

June 8, 2015

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))	

CROW BUTTE RESOURCES' REBUTTAL STATEMENT OF POSITION

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INTRODUCTION

Pursuant to 10 C.F.R. § 2.1207(a)(1) and the Licensing Board's Orders, dated March 25 and May 22, 2015, Crow Butte Resources, Inc. ("Crow Butte" or "Applicant") hereby submits this Rebuttal Statement of Position on all admitted contentions.¹ This Rebuttal Statement of Position is supported by rebuttal testimony from Crow Butte witnesses and the exhibits submitted concurrently. For the reasons set forth below, Crow Butte's license renewal application ("LRA") satisfies the Atomic Energy Act and the Commission's regulations. In addition, the NRC Staff's Environmental Assessment ("EA") satisfies the requirements of the National Environmental Policy Act ("NEPA"). All contentions should be resolved in favor of Crow Butte and the NRC Staff.

APPLICANT REBUTTAL WITNESSES

Crow Butte's rebuttal testimony focuses on four different groups of contentions. As with initial testimony, rebuttal testimony on hydrogeology issues (Contentions A, C, D, F, and 14) is presented by Mr. Wade Beins, Mr. Robert Lewis, Mr. Bryan Soliz, Mr. Matt Spurlin,

¹ DTE Electric formerly operated under the name Detroit Edison Company. The name change was effective on January 1, 2013. For simplicity, the name "DTE" will be used throughout this testimony.

and Mr. Larry Teahon.² Rebuttal testimony on restoration issues (Contentions 6 and 9) is presented by Mr. Robert Lewis, Mr. Larry Teahon, and Mr. Doug Pavlick.³ Rebuttal testimony on cultural resources (Contention 1) is presented by Mr. Larry Teahon in Exh. CBR-051. Rebuttal testimony on Contention 12 also is presented by Mr. Larry Teahon in Exh. CBR-054. Through the direct and rebuttal testimony and supporting exhibits, Crow Butte’s witnesses demonstrate that that Crow Butte’s equipment and procedures for use at its facility are adequate to protect public health and minimize danger to life or property and that the NRC Staff’s EA is reasonable and reflects a “hard look” at the potential environmental impacts of renewing the license to operate Crow Butte.

DISCUSSION OF HYDROGEOLOGY CONTENTIONS

The intervenors’ arguments in their initial testimony generally align with those made in the contentions. As a result, the intervenors’ principal arguments were addressed by Crow Butte in its direct testimony (Exh. CBR-001). However, in their direct testimony the intervenors’ witnesses alleged other deficiencies. As discussed below, none of these additional alleged deficiencies calls into question the adequacy of the LRA or SER or the reasonableness of the EA. Instead, the intervenors’ witnesses arguments are broad, unsupported assertions regarding geology or hydrogeology and vague claims that additional (or alternative) analyses should be performed. But, the intervenors’ witnesses do not identify any specific deficiency in the NRC Staff’s environmental analysis or in the LRA regarding Crow Butte’s ability to effectively control mining fluid at the site. The intervenors’ witnesses do not directly engage

² Exh. CBR-045. The witnesses professional qualifications were provided previously. Exhs. CBR-002, CBR-003, CBR-004, CBR-005, and CBR-006.

³ Exh. CBR-052. The witnesses professional qualifications were provided previously. Exhs. CBR-003, CBR-006, and CBR-009.

with the detailed site-specific information provided in the LRA and supporting documents. These generalized complaints do not provide support for the contention.

A. Dr. LaGarry Testimony

Dr. LaGarry's testimony (Exh. INT-043) addresses two main topics: lineaments and faults/joints. Crow Butte's witnesses explain that neither issue calls into question the adequacy of the LRA or the NRC Staff's review.

First, with respect to potential faulting and jointing Crow Butte's witnesses generally observe that, hypothetically, the presence of a fault or joint does not necessarily mean there is a hydraulic connection. Faults and joints may be barriers to groundwater flow, or neutral (*i.e.*, do not significantly affect groundwater flow) depending on the degree of offset and the character of the material that fills the fault/joint. Aquifer testing (and wellfield operations) at Crow Butte would have identified the presence of significant joints or faults that affect groundwater flow given the large and overlapping radius of influence of these tests. No boundary conditions were encountered during aquifer testing that would indicate the existence of these features. So, hypothetically, even if small faults or joints did in fact exist, the aquifer tests and other evidence establish that they are neutral and do not affect groundwater flow at the site.

Second, Crow Butte's witnesses address Dr. LaGarry's assertions regarding the presence of faults in the region. The witnesses acknowledge the existence of faults at a regional level, but emphasize the strong evidence for hydraulic isolation and a competent upper confining unit at the site. The evidence indicates that groundwater flow pathways between the production zone and overlying aquifers are not present. Crow Butte's witnesses explain that Dr. LaGarry is extrapolating regional information to the site, but never engages with or responds to the multiple lines of evidence that confirm the absence of faults or fractures at the Crow Butte site.

Third, Crow Butte witnesses address the letter submitted to the NRC in 1989 regarding possible fractures at the site. The witnesses provide conclusive evidence (*e.g.*, drill cuttings and geophysical logs) that the mined uranium is within a roll-front deposit and not a mineralized fracture. Ultimately, the witnesses testify that (long-discredited) speculation is no substitute for the extensive data obtained from thousands of boreholes at the site, which demonstrate confinement of the production aquifer.

Fourth, with respect to lineaments, Crow Butte's witnesses reviewed the testimony and exhibits provided by Dr. LaGarry. The witnesses recognize the possibility that some observed lineaments represent faults, fractures, or joints. But, they conclude that Dr. LaGarry's contention that all or most lineaments identified by remote sensing represent faults identifiable on the ground simply is not supported by research. They also point out that, as even Dr. LaGarry notes, lineaments identified from aerial sources cannot be confirmed as faults or joints without field confirmation. At Crow Butte, site-specific investigations do not suggest the presence of faults or joints.

Overall, the witnesses conclude that Dr. LaGarry's opinion on conditions at Crow Butte is conjecture based on regional reconnaissance level information. There is no site-specific information to support his opinion. Crow Butte, in contrast, has presented relevant site-specific data that demonstrates the absence of faulting or fracturing at the site that affects confinement or secondary porosity.

B. Dr. Kreamer Testimony

Crow Butte's witnesses begin by noting that Dr. Kreamer's characterization of site geology in Exh. INT-046 is based primarily on literature reviews rather than site-specific data. Like Dr. LaGarry, Dr. Kreamer makes broad generalizations based on regional data. In addition, a number of Dr. Kreamer's comments relate to the adequacy of established NRC

requirements, which are not subject to litigation in this proceeding. The Crow Butte witnesses also address Dr. Kreamer's specific concerns.

First, the witnesses explain that there is no basis for Dr. Kreamer's assertion that the site is inadequately characterized. The witnesses testify that an extraordinary amount of site specific hydrogeologic and geologic data has been developed and evaluated for the Crow Butte site, including more than 10,000 sets of drilling data. Exh. CBR-056 (map of drill holes at main permit area). For nearly every hole drilled at the site, Crow Butte has completed a geophysical log and a lithology log from drill cuttings. These are reviewed by Crow Butte geologists and pertinent data is entered into the site geologic database. Crow Butte also performed multiple aquifer pump tests, and monitoring well data and water quality samples are logged and reviewed regularly.

Second, the witnesses testify regarding the extensive assessments that have been conducted to confirm confinement and demonstrate the absence of secondary porosity. The witnesses describe the robust groundwater model used by Crow Butte, as well as the conceptual models that were applied as part of the aquifer testing program, which involved overlapping areas of influence across the length of the site.

Third, like Dr. LaGarry, Dr. Kreamer makes broad generalizations about hypothetical site conditions based on regional data. The witnesses acknowledge recent literature on regional geology, but testify that information regarding regional geology or structural features located at considerable distances from the site is no substitute for the detailed and extensive site-specific information gathered by Crow Butte over more than 20 years of operation. In contrast to Dr. Kreamer's unsupported extrapolation of regional data, Crow Butte's conclusions are supported by multiple lines of evidence and decades of operational experience at the site.

C. Mr. Wireman Testimony

Crow Butte's witnesses address Mr. Wireman's testimony (Exh. INT-047) by first noting that Mr. Wireman also largely ignores site-specific data. Like Dr. LaGarry and Dr. Kreamer, Mr. Wireman makes broad generalizations about site conditions based on regional data, but does not directly engage with the site-specific evidence.

For example, Crow Butte's witnesses respond to Mr. Wireman's assertion that there is a potential for unwanted fluid migration upward from the ore bearing Basal Chadron Sandstone into the upper Brule aquifer by again describing the multiple lines of evidence supporting confinement. The witnesses testify that, even if, hypothetically, there were faults or fractures connecting the Basal Chadron to the Brule at the Crow Butte site (which there are not), the vertical hydraulic gradient in the permit area during operations is strongly downward, which precludes upward migration of mining fluids into the Brule aquifer.

The witnesses also respond to several other issues raised by Mr. Wireman. The witnesses describe the close-spaced drilling campaign and interpretations of the White River Structural Feature, discuss reasons for changes in regional flow directions and gradients, and testify that it is unnecessary to perform pump tests in the Brule aquifer outside the permit area. The witnesses also describe the lateral extent of the Basal Chadron Sandstone, data collected from offsite wells, and the adequacy of the current groundwater monitoring program.

Overall, the witnesses conclude that nothing in the intervenors' rebuttal testimony calls into question the conclusions of the LRA, SER, or EA, or the direct testimony.

D. NRC Staff Testimony

Crow Butte's expert witnesses agree with the NRC Staff Position Statement and the conclusions in the NRC Staff testimony on hydrogeology (Exh. NRC-001). The methodologies, assumptions, and conclusions in the NRC Staff testimony are in agreement with

those of the Crow Butte witnesses. Because the NRC Staff reached similar conclusions on safety issues in the SER and on the reasonableness of the EA discussion of hydrogeology, the NRC Staff testimony does not change (and, in fact, complements) the discussion and conclusions in Crow Butte's direct testimony.

E. Conclusions

Overall, the EA and the record satisfy NEPA with respect to hydrogeology and the impacts of Crow Butte's operations on groundwater and nearby surface water. The NRC Staff's EA reflects that it has taken the requisite hard look at the impacts of renewing Crow Butte's license on groundwater and surface water. The NRC Staff addressed the significant aspects of the probable environmental impacts of the proposed action. Moreover, each of the issues raised by the intervenors has been considered by Crow Butte in the LRA, addressed by the NRC Staff in the SER and in the EA, and discussed in the testimony of the witnesses. Crow Butte's operations have not contaminated the drinking water at the Pine Ridge Reservation, nor have operations contaminated any drinking water between the site and the Pine Ridge Reservation. The EA "comes to grips with all important considerations" on hydrogeology and nothing more need be done.⁴

DISCUSSION OF CULTURAL RESOURCES CONTENTION

In Mr. Teahon's direct testimony on cultural resources (Exh. CBR-007), he described the various surveys and reports relating to cultural resources that have been prepared with respect to the Crow Butte site since it was first permitted and licensed. He also described the steps that Crow Butte has taken, and will continue to take, to protect cultural resources at the Crow Butte site. And, he discussed the various restrictions on ground disturbance activities

⁴ *Systems Energy Resources, Inc.* (Early Site Permit for Grand Gulf Site), CLI-05-4, 61 NRC 10, 13 (2005).

associated with Crow Butte's NRC license and permit from the State of Nebraska. Nothing in the intervenors' testimony changes Mr. Teahon's conclusions.

The intervenors' witnesses ignore the substantial and detailed information on cultural resources identified at the Crow Butte site through prior surveys, as well as the obligation to avoid impacts to known cultural resource sites now and into the future. The intervenors' witnesses also ignore the fact that there are no plans for additional construction or significant ground disturbance activities at the site. Overall, the intervenors have not shown any deficiencies in the surveys that have been performed or any impacts that have been overlooked by Crow Butte or the NRC Staff.

A. Dr. Redmond

Mr. Teahon begins by addressing the letter from Dr. Redmond on cultural resources (Exh. INT-022). Mr. Teahon explains that Dr. Redmond does not identify any impact to cultural resources that Crow Butte allegedly overlooked. Nor does Dr. Redmond dispute any of the conclusions in the Bozzell and Pepperel report on identified cultural resources. Dr. Redmond questions the credentials of the persons performing the surveys, as well as the survey methods. But, he does not appear to have reviewed the cultural resource report for the site or considered the testing of identified sites that has been performed to date. Nor does he address the restrictions in place to prevent impacts to cultural resources. Dr. Redmond's failure to consider available site-specific information cannot form the basis for finding in the intervenors' favor.

B. Michael CatchesEnemy and Dennis Yellow Thunder

In response to the testimony of Mr. CatchesEnemy and Mr. Yellow Thunder (Exhs. INT-031 and INT-032), Mr. Teahon explains that their claims of harms to cultural resources are conjectural and fail to acknowledge or account for detailed site-specific

information on cultural resources. The intervenors' witnesses do not identify any particular cultural resource that has been overlooked — much less explain how future activities at the site could harm such resources. Instead, the intervenors' witnesses testify only that “it can be reasonably presumed that many sites and artifacts of significant historic and cultural importance to the Tribe exist in the area that encompasses the existing Crow Butte facility and the surrounding Crow Butte and Crawford area.” While cultural resources undoubtedly exist in the region, Mr. Teahon emphasizes that it would be pure speculation to presume that additional sites exist at Crow Butte (beyond those identified and protected already). Mr. Teahon also notes that the Oglala Sioux Tribe had an opportunity to respond to a draft of the EA's discussion of impacts to cultural resources, as well as the Section 106 consultation documents, but chose not to respond.

C. Initial Position Statement

In their initial position statement, the intervenors raise a number of other issues beyond those in the testimony. However, the intervenors present no site-specific information to call into question the conclusions of the prior cultural resource surveys — despite being presented with multiple opportunities to weigh in during prior license renewal reviews and during the most recent Section 106 and NEPA processes for license renewal.⁵ Although the intervenors allege that the process for cultural resource evaluations at Crow Butte was flawed because the Oglala Sioux Tribe did not participate in field surveys, the intervenors take no responsibility for the fact that the Oglala Sioux Tribe was invited, yet declined, to comment on draft NRC Staff assessments or participate in field surveys on multiple occasions.

⁵ In fact, as Mr. Teahon explains, a great deal of the intervenors' initial statement of position relates to surveys performed to support other license applications (*e.g.*, Marsland, North Trend), rather than license renewal.

Regardless, compliance with NEPA does not rest on the participation (or not) of the Oglala Sioux Tribe. NEPA imposes procedural duties on agencies, requiring them to take a “hard look” at (and disclose) the environmental impacts of a proposed action and reasonable alternatives to that action.⁶ This “hard look” is subject to a “rule of reason.”⁷ A NEPA document is not intended to be a “research document,” reflecting the frontiers of scientific methodology, studies, and data.⁸ Nor must the discussion of the impacts be encyclopedic in scope or detail. NEPA analyses often must rely upon imprecise and uncertain information, which should be judged on its reasonableness.

Here, the NRC Staff undertook extensive and repeated efforts to engage the Oglala Sioux Tribe on potential cultural resource impacts, including many letters and emails, multiple meetings, and communications on a government-to-government basis with the tribe. In the course of this proceeding, the NRC Staff also filed a notice on the docket and provided a specific opportunity to comment on draft Section 106 and NEPA documentation of cultural resource impacts. The NRC Staff has fully complied with NEPA’s mandate by making substantial (and repeated) efforts to obtain information on tribal cultural resources from multiple sources. The NRC Staff’s inability to develop new information from the Oglala Sioux Tribe or

⁶ See *Louisiana Energy Servs., L.P.* (Claiborne Enrichment Ctr.), CLI-98-3, 47 NRC 77, 87-88 (1998); see also *Balt. Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 97-98 (1983) (holding that NEPA requires agencies to take a “hard look” at environmental consequences prior to taking major actions).

⁷ *Louisiana Energy Servs.* (National Enrichment Facility), LBP-06-8, 63 NRC 241, 258-59 (2006) (citing *Long Island Lighting Co.* (Shoreham Nuclear Power Station), ALAB-156, 6 AEC 831, 836 (1973)); see also *Dep’t of Transp. v. Pub. Citizen*, 541 U.S. 752, 767-69 (2004) (stating that the rule of reason is inherent in NEPA and its implementing regulations).

⁸ *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC ___, slip op. at 37 (Mar. 26, 2010) (citations omitted).

Consolidated Intervenor resulted not from inaction on its part, but from the decisions of the tribe to either not participate in field surveys or not provide comments. The NRC Staff's extensive efforts are far beyond the minimum necessary to satisfy NEPA.

D. Conclusions

The Crow Butte project area has been subjected to intensive cultural resources field surveys for archaeological and historical sites and the five remaining "potentially eligible" properties are being avoided. As a result, there will be no impacts on the known and recorded cultural resource sites from license renewal. In addition, the license conditions mandating that Crow Butte stop work upon discovery of new cultural resources ensure that newly-discovered cultural resources will be treated appropriately. Overall impacts to historic and cultural resources from the relicensing of the Crow Butte facility will be SMALL.

DISCUSSION OF RESTORATION CONTENTIONS

Crow Butte's initial testimony on consumptive water use during restoration (Exh. CBR-008) explained that the site has implemented a model-based restoration plan ("MBRP") since May 2009. The MBRP has substantially increased efficiency in the groundwater restoration process. The consumptive water use in restoration has been much lower than was achieved prior to the MBRP. Recent results show that, going forward, Crow Butte can complete restoration that meets the restoration plan within the total of eleven pore volumes assumed in the EA. The witnesses also concurred with the EA conclusion that the longer term impact on the aquifer will be SMALL because water levels in the confined aquifer will recover. Crow Butte's witnesses testified that Crow Butte will restore the site in accordance with the quality standard in 10 C.F.R. Part 40, Appendix A. This assures restoration to appropriate levels while also not unnecessarily increasing consumptive use of groundwater. The witnesses also explained that there will also be stability monitoring to assure that the restoration is successful.

In their rebuttal testimony, Crow Butte’s witnesses address the testimony of the intervenors’ witnesses, David Kreamer and Michael Wireman (Exhs. INT-046 and INT-047). The intervenors’ witnesses did not address the admitted issue in Contention 6. There is no discussion in either witness’s testimony regarding impacts from groundwater consumption during restoration. With respect to Contention 9, much of the witnesses testimony surrounds the restoration standards, which are established by regulation. As the Board noted in denying a contention challenging the use of alternate concentration limits (“ACLs”),⁹ NRC regulations explicitly allow the use of ACLs. And, specific ACLs for mine units 7-11 would need to be approved in a license amendment if (and when) necessary. Nevertheless, to ensure a complete record and to provide contextual information for the Board, Crow Butte’s witnesses address each point made by the intervenors’ witnesses.

A. Dr. Kreamer Testimony

Crow Butte’s witnesses first note that Dr. Kreamer’s testimony (Exh. INT-046) fails to directly challenge (or even acknowledge) the site-specific information available at Crow Butte. Many of his concerns are generic and do not account for the site-specific practices used or data collected at Crow Butte. The witnesses explain that Dr. Kreamer’s testimony is, in large part, conjecture that is inapplicable to Crow Butte.

First, Crow Butte’s witnesses explain that numerical groundwater modeling has been extensively and nearly continuously applied for purposes of restoration support at the mine site. As noted in initial testimony (Exh. CBR-008 at ¶32), Crow Butte has developed a very robust numerical groundwater model that accounts for site-specific hydrological conditions. The model takes into account heterogeneity, non-uniform thickness, and other conditions as directly

⁹ Memorandum and Order (Ruling on Proposed Contentions Related to the Environmental Assessment), LBP-15-11, slip. op. at 40-41.

incorporated from thousands of boreholes and wells at the site. The calibrated model has been refined and expanded as restoration has progressed. This flow and transport model, which is part of the MBRP, greatly improved restoration efficiency by strategically focusing on water that needs to be treated and minimizing water that is treated multiple times. This has led to significant improvements in restoration efficiency.

Second, Crow Butte's witnesses explain that monitoring at Crow Butte is standard for the ISR industry. Crow Butte follows NRC requirements (*e.g.*, the Crow Butte license) and State regulations and guidelines (*e.g.*, NDEQ Restoration Standards Title 118) for conducting monitoring during both pre-operation sampling and restoration. The location and spacing of monitoring wells are set by NDEQ.

Third, Crow Butte's witnesses respond to Dr. Kreamer's assertions that the background water-quality data is faulty. The witnesses explain that that pre-mining conditions in the ore zone differ significantly from regional values — the ore body is a zone of distinct water quality characteristics primarily due to the presence of relatively concentrated uranium and radium in the ore zone. The witnesses testify that a baseline well drilled outside of the ore zone may contain markedly different water quality a well drilled in the ore zone. Indeed, some offsite wells screened in the same interval meet drinking water standards, while the wells in the permit area do not.

Overall, the witnesses conclude that nothing in Dr. Kreamer's testimony undermines the conclusions in the LRA, the SER, or the EA. Dr. Kreamer's concerns lack a specific nexus to Crow Butte, challenge established NRC requirements, or are unsupported by site-specific data.

B. Mr. Wireman Testimony

The Crow Butte witnesses explain that Mr. Wireman’s testimony in Exh. INT-047 primarily challenges established regulatory requirements, such as the restoration standards in 10 C.F.R. Part 40 and in NDEQ regulations. His knowledge of site activities is apparently limited, and he fails to recognize site-specific data and conditions.

First, Mr. Wireman identifies no specific deficiency related to Crow Butte’s restoration to date. He does not refer to the LRA discussion of restoration, any specific restoration plans, or the documents demonstrating successful completion of restoration of mine units that has already occurred at Crow Butte. Instead, Crow Butte’s witnesses testify that his concerns appear to be directed at ISR mining in general, rather than a site-specific evaluation of Crow Butte’s operations relative to applicable requirements. For example, he alleges generally that “mining companies do not conduct restoration activities for a long enough time period.” But, he provides no information regarding restoration conducted at Crow Butte (or other ISR operations) to show that is the case for this site. And Crow Butte’s witnesses note that the site conducts stability monitoring consistent with NRC and NDEQ requirements.

Second, Mr. Wireman claims that Crow Butte failed to achieve restoration standards for Mine Unit 1. Crow Butte’s witnesses, however, testify that Crow Butte has successfully restored Mine Unit 1 to NDEQ’s Class of Use restoration standards without use of ACLs. The witnesses also note that Mr. Wireman’s references to the status of restoration of Mine Units 2-5 and the standards to be applied to Mine Units 7-11 are out of date.

C. Conclusions

Overall, Crow Butte’s witnesses conclude that neither of the intervenors’ witnesses presents a valid reason for finding the NRC Staff’s EA to be inadequate. The intervenors’ witnesses provide no information regarding the impacts associated with

consumptive use of groundwater during operations or during restoration and decommissioning. The intervenors also present no information regarding restoration mitigation. Crow Butte's witnesses conclude that the EA, as supplemented by their testimony, describes the restoration standards, the restoration process, and reasonable measures to mitigate the impacts of consumptive water use (*e.g.*, the MBRP) and to control and to mitigate impacts on groundwater water quality (*e.g.*, monitoring, treatment, and standards).

DISCUSSION OF CONTENTION 12

Mr. Teahon, the Crow Butte witness for Contention 12, first explains that, although Contention 12 encompasses tornado hazards, the intervenors did not address tornados in their testimony or in their statement of position. As a result, there was no testimony on tornado hazards to rebut; accordingly, Mr. Teahon did not provide any new testimony on that aspect of Contention 12.

The second part of admitted Contention 12 involved potential impacts from hypothetical land application of wastewater at the Crow Butte site. Mr. Teahon first reiterated that Crow Butte has no plans to conduct land application and that, therefore, there is no expected environmental impact at the Crow Butte site from such activities. Mr. Teahon then goes on to address the testimony of Linsey McLean (Exh. INT-048).

Mr. Teahon acknowledges Ms. McLean's discussion of potential impacts from selenium contamination, but notes that she provides no site-specific assessment of the impacts of hypothetical land application of wastewater at Crow Butte. Her generalized assertions provide no site-specific reason to question the conclusions of the LRA or EA regarding land application of wastewater. She does not acknowledge that Crow Butte has not performed land application at the site or that Crow Butte has no plans to conduct land application. She also does not account for the limitations on Crow Butte's use of land application for wastewater — imposed by both

the NRC and Nebraska — should it be considered for use in the future. Together the NRC license and NDEQ permit impose stringent limits on the use of land application if it were to ever occur at Crow Butte.

Mr. Teahon also explains that, although outside the scope of the admitted contention, Ms. McLean provides testimony on evaporation ponds. Mr. Teahon then describes the design, operational, and decommissioning requirements for evaporation ponds at Crow Butte. He discusses the requirement to maintain a minimum “freeboard” to accommodate rain events, as well as the obligation to keep the sediments in the pond covered by liquid. Mr. Teahon also corrects Ms. McLean’s incorrect characterization of the liner design for the ponds.

Overall, Mr. Teahon concludes that, because Crow Butte currently does not use land application, does not have the facilities to do so, and does not have plans to begin land application, there is no current or expected environmental impact. But, he goes on to testify that, even if Crow Butte were to begin land application of wastewater as provided for in its NRC license and NDEQ permit (and there is no indication this will actually happen), the environmental impact would be minimal.

CONCLUSIONS

For the reasons set forth in the Initial and Rebuttal Statements of Position, as supported by the accompanying direct and rebuttal testimony and evidence, the NRC Staff has taken the requisite “hard look” at potential impacts from license renewal at the Crow Butte site. The NRC Staff evaluated the impacts of Crow Butte operations during the renewal term in the EA and “has come to grips with all important considerations.”¹⁰ Moreover, to the extent necessary, the EA is augmented by the full record of this proceeding, including the testimony

¹⁰ *Grand Gulf ESP*, CLI-05-4, 61 NRC at 13.

and exhibits, which in the aggregate are more than sufficient to satisfy the agency's obligation under NEPA.¹¹ The Licensing Board therefore should resolve Contentions A, C, D, 1, 6, 9, 12, and 14 in favor of Crow Butte and the NRC Staff.

Crow Butte also has presented information and analysis regarding the technical aspects of licensed activities and demonstrated that its activities comply with 10 C.F.R. Part 40. Regarding the one technical contention, Crow Butte (and the NRC Staff and NDEQ) considered the implications of recent geological research and determined that it does not undermine the conclusion that Crow Butte can and will control mining fluids in manner that is protective of public health and safety. The Board therefore should also resolve Contention F in favor of Crow Butte.

Respectfully submitted,

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

Dated at San Francisco, California
this 8th day of June 2015

¹¹ *LES*, LBP-06-8, 63 NRC at 286.

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NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

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)	Docket No. 40-8943
CROW BUTTE RESOURCES, INC.)	
)	ASLBP No. 08-867-02-OLA-BD01
(License Renewal))	

CERTIFICATE OF SERVICE

I hereby certify that copies of “CROW BUTTE RESOURCES’ REBUTTAL STATEMENT OF POSITION” in the captioned proceeding have been served this 8th day of June 2015 via electronic mail to Consolidated Intervenors at davidcoryfrankel@gmail.com, Arm.legal@gmail.com, and harmonicengineering@gmail.com and via the Electronic Information Exchange (“EIE”), which to the best of my knowledge resulted in transmittal of the foregoing to all those on the EIE Service List for the captioned proceeding other than Consolidated Intervenors.

/s/ signed electronically by _____
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