

June 15, 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)	ASLBP No. 08-867-02-OLA-BD01
Facility, Crawford, Nebraska))	

NRC STAFF'S MOTION IN LIMINE TO EXCLUDE CERTAIN EXHIBITS
FILED BY CONSOLIDATED INTERVENORS AND THE OGLALA SIOUX TRIBE

INTRODUCTION

In accordance with 10 C.F.R. §§ 2.319, 2.323, 2.337, 2.1204, and the Atomic Safety and Licensing Board's (Board) Order dated March 25, 2015,¹ the staff of the U.S. Nuclear Regulatory Commission (Staff) files this motion *in limine* to exclude in whole or in part certain exhibits from the Consolidated Intervenor's (CI) and Oglala Sioux Tribe's (OST) evidentiary filings of May 8, 2015, and the Consolidated Intervenor's rebuttal filings of June 8, 2015.²

These exhibits include the following:

- Exhibits INT-001, INT-010, INT-012, and INT-051, pleadings filed in this proceeding
- Exhibits INT-002, INT-004, and INT-005, attachments to the initial petitions to intervene
- Exhibits INT-023, INT-024, and INT-025, excerpts from the Crow Butte North Trend license amendment proceeding oral argument on contention admissibility
- Exhibit INT-030, a pleading filed in the Crow Butte North Trend license amendment proceeding

¹ Order (Setting Schedule through Evidentiary Hearing and Providing Case Management Information) (March 25, 2015) ("March 25 Order") (unpublished).

² As required by 10 CFR § 2.323(b), counsel for the Staff consulted with counsel for CI, counsel for the OST, and counsel for Crow Butte Resources (CBR) with regard to the issues raised in this motion. Counsel for CBR indicated that CBR supports the motion. Staff counsel did not receive responses from counsel for CI or OST regarding their position on the motion.

- Exhibits INT-046 and INT-047, the initial testimony of Dr. Kreamer and Mr. Wireman
- Exhibits INT-048 and INT-049, the initial testimony of Dr. Linsey McLean
- Exhibit OST-001, the statement of Charmaine White Face
- Exhibits INT-069 and INT-070, the Rebuttal statements of Dr. Kreamer and Mr. Wireman

In the discussion below, the Staff identifies the specific portions of these exhibits to be excluded and the bases for their exclusion.

DISCUSSION

I. Legal Standards Governing Motions in Limine

In a hearing conducted under 10 C.F.R. Part 2, “[o]nly relevant, material, and reliable evidence which is not unduly repetitious will be admitted,” and “[i]mmaterial or irrelevant parts of an admissible document will be segregated and excluded so far as is practicable.”³ Thus, “the presiding officer may, on motion or on the presiding officer’s own initiative, strike any portion of a written presentation . . . that is irrelevant, immaterial, unreliable, duplicative or cumulative”⁴ and may “[r]estrict irrelevant, immaterial, unreliable, duplicative or cumulative evidence and/or arguments.”⁵

The scope of a contention is limited to its bases.⁶ The Commission has cautioned against allowing “distinctly new complaints to be added at will as litigation progresses,” thereby “stretching the scope of admitted contentions beyond their reasonably inferred bounds.”⁷ In this

³ 10 C.F.R. § 2.337(a).

⁴ 10 C.F.R. § 2.319(d).

⁵ 10 C.F.R. § 2.319(e).

⁶ *Crow Butte Resources, Inc.* (North Trend Expansion Area), CLI-09-12, 69 NRC 535, 553 (2009).

⁷ *Entergy Nuclear Generation Co. & Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 309 (2010).

regard, it is well established that if an intervenor proffers testimony or evidence outside the scope of the admitted contentions, it will be excluded.⁸ As the Commission has explained:

The scope of a contention is limited to issues of law and fact pled with particularity in the intervention petition, including its stated bases, unless the contention is satisfactorily amended in accordance with our rules. Otherwise, NRC adjudications quickly would lose order. Parties and licensing boards must be on notice of the issues being litigated, so that parties and boards may prepare for summary disposition or for hearing. Our procedural rules on contentions are designed to ensure focused and fair proceedings.⁹

The Commission has further emphasized:

We have long required contention claims to be set forth with particularity, stressing that it should not be necessary to speculate about what a pleading is supposed to mean. Our proceedings would prove unmanageable—and unfair to the other parties—if an intervenor could freely change an admitted contention at will as litigation progresses, stretching the scope of admitted contentions beyond their reasonably inferred bounds. Petitioners must raise and reasonably specify at the outset their objections to a license application.¹⁰

For rebuttal testimony, the scope is further limited. Rebuttal testimony may only address matters which the party could not have raised earlier; it may not raise matters for the first time that reasonably should have been—but were not—raised in the party's case-in-chief.¹¹ As the Board stated in its March 25, 2015 scheduling Order, the purpose of rebuttal is to "identif[y] the legal and factual deficiencies in an opponent's position, . . . not to advance any affirmative

⁸ See, e.g., *Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), CLI-10-5, 71 NRC 90, 100 (2010) (agreeing with the Staff that the licensing board had properly excluded the intervenors' testimony and exhibits that were outside the scope of the admitted contention).

⁹ *Id.* at 100-01 (internal footnotes omitted).

¹⁰ *Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), CLI-12-01, 75 NRC 39, 55-56 (2012).

¹¹ See, e.g., *Progress Energy Florida, Inc.* (Combined License Application for Levy County Nuclear Power Plant, Units 1 and 2), LBP-09-22, 70 NRC 640, 655 (2009) ("Being in the nature of rebuttal, the response, rebuttal testimony and rebuttal exhibits are not to advance any new affirmative claims or arguments that should have been, but were not, included in the party's previously filed initial written statement.").

claims or arguments that were not included in the party's previously filed initial written statement of position."¹²

In addition, an expert opinion is only admissible if the witness is competent to give an expert opinion and adequately states and explains the factual basis for the expert opinion.¹³

The proponent of the testimony bears the burden of demonstrating that its witness is qualified to serve as an expert.¹⁴ An admissible expert opinion must be "based upon sufficient facts or data to be the product of reliable principles and methods that the witness applied to the facts of the case."¹⁵ Where an expert testifies as to his or her conclusions, but does not explain the bases for those conclusions, a Board should accord no weight to these expert conclusions.¹⁶ In other words, even where the witness is an expert in the relevant area, he or she must explain, at least to some extent, how any conclusions were reached. The proponent of a witness also has the burden to demonstrate that the expert's testimony will assist the trier of fact.¹⁷

¹² March 25 Order at 3.

¹³ *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-05-04, 61 NRC 71, 81 (2005).

¹⁴ *Duke Energy Corp.* (Catawba Nuclear Station, Units 1 and 2), CLI-04-21, 60 NRC 21, 27 (2004).

¹⁵ *Savannah River*, LBP-05-4, 61 NRC at 80. "A witness may qualify as an expert by knowledge, skill, experience, training, or education to testify [i]f scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue." *Catawba*, CLI-04-21, 60 NRC at 27-28 (internal quotation marks omitted, alteration in original).

¹⁶ See *Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-819, 22 NRC 681, 735 (1985); *Texas Utilities Generating Co.* (Comanche Peak Steam Electric Station, Units 1 and 2), LBP-83-81, 18 NRC 1410, 1420 (1983), *modified on reconsid. sub nom.*, *Texas Utilities Electric Co.* (Comanche Peak Electric Station, Units 1 and 2), LBP-84-10, 19 NRC 509, 518, 532 (1984).

¹⁷ See *Pacific Gas & Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 & 2), ALAB-410, 5 NRC 1398, 1405 (1977).

II. Specific Requests for Exclusion and Supporting Bases

A. Pleadings submitted in this proceeding (Exs. INT-001, INT-010, INT-012, and INT-051)

As part of their case-in-chief, the Intervenor submitted as exhibits several pleadings that were filed in this proceeding. These include CI's 2008 petition to intervene (Ex. INT-001), OST's 2008 petition to intervene (Ex. INT-010), CI's new contentions on the Staff's final Environmental Assessment (EA) (Ex. INT-012), and OST's new contentions on the EA (Ex. INT-051). These exhibits should be excluded in their entirety. As pleadings, they are already part of the adjudicatory record, and therefore there is no need to introduce them again as exhibits.

The pleadings themselves present arguments in support of admitting contentions, not evidence supporting the Intervenor's positions on the contentions that were ultimately admitted. None of the Intervenor's witnesses have cited to or adopted the pleadings as part of their testimony. Furthermore, those portions of the pleadings addressing contentions that were rejected are irrelevant and outside the scope of the admitted contentions.¹⁸ The pleadings also contain extraneous or repetitive information, such as legal arguments and excerpts from various documents. For example, Exhibits INT-012 and INT-051, the new contentions on the EA, contain substantial excerpts from the EA, which is already an exhibit in this proceeding. And Exhibits INT-012 and INT-051 are largely duplicative of each other as well.

Finally, these pleadings contain numerous attachments that are irrelevant or outside the scope of admitted contentions. For example, the CI petition to intervene (Ex. INT-001) contains approximately 170 pages of attachments, including web pages, articles, reports, and affidavits of the original petitioners. Some of these attachments have been submitted as separate exhibits for this hearing (e.g., Exs. INT-002 through INT-009), making the attachments to the pleading unnecessarily duplicative. Others are irrelevant or outside the scope of admitted

¹⁸ The Staff notes that Exhibit INT-001, for example, is over 250 pages long, but the only admitted contention is Contention F, which is stated in less than one page.

contentions (see, e.g., Ex. INT-001 at 195-205, 219-254; Ex. INT-010 at 25-44). In summary, the Intervenor's have not demonstrated how these pleadings constitute evidence that will assist the Board in its determinations in this proceeding. Therefore, for the reasons discussed above, they should be excluded.

B. Exhibits submitted in support of contention admissibility (Exs. INT-002, INT-004, and INT-005)

As part of their case-in-chief, the Intervenor's submitted as exhibits several documents that were submitted in support of contention admissibility in conjunction with CI and OST's original 2008 petitions to intervene in this proceeding. These include the 2008 letter from Dr. Richard Abitz to David Frankel (Ex. INT-002), the 2008 letter from JR Engineering to Mr. Frankel (Ex. INT-004), and the 2008 letter from Paul Robinson to Mr. Frankel (Ex. INT-005). These exhibits should be excluded in their entirety. While the Intervenor's state in their Joint Position Statement that these exhibits are "incorporated . . . by reference as if set forth at length,"¹⁹ there is no showing that the statements are reliable, as required by 10 C.F.R. §§ 2.337(a) and 2.319(d) and (e). The authors of these documents provided these opinions in 2008 for the purposes of supporting the Intervenor's petitions to intervene. The opinions are based solely on the license renewal application (LRA); the authors did not review the Staff's Safety Evaluation Report (SER) or EA, and they are not slated to appear as witnesses in this proceeding. Furthermore, none of the Intervenor's witnesses in this proceeding has adopted these statements, nor does any witness refer specifically to these statements in his or her testimony. Thus, because the Intervenor's have not demonstrated how these opinions constitute reliable evidence, they should be excluded.

¹⁹ Joint Position Statement at 3.

C. Memorandum of Law submitted in North Trend license amendment proceeding (Ex. INT-030)

In support of Contention 1, the Intervenor has submitted a “Memorandum of Law” on treaties that was submitted to the Crow Butte North Trend licensing board in 2008 (Ex. INT-030). The Intervenor incorporates this document by reference in their position statement²⁰ but do not cite any specific part of it, and none of the Intervenor’s witnesses cite or adopt this document in their testimony.

This document was filed in response to a specific board order in the North Trend proceeding, and is not relevant to issues raised in this proceeding. The document addresses topics outside the scope of Contention 1 (or any other admitted contention in this proceeding). These topics include treaty rights, treaty interpretation, the Winters doctrine, hunting and fishing rights, statutes not at issue in this proceeding (e.g., the Religious Freedom Restoration Act, the Native American Graves Protection and Repatriation Act, and the American Indian Religious Freedom Act), and the United Nations’ Universal Declaration on Human Rights.²¹ This pleading also contains excerpts from executive orders related to government-to-government consultation (Ex. INT-030 at 12-16), and a section that discusses consultation under the National Historic Preservation Act (NHPA) as it pertains specifically to the North Trend proceeding (Ex. INT-030 at 43-45). As admitted by the Board in this license renewal proceeding, Contention 1 concerns “[w]hether the cultural surveys performed and incorporated into the EA formed a sufficient basis on which to renew Crow Butte’s permit.”²² Therefore, nothing in Exhibit INT-030 addresses the issue raised in Contention 1, as admitted by the Board in this license renewal proceeding, and this exhibit should therefore be excluded.

²⁰ Joint Position Statement at 64.

²¹ See *generally* Ex. INT-030.

²² *Crow Butte Resources, Inc.* (License Renewal for the In-Situ Leach Facility, Crawford, Nebraska), LBP-15-11, 81 NRC __ (slip op. at 61) (March 16, 2015) (LBP-15-11).

D. Statements made by members of the OST at 2008 North Trend oral argument (Exs. INT-023, INT-024, and INT-025)

The Intervenor's Exhibits INT-023 (statements by Joe American Horse), INT-024 (statements by Oliver Red Cloud), and INT-025 (statements by Floyd Looks for Buffalo Hand) consist of excerpts from a January 16, 2008 oral argument transcript in the North Trend proceeding. At the oral argument on contention admissibility in that proceeding, these individuals offered statements regarding the history of the treaty relationship between the Lakota and the United States.

For multiple reasons, these exhibits should be excluded. First, there is no showing that the statements are reliable, as required by 10 C.F.R. §§ 2.337(a) and 2.319(d) and (e). These individuals are not witnesses in the Crow Butte License Renewal proceeding, and their statements have not been adopted by any witness in this proceeding. Second, the statements are outside the scope of any admitted contention, including Contention 1. As admitted by the Board, Contention 1 concerns "[w]hether the cultural surveys performed and incorporated into the EA formed a sufficient basis on which to renew Crow Butte's permit."²³ These individuals' statements are primarily concerned with treaty rights—an issue that was considered and dismissed in the Board's rejection of OST's Contention F.²⁴ Finally, the statements in Exhibits INT-023, INT-024, and INT-025 are general assertions, and the Intervenor's have not demonstrated how they will aid the Board in this proceeding. Therefore, for all of the reasons discussed above, the Board should exclude these exhibits.

E. Testimony from the Powertech (Dewey-Burdock) hearing (Exs. INT-027, INT-028, and INT-029)

In support of Contention 1, the Intervenor's submitted three exhibits from the recent *Powertech* proceeding. Exhibit INT-027 is an excerpt of the first day of live testimony at the

²³ *Id.*

²⁴ *Id.* at 11-12.

Powertech hearing, comprised largely of the testimony of Staff witness Haimanot Yilma and intervenor witness Dr. Redmond. Exhibit INT-028 is the entire first day's transcript in the *Powertech* hearing, including the entirety of Exhibit INT-027. Exhibit INT-029 is the written declaration of Wilmer Mesteth submitted in the *Powertech* proceeding. These exhibits are largely or wholly irrelevant to the Crow Butte license renewal, and should thus be excluded as explained below.

Exhibits INT-027 and INT-029 are irrelevant to the Crow Butte license renewal and should be excluded in their entirety. Exhibit INT-027, the testimony of Ms. Yilma and Dr. Redmond at the *Powertech* hearing, concerns the potential duration and cost of a Traditional Cultural Properties (TCP) survey of the Dewey-Burdock license area, a new facility to be located in South Dakota near the Black Hills. That testimony is not relevant to the identification of cultural resources at the existing Crow Butte facility in Crawford, Nebraska. Exhibit INT-029, Mr. Mesteth's 2010 written declaration, catalogs Mr. Mesteth's review of Powertech's Environmental Report. As such, it is specific to the *Powertech* proceeding and irrelevant here. Finally, regarding Exhibit INT-028, the Intervenor makes no attempt to demonstrate the voluminous transcript's relevance to this proceeding outside of certain statements by Dr. Redmond concerning his general experience with TCP surveys²⁵ and the need for subsurface testing.²⁶ Therefore, the Board should exclude Exhibits INT-027 and INT-029 in their entirety, as well as Exhibit INT-028 with the exception of pages 786 and 809.

F. Intervenor's Initial Testimony

1. Expert Opinion Testimony of Dr. David Kreamer (INT-046)

At the bottom of page 3 of his initial testimony (Ex. INT-046), Dr. Kreamer asserts that "[p]rojected future use and migration of deep groundwater (including the Morrison and

²⁵ Ex. INT-028 at 809.

²⁶ *Id.* at 786.

Sundance Formations) in the areas of mine waste injection is not adequately presented and/or considered.” The Morrison and Sundance formations—the aquifers where CBR’s deep disposal wells are located—are below the Pierre Shale, which constitutes the lower confinement of the Basal Chadron Sandstone aquifer.²⁷ There is no contention related to deep aquifers or deep disposal wells in this proceeding. Therefore, this statement should be excluded because it is outside the scope of any admitted contention and is therefore immaterial.

With limited exceptions described below, Dr. Kreamer’s testimony should also be excluded as it applies to Contention A. As admitted by the Board and affirmed by the Commission, Contention A claims there is “no valid scientific reason” to exclude uranium as an excursion indicator and that a biweekly testing plan was too infrequent to detect possible excursions.²⁸ In his testimony, Dr. Kreamer addresses numerous other issues purportedly in support of Contention A, including characterization of the Crow Butte site hydrogeology; placement, construction and screening of monitoring wells; well sampling methodology; the potential for “synergistic health effects”; and spill monitoring contingencies.²⁹ These issues are all outside the scope of Contention A as admitted and limited by the Board and affirmed by the Commission. Accordingly, the Board should exclude his testimony on these issues as they apply to Contention A.

The only aspects of Dr. Kreamer’s testimony that arguably relate to Contention A are his claims that: (1) CBR’s monitoring program “has the potential” to provide inaccurate information and does not provide early warning of contaminant migration; (2) the use of a limited number of water quality parameters is atypical of “most rigorous monitoring programs”; and (3) the use of “tracers” “are potentially very beneficial and can act as an early warning system, but are largely

²⁷ Ex. NRC-009 at 16, 21.

²⁸ *Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 346-47 (2009) (“CLI-09-9”).

²⁹ See *generally* Ex. INT-046.

ignored in stated future efforts at the site.”³⁰ The connection of these statements to Contention A is tenuous: Dr. Kreamer directs these claims toward various monitoring programs, the extent and purposes of which he appears to conflate,³¹ and does not explain how these claims call into question the analysis or conclusions in the Staff’s documents or the LRA related to the exclusion of uranium from the list of excursion parameters or the monitoring frequency for contaminants. Because this portion of Dr. Kreamer’s testimony may arguably relate to the issues admitted in Contention A, however, the Staff is not moving to exclude this limited portion of his testimony as it applies to Contention A.

2. Expert Opinion Testimony of Mr. Michael Wireman (INT-047)

Mr. Wireman’s testimony should also be excluded as applied to Contention A with the exception of a single claim. As the Staff explains above, as admitted by the Board, Contention A alleges that there is “no valid scientific reason” to exclude uranium as an excursion indicator and that a biweekly testing plan was too infrequent to detect possible excursions.³² In his testimony Mr. Wireman addresses numerous other issues, including characterization of local and regional hydrogeology and groundwater flow, groundwater restoration, and CBR’s environmental sampling program.³³ These issues are all outside the scope of Contention A, as admitted. Accordingly, the Board should exclude his testimony on these issues as they apply to Contention A. However, Mr. Wireman’s claim that “[th]ere should be a more complete analyte list that includes metals, [total dissolved solids (TDS)] and selected anions” for domestic water supply wells and other monitoring wells³⁴ may arguably be related to Contention A, to the extent

³⁰ Ex. INT-046 at 5-6.

³¹ See Ex. NRC-076 at A.A.2.

³² See CLI-09-9, 69 NRC at 346-47.

³³ See *generally* Ex. INT-047.

³⁴ Ex. INT-047 at 8.

that this claim is intended to apply to CBR's excursion monitoring wells. Therefore, because this portion of Mr. Wireman's testimony may be related to the issues admitted in Contention A, the Staff is not moving to exclude this limited portion of his testimony as it applies to Contention A.

3. Testimony of Dr. Linsey McLean (INT-048 and INT-049)

The Intervenor submitted the testimony of Dr. Linsey McLean in support of Contention 12. As admitted by the Board, Contention 12 alleges in part that the EA "inadequately discusses the potential impacts from the land application of ISL mining wastewater."³⁵ In their petition for admission of this contention on the EA, the Intervenor discussed only potential impacts related to selenium in process wastewater disposed of via land application.³⁶ Much of Dr. McLean's testimony relates to other issues, such as the effects of lead, cadmium, arsenic, and uranium toxicity on human health; general historical experience regarding excursions at ISR mines; the experience of ISR facilities regarding restoration of the mined aquifer to baseline groundwater quality; the proliferation of Superfund sites "all over the country and the world"; contamination from leach ponds; and leach pond design.³⁷ The scope of Contention 12 is limited, however, to whether the Staff adequately assessed the potential environmental impacts of impacts of selenium resulting from land application of ISR wastewater. It does not extend to any of these other issues. Therefore, in accordance with the well-established principle that "[t]he scope of a contention is limited to issues of law and fact pled with particularity in the intervention petition,"³⁸ Dr. McLean's arguments that do not relate to the

³⁵ LBP-15-11 at 61.

³⁶ See *generally* Ex. INT-048.

³⁷ See *id.*

³⁸ *Vogtle ESP*, CLI-10-5, 71 NRC at 100-01 (internal footnotes omitted).

potential environmental impacts of selenium from the land application of process wastewater should be excluded.

In their Joint Position Statement, the Intervenor also cite Dr. McLean's testimony with respect to Contentions A and D. In both cases, the Intervenor cite her descriptions of adverse health impacts to humans, animals, plants and wildlife.³⁹ The Intervenor do not identify any specific portions of Dr. McLean's testimony that pertain to Contentions A and D. As discussed in Sections II.F.1 and II.F.2 above, the scope of Contention A is limited to two issues: the frequency of excursion monitoring and use of uranium as an excursion indicator. The issue in Contention D is whether there is communication among aquifers—specifically, between the Basal Chadron Sandstone (the mined aquifer at the CBR facility) and the aquifer that supplies drinking water to the Pine Ridge Indian Reservation. There is nothing in Dr. McLean's testimony that addresses the contested issues in Contentions A and D. Therefore, her arguments should be excluded as evidence for those Contentions as well.

4. Statement of Ms. Charmaine White Face (Ex. OST-001)

The OST asserts that this statement provides evidence supporting Contentions A, D and 9. With respect to Contentions A and 9, nothing in Ms. White Face's statement is relevant to those contentions. Contention A, as limited by the Board and affirmed by the Commission, is limited to specific issues related to excursion monitoring (frequency and use of uranium as an indicator). Contention 9 addresses mitigation measures for groundwater restoration at the CBR site. There is no information relevant to either of these issues in Exhibit OST-001. Therefore, this exhibit should be excluded with respect to Contentions A and 9.

Several portions of Ms. White Face's statement are outside the scope of Contentions A, D, and 9 and should therefore be excluded because they are not material to the Board's determination on those contentions. On page 8 of Exhibit OST-001, under the heading

³⁹ Joint Position Statement at 87, 93-94.

“Recommendations,” Ms. White Face’s statement contains general assertions regarding a need to test the entire Arikaree aquifer, whether a license should be issued, and whether the applicant should be held responsible for health issues of members of the OST. Because these general assertions are outside the scope of Contentions A, D and 9, they should be excluded. Pages 10 and 11 (unnumbered in Ex. OST-001) of Ms. White Face’s statement consist of a document from the Nuclear Information and Resource Services entitled “No such thing as a safe dose.” These pages of Ms. White Face’s statement should also be excluded because issues related to what constitutes a safe dose of radiation are outside the scope of Contentions A, D and 9. The issue in Contention D involves whether there is communication among aquifers and whether the staff’s EJ analysis should have been “expanded to consider potential impacts on the aquifer which provides drinking water to the Pine Ridge Indian Reservation.” Therefore, this document does not provide evidence that is material to Contention D.

For similar reasons, the Board should exclude pages 12-13 (unnumbered in Ex. OST-001) of Ms. White Face’s statement, which contain an excerpt from a report on cancer mortality among American Indians and Alaskan Natives listing types and incidence rates of various cancers by ethnic group, and pages 20-22 (unnumbered in Ex. OST-001) of Ms. White Face’s statement, which contain an excerpt from a U.S. Environmental Protection Agency (EPA) guidance document discussing potential health effects of drinking water containing radionuclides at above the maximum contaminant levels (MCLs). The information in these portions of Exhibit OST-001 has no bearing on the issues in Contentions A, D or 9 (or any other admitted contention) and should therefore be excluded.

G. Intervenors’ Rebuttal Testimony

1. Rebuttal Statement of Dr. David Kreamer (Ex. INT-069)

Dr. Kreamer’s rebuttal testimony does not directly identify specific portions of Staff or CBR initial testimony that is being rebutted. Instead, Dr. Kreamer provides five “points,” designated (a) through (e), which encompass a variety of issues. Some of Dr. Kreamer’s

discussion appears to have been provided as rebuttal (although he does not directly identify what is being rebutted); however, the portions of his testimony discussed below appear to be new claims or arguments that could have been raised in initial testimony. As such, pursuant to the Board's March 25 Order, they should be excluded as improper rebuttal testimony.⁴⁰

Section (a) of Dr. Kreamer's rebuttal statement expresses his opinion regarding potential impacts on surface waters from an accident—a topic that falls within the scope of Contention C. He claims that surface water sources were inadequately characterized and identified, and that satellite images (which are not provided as exhibits) show reduction in area of a downstream reservoir. He also makes general assertions, without factual bases, regarding impacts on wildlife and livestock, floodplain analyses and erosion modeling. He does not explain how any of this is material to the issue of potential impacts of an accident (e.g. spill or leak) on surface waters at the CBR site. More importantly, however, all of these assertions are new arguments that could have been made in Dr. Kreamer's initial testimony. As such, section (a) of Dr. Kreamer's rebuttal statement is improper rebuttal testimony pursuant to the Board's March 25 Order and should be excluded in its entirety.

In the third paragraph of section (b) of his rebuttal statement (Ex. INT-069 at 3-4), Dr. Kreamer asserts that "[t]he Chamberlain formation is referred to, in different parts of CBR documentation, as both as 'sandstone' (consolidated) and 'sand' (unconsolidated)." (Ex. INT-069 at 3). He goes on to argue that "if the reported variability is real, and the sandstones are fissile in some locations but not in others, this would support the existence of secondary porosity and heterogeneity," and ". . . based on the reported information of hydraulic conductivity directional variation, that there is some evidence of fracturing and/or preferred pathways of groundwater flow in the sandstone" (Ex. INT-069 at 3). Dr. Kreamer does not identify the "CBR documentation" he refers to, but this argument does not appear to address Staff or CBR initial

⁴⁰ See March 25 Order at 3.

testimony. As such, it could have been raised in Dr. Kreamer's initial testimony and should therefore be excluded.

In that same paragraph, Dr. Kreamer also asserts that "[t]he existence of secondary porosity and heterogeneity is supported at a large scale by observed areal changes in hydraulic gradient as well." (Ex. INT-069 at 4.) This statement is not reliable because no supporting factual basis is provided for this claim. Furthermore, this claim does not appear to rebut Staff or CBR initial testimony, and could have been raised in initial testimony. The only statement in this paragraph that appears to address Staff or CBR initial testimony is the statement that "restoration efforts from mining activities in the Chamberlain Pass Formation have been difficult, with a reported need for localized 'spot treatment.'" (Ex. INT-069 at 3.) Therefore, with the exception of that statement, this paragraph of section (b) should be excluded.

In section (c) of Dr. Kreamer's rebuttal statement, the first two paragraphs should be excluded in their entirety because they contain claims that could have been raised in initial testimony. The first paragraph asserts deficiencies in monitoring and restoration efforts "as detailed in the LRA." (Ex. INT-069 at 6.) Although this paragraph is arguably relevant to Contention 9 (mitigation measures in the context of ground water restoration), the claims made in this portion of Dr. Kreamer's testimony could have been raised in the Intervenor's case-in-chief. The second paragraph of section (c) asserts deficiencies in monitoring, particularly with regard to use of wells screened over the entire thickness of an aquifer (see Ex. INT-069 at 6). These statements again present arguments that could have been raised in initial testimony. Likewise, other assertions in that paragraph related to "heterogeneity in the Chamberlain Pass production zone also makes the pore volume calculations mute" and "basing cleanup requirements on mine-based averages" could have been raised in initial testimony. Because all of these arguments are new claims not raised in the Intervenor's initial testimony, they are improperly raised on rebuttal and should be excluded.

Finally, sections (d) and (e) of Dr. Kreamer's rebuttal statement (INT-069 at 8) should be excluded in their entirety. In section (d), Dr. Kreamer makes several claims concerning long-term impacts of consumptive use. These are not only new arguments not raised in his initial testimony, but they also are irrelevant and immaterial because they are not within the scope of an admitted contention. Contention 6 involves impacts of water use, but as admitted by the Board, that contention is limited to *short-term* impacts of water use.⁴¹ In section (e), Dr. Kreamer makes new arguments, not raised in initial testimony, stating that "monitoring of pipes would only account for large leaks" and that "chronic leaks in pipes would not be caught." Although this discussion is relevant to Contention C, Dr. Kreamer's claims respond to information in the SER and LRA.⁴² These claims could have been raised in initial testimony, but were not, and should therefore be excluded.

2. Rebuttal Statement of Mr. Michael Wireman (Ex. INT-070)

Like Dr. Kreamer's rebuttal statement, Mr. Wireman's rebuttal statement also does not directly identify specific portions of Staff or CBR initial testimony that are being rebutted. Mr. Wireman also provides five points, designated (a) through (e), that address a variety of issues. The portions of Mr. Wireman's rebuttal statement identified below appear to be new claims or arguments that could have been raised in initial testimony. As such, pursuant to the Board's March 25 Order, they should be excluded as improper rebuttal testimony.

In section (b) of Exhibit INT-070, Mr. Wireman makes specific new claims in his rebuttal testimony. First, he states that "the aquifer test data were not appropriately analyzed and no data analysis methods were used that are appropriate for non-Darcy flow in fractured rock settings" (Ex. INT-070 at 1-2). He also states that "characterization [of the upper confining unit] should include determination of recharge and discharge areas, identification of high permeability

⁴¹ See LBP-15-11 at 61.

⁴² Ex. NRC-009 at 38, Ex. CBR-011 at 4-8.

lithologies and zones of enhanced secondary permeability and determination of water types and isotopic chemistry.” (Ex. INT-070 at 2.) These new claims could have been made in the Intervenor’s case-in-chief and thus constitute improper rebuttal. Furthermore, these statements have no supporting factual basis and thus should be considered unreliable.

Section (d) of Mr. Wireman’s rebuttal statement contains a new argument regarding monitoring of alluvial aquifer and sampling of White River: “There should be established monitoring sites for the alluvial aquifer along the White River, sampling of the White River should be included, and, uranium should be included as an indicator parameters for excursion monitoring in addition to chloride, total alkalinity, and conductivity.” (Ex. INT-070 at 2.) This statement should be excluded because it could have been raised in initial testimony. In addition, the last part of this statement merely restates one of the issues in Contention A (use of uranium as an excursion indicator), but does not provide any evidence pertaining to that issue. Thus, it does not constitute relevant evidence and should be excluded for that reason as well.

Finally, Mr. Wireman makes several statements in section (e) that are either outside the scope of any contentions or which could have been made in initial testimony. First, Mr. Wireman states as follows:

Groundwater restoration efforts at the CBR facility have been problematic and inadequate. The time required to meet applicable standards has been significantly longer than anticipated, and, in my opinion, ACLs have been approved for too many parameters.

(Ex. INT-070 at 3.) This portion of Mr. Wireman’s rebuttal should be excluded because these statements are not within the scope of an admissible contention. The time required to meet applicable standards is not an issue in this proceeding, nor is the approval of alternate concentration limits (ACLs). The last three sentences of section (e) (Ex. INT-070 at 4) state as follows:

To help understand why previous restoration effort have not been fully successful, more information should be provided regarding the restoration efforts at mine units 1 and 2. In my opinion compliance should not be determined based on mine unit

average. Instead compliance should be based on achieving applicable standards at key compliance wells.

(INT-070 at 4.) This portion of Mr. Wireman's rebuttal should be excluded because it could have been raised in his initial testimony. In addition, these general statements of opinion are not backed by any factual basis, and should be excluded for that reason as well.

CONCLUSION

For the reasons discussed above, the NRC Staff respectfully requests that the Board exclude the portions of the exhibits identified above from consideration as evidence in this proceeding.

Respectfully submitted,

/Signed (electronically) by/

Marcia J. Simon
David M. Cylkowski
Emily L. Monteith
Counsel for the NRC Staff

Dated at Rockville, Maryland
this 15th day of June, 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
)	
(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 MOTION IN LIMINE" in the above captioned proceeding have been served this 15th day of June, 2015, via the NRC's Electronic Information Exchange ("EIE"), and via e-mail to David Frankel and Thomas Ballanco, counsels for Consolidated Intervenor, 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

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