

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-MLA-2
)	ASLBP No. 13-926-1-MLA-BD01
(Marsland Expansion Project))	
)	January 4, 2019

**OGLALA SIOUX TRIBE’S REPLY TO CBR & NRC PROPOSED
FINDINGS OF FACT AND CONCLUSIONS OF LAW**

Introduction

Despite the clear dictates of the Atomic Energy Act (“AEA”) and its responsibilities arising from the National Environmental Policy Act (“NEPA”), NRC Staff’s primary focus seems to remain on ensuring the successful operational performance of ISL mining operations rather than the demonstrably more problematic restoration. Like the lab rat in a maze repeatedly heading down the same blind alley in hopes of escape, both CBR and NRC Staff continue to believe that applying the same inadequate pre-mining aquifer characterization might somehow yield a different restoration outcome. The status quo is wholly unacceptable and, as repeatedly pointed out in uncontroverted testimony by OST expert witnesses, the conceptual model provided by CBR and accepted by NRC Staff may be sufficient to predict operational performance but fails to address the more complicated requirements for successful restoration. *See* Kreamer TR at 487-488 - re: distinction between data and analysis for production purposes vs. for

purposes of identifying preferential pathways and understanding risk. As Dr. Kreamer further pointed out, for operational performance of the mine, CBR's "fairly simplistic" modeling is "probably...in the ballpark," but "for contaminant flow it is inappropriate." [Tr. 925].

The parties agree that the burden of proof is on the NRC Staff and Crow Butte, and not on the Oglala Sioux Tribe. See Crow Butte Proposed Findings Fact/Conclusions of Law ("CBR FFCL") at 10 (proposed Section 4.6); and NRC Staff Proposed Findings of Fact/Conclusions of Law ("NRC FFCL") at 18 (proposed Section 4.19). The parties also agree that in order to prevail, the NRC Staff and Crow Butte must meet their burden by a preponderance of the evidence entered into the record. *Id.* The NRC Staff and Crow Butte have failed to meet that burden. As a result, Oglala Sioux Tribe must prevail on the NRC Staff's failure to take the requisite 'hard look' under NEPA.

The Board should find that the issuance of the license amendment to Crow Butte for the MEA was premature. There being no time pressure and no urgency in the evidence in the record in this matter, the Board should find that the license should be suspended pending the issuance of an EIS, or at a minimum an amendment to the EA, which satisfies NEPA by stating and evaluating data supporting the conclusions that there are no significant off-site environmental impacts from the proposed mining activity. Such EIS or EA Amendment should contain data from testing that demonstrates by a preponderance of the evidence in the data that there are no preferential pathways or if there are preferential pathways that such pathways do not pose a risk to the environment or public health.

Enduring repeated attempts to get him to admit that there is no meaningful distinction between a homogeneous and heterogeneous aquifer, Dr. Kreamer maintained the contrary, particularly when considering contaminant pathways and their impacts on restoration performance. [Tr. 485-494, 909-910, 933-934]. Dr. Kreamer further explained that “heterogeneities and dispersion” which were not calculated by CBR, could yield a “significant difference” in contaminant migration rate. [Tr. 890, 898-899]. Pointing out that, “the conceptual model that’s needed for contaminant hydrology is starkly different from one for just basic hydrology.” [Tr. 866, 998-999].

As CBR admits, a leaky aquifer analysis is not particularly difficult, nor expensive to perform. [Tr. 495-496].

OST expert witness Dr. Kreamer pointed out in unrefuted testimony that, “There is significant leakage indicated by the single, solitary pumping test.” [Tr. 347]. Regardless of other lines of evidence that may indicate confinement, the evidence of leakage must be further investigated and the manner in which it might impact operational and restoration performance must be explained.

The Board must find that the issuance of the license amendment is inimical to public health and safety because of demonstration by a preponderance of the evidence that there are no existence of preferential pathways through which contaminant and toxic heavy metals such as arsenic, cadmium, lead, and selenium, and toxic radioactive elements such as radium and uranium are mobilized to humans, animals, plants and wildlife.

A. Reply to Crow Butte.

1. Re: Proposed Section 5.8: OST acknowledges that Crow Butte did a report but it did not provide data to show that there is no USDW below the Sundance formation. Therefore, in the absence of data, Crow Butte did not meet its burden. NRC Staff did not provide any data to support that there is no USDW below the Sundance formation so it did not meet its burden on this issue either.
2. Re: Proposed Section 5.12: OST's position is that the error is in the omission of a NEPA compliant hard look on the extent to which there exist preferential pathways through which contaminants can travel and if so, to what extent to they pose a risk to the environment and/or public health. That error is itself a NEPA violation and it may not be overlooked.
3. Re: Proposed Section 5.31: Crow Butte asserts that 'any number of tests' refers to amount of tests done and OST asserts that in the context 'any number of tests' refers to the type of tests not the amount of tests performed. If Crow Butte were correct, than then zero (0) being a number would satisfy the rule, as would the one (1) test in this proceeding. OST disagrees. The only logical meaning is that one or more types of tests may be used but in any case a sufficient number of tests under the circumstances so as to fulfill the hard look standard. Crow Butte and NRC Staff should be rejected in their assertions that one (1) test is sufficient. Such assertions are mere assertions not supported by evidence and, therefore, not meeting their respective burdens of proof in this case.
4. Re: Proposed Section 5.46: Neither Crow Butte nor NRC Staff has presented any evidence in support of their assertions that there are no preferential pathways that could bring contaminants off site to the environment and/or the public. There has been no sampling and the license does not require monitoring so there is no information to support the NRC Staff and it is not possible to meet the burden of proof without any evidentiary support.
5. Re: Proposed Section 6.1: The EA does not adequately describe all impacts on the affected environment to the extent the affected environment includes areas outside the licensed area. Off site areas are not monitored and there is no testing data to support the assertions that there is no possibility of contaminant pathways. Since Crow Butte data and testing is designed primarily for operational purposes, to locate ore, it does not pick up enough data to make scientifically supported conclusions concerning contaminant pathways. Therefore, the EA is not sufficient to comply with NEPA.

B. Reply to NRC Staff

1. Re: Proposed Section 4.19: OST agrees that NRC Staff bears the ultimate burden and that Crow Butte shares that burden and that such burden is a preponderance of the evidence on any particular item of proof.
2. Re: Proposed Section 4.21: OST does not ask for fly-specking. OST requires compliance with the NEPA hard look requirement on behalf of itself and its tribal members and other members of the public. NEPA requires a hard look at the environmental and public health impacts of the mine's operations, off site and there is no testing data that shows that there are no contaminant pathways. There exists practical and commercially reasonable technology to test the flow of water using radio-isotopes and the like and Crow Butte could use such technology to demonstrate the lack of preferential pathways or that such preferential pathways, if they exist, are not potentially harmful. Such is not fly-specking.
3. Re: Proposed Section 6.53: OST's position is that the 'affected environment' must include not just the licensed area but areas that are off-site but that are potentially impacted. Since areas may be potentially impacted by preferential pathways, it is important to demonstrate that there are no such preferential pathways or, if they exist, that such preferential pathways do not pose a harm to the environment or the public. Since the mine is in decommissioning, and there are no active operations at the MEA, there is time to do the requisite testing and data analysis and publication of the hard look thereon in a NEPA compliant document.
4. Further, at page 40 of the NRC FFCL, NRC suggests that since OST did not object to large portions of the EA, the objections made by OST are somehow immaterial. However, even if OST objected to only one small part of the NEPA document but that objection and omission, even if it were small in terms of number of words, can be very large in terms of failure to comply with NEPA. There is no logic to the OST's focus on the parts of the EA that need to be explored to disclose to the public the greatest aspects of jeopardy in this project and the many unknowns is someone dispositive of the OST's claims.
5. Re: Proposed Sections 6.132; 6.133: NRC Staff has failed to provide any data in the record that rebuts OST's well supported contentions that there are preferential pathways intersecting the MEA and that such preferential pathways have logical connections to sources of water used by the local animals, plants, wildlife, and people. The NRC Staff is not able to fulfill its

burden of proof by simply denying or objecting but rather must provide evidence in the record. There are no scientifically or evidence supported rebuttals to OST's contentions and therefore the NRC Staff has failed to meet its burden.

6. Re; the foregoing: NRC Staff provided mere conjecture concerning self-sealing clays that theoretically and unknown to anyone at NRC Staff are sealing off any potential preferential pathways. The conjecture is unsupported by evidence in the record and, therefore, fails to fulfill the NRC Staff's burden of proof on that topic.
7. Re: Proposed Section 6.159: NRC is turning a blind eye to any potential problems from preferential pathways by not requiring any testing to determine if such pathways exist and if they do exist, to demonstrate that they do not pose a harm to the public or the environment.
8. Re: Proposed Section 6.88: NRC Staff refers to the standard of holding CBR to methodology "consistent with industry practice." This is a virtually meaningless standard to invoke, as industry has no incentive to apply any modeling or restoration standards other than those imposed by NRC regulations and enforced by NRC Staff in compliance with the AEA and NEPA.

Conclusion

The only way to address this lack of scientific rigor at licensing is to require an Environmental Impact Statement that specifically addresses the conditions established in the record, as described by OST in its FFCL. The Board should suspend the license amendment until completion of an EIS.

Dated this 4th day of January, 2019.

Respectfully submitted,

_____/s/_____
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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing '**OGLALA SIOUX TRIBE'S
REPLY TO CBR & NRC PROPOSED FINDINGS OF FACT AND
CONCLUSIONS OF LAW**', in the captioned proceeding were served via the
EIE on the 4th day of January, 2019.

Respectfully submitted,

signed electronically

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