

objectives for the management of the area.”²⁶³ An alternative might not be feasible for a variety of reasons, including a failure of the alternative to meet the project’s purpose and need.²⁶⁴ The EA describes alternatives the NRC Staff considered but eliminated in Section 1.5.2. The Staff found that the potential alternatives of underground and open pit mining, each coupled with conventional milling, were not feasible for several reasons, including the spatial characteristics of the mineral deposit, the costs of mill development, higher risks employees and the public, and the consequences of a permanent tailings impoundment.²⁶⁵

Intervenors offer two examples of alternatives that, they believe, should have been analyzed in the EA: (1) a prohibition on the use of Alternate Concentration Limits (ACLs) for ground water restoration and (2) a requirement that CBR complete restoration of the ground water and surface waters to levels acceptable for domestic and agricultural uses. Neither of these supports an admissible contention under 10 C.F.R. § 2.309(f)(1). First, the suggestion that the NRC impose a license condition prohibiting the use of ACLs overlooks the very purpose of ACLs, which is to address situations where restoring ground water to baseline conditions or MCLs would not be practicable.²⁶⁶ ACLs are one of the allowable standards in 10 C.F.R. Part 40, Appendix A, Criterion 5B(5). Therefore, Intervenors’ argument essentially amounts to a general challenge to the NRC’s regulations, which is impermissible in a Part 2 adjudication.²⁶⁷

²⁶³ *Northern Alaska Env’l Center v. Kempthorne*, 457 F.3d 969, 978 (9th Cir. 2006) (quotation marks and internal citations omitted); see also *Fuel Safe Washington v. Federal Energy Regulatory Commission*, 389 F.3d 1313, 1323 (10th Cir. 2004) (quoting *All Indian Pueblo Council v. United States*, 975 F.2d 1437, 1444 (10th Cir. 1992) (holding that an “agency need not analyze the ‘environmental consequences or the alternatives it has in good faith rejected as too remote, speculative, or . . . impractical or ineffective’”).

²⁶⁴ *Clinton ESP*, CLI-05-29, 62 NRC at 806 (excluding an energy efficiency alternative because it would not advance the applicant’s goals).

²⁶⁵ EA at 3.

²⁶⁶ See 10 C.F.R. Part 40, Appendix A, Criterion 5(B)(5). Criterion 5(B)(5) prescribes three alternative standards for ground water restoration at ISR facilities: (1) background concentrations, (2) maximum values from chart 5C, or (3) an ACL.

²⁶⁷ 10 C.F.R. § 2.335(a).

Furthermore, the only statement in support of this alternative is Intervenor's assertion that "this is the law in places such as Colorado—demonstrating that it is possible and workable."²⁶⁸ This misunderstanding of the purpose of ACLs, coupled with the assertion that the alternative is "possible and workable" without adequate support, cannot form the basis of an admissible contention.²⁶⁹

Nor is the second suggested alternative demonstrably reasonable. Intervenor's state that "[i]f the mined units were returned to a water quality level such that the condition was substantially the same as the pre-mining condition—that is, it could be used with some reasonable and commercially feasible filtering, such would be a reasonable alternative."²⁷⁰ Because an alternative is not reasonable unless it is feasible and effective, Intervenor's argument amounts to a tautology. Intervenor's essentially argue that if this level of restoration were feasible and effective, then it would be a reasonable alternative. But Intervenor's provide no support or explanation for the implied premise that such levels of restoration are feasible and effective. Without any factual basis, this suggested alternative cannot support an admissible contention under 10 C.F.R. § 2.309(f)(1).

L. Contention 12 (Emissions and Waste)

Contention 12 asserts that the EA fails to take a hard look at impacts associated with air emissions and liquid waste disposal. For the reasons discussed below, this contention is inadmissible because it fails to meet the requirements of 10 C.F.R. §§ 2.309(c), (f)(1)(v), and (f)(1)(vi).

²⁶⁸ OST New Contentions at 106.

²⁶⁹ OST proposed a contention in the *Powertech* proceeding based on an identical suggested alternative. The Board found the contention inadmissible, explaining that OST misunderstood the purpose of ACLs and finding that OST had not provided the requisite "support that the alternative is reasonable." *Dewey-Burdock*, LBP-13-9, 78 NRC at 89.

²⁷⁰ OST New Contentions at 106.

1. Emissions

With regard to emissions, Intervenors make three unsupported claims. First, Intervenors assert that the EA lacks current information on air emissions and their impacts on various receptors and provides a model based on “admittedly incomplete and erroneous information.”²⁷¹ But Intervenors do not identify the specific section of the EA where the model they refer to is discussed, nor do they provide any explanation to back the asserted lack of information on air emissions. Second, Intervenors assert that the EA does not analyze “varying particulate and radon emission rates from the disposal of liquid 11e2 byproduct via evaporation.”²⁷² Again, Intervenors provide no further explanation to support their claim of omission. Finally, Intervenors assert that the EA does not mention foreseeable impacts of wind storms or tornados on the facility, and that the EA relies on “incomplete and incorrect emissions and meteorological data.”²⁷³ Intervenors do not identify a requirement to discuss impacts of wind storms or tornados or explain why they must be discussed. Intervenors also do not identify the allegedly incomplete and incorrect data, let alone explain why it is incorrect. It is an intervenor’s burden to provide factual support for a contention, to identify the specific portion of the EA that they take issue with, and to explain why omitted information is required.²⁷⁴ Intervenors have not met that burden for any of these issues. Therefore, this part of the contention is inadmissible.

2. Selenium impacts from land application of wastes

Intervenors assert that the EA “fails to properly account for impacts to wildlife resulting from land application of ISL wastes.”²⁷⁵ Intervenors cite a 2007 letter from the FWS to the NRC (Exhibit N), which states that FWS does not recommend land application using center pivot

²⁷¹ OST New Contentions at 108.

²⁷² OST New Contentions at 108.

²⁷³ *Id.*

²⁷⁴ 10 C.F.R. §§ 2.309(f)(1)(v) and (vi).

irrigation, and a 2000 FWS report that describes risks to wildlife associated with selenium based on a study of land application of ISR waste in Wyoming.²⁷⁶ Intervenor claim that the final EA is deficient because it does not account for these impacts or present evidence and evaluation addressing why these concerns do not apply.²⁷⁷

This claim pertaining to land application of wastes is untimely based on 10 C.F.R. § 2.309(c)(1) because it could have been raised at the outset of this proceeding. Exhibit N, the FWS letter, was sent in September 2007 in response to NRC's Notice of Intent to prepare the GEIS and has been publicly available in ADAMS since then.²⁷⁸ Similarly, Exhibit O, the report on effects of land application of ISR wastes in Wyoming was published in 2000. Intervenor have not demonstrated that this information was previously unavailable to them or why this issue could not have been raised in their original 2008 petitions. Therefore, this claim does not meet the standard in 10 C.F.R. § 2.309(c)(1)(i). Furthermore, the LRA and the EA both identify land application as a possible waste disposal option, but do not specifically discuss impacts from selenium. Intervenor have not shown that the EA contains data or conclusions on this issue that are materially different than what is found in the LRA. Furthermore, Intervenor have not provided any supporting information that is materially different than what was available prior to 2008. Therefore, this claim fails to meet the requirements of 2.309(c)(1)(ii).

Furthermore, Intervenor have not provided adequate support for this issue. The 2000 FWS report (Exhibit O) is based on a study of land application at the Highland ISR project in Converse County, Wyoming, where the natural uranium deposits have up to 4500 ppb of selenium and the ISR wastewater had concentrations of 1000 to 2000 ppb of selenium.²⁷⁹

²⁷⁵ OST New Contentions at 108-09.

²⁷⁶ *Id.*

²⁷⁷ *Id.* at 109.

²⁷⁸ ADAMS Accession No. ML072540098.

²⁷⁹ Exhibit O at 1.

Intervenors have not demonstrated that similar concentrations occur at the CBR facility. Therefore, Intervenors have not demonstrated that impacts described in this report would occur at the CBR facility. Although Intervenors assert that the Staff must explain why the EA does not address the effects of selenium,²⁸⁰ it is the intervenor's burden to provide support for their contention, and to explain why the omitted information is necessary.²⁸¹ Furthermore, when a document is supplied in support of a contention, the intervenor must explain how the document supports the contention.²⁸² Here, Intervenors have not done so.

Intervenors also fail to demonstrate that selenium will lead to impacts that are sufficiently significant or probable to warrant discussion in the EA. The Staff is not required to examine every aspect of a project in its NEPA document,²⁸³ and the "hard look" standard requires "a reasonably thorough discussion of the *significant* aspects of the *probable* environmental consequences."²⁸⁴ As noted above, the letter from FWS provided comments as input to the GEIS, and the Staff considered these comments when preparing the GEIS.²⁸⁵ Sections 4.2.5.2 and 4.2.12.2 of the GEIS discuss potential impacts of land application on ecological resources and conclude they will be small.²⁸⁶ As a basis for this finding, the GEIS cites requirements at NRC licensed ISR facilities to monitor and control irrigation areas to maintain levels of radioactive and other constituents, including selenium, within allowable release standards, and use of a licensee's environmental monitoring program to ensure water is within allowable

²⁸⁰ OST New Contentions at 109.

²⁸¹ 10 C.F.R. §§ 2.309(f)(1)(v) and (vi).

²⁸² *USEC*, CLI-06-10, 63 NRC at 472.

²⁸³ *PFS*, CLI-02-25, 56 NRC at 349.

²⁸⁴ *Trout Unlimited*, 509 F.2d at 1283 (emphasis added).

²⁸⁵ GEIS at G-160 to G-161, G-207, G-212 to G-213.

²⁸⁶ *Id.* at 4.2-34, 4.2-62.

release limits and to monitor soils for radionuclides and metals.²⁸⁷ CBR committed to both of those requirements in its 1993 application to amend its license to allow land application, and its proposed release limits include selenium.²⁸⁸ CBR's commitments with respect to land application are tied down in License Condition 10.17. Also, as noted in the EA, CBR possesses an NPDES Permit for land application issued and enforced by the NDEQ.²⁸⁹ It is appropriate for the Staff to give substantial weight to NDEQ's decision that issuing the permit would be environmentally acceptable.²⁹⁰ As discussed above, because Intervenors have failed to explain why a discussion of selenium was necessary, they have failed to raise a genuine dispute with the EA.

M. Contention 13 (Endangered Species)

Contention 13 asserts that ESA Section 7 consultation was not completed and impacts to "imperiled" species were not analyzed and reviewed as required.²⁹¹ For the reasons discussed below, Contention 13 is admissible only with respect to the Staff's failure to complete the informal Section 7 consultation process by receiving concurrence from FWS on the Staff's determination that threatened and endangered (T&E) species will not be affected. In all other respects, this contention is inadmissible because it fails to raise a genuine dispute with the EA.

With regard to Section 7 consultation, the NRC Staff contacted the FWS in 2007 requesting information on T&E species in connection with the CBR LRA.²⁹² The FWS

²⁸⁷ *Id.* at 4.2-62.

²⁸⁸ Joel L. Grimm, "Land Application of Restoration Waste Water – Ferret's Crow Butte ISL Facility" at 5-6 (Nov. 16, 1993) (attached as Staff Exhibit 2).

²⁸⁹ EA at 12.

²⁹⁰ *Public Serv. Co. of New Hampshire, et al.* (Seabrook Station, Units 1 and 2), CLI-77-8, 5 NRC 503, 527 (1977).

²⁹¹ OST New Contentions at 109-114.

²⁹² Letter from Gregory Suber, NRC, to John Cochnar, FWS (May 15, 2008) (ADAMS Accession No. ML081270752).

responded in June 2008 with a list of species that may be present in the vicinity of the site.²⁹³

The Staff incorporated the information obtained from FWS, as well as other sources, in its discussion of impacts to wildlife, including T&E species, in the EA. Under 50 C.F.R. § 402.13(a), when engaging in informal consultation, an agency must provide its determination as to whether the proposed action will affect T&E species to FWS and request FWS concurrence. If FWS concurs with that determination, no further consultation is required.

The Staff has realized that it did not complete the informal consultation process by requesting and receiving concurrence from FWS on the Staff's determinations regarding T&E species. To remedy this oversight, the Staff has provided the final EA to FWS for review and has requested concurrence with the determination that T&E species will not be impacted.²⁹⁴ When concurrence is received, the Staff will supplement the EA as necessary to describe the completed consultation process and its results. But at this point, the contention is admissible on this basis because the informal consultation concurrence has not been received.

The remainder of Contention 13 consists of several unsupported assertions of inadequacies or omissions in the EA. First, Intervenor's assert that the EA fails to provide the "required analysis of conservation objectives that could be adopted to protect four endangered species that have the potential to occur in the CBR facility area."²⁹⁵ Because Intervenor's do not identify the source of this requirement or why it applies here, they fail to raise a genuine dispute with the EA on this issue.

Second, Intervenor's assert that the EA describes the whooping crane as transient but fails to mention that evaporation ponds are places where a whooping crane would probably

²⁹³ Letter from John Cochnar, FWS, to Gregory Suber, NRC (Jun.15, 2008) (ADAMS Accession No. ML15022A235).

²⁹⁴ Letter from Lydia Chang, NRC, to John Cochnar, FWS (Jan. 22, 2015) (ADAMS Accession No. ML15022A217). Although not required to complete Section 7 consultation, the Staff has also asked for concurrence from the Nebraska Department of Game and Parks (NDGP). Letter from Lydia Chang, NRC, to Michelle Koch, NDGP (Jan. 22, 2015) (ADAMS Accession No. ML15022A421).

²⁹⁵ OST New Contentions at 112.

touch down.²⁹⁶ Intervenor provide no factual basis for the assertion that whooping cranes are likely to be found at the CBR facility or that they would “probably touch down” at an evaporation pond. Again, this is a bare assertion that fails to raise a genuine dispute.

Third, Intervenor assert failure to seek consultation regarding the whooping crane, and assert that the EA states that a “no effect” determination was not available for the project.²⁹⁷ But in Section 4.10.8 of the EA, the Staff concluded that there would be no adverse effect on the four Federal or state-listed species that may occur in this part of Nebraska.²⁹⁸ Thus, the EA does not state that a “no effect” determination is not available. Because Intervenor have misread the EA, they have not raised a genuine dispute on this issue. As discussed above, the NRC sought consultation with FWS on threatened and endangered species, including the whooping crane. The NRC has determined that there would be no adverse effects on threatened or endangered species, and is awaiting concurrence from FWS.

Fourth, Intervenor assert that the NRC ignored advice from FWS regarding the impacts of selenium on birds, especially waterfowl such as the whooping crane.²⁹⁹ This repeats assertions made in Contention 5 and is addressed in the Staff’s response to that contention.

Fifth, Intervenor assert, without further explanation, that the discussion in the EA about the black-footed ferret is “unreasonably bounded.”³⁰⁰ Intervenor do not explain what they mean by “unreasonably bounded,” nor do they provide any additional explanation or support for this. Without any further explanation of this bare assertion, Intervenor fail to raise a genuine dispute on this issue. Similarly, Intervenor’s restatement of two paragraphs from sections

²⁹⁶ *Id.*

²⁹⁷ *Id.* at 112-13.

²⁹⁸ EA at 97-98.

²⁹⁹ OST New Contentions at 113.

³⁰⁰ *Id.*

4.10.5 and 4.10.6 of the EA, without identifying any issues with those paragraphs,³⁰¹ fails to raise a genuine dispute with the information contained in them.

Finally, Intervenors assert that the EA does not contain “a detailed examination of impacts on wildlife from waste disposal” or a discussion of waste disposal or land application in operations or decommissioning.³⁰² Again, Intervenors have provided no further explanation for why such discussions are required. With regard to the latter assertion, Section 2.2. of the EA discusses waste disposal and Section 2.4 discusses decommissioning of evaporation ponds.³⁰³ Intervenors have not raised any issues with these sections. For these reasons, Intervenors fail to raise a genuine dispute with the EA on this issue.

N. Contention 14 (Earthquakes and Secondary Porosity)

Contention 14 asserts that the EA does not adequately describe or analyze the impacts of earthquakes with regard to their effects on secondary porosity and adequate confinement.³⁰⁴ This contention raises two concerns: first, that Section 3.4.3 of the EA fails to disclose an earthquake that occurred in 2011, and second, that the EA does not address Dr. LaGarry’s statement that “even small earthquakes . . . are continuously creating, closing and redistributing the secondary porosity of the region’s rocks and changing the flow pathways of the region’s groundwater.”³⁰⁵ As discussed below, this contention is inadmissible because Intervenors have not shown that the omission of the 2011 earthquake information is significant, nor have they demonstrated that the statement about small earthquakes satisfies the timeliness requirements of 10 C.F.R. § 2.309(c)(1).

³⁰¹ *Id.* at 113-114.

³⁰² *Id.* at 114.

³⁰³ EA at 8-10, 12-13.

³⁰⁴ OST New Contentions at 114.

³⁰⁵ *Id.* at 115.

Section 3.4.3 of the EA discusses the seismic risk classification of the area and a number of earthquakes that have occurred in northwest Nebraska.³⁰⁶ The EA states that the CBR facility is in USGS Seismic Risk Zone 1, and acknowledges that “low to moderate tectonic activity is occurring.”³⁰⁷ The EA also states that the most recent earthquake recorded in Nebraska was in 2007 and that no earthquakes have been felt in Nebraska since that event.³⁰⁸ Intervenor assert that this section of the EA is inaccurate because it fails to mention a pair of 2011 earthquakes that occurred in South Dakota, and were felt in northwest Nebraska.³⁰⁹ According to Exhibit I, the earthquakes had magnitudes of 3.7 and 3.3 and occurred in roughly the same location – approximately 30 miles north-northwest of Chadron, NE, and 26 miles south of Hot Springs, SD.³¹⁰

Under 10 C.F.R. § 2.309(f)(1)(vi), an intervenor must explain why omitted information is required in the EA. In this case, Intervenor are correct that, given the more recent information in Exhibit I, the statement in the EA that no earthquakes have been felt in Nebraska since 2007 is inaccurate. But Intervenor have not explained why the EA must include information on the two 2011 earthquakes in order to satisfy the “hard look” standard of NEPA. Section 3.4.3 of the EA is not intended to catalog every earthquake that has occurred in the region (as noted in that section of the EA, there have been over 1100 of them). Rather, the purpose of the section is to provide a reasonably thorough discussion of the seismic conditions in the area in order to determine whether significant environmental impacts are likely. NEPA does not require the staff

³⁰⁶ EA at 28.

³⁰⁷ *Id.*

³⁰⁸ *Id.* at 29.

³⁰⁹ OST New Contentions at 115 (citing Exhibit I). This issue was also raised in Contention 7. OST New Contentions at 88.

³¹⁰ Exhibit I at 1-2.

to create a research document.³¹¹ Intervenors have not demonstrated that omission of these two earthquakes from the seismology discussion in the EA is significant, and thus have failed to raise a genuine dispute with the EA on this issue.³¹²

With regard to Dr. LaGarry's statement about the effects of small earthquakes, this part of the contention fails to satisfy the requirements of 10 C.F.R. § 2.309(c)(1). Section 2.6-3 of the LRA discusses earthquakes,³¹³ and, furthermore, Intervenors have not shown that the EA contains data or conclusions that are materially different from the LRA. Furthermore, the 2008 LaGarry Opinion identified that the area is tectonically active and raised concerns about secondary porosity (faults and joints).³¹⁴ As discussed earlier in the Staff's response to Contention 5, the information in the 2015 LaGarry opinion is not materially different than information in the 2008 LaGarry Opinion.³¹⁵ And there is no indication that the concept of earthquakes altering groundwater flow paths is a recent discovery. For these reasons, this part of the contention is inadmissible because it does not meet the requirements of § 2.309(c)(1).

³¹¹ *Pilgrim*, CLI-10-22,

³¹² *Clinton ESP*, CLI-05-29, 62 NRC at 810.

³¹³ LRA at 2-114 to 2-120.

³¹⁴ Exhibit B at 3.

³¹⁵ *See supra* at 32-33.

CONCLUSION

For the reasons discussed above, the Board should reject the new contentions proffered by CI and OST, with the exception of the portion of Contention 13 regarding completion of ESA consultation.

Respectfully submitted,

/Signed (electronically) by/

Marcia J. Simon
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U.S. Nuclear Regulatory Commission
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Executed in accord with 10 C.F.R. § 2.304(d)

David M. Cylkowski
Counsel for the NRC Staff
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Dated at Rockville, Maryland
This 30th day of January 2015

STAFF EXHIBIT 1

01/07/2015

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information Service

Record of Climatological Observations

These data are quality controlled and may not be identical to the original observations.

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **CHADRON 3 NE, NE US**

GHCND:USC00251578

Observation Time Temperature: 1900 Observation Time Precipitation: 1900

Elev: 3463 ft. Lat: 42.837° N Lon: 102.953° W

P r e l i m i n a r y	Y e a r	M o n t h	D a y	Temperature (F)			Precipitation(see **)					Evaporation		Soil Temperature (F)											
				24 hrs. ending at observation time		at O b s e r v a t i o n	24 Hour Amounts ending at observation time				At Obs Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in depth			8 in depth								
				Max.	Min.		Rain, melted snow, etc. (in)	F l a g	Snow, ice pellets, hail (in)	F l a g				Snow, ice pellets, hail, ice on ground (in)	Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.					
	2012	11	1	59	29	47	0.00		0.0		0														
	2012	11	2	62	36	45	0.00		0.0		0														
	2012	11	3	63	25	38	0.00		0.0		0														
	2012	11	4	56	26	45	0.00		0.0		0														
	2012	11	5	62	25	52	0.00		0.0		0														
	2012	11	6	60	34	37	0.00		0.0		0														
	2012	11	7	77	31	53	0.00		0.0		0														
	2012	11	8	63	36	39	0.00		0.0		0														
	2012	11	9	54	32	37	0.00		0.0		0														
	2012	11	10	37	19	19	0.28		3.8		3														
	2012	11	11	26	9	19	0.00		0.0		2														
	2012	11	12	41	7	26	0.00		0.0		1														
	2012	11	13	47	17	33	0.00		0.0		0														
	2012	11	14	52	22	43	0.00		0.0		0														
	2012	11	15	50	30	42	0.00		0.0		0														
	2012	11	16	64	38	52	0.00		0.0		0														
	2012	11	17	63	39	42	0.00		0.0		0														
	2012	11	18	68	36	52	0.00		0.0		0														
	2012	11	19	62	24	44	0.00		0.0		0														
	2012	11	20	71	32	44	0.00		0.0		0														
	2012	11	21	72	37	55	0.00		0.0		0														
	2012	11	22	55	31	31	0.00		0.0		0														
	2012	11	23	48	11	32	0.00		0.0		0														
	2012	11	24	61	28	40	0.00		0.0		0														
	2012	11	25	40	31	32	0.30		0.7		1														
	2012	11	26	34	19	21	0.35		4.5		4														
	2012	11	27	31	12	20	0.00		0.0		2														
	2012	11	28	41	11	24	0.00		0.0		1														
	2012	11	29	50	19	32	0.00		0.0		0														
	2012	11	30	64	28	45	0.00		0.0		0														
			Summary	54.4	25.8		0.93		9.0																

The "*" flags in Preliminary indicate the data have not completed processing and quality control and may not be identical to the original observation

Empty, or blank, cells indicate that a data observation was not reported.

*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

"s" This data value failed one of NCDC's quality control tests.

"T" values in the Precipitation category above indicate a TRACE value was recorded.

"A" values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

STAFF EXHIBIT 1

01/07/2015

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information Service

Record of Climatological Observations

These data are quality controlled and may not be identical to the original observations.

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **FORT ROBINSON, NE US**

GHCND:USC00253015

Observation Time Temperature: 0800 Observation Time Precipitation: 0800

Elev: 3812 ft. Lat: 42.666° N Lon: 103.462° W

P r e l i m i n a r y	Y e a r	M o n t h	D a y	Temperature (F)			Precipitation(see **)					Evaporation		Soil Temperature (F)													
				24 hrs. ending at observation time		at O b s e r v a t i o n	24 Hour Amounts ending at observation time				At Obs Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in depth			8 in depth										
				Max.	Min.		Rain, melted snow, etc. (in)	F l a g	Snow, ice pellets, hail (in)	F l a g				Snow, ice pellets, hail, ice on ground (in)	Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.							
	2012	11	1	70	31	39	0.00		0.0		0																
	2012	11	2	69	31	35	0.00		0.0		0																
	2012	11	3	64	26		0.00		0.0		0																
	2012	11	4	60	31		0.00		0.0		0																
	2012	11	5	64	29	37	0.00		0.0		0																
	2012	11	6	63	34	38	0.00		0.0		0																
	2012	11	7	76	31	36	0.00		0.0		0																
	2012	11	8	75	32	32	0.00		0.0		0																
	2012	11	9	54	25	34	0.00		0.0		0																
	2012	11	10	52	23	33	0.00		0.0		0																
	2012	11	11	33	4	15	0.00		0.0		0																
	2012	11	12	43	12	17	0.00		0.0		0																
	2012	11	13	48	17	33	0.00		0.0		0																
	2012	11	14	53	24	28	0.00		0.0		0																
	2012	11	15	54	23	28	0.00		0.0		0																
	2012	11	16	63	28	36	0.00		0.0		0																
	2012	11	17	62	36		0.00		0.0		0																
	2012	11	18	65	31		0.00		0.0		0																
	2012	11	19	65	25	36	0.00		0.0		0																
	2012	11	20	68	28	42	0.00		0.0		0																
	2012	11	21	69	34		0.00		0.0		0																
	2012	11	22	64	36		0.00		0.0		0																
	2012	11	23	48	20		0.00		0.0		0																
	2012	11	24	62	26		0.00		0.0		0																
	2012	11	25	57	32		0.00		0.0		0																
	2012	11	26	34	23	25	0.23		3.8		4																
	2012	11	27	35	13	14	0.01		0.2		3																
	2012	11	28	46	14	26	0.00		0.0		2																
	2012	11	29	55	24	33	0.00		0.0		1																
	2012	11	30	63	29	39	0.00		0.0		0																
			Summary	57.8	25.7		0.24		4.0																		

The "*" flags in Preliminary indicate the data have not completed processing and quality control and may not be identical to the original observation

Empty, or blank, cells indicate that a data observation was not reported.

*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

"s" This data value failed one of NCDC's quality control tests.

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STAFF EXHIBIT 2



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV
URANIUM RECOVERY FIELD OFFICE
BOX 26326
DENVER, COLORADO 80226

NOV 16 1993

Docket No. 40-8943
SUA-1534, Amendment No. 21
04008943490E
161097

MEMORANDUM FOR: Docket File 40-8943
FROM: Joel Grimm, Project Manager
SUBJECT: LAND APPLICATION OF RESTORATION WASTE WATER - FERRET'S CROW BUTTE ISL FACILITY

INTRODUCTION

On June 7, 1993, Ferret Exploration Company of Nebraska, Inc. (Ferret), submitted a license amendment request to the NRC addressing land application of certain waste water at their Crow Butte ISL facility near Crawford, Nebraska. Specifically, the application proposes amending an approved plan, described in the licensee's submittal dated August 3, 1988. The original plan involved treating restoration water in a reverse osmosis unit, and discharging some of it on a 60-acre plot of land near the plant. The licensee's project has not yet proceeded to the point that land application is necessary.

The proposed change involves an additional 40-acre plot, amended release limits for a few of the chemical constituents in the water, and includes additional water derived from well development in the discharge plan. Additionally, Ferret proposes an expanded environmental monitoring program associated with land application. The original 60-acre area proposed for land application, called Area 1 here, is found in the NE $\frac{1}{4}$, sec. 13, T31N R52W, approximately 1.5 miles northwest of the processing plant. The newly proposed land application area, or Area 2, lies immediately adjacent and south of the pilot processing plant, where restoration activities will be conducted, in the SE $\frac{1}{4}$, sec. 19, T31N, R51W.

Ferret proposes to discharge up to 38.5 million gallons of treated water annually. Compared to the previously approved plan, this includes an annual increase of 1.5 million gallons, consisting of water purged from wells during construction and development. Well development water is naturally occurring ground water, not yet affected by uranium recovery. Therefore, it does not contain licensed materials, and its discharge does result in an increase of effluents stemming from licensed activities.

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The waste water is to be processed for uranium and radium removal, and then treated in reverse osmosis equipment to remove dissolved solids from one portion of the water, concentrating them in another. Land application of the treated water would occur largely during the summer months when evaporation and evapotranspiration are highest. Ferret proposes to apply the water at a rate up to 2 inches per week.

BACKGROUND

Reverse osmosis treatment of waste water is the last of three activities which produce a major effluent from an ISL project. A reverse osmosis treatment system results in two separate waste products; a concentrated brine and decontaminated water known as permeate. The brine is stored for evaporation in a lined retention pond. The majority of permeate is reinjected to flush the aquifer during restoration, but there remains excess permeate requiring disposal. It is the excess clean permeate which Ferret wishes to dispose of through land application.

Land application is a method of beneficially using waste water and broadcasts it onto an area of land using ordinary irrigation equipment. The irrigated land can be left as open range land, or can be planted with various crops which enhance evapotranspiration of water from the soil. Ferret proposes to dispose of the permeate, and water purged from wells during construction and development, using this method. Any crops grown would be plowed into the ground each autumn to condition the soil.

Stratigraphy and Ground Water

The uranium producing strata associated with this mining project is the Chadron Formation. The Chadron is conformably overlain by the Brule Formation, which is found at the surface in the mining and irrigation areas. The Brule has been subdivided into the lower Orella and upper Whitney Members. The approximate contact with the Chadron can be detected in drill cuttings, but not usually in geophysical logs. The Orella Member is composed of buff to brown siltstones, with common spotty green nodules as it grades into the green clays of the Chadron. The Whitney Member of the Brule is composed of fairly massive buff to brown siltstones, which are probably eolian in origin. Several volcanic ash layers have been reported in outcrops. The Whitney Member typically becomes coarser grained toward the upper contact. Some moderate to well defined channel sands can be observed in drill holes and in outcrops. The upper Brule sandstones are limited in lateral extent and continuity, but some are saturated with water in the otherwise generally impermeable Brule. Within the project area, these sand units are encountered in the upper 250 feet of the drill holes.

Regionally and locally, the Brule sandstone units are important aquifers, producing sufficient quantities of water suitable for domestic and agricultural purposes. Locally, the direction of flow in the Brule aquifers is to the north-northwest.

Soils

A variety of soil types are found in each of the proposed irrigation areas. U. S. Soil Conservation Service (SCS) data summarized by Ferret indicate that soil types at each site are moderately well to well drained, deep to moderately deep, and well suited for agricultural irrigation. The SCS reports indicate that ground water in these areas is typically found at depths greater than 3 meters (10 feet).

DISCUSSION

Operations

Waste water to be released to unrestricted areas using land application would be treated in several phases. First, all water removed from the mine units during restoration will have had uranium removed for commercial purposes using ion exchange columns. Restoration will not commence until uranium concentrations in the circulating mine water have been diminished below commercially recoverable levels. Then, a certain amount of degraded water will be removed from the mine unit using ground-water sweep, and stored in evaporation ponds. Ground water in the affected mine unit will thus be partially replaced by clean water from the surrounding aquifer.

As restoration proceeds to the reverse osmosis phase, Ferret proposes to monitor uranium levels in the restoration stream, and conduct secondary ion exchange to remove uranium if necessary. Radium found in ground water is also removed by treatment with barium chloride (BaCl). BaCl is added to the water in a retention pond, and forms insoluble barium/radium sulfate salt which is allowed to settle to the bottom of the pond. Finally, the waste water is treated to adjust pH for optimal performance of the reverse osmosis equipment.

Ferret demonstrated reverse osmosis technology during its research and development phase of the Crow Butte mining project. Specifications provided by the reverse osmosis equipment manufacturer indicate reverse osmosis membranes provide 94 to 99 percent efficiency in rejecting various metals in contaminated water. Additionally, common ions found in contaminated water are typically rejected at efficiencies ranging from 80 to 99 percent. The only major exception to these high efficiency values is the borate ion which is only removed at a rate of 35 to 70 percent, depending upon the pH of the solution. Added efficiency for removing all dissolved constituents is attained by multiple circulations of waste water through the system.

Ferret's operational experience with using the reverse osmosis treatment technology is summarized in Table 1. Data resulting from the R&D project indicate the combining ion exchange, BaCl treatment, and reverse osmosis treatment successfully reduces the concentration of most trace metals below detection levels. Common ions are also removed so concentrations are below drinking water standards.

STAFF EXHIBIT 2

NOV 15 1980

Table 1: Comparison of nominal treated water quality for the Crow Butte R&D project, and Ferrel's proposed release limits for waste water irrigation, based upon discharge effluent limitations specified in EPA's Title 40, Code of Federal Regulations, Part 440 (40 CFR Part 440), NRC's constituent limits for radionuclides released to unrestricted areas found in 10 CFR Part 20, and State of Nebraska Title IIB ground-water standards. (All units are milligrams per liter unless noted otherwise.)

Parameter	R&D Project Nominal Treated Water Quality	Proposed release limits (daily max)	Average value 30 consecutive days
Calcium	1.5		
Magnesium	0.14		
Sodium	87.5		
Carbonate	24.4		
Bicarbonate	14.3		
Sulfate	4.7	250	
Chloride	129	250	
Ammonia -N	0.17		
Nitrate -N	0.17	10	
Fluoride	0.1	4	
Conductivity (µmhos/cm)	519		
ph (standard units)	7.94	8.0 - 9.0	
Total Suspended Solids		30	20
Aluminum	<0.001	1.0	0.5
Borates	0.25	1.0	
Bromine	0.34		
Calcium	<0.001	0.212	
Chromium	<0.005	0.50	
Copper	<0.01	1	
Iron	<0.01	0.3	
Lead	<0.005	0.05	
Manganese	<0.005	0.05	
Mercury	<0.0002	0.002	
Selenium	<0.001	0.05	
Silver	<0.01	0.05	
Vanadium	<0.01		
Zinc	0.04	5	
Strontium	<0.1	4	
Ra-226/228	5 pCi/l	30	10
Uranium	4 pCi/l		
Uranium Beta	14.5 pCi/l		

NOV 16 1992

Ferret designed its proposed land application procedures to efficiently dispose of waste water, while minimizing potential environmental impacts. Most importantly, the application rate was chosen to prevent soil saturation beyond 2 feet in depth. This proposal has the combined benefit of preventing impacts upon ground-water resources, while accommodating a representative monitoring program. Additionally, the combination of land application rate and soil characteristics should successfully prevent surface runoff. Ferret proposes to further prevent runoff into surface water, in accordance with recommendations provided by the U. S. Soil Conservation Service, by providing earthen berms where the irrigation areas are adjacent to streams.

Release Limits

Ferret proposes release limits for various ionic species, metals, and radionuclides found in the waste water to be land applied (Table 1). In each case, Ferret cites an EPA, NRC or State of Nebraska standard as its proposed release limit. For NRC licensing purposes, the limits proposed for radium-226 and -228 and natural uranium are of greatest interest and applicability. NRC's release limit for radium-226/228 in a liquid effluent is 30 picocuries per liter (pCi/l). Ferret proposes to utilize this standard as its maximum daily release limit. Additionally, Ferret proposes to limit its release of radium-226/228 to a monthly average of 10 pCi/l, in accordance with EPA standards for release of mine drainage found in 40 CFR Part 440. Meanwhile, Ferret proposes to limit natural uranium releases to 4 pCi/l. This value is four orders of magnitude lower than NRC release limits cited in 10 CFR Part 20.

More importantly, Ferret will be subject to cleanup criteria for radium in soil during decontamination and decommissioning of the ISL facility. NRC's criteria require that any area released for unrestricted use contain a concentration of radium in land, averaged over areas of 100 square meters, which, as a result byproduct material does not exceed background levels by more than: (1) 5 picocuries per gram (pCi/g) of radium-226 averaged over the first 15 cm below the surface, and (2) 15 pCi/g of radium-226 averaged over 15 cm thick layers more than 15 cm below the surface.

NRC analyzed radium concentrations likely to result in soils affected by irrigating with reverse osmosis permeate. The analysis included the following conservative assumptions: (1) Ferret releases the proposed maximum volume, 38.5 million gallons, of waste water each year, (2) the waste water released contains the maximum allowable average radium content of 10 pCi/l, and (3) 100 percent of the radium attaches itself to soil particles in the top 15 cm of soil. The resulting radium-226 concentration in the top 15 cm of soil following 20 years of restoration and irrigation would be 0.258 pCi/g. foreseeing that nominal radium values will be lower, soil radium loading will probably be less than one-half of this conservative calculation.

Monitoring

Ferret proposes to augment its current environmental monitoring program with additional monitoring for potential environmental impacts stemming from land application. The monitoring program will require analyzing water quality

STAFF EXHIBIT 2

-6-

NOV 18 1953

prior to release to assure compliance with approved release limits. Environmental soil sampling will also be required to establish background concentrations of radium, uranium, and several other metals in the soil (Table 2).

Further sampling locations will be established to monitor potential impacts upon soil, surface water, and ground water (Table 2). Ferret proposes to expand the number of monitoring locations with respect to the earlier approved plan. Soil sampling for radium-226 will be conducted following each irrigation season. Ground-water sampling will be increased from one originally approved Brule Formation well, to three wells near each of the irrigation areas. Surface water sampling and analysis will be increased from one surface impoundment originally approved, to include an additional stream sampling location near the added irrigation area.

CONCLUSION

Ferret's proposed changes to its water land application program are minor, and largely administrative. The proposed changes will not affect the average operating conditions of the land application system. The amount of waste water to be released is increased only by well development water not subject to NRC licensing. Changes in proposed release limits are in accordance with various State and Federal environmental standards. Additionally, Ferret has enhanced its proposed monitoring program to detect potential environmental effects of waste water land application.

In accordance with the categorical exclusion contained in paragraph (c)(11) of 10 CFR 51.22, an environmental assessment is not required for this licensing action. That paragraph states that the categorical exclusion applies to the issuance of amendments to licenses for uranium mills provided that (1) there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite, (2) there is no significant increase in individual or cumulative occupational radiation exposure, (3) there is no significant construction impact, and (4) there is no significant increase in the potential for or consequences from radiological accidents.

The licensing action discussed in this memorandum meets these criteria because it provides minor changes to an approved program. Neither the volume nor the expected nominal water quality of the effluent will change. Further, this amendment requires an expanded environmental monitoring program for detecting potential impacts associated with land application. Cleanup standards associated with decommissioning irrigation areas are not affected by this amendment. An environmental report is not required from the licensee since the amendment does not meet the criteria of 10 CFR 51.60 (b)(2).

STAFF EXHIBIT 2

NOV 16 1993

Table 2: Ferret's proposed additions to its current environmental monitoring program. The purpose of the proposed monitoring procedures is to gather data related to the quality of waste water released through the land application system, and to monitor potential environmental impacts stemming from waste water releases.

Type of Sample	Location		Sampling Frequency		Analysis	
	approved	proposed	approved	proposed	approved	proposed
Purified Wastewater	Effluent from water treatment system	Effluent from water treatment system	weekly	Daily	monthly batch test listed release limits	weekly batch test listed release limits
Development Water	--	ponds	--	once per batch	--	listed release limits
Soil	irrigation area - one per 10 acres	irrigation area - one per 10 acres	baseline	baseline	Na-226	Two 8-inch composites for: Na, B, W, U, W, & Na-226
Soil	same	same	end of each season	end of each season	Na-226	same
Ground Water	Brule No. well 61	Brule No. wells 17, 19, 25, 29, and 61	same	same	listed release limits	listed release limits
Surface Water	Impound. No. 1-3	Impound. No. 1-3, stream site 8-1	same	same		listed release limits

STAFF EXHIBIT 2

-8-

NOV 16 1993

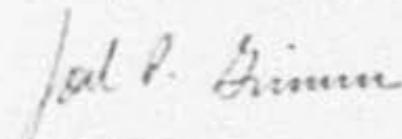
Therefore, pursuant to 10 CFR Part 40, license Condition No. 10 of Source Material License SUA-1534 should be amended to read as follows:

10. For use in accordance with statements, descriptions, and representations contained in Sections 3.0, 4.0, 5.0, and 6.0 of the licensee's Environmental Report submitted by cover letter dated October 7, 1987; as revised by page changes submitted on December 14, 1987; January 22, March 28, and May 18, 1988; November 20, 1991; and November 30, 1992. In addition, the licensee shall conduct its activities in accordance with the provisions in the following:

<u>Submittal Date</u>	<u>Description</u>
May 23, 1988	Enclosed errata sheet, replacement pages, and engineering design report dated April 27, 1988.
May 11, 1992	Cover letter submitting Supplement No. 2 to the Evaporation Pond Engineering Design Report addressing synthetic liners.
June 7, 1993	Cover letter and enclosed waste water irrigation proposal.

Notwithstanding the above, the following conditions shall override any conflicting statements contained in the licensee's application and supplements.

[Applicable Amendments: 1, 2, 3, 4, 6, 10, 11, 15, 17, 20, 21]


Joel P. Grimm
Project Manager

Case Closed: 040089434901
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STAFF EXHIBIT 2

-9-

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bcc:
Docket No. 40-8943
PDR/DCS
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LLUR Branch, LLWM, SE2
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PM:URFO	DO:URFO	B:URFO:RIV		
JPGrim/lv	EFHawkins	REHoll		
11/11/93	11/11/93	11/11/93		

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
)	
CROW BUTTE RESOURCES, INC.)	Docket No. 40-8943
)	
(License Renewal for the In Situ Leach)	ASLBP No. 08-867-02-OLA-BD01
Facility, Crawford, Nebraska))	

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing "NRC STAFF'S COMBINED ANSWER TO NEW CONTENTIONS FILED BY CONSOLIDATED INTERVENORS AND THE OGLALA SIOUX TRIBE" in the above captioned proceeding have been served this 30th day of January, 2015, via the NRC's Electronic Information Exchange ("EIE"), and via e-mail to David Frankel and Thomas Ballanco, counsels for Consolidated Intervenors, which to the best of my knowledge resulted in transmittal of the foregoing to those on the EIE Service List for the above captioned proceeding.

Signed (electronically) by

Marcia J. Simon
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