

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

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

NRC STAFF'S NOTICE OF APPEAL OF LICENSING BOARD'S
ORDER OF DECEMBER 10, 2008 (LBP-08-27), AND ACCOMPANYING BRIEF

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December 22, 2008

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ORDER OF DECEMBER 10, 2008 (LBP-08-27), AND ACCOMPANYING BRIEF

INTRODUCTION

Pursuant to 10 C.F.R. § 2.311(a) and (c), the NRC staff ("Staff") hereby provides its Notice of Appeal, with accompanying brief, of the Atomic Safety and Licensing Board's ("Board") Memorandum and Order of December 10, 2008.¹ The Board admitted the Consolidated Petitioners' new contention related to arsenic contamination in Petitioners' drinking water.² The Staff submits that the Consolidated Petitioners' new contention should have been rejected by the Board because (1) the contention falls within the purview of a contention previously submitted by the Consolidated Petitioners which the Board denied; (2) pursuant to 10 C.F.R. § 2.309(f)(2); the contention is not "timely"; (3) the contention fails to meet the requirements for a "nontimely" contention per 10 C.F.R. § 2.309(c)(1); and furthermore, (4) the contention fails to meet to the general contention admissibility

¹ Order (Ruling on Motion to Admit New Contention), LBP-08-27, 68 NRC ____ (Dec. 10, 2008) (slip op.) ("LBP-08-27" or "Order").

² Petition for Leave to File New Contention re: Arsenic (Sept. 22, 2008) ("Petition re: Arsenic"). The Consolidated Petitioners include Beatrice Long Visitor Holy Dance, Joe American Horse, Sr., Debra White Plume, Loretta Afraid of Bear Cook, Thomas Kanatakeniate Cook, Dayton O. Hyde, Bruce McIntosh, Afraid of Bear/Cook Tiwahe, American Horse Tiospaye, Owe Aku/Bring Back the Way, and Western Nebraska Resources Council.

requirements of 10 C.F.R. § 2.309(f)(1). In light of Staff's prior appeal of LBP-08-24,³ and for the reasons detailed herein, the Commission should reverse LBP-08-24 and LBP-08-27 and terminate the proceeding.

BACKGROUND

Crow Butte Resources, Inc. ("CBR" or "Applicant") is licensed to operate an in-situ leach ("ISL") recovery facility in Crawford, Dawes County, Nebraska.⁴ On November 27, 2007, CBR sent by letter to the NRC a license amendment application ("LRA" or "Application") (ADAMS ML073480266 & ML073480267), requesting renewal of its source materials license for a standard 10-year period. In a letter to CBR dated March 28, 2008, the NRC Staff stated that it had found, per its administrative review, the Application acceptable to begin a technical review.⁵ On May 27, 2008, a notice of opportunity to request a hearing or petition to intervene was published in the Federal Register.⁶

On July 28, 2008, the Consolidated Petitioners timely filed a petition for intervention and request for hearing.⁷ The Applicant responded to the Petition on August 22, 2008,⁸ and, shortly thereafter, the Staff filed the same.⁹

³ See NRC Staff's Notice of Appeal of LBP-08-24, Licensing Board's Order of November 21, 2008, and Accompanying Brief (Dec. 10, 2008) ("Staff's Appeal of LBP-08-24").

⁴ CBR currently possesses source material license, SUA-1534.

⁵ Letter from William von Till to Stephen P. Collings (dated March 28, 2008) (ML080720341).

⁶ Notice of Opportunity for Hearing, Crow Butte Resources, Inc., Crawford, NE, 73 Fed. Reg. 30,426 (May 27, 2008).

⁷ Request for Hearing and Petition for Leave to Intervene (July 28, 2008) ("Initial Petition").

⁸ Applicant's Response to Petition to Intervene filed by Consolidated Petitioners (Aug. 22, 2008).

⁹ NRC Staff Response in Opposition to Petitioners' Consolidated Request for Hearing and Petition for Leave to Intervene of Debra White Plume, Thomas K. Cook, Loretta Afraid of Bear Cook, Dayton O. Hyde, Bruce McIntosh, Joe American Horse, Sr., Beatrice Long Visitor Holy Dance, Owe Aku/Bring Back the Way, Afraid of Bear/Cook Tiwahe, American Horse Tiospaye and Western Nebraska Resources Council (Aug. 25, 2008).

On September 3, 2008, the Consolidated Petitioners filed their reply to the Applicant's and to the Staff's responses.¹⁰ In their Reply, the Consolidated Petitioners referred to a recently published article in the Journal of the American Medical Association regarding the potential association between inorganic arsenic exposure and type 2 diabetes.¹¹ Subsequently, on September 22, 2008, the Consolidated Petitioners submitted a petition for leave to file a new contention "based on the connection between low-level arsenic in the water resulting from Applicant's ISL uranium mine and failures of the pancreas including diabetes and pancreatic cancer in the people living near the mine."¹² The Consolidated Petitioners therein stated that they became aware of the Johns Hopkins Study on or about August 20, 2008,¹³ which, according to the Petitioners, "shows that low level exposures of inorganic arsenic in the water such as that resulting from ISL uranium mining increases the risk of Type 2 Diabetes in adults."¹⁴ The Consolidated Petitioners also alleged that "[o]n or about August 28, 2008, WNRC Attorney David Frankel became aware of a high incidence of pancreatic cancer in Chadron."¹⁵ The Consolidated Petitioners argued that "[t]here is a link between diabetes and pancreatic cancer."¹⁶

¹⁰ Petitioners' Consolidated Reply to Applicant and NRC Staff Answers to Consolidated Petition to Intervene (Sept. 3, 2008) ("Reply").

¹¹ *Id.* at 9-10 (*citing* "Arsenic Exposure and Prevalence of Type 2 Diabetes in US Adults," JAMA, Vol. 300, No. 7, 814 (Aug. 20, 2008)). As several of the authors of the study are affiliated with the Johns Hopkins Bloomberg School of Public Health, the Consolidated Petitioners referred, in shorthand, to the study as the "Johns Hopkins Study." Petition re: Arsenic at 1. The Staff adopts the same shorthand for the purpose of its response herein.

¹² *Id.*

¹³ *Id.* at 3.

¹⁴ *Id.* at 1-2.

¹⁵ *Id.* at 3; *see also* Affidavit of David C. Frankel, at 2 (Sept. 22, 2008) ("Frankel Affidavit").

¹⁶ *Id.* at 8 (*citing* "Probability of Pancreatic Cancer Following Diabetes: A Population-Based Study," Gastroenterology, Vol. 129, No. 2, 504 (August 2005)). The Staff was unable to obtain the article as (continued. . .)

On November 21, 2008, the Board issued its decision regarding the Consolidated Petitioners' Initial Petition, wherein, *inter alia*, the Board granted, in part, the request for hearing and petition for intervention of the Consolidated Petitioners.¹⁷ The Board found certain members of the Consolidated Petitioners to have demonstrated standing to participate as parties and admitted Consolidated Petitioners' Environmental Contention E and Technical Contention F.¹⁸ The Board also admitted, in part, Consolidated Petitioners' Miscellaneous Contentions G and K.¹⁹ The Board rejected the rest of the Consolidated Petitioners' contentions.²⁰ Among the rejected contentions were Consolidated Petitioners' Environmental Contentions A and B.²¹ The Consolidated Petitioners had alleged the following as Environmental Contention A:

CBR's License Application does not accurately describe the environment affected by its proffered mining operation or the extent of its impact on the environment as a result of its use and potential contamination of water resources, through mixing of contaminated groundwater in the mined aquifer with water in surrounding aquifers and drainage of contaminated water into the White River.²²

Similar to Environmental Contention A, the Consolidated Petitioners had alleged the

(. . .continued)

published in *Gastroenterology* (the journal of the Institute of the American Gastroenterology Association). The Staff was, however, able to obtain the author manuscript thereof. See "Author Manuscript of Probability of Pancreatic Cancer Following Diabetes: A Population-Based Study," ("Pancreatic Cancer Study") <http://www.pubmedcentral.nih.gov/articlerender.fcgi?tool=pubmed&pubmedid=16083707> (downloaded on December 16, 2008).

¹⁷ Memorandum and Order (Ruling on Hearing Requests), LBP-08-24, 68 NRC ____ (Nov. 21, 2008) (slip op. at 82) ("LBP-08-24" or "Initial Order").

¹⁸ *Id.*

¹⁹ *Id.* at 82-83.

²⁰ *Id.* at 82.

²¹ *Id.*

²² Initial Petition at 21.

following as Environmental Contention B:

CBR's proposed mining operations will use and contaminate water resources, resulting in harm to public health and safety, through mixing of contaminated groundwater in the mined aquifer with water in surrounding aquifers and drainage of contaminated water into the White River.²³

On December 10, 2008, the Staff appealed, pursuant to 10 C.F.R. § 2.311(a) and (c), the decision of the Board to grant, in part, the Consolidated Petitioners' request for hearing and petition for intervention.²⁴ The Staff therein argued that the Board should have denied standing to all of the Consolidated Petitioners and should have rejected their Environmental Contention E, Technical Contention F, and Miscellaneous Contentions G and K.

Also on December 10, 2008, the Board issued an order admitting the Consolidated Petitioners' new contention regarding arsenic contamination as Petitioners' "Safety Contention A."²⁵ The Board reframed the contention as follows:

The oxidation of uranium due to Crow Butte's mining operations releases low-levels of arsenic that contaminates drinking water. This contamination threatens the health and safety of the public in that it contributes to an increase in diabetes and pancreatic cancer. The AEA and NRC regulations require Crow Butte's operations to be conducted without harm to the public health and safety.²⁶

ARGUMENT

I. The Board should have Rejected Safety Contention A because it Falls within the Purview of Contentions Already Proffered and Rejected by the Board in this Proceeding.

Compared with those contentions already proffered in this proceeding by the Petitioners in their Initial Petition, the Consolidated Petitioners' Safety Contention A was not actually a *new* contention, as all the issues raised by it fall within the purview of those

²³ *Id.*

²⁴ Staff's Appeal of LBP-08-24.

²⁵ LBP-08-27 at 7. For the sake of consistency and clarity, the Staff will hereafter refer to the Consolidated Petitioners' new contention by the Board's applied terminology, "Safety Contention A."

²⁶ *Id.*

contentions already pled by the Petitioners in the proceeding.²⁷ The Consolidated Petitioners themselves pointed out that arsenic was referenced in their Initial Petition as a “groundwater contaminant of concern.”²⁸ As such, the issues raised by Safety Contention A—potential human health effects of consuming arsenic—are subsumed within the broad language of either of Consolidated Petitioners’ Environmental Contentions A or B in the Initial Petition.²⁹ By their explicit terms, Environmental Contention A and B both would have embraced all of the health impacts of exposure to inorganic arsenic in drinking water—including those mentioned in the Johns Hopkins Study—such that, hypothetically, the Johns Hopkins Study and any other documentation related to specific health effects associated with exposure to inorganic arsenic would merely be evidence in support of the contentions at hearing, not matters revivable as independent contentions. Thus, the Board erred by not rejecting this contention.

Moreover, the Board should have rejected Safety Contention A because it previously rejected Environmental Contentions A and B.³⁰ In ruling those contentions inadmissible, the Board found that the “Consolidated Petitioners [had] provided insufficient explanation of the foundation for these two contentions, they [had] provided no concise statement of alleged fact or expert opinion supporting their position, and they [had] not demonstrating a genuine dispute with the License Renewal Application at issue in this proceeding.”³¹ Thus, it stands to reason that as the Petitioners’ new contention is subsumed within Environmental

²⁷ See Initial Petition at 21-26.

²⁸ Petition re: Arsenic at 2 (*citing* Initial Petition at 16-17).

²⁹ See Initial Petition at 21-26.

³⁰ See LBP-08-24 at 45.

³¹ *Id.*

Contention A or B, the Board should have correspondingly rejected it as well and erred in not so doing. By admitting Safety Contention A, the Board permits the Consolidated Petitioners, in effect, to correct a contention previously rejected by the Board, thereby circumventing the Commission's contention pleading rules.³² Thus, the Commission should reverse the Board's decision and reject Petitioners' Safety Contention A.

II. The Board should have Rejected Safety Contention A because it Fails to Meet the Contention Admissibility Requirements for Newly Proposed Contentions.

Once the deadline for seeking intervention has passed, three sections of the NRC's regulations address the admissibility of newly proposed contentions:

(a) 10 C.F.R. § 2.309(f)(2), which deals with the admission of new and timely contentions; (b) 10 C.F.R. § 2.309(c), which deals with the admission of nontimely contentions; and (c) 10 C.F.R. § 2.309(f)(1), which establishes the basic criteria that all contentions must meet in order to be admissible.³³

The Staff argues that the Consolidated Petitioners' Safety Contention A should have been rejected by the Board because (1) pursuant to 10 C.F.R. § 2.309(f)(2), the contention is not "timely," (2) the contention fails to meet the requirements for a "nontimely" contention per 10 C.F.R. § 2.309(c)(1), and, furthermore, (3) the contention fails to meet to the general contention admissibility requirements of 10 C.F.R. § 2.309(f)(1).

A. Safety Contention A is Not Timely and the Eight Factors of 10 C.F.R. § 2.309(c)(1) Weigh in Favor of its Rejection.

In determining the admissibility of a new or amended contention, "the first step is to determine if the additional contention is 'timely' and otherwise meeting the requirements of 10 C.F.R. § 2.309(f)(2)."³⁴ That section provides that

³² See 10 C.F.R. § 2.309(f)(1).

³³ *Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc.* (Vermont Yankee Nuclear Power Station), LBP-06-14, 63 NRC 568, 571-72 (2006).

³⁴ *Id.* at 572 (citing *Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc.* (Vermont Yankee Nuclear Power Station), LBP-05-32, 62 NRC 813, 819 (2005)).

contentions may be amended or new contentions filed after the initial filing only with leave of the presiding officer upon a showing that—

- (i) The information upon which the amended or new contention is based was not previously available;
- (ii) The information upon which the amended or new contention is based is materially different than the information previously available; and
- (iii) The amended or new contention has been submitted in a timely fashion based on the availability of the subsequent information.³⁵

If a contention is not “timely” pursuant to the criteria of 10 C.F.R. § 2.309(f)(2), the admissibility of the nontimely contention is predicated upon an evaluation of the contention “according to [the] eight potentially applicable factors” of 10 C.F.R. 2.309(c)(1).³⁶ Pursuant to 10 C.F.R. § 2.309(c)(1), nontimely contentions will not be entertained absent a determination by the Board that a balance of the following eight factors—all of which must be addressed by the petitioner in its nontimely filing—weighs in favor of the contention’s admission:

- (i) Good cause, if any, for the failure to file on time;
- (ii) The nature of the requestor’s/petitioner’s right under the Act to be made a party to the proceeding;
- (iii) The nature and extent of the requestor’s/petitioner’s property, financial or other interest in the proceeding;
- (iv) The possible effect of any order that may be entered in the proceeding on the requestor’s/petitioner’s interest;
- (v) The availability of other means whereby the requestor’s/petitioner’s interest will be protected;
- (vi) The extent to which the requestor’s/petitioner’s interest will be represented by existing parties;
- (vii) The extent to which the requestor’s/petitioner’s participation will broaden the issues or delay the proceeding; and
- (viii) The extent to which the requestor’s/petitioner’s participation may reasonably be expected to assist in developing a sound record.³⁷

The first of the foregoing factors, the “good cause” factor, is entitled to the most weight.³⁸ “To

³⁵ 10 C.F.R. § 2.309(f)(2).

³⁶ *Vermont Yankee*, LBP-06-14, 63 NRC at 574-75.

³⁷ 10 C.F.R. 2.309(c)(1).

³⁸ *E.g.*, *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 564 (2005) (*citing Private Fuel Storage, LLC* (Independent Spent Fuel Storage Installation), CLI-00-02, 51 NRC 77, 79 (2000) *and State of New Jersey* (Department of Law and Public Safety’s Requests Dated Oct. 8, 1993), CLI-93-25, 38 NRC 289, 296 (1993)).

demonstrate good cause, a petitioner must show not only why it could not have filed within the time specified in the notice of opportunity for hearing, but also that it filed as soon as possible thereafter.”³⁹ If a petitioner does not make a showing of good cause, “then its demonstration of the other factors must be ‘compelling.’”⁴⁰

1. Consolidated Petitioners’ Argument.

At the outset of its discussion of the 10 C.F.R. § 2.309(f)(2) criteria, the Consolidated Petitioners highlighted that, in its Initial Petition, arsenic was referenced as “one of the groundwater contaminants of concern.”⁴¹ The Petitioners asserted that “[a]s this case has progressed, *more* has been learned about the connections between Applicant’s ISL uranium mine in the Chadron Aquifer and the release of arsenic and related health impacts to the people living nearby in the form of diabetes and pancreatic cancer.”⁴²

As to the first factor of 10 C.F.R. § 2.309(f)(2),⁴³ the Petitioners stated that “[o]n or about August 20, 2008, [it] *became aware* of the Johns Hopkins Study and the connection between arsenic in the drinking water and adult onset of Type 2 diabetes.”⁴⁴ Furthermore, “[o]n or about August 28, 2008, WNRC Attorney David Frankel *became aware* of a high incidence of pancreatic cancer in Chadron.”⁴⁵ Based on Counsel’s observational study and analysis, Counsel for the Petitioners believed that the pancreatic cancer rate in Chadron, NE

³⁹ *Id.* at 564-65 (citing *State of New Jersey*, CLI-93-25, 38 NRC at 295).

⁴⁰ *Id.* (quoting *State of New Jersey*, CLI-93-25, 38 NRC at 296).

⁴¹ Petition re: Arsenic at 2 (citing Initial Petition at 16-17).

⁴² *Id.* at 3 (*emphasis added*).

⁴³ 10 C.F.R. § 2.309(f)(2)(i).

⁴⁴ Petition re: Arsenic at 3 (*emphasis added*).

⁴⁵ *Id.* (*emphasis added*).

is 20 times higher than the national average.⁴⁶

As to the second factor of 10 C.F.R. § 2.309(f)(2),⁴⁷ the Consolidated Petitioners asserted that while it had been aware of the “connection between the oxidizing impacts of Applicant’s ISL mining and the release of arsenic, it wasn’t until July 25, 2008 that [it] *became aware* of the 1982 Baseline Study.”⁴⁸ The Petitioners referred to a 1982 Baseline Study to show that “[a]rsenic levels increase in an oxidizing environment such as that intentionally created by Applicant’s mining activities.”⁴⁹ The Consolidated Petitioners asserted that the arsenic released from the Applicant’s mining activities “have adversely impacted public health particularly causing ailments associated with the pancreas such as diabetes and pancreatic cancer.”⁵⁰ These particular human health impacts “were not fully known until on or about August 28, 2008 and this information taken together constitutes materially different information than what was previously known to Petitioners when the initial Petition was filed in November 2007.”⁵¹

As to the third factor of 10 C.F.R. § 2.309(f)(2),⁵² the Consolidated Petitioners, cognizant of “general NRC practice ... that new contentions are to be filed within thirty days after the new information is received,”⁵³ moved that such “thirty day period should not start

⁴⁶ *Id.* at 3-4.

⁴⁷ 10 C.F.R. § 2.309(f)(2)(ii).

⁴⁸ Petition re: Arsenic at 4 (*emphasis added*).

⁴⁹ *Id.* at 4.

⁵⁰ *Id.* at 5.

⁵¹ *Id.* (*emphasis added*).

⁵² 10 C.F.R. § 2.309(f)(2)(iii).

⁵³ Petition re: Arsenic at 5.

until August 28, 2008 when the information was received concerning the high incidence of pancreatic cancer in Chadron. Accordingly, [the] Petition for New Contention [was] timely filed on September 22, 2008.”⁵⁴

The Consolidated Petitioners did not address any of the 10 C.F.R. § 2.309(c)(1) factors in their Petition for Safety Contention A.

2. The Board’s Decision.

While recognizing that arsenic was referenced in the Consolidated Petitioners’ Initial Petition of July 28, 2008, the Board notes that that was only “one month before the Johns Hopkins study was available to the to the public.”⁵⁵ In light of that, the Board finds “[t]he information in the Johns Hopkins study is therefore both new to Consolidated Petitioners and, because the study focuses on the effects of low level arsenic contamination, is materially different from information previously available to them.”⁵⁶ Thus, the Board “is therefore satisfied that [a]mended or new contention has been submitted in a timely fashion based on the availability of the subsequent information.”⁵⁷ As the Board finds that the Consolidated Petitioners’ Safety Contention A met the requirements of 10 C.F.R. § 2.309(f)(2), the Consolidated Petitioners did not have to address the factors of 10 C.F.R. § 2.309(c)(1).⁵⁸

⁵⁴ *Id.* at 6.

⁵⁵ LBP-08-27 at 5.

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ *Id.* at 4.

3. Staff's Position

The Staff argues that the Board erred in not rejected Consolidated Petitioners' Safety Contention A because (1) the contention did not meet the 10 C.F.R. § 2.309(f)(2) criteria for timeliness and (2) the Consolidated Petitioners did not address the factors of 10 C.F.R. § 2.309(c)(1).

While the Johns Hopkins Study did not exist at the time by which initial petitions for intervene were due in this proceeding,⁵⁹ the Petitioners did not demonstrate in what material respect the conclusions of that study or the data generated thereby are unique, or, in other words, why the Petitioners need necessarily have relied for its scientific support on the Johns Hopkins study in particular, as opposed to another study to the same end.⁶⁰ In fact, the cited Johns Hopkins Study itself discusses (albeit, critiquing in part) other studies which analyzed the association between exposure to inorganic arsenic and diabetes—all of which existed at the time by which initial petitions were due in this proceeding.⁶¹ The Petitioners simply did not demonstrate why they could not have relied on any one of those studies (or others) to support the pending contention at the time initial petitions were due in this proceeding.

In light of the foregoing, the Board should have held that the Consolidated Petitioners' submission of the pending contention was not timely pursuant the criteria of 10 C.F.R. § 2.309(f)(2). The Board instead found that the information provided in the Johns Hopkins Study to be materially different from previously available information "because the study focuses on the effects of low level arsenic contamination."⁶² The Consolidated Petitioners,

⁵⁹ See 10 C.F.R. § 2.309(f)(2)(i).

⁶⁰ See *id.* at § 2.309(f)(2)(ii).

⁶¹ Johns Hopkins Study at 820-21.

⁶² See LBP-08-27 at 5.

though, did not offer any evidence to suggest that the Petitioners are exposed to low levels of arsenic corresponding to those levels analyzed in the Johns Hopkins Study. Without such assertion by the Petitioners, it is difficult to understand how the Johns Hopkins Study is *materially* different from previously available information regarding the connection between exposure to arsenic and diabetes.⁶³ Rather, it seems that the Consolidated Petitioners cited the Johns Hopkins Study simply for the general proposition that there is a connection between exposure to arsenic and diabetes.⁶⁴ As such, it remains unseen why the Consolidated Petitioners could not have relied upon previously available information to support that proposition.⁶⁵

As 10 C.F.R. § 2.309(c)(2) makes clear, the Petitioners must address the eight factors of 10 C.F.R. § 2.309(c)(1) in the submission of their nontimely contention. The Consolidated Petitioners failed to do so. The Commission has summarily dismissed a petitioner's filing for failure to address the factors for admission of nontimely contentions⁶⁶ and should do the same in this instance. In light of the foregoing, because Safety Contention A did not meet the 10 C.F.R. § 2.309(f)(2) criteria for timeliness and because the Consolidated Petitioners did not address the factors of 10 C.F.R. § 2.309(c)(1) in their submission thereof, the Commission should reverse the decision of the Board and reject Safety Contention A.

⁶³ See Johns Hopkins Study at 820-21.

⁶⁴ Petition re: Arsenic at 1-2.

⁶⁵ See *id.*

⁶⁶ See *Baltimore Gas & Elec. Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 348 (1998) (*citing Texas Utilities Elec. Co.* (Comanche Peak Steam Elec. Station, Unit 2), CLI-93-11, 37 NRC 251, 255 (1993)).

B. General Contention Admissibility Criteria of 10 C.F.R. § 2.309(f)(1)

The “six basic contention admissibility standards contained in 10 C.F.R. § 2.309(f)(1)(i)-(v)(i) ... must be met by all contentions, whether they are filed at the outset of the proceeding, are filed in a timely fashion when material new information arises, or are untimely filings.”⁶⁷ Pursuant to 10 C.F.R. § 2.309(f)(1), for each contention a petitioner wishes to have admitted at hearing, the petitioner must

- (i) Provide a specific statement of the issue of law or fact to be raised or controverted;
- (ii) Provide a brief explanation of the basis for the contention;
- (iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;
- (iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;
- (v) Provide a concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the requestor/petitioner intends to rely to support its position on the issue; and
- (vi) Provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. This information must include references to specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief.⁶⁸

Additionally, a contention must be within the scope of the proceeding as defined by the notice of hearing in order to be admissible.⁶⁹ The contention rule is “strict by design.”⁷⁰ The rule operates as a “[t]hreshold standard ... necessary to ensure that hearings cover only genuine and pertinent issues of concern and that the issues are framed and supported concisely enough at the outset to ensure that the proceedings are effective and focused on

⁶⁷ *Vermont Yankee*, LBP-06-14, 63 NRC at 575.

⁶⁸ *Id.* at § 2.309(f)(1).

⁶⁹ *See Florida Power and Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4) CLI-00-23, 52 NRC 327, 329 (2000).

⁷⁰ *See Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3) CLI-01-24, 54 NRC 349, 358 (2001).

real, concrete issues.”⁷¹ As such, failure to comply with any of the foregoing elements of 10 C.F.R. § 2.309(f)(1) is grounds for a contention’s dismissal.⁷² Commission practice does not “permit ‘notice pleading,’”⁷³ and, therefore, the Commission does not permit the “filing of vague, unparticularized contention[s],’ unsupported by affidavit, expert, or documentary support.”⁷⁴ A petitioner may not rely on mere speculation nor base allegations as support for the admission of a proffered contention.⁷⁵ If a petitioner fails to provide sufficient support for proffered contentions, it is not within the authority of a Board to construct assumptions of fact to shore up those deficiencies.⁷⁶ Similarly, a petitioner must provide sufficient explanation as to the significance of materials and documents referenced in support of a contention.⁷⁷

1. Consolidated Petitioners’ Argument.

The issue raised by the Consolidated Petitioners in Safety Contention A was

that Arsenic being released by the oxidizing of Uranium due to Applicant’s injection of lixiviant and that such levels of Arsenic (even if within the US drinking water standards) constitutes ongoing low-level exposure to Arsenic which causes failures in the pancreas to people drinking water affected into which the Arsenic flows.⁷⁸

The Consolidated Petitioners asserted that “[s]uch pancreatic failures result in diabetes and

⁷¹ Changes to Adjudicatory Process, 69 Fed. Reg. at 2,182, 2,189-90 (Jan. 14, 2004).

⁷² *Private Fuel Storage* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 325 (1999); *Arizona Pub. Serv. Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155-56 (1991); *Louisiana Energy Servs.* (National Enrichment Facility), LBP-04-14, 60 NRC 40, 54 (2004).

⁷³ *N. Alt. Energy Serv. Corp.* (Seabrook Station, Unit 1), CLI-99-6, 49 NRC 201, 219 (1999).

⁷⁴ *Id.* (quoting *Calvert Cliffs*, CLI-98-25, 48 NRC at 349).

⁷⁵ See *Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 203 (2003).

⁷⁶ See *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), LBP-95-6, 41 NRC 281, 305, *vacated in part and remanded on other grounds*, CLI-95-10, 42 NRC 1, *aff’d in part*, CLI-95-12, 42 NRC 111 (1995).

⁷⁷ See *Fansteel*, CLI-03-13, 58 NRC at 204.

⁷⁸ Petition re: Arsenic at 7.

pancreatic cancer.” According to the Petitioners, the “Johns Hopkins Study shows a link between low-levels of Arsenic in the drinking water and Type 2, Adult-Onset Diabetes.”⁷⁹

Furthermore, the Consolidated Petitioners alleged that, based on Counsel's observational study and analysis, “Chadron appears to have a very high incidence of pancreatic cancer that is 20 times the national average.”⁸⁰ The Consolidated Petitioners asserted that “exposures to Arsenic from Applicant’s mine are related to the high incidence of ... pancreatic cancer and appear to be a causal and contributing factor to such disease[.]” However, the Petitioners also stated that “[t]he testimony of Chadron victims of pancreatic cancer and further investigation into the incidence of pancreatic cancer at Pine Ridge Indian Reservation is required and contemplated to support this new contention”⁸¹ and, in addition, “further testing needs to be done to show the exact levels of Arsenic in the drinking water of the people of Crawford, Chadron and Pine Ridge Indian Reservation.”⁸²

2. The Board’s Decision.

According to the Board, “Consolidated Petitioners rely on information in the License Renewal Application and their own pleadings, on the Johns Hopkins study showing a link between low levels of arsenic in drinking water and type 2 diabetes, and on affidavits supporting a high incidence of pancreatic disease and diabetes near the mine and on the Reservation.”⁸³ This information, in the Board’s opinion, “adequately meet[s] the

⁷⁹ *Id.*

⁸⁰ *Id.*

⁸¹ *Id.*

⁸² *Id.* at 7-8.

⁸³ LBP-08-27 at 6.

requirements of section 2.309(f)(1),”⁸⁴ and the “Consolidated Petitioners have provided more than ‘bare assertions and speculation.’”⁸⁵ Thus, the Board admits, as reframed, Safety Contention A.⁸⁶

3. Staff’s Position.

The Board should have found that Safety Contention A did not satisfy the requirements of 10 C.F.R. § 2.309(f)(1) because the Consolidated Petitioners (1) fail to formulate the contention with sufficient particularity, (2) fail to provide sufficient, if any, factual or expert support for the positions it advances in Safety Contention A and (3) fail to specify what, if any, genuine dispute exists with the Applicant on a material issue of law or fact.

The Johns Hopkins Study does not stand for the proposition for which it is cited by the Petitioners. The Petitioners stated that “[t]he Johns Hopkins Study shows that low level Arsenic exposures of inorganic arsenic in the water such as that resulting from ISL uranium mining increases the risk of Type 2 Diabetes in adults.”⁸⁷ The Johns Hopkins Study simply does not support this proposition. While the Study finds “a positive [statistical] association between total urine arsenic, likely reflecting inorganic exposure from drinking water and food, with the prevalence of type 2 diabetes in a population with low to moderate arsenic exposure,”⁸⁸ the Study, nonetheless, indicates that “[p]rospective studies in populations exposed to a range of inorganic arsenic levels are needed to establish *whether this*

⁸⁴ *Id.* at 6.

⁸⁵ *Id.* at 7 (*citing Fansteel*, CLI-03-13, 58 NRC at 203).

⁸⁶ *Id.*

⁸⁷ Petition re: Arsenic at 1-2.

⁸⁸ Johns Hopkins Study at 821.

*association is causal.*⁸⁹ Thus, the Consolidated Petitioners' assertion that the Study proves a causal relationship between exposure to low level arsenic and type 2 diabetes is erroneous. A Board is "not to accept uncritically the assertion that ... an expert opinion supplies the basis for a contention ... the Board should review the information provided to ensure that it does indeed supply a basis for the contention."⁹⁰ In this instance, the Consolidated Petitioners' claims about the Johns Hopkins Study simply do not correspond with what the Study actually states.

Even if the Johns Hopkins Study found causality, as the Consolidated Petitioners incorrectly suggested, the Petitioners made no attempt to correlate the findings of the Study with the conditions present at Chadron, Nebraska or at the Pine Ridge Indian Reservation. The Consolidated Petitioners did not offer any data to support the proposition that individuals in such areas are exposed through drinking water to inorganic arsenic in such quantities to suggest similar total arsenic content in urine as found to have a positive association with type 2 diabetes in the Study. Without such supporting data, the Petitioners' assertion that the findings of the Study are relevant to and explanatory of the alleged prevalence of diabetes at such locales amounts to nothing more than a bald assertion which the Board should have rejected.⁹¹

The Petitioners asserted that "[b]ased on [Counsel's] information and belief, there are at least seven (7) cases of pancreatic cancer in Chadron which has a population of 5,208 which is about 20 times the national average of 11.5 cases per 100,000 Americans."⁹² The

⁸⁹ *Id.* at 814 (*emphasis added*).

⁹⁰ *Private Fuel Storage, LLC* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 181 (1998).

⁹¹ *See Fansteel*, CLI-03-13, 58 NRC at 204.

⁹² Petition re Arsenic at 3-4 (*internal citations omitted*).

seven cases of pancreatic cancer to which the Petitioners referred is the product only of the *unsubstantiated* personal knowledge of a Mr. Mike Waugh.⁹³ By his own account, Counsel for the Petitioners made only a very limited attempt to verify such information,⁹⁴ and, as such, Counsel provided no verification in the Petition or his affidavit of Mr. Waugh's beliefs. The Consolidated Petitioners cannot support their contention with bare assertions.⁹⁵ The Petitioners also failed to provide any information regarding the source of drinking water for those individuals who purportedly suffer from pancreatic cancer. Without even a showing of such information, it is difficult—if not impossible—to accept Petitioners' assertion that such individuals potentially contracted pancreatic cancer due to the ingestion of arsenic in drinking water tainted by the Applicant's in situ leach extraction operations.⁹⁶

In sum, while the Consolidated Petitioners assert that “exposures to Arsenic from the Applicant's mine are related to the high incidence of ... pancreatic cancer and appear to be a causal and contributing factor to such disease[],”⁹⁷ the Consolidated Petitioners did not provide any expert support for such purported causal relationship. The Consolidated Petitioners cited to the Pancreatic Cancer Study for the proposition that there is a link between diabetes and pancreatic cancer, and Petitioners suggest by such link that diabetes causes or is a contributing factor to pancreatic cancer,⁹⁸ but that is not the conclusion of the Pancreatic Cancer Study. Rather, the Study, in light of “increasing evidence to support the

⁹³ See Frankel Affidavit at 1.

⁹⁴ See *id.*

⁹⁵ See *Fansteel*, CLI-03-13, 58 NRC at 204.

⁹⁶ See Petition re Arsenic at 7-8.

⁹⁷ *Id.* at 8.

⁹⁸ See *id.*

notion that diabetes *may be a consequence* of pancreatic cancer,”⁹⁹ attempts to evaluate through statistical analysis the “value of new-onset diabetes as a marker of underlying pancreatic cancer.”¹⁰⁰ With the exception of the Pancreatic Cancer Study, the Consolidated Petitioners provided no factual or expert support for their proposition that there is a causal link between exposure to arsenic and the development of pancreatic cancer. Again, a Board is “not to accept uncritically the assertion that ... an expert opinion supplies the basis for a contention ... the Board should review the information provided to ensure that it does indeed supply a basis for the contention.”¹⁰¹ Upon such review, the Board should have rejected this argument of the Consolidated Petitioners. The Board erred in not so doing.

CONCLUSION

In light of Staff’s prior appeal of LBP-08-24,¹⁰² and in light of the foregoing, the Staff respectfully requests that the Commission reverse LBP-08-24 and LBP-08-27 and terminate the proceeding.

Respectfully submitted,

Executed in Accord with 10 CFR 2.304(d)

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Dated at Rockville, Maryland
This 22nd day of December, 2008

⁹⁹ Pancreatic Cancer Study at *2 (*emphasis added*).

¹⁰⁰ Id. at *1.

¹⁰¹ *Private Fuel Storage*, LBP-98-7, 47 NRC at 181.

¹⁰² See NRC Staff’s Notice of Appeal of LBP-08-24, Licensing Board’s Order of November 21, 2008, and Accompanying Brief (Dec. 10, 2008) (“Staff’s Appeal of LBP-08-24”).

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF'S NOTICE OF APPEAL OF LICENSING BOARD'S ORDER OF DECEMBER 10, 2008 (LBP-08-27), AND ACCOMPANYING BRIEF" in the above-captioned proceeding have been served on the following persons by Electronic Information Exchange on this 22nd day of December, 2008:

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