

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the matter of )  
)  
POWERTECH (USA) INC. ) Docket No. 40-9075-MLA  
) ASLBP No. 10-898-02-MLA-BD01  
(Dewey-Burdock In Situ Uranium )  
Recovery Facility) )

August 12, 2014

**CONSOLIDATED INTERVENORS' MEMORANDUM  
REGARDING POWERTECH'S NEWLY PURCHASED TVA DRILLING  
LOGS AND DATA FOR THE DEWEY-BURDOCK SITES**

**INTRODUCTION.**

By Order dated August 8, 2014, the Board instructed the Parties to file legal memoranda on the relevance of Powertech's newly "acquired" data, and whether the data is subject to mandatory disclosure in this proceeding as defined in 10 CFR §2.336(a).

This particular matter arose from disclosure in a July 16, 2014, press release by Richard Clement, Jr., the President and CEO of Powertech, announcing that ("Powertech" or the "Company"), had **entered into a Transfer, Bill of Sale and Assignment Agreement** dated May 9, 2014, whereby the Company "has agreed to purchase...certain data (the 'Data') concerning the Dewey Burdock uranium

property.” (Emphasis added). Exhibit OST-019. Said the press release in pertinent part:

**The data being acquired consists of historical drill hole logs and maps prepared by the Tennessee Valley Authority from the 1970's and 1980's when the Dewey Burdock uranium deposit was originally discovered as well as digitized data generated from this work. This data is expected to assist Powertech's planning of wellfields for the Dewey Burdock uranium property by providing additional quality data to complement Powertech's existing database.** (Emphasis added).

According to the PT press release, the final payment towards this purchase is scheduled for August 15, 2014, the Friday before the scheduled start of the scheduled Hearing of this matter before the Board.

The Consolidated Intervenors respectfully submit that there was no reference in the press release or any other filing as to whether or when Powertech will actually receive this data or when it plans to provide such data to the NRC Staff for analysis and possible necessity of a modification of the Final Supplemental Impact Statement (FSEIS). There has been no disclosure of the data to the Oglala Sioux Tribe and Consolidated Intervenors for examination and analysis by their respective experts and no date set for their disclosure. This Board has also not obtained a copy of the drilling logs and maps.

The August 8, 2014 Order addressed the data only in connection with

Contention 3. The Consolidated Intervenors (Intevenors) respectfully submit that the data is also likely relevant and material to the issues in Contention 2.

The Intervenors respectfully contend that Powertech's purchase of the drilling logs, digitalized data therefrom, and maps purchased under contract dated May 9, 2014, are not only relevant to these proceedings for at least Contentions 2 and 3, if not 1A and B, but are discoverable under 10 CFR §2.336(a).

Intervenors further contend that dismissal of Powetech's license Application and revocation of the NRC issued license is the appropriate remedy for this Due Process and discovery violation, due to Applicant's failure to timely obtain and disclose this substantial site characteristic data to the Parties, until after the issuance of the FSEIS and the license issued by NRC Staff.

Should the Board determine that dismissal is inappropriate at this time, Intervenors request a continuance be granted for the entire Hearing for purposes of judicial economy, or at least with regard to Contentions 2 and 3, until the Board has decided whether all or which parts of the data are discoverable or privileged, and until after Powertech has provide NRC Staff with such data and complied with its discovery duty to the Parties. Sufficient time would then be required for the Parties to have their respective experts review and analyze the newly disclosed data, compare it to the data submitted to date in these proceedings, submit any new

contentions arising therefrom, and prepare testimony for this Board.

Intervenors respectfully submit that should the Board want to proceed on Contentions 2 and 3, that inquiry and testimony be limited, and that cross-examination by the Parties be permitted, to issues related to the timing of the purchase of this data, to wit: when Powertech became aware of the existence of this TVA data, when it learned that Energy Fuels had this data, when it obtained an option to purchase such data, when it exercised that option, explain why it waited until then to seek to do so, why it took until May 9, 2014 to contractually purchase the data, when it will acquire the data, and when the data will be disclosed to the Parties, including the NRC Staff. In the absence of such a probing inquiry, Intervenors respectfully submit it appears that there has been a concerted effort to keep such data from the NRC Staff and public, to move certain data sets beyond the scope of this public hearing, to be later 'worked out' in negotiations between the NRC Staff and Applicant at some unspecified future date, beyond the input and questioning by the Parties, or use by this Board in reaching a decision based upon all of the available evidence - not just that which Powertech chooses to timely disclose.

This Memorandum is submitted in support of the relevance of the newly purchased data and that mandatory disclosure under 10 CFR §2.336(a) is required

under that Rule, as well as the Rights of the Intervenors to due process in these proceedings.

**1. The Recently Purchased TVA Data Is Relevant To These Proceedings.**

Intervenors respectfully submit that until the TVA data regarding the thousands of pages of boreholes drilled in the Dewey-Burdock area is disclosed to the Board, the NRC staff, and the Parties, it is not possible to argue the relevancy of the data with specific reference to its contents.

**A. Legal Standards**

10 CFR §2.337(a) states that: “only relevant, material, and reliable evidence which is not unduly repetitious will be admitted. Immaterial or irrelevant parts of an admissible document will be segregated and excluded so far as is practicable.” Further, in the Order dated August 1, 2014 ruling on the Motions in Limine in this proceeding, the Board has clearly stated its views on relevance in this matter.

The Board has stated that “[t]estimony which is within the reasonably inferred bounds of an admitted contention will be heard.” August 1 Order, at 4. The same must be true for written evidence such as the ‘after-acquired data’.<sup>1</sup>

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<sup>1</sup> Consolidated Intervenors note that the choice of when to obtain the data in comparison to the deadlines for disclosure in this matter are what make the data ‘after-acquired.’ Applicant chose to delay purchase and receipt of the data until after the passage of the disclosure deadlines to minimize the influence of such data on the outcome of this proceeding.

Intervenors contend this ‘after-acquired data’ is “within the reasonably inferred bounds of Contentions 2 and 3. In addition, should any of such logs contain notes or other marginal references to the discovery of native artifacts, grave sites, or other cultural resources, then such ‘after-acquired data’ would also be ‘within the reasonably inferred bounds of’ Contentions 1A and 1B.

Consolidated Intervenors strenuously object to the manner and method in which Applicant is ‘gaming’ the system by delaying its receipt of the ‘after-acquired data’ until after the applicable disclosure deadlines had passed in this matter.

**B. The Board Has Already Found The Data Relevant.**

During the August 5, 2014 telephonic pre-Hearing, Judge Froehlich noted that the TVA data “was not relied upon by Powertech in its environmental report, in its filing leading up to the grant of this license by the staff,...has not been reviewed by the staff or made part of their decision making process in granting the license.” Transcript of 8/5/14 Hearing, p. 658. Both the OST and Intervenors stated that the newly purchased data directly correlates to Contentions 2 and 3 as to information and data not analyzed by the Staff prior to issuance of the FSEIS and the license, and not disclosed or analyzed by experts for the OST and Intervenors. *Ibid*, p. 658-660. During the Pre-Hearing, the OST and the

Intervenors took the position that the precise data likely present in the drilling logs and digitalized data, from the drilling of the thousands of boreholes in the one of the two proposed mine sites, exemplified the deficiencies in the information and analysis that went into the FEIS and issuance by staff of a license. *Ibid*, p. 662.

While claiming the TVA data was irrelevant to the contentions before the Board, without ever having seen it, the NRC Staff seemed to acknowledge the potential relevance of it, stating that once it receives the data, “if the staff determines it’s new and significant information that fall into question, the findings in the EIS and under 10 CFR §5192, the staff will have an imminent obligation to supplement the EIS.” *Ibid*, p. 662-663.

As Judge Froehlich noted: “At this point we have an exhibit which refers to a press release and the contents of that data, whether it supports or comes to a conclusion opposite of what the staff and the applicant has deemed to say is still up in the air...as it moves through the review process, the staff will have the opportunity to review this data in the normal course.”<sup>2</sup> *Ibid*, p. 665-666.

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<sup>2</sup> Intervenors note the stated position of NRC Staff during the August 5, 2014 Telephonic Pre-Hearing, that “Staff has an idea what category it falls into but can't state definitively right now. For the contentions before the board, the staff position as stated in both the SER and the final EIS is that there is sufficient data available now to make the findings required under NEPA.” *Ibid*, p. 663. Such a position reflects both that NRC Staff not only has actual information [see, also, Aug.5 Hrg at 662: “Mr. Clark (for NRC Staff): ‘Everybody has known that Powertech intended to acquire additional data’”) and knowledge of the existence and potential import of such data, but also the rather remarkable contention that it can purposely

Intervenors respectfully ask, how could such data then not be relevant to these proceedings? How far can these proceedings proceed before they must be continued, to permit a “normal course” of the process that includes NRC staff review and analysis of this data, as well as by the experts for the OST and Intervenors?

In its Order dated August 6, 2014, the Board found:

**“This data is relevant and would appear to provide support for, or opposition to, the application or proposed action.** Therefore, the Board is reluctant to close the record in this proceeding without the expert witnesses for the parties having an opportunity to review this data.” (Emphasis added).

*Ibid*, Order, p. 5.

The Board further noted in finding the data relevant to these proceedings:

The data purchased by Powertech and described in Exhibit OST-019 is relevant to the issues in Contention 3, is similar to other TVA data referenced in the testimony of a number of expert witnesses scheduled to be hearing at the upcoming evidentiary hearing...

August 6, 2014 Order, p. 4.

As a basis for these findings, the Board, in footnote 14 of that Order, the Board cited the testimony of Dr. Robert Moran (OST-001, at 18, 20, 21); Errol Lawrence (APP-066, at 3, 8-9); and James Prikryl and Thomas Lancaster (NRC-

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delay consideration of data potentially contrary to its findings in the SER and the FEIS, and still comply with federal law applicable to NRC licensing.



001, at 26). Interveners note that none of the proposed Powertech or NRC Staff witnesses have given testimony in this matter as to the existence and acquisition of the thousands of drilling logs and digitalized data. See, also, Opening Testimony of Hannan LaGarry (INT-013, at. 3-4) and Rebuttal Testimony of LaGarry (INT-020, at 3-4) and Written Testimony of Hal DeMuth (APP-013, at 14, 15, 28, 30).

**C. The Data Is Relevant To Contention 2, As Well As Contention 3.**

In Contention 2, the Interveners and the Oglala Sioux Tribe (OST) challenged the sufficiency of the data submitted and analyzed by the NRC Staff prior to issuance of the FSEIS, as to the baseline water quality data received from Powertech. Interveners respectfully submit that drilling logs and their digitalized data should provide water quality data, for example, useful to provide awareness of and to help to interpret changes in water quality laterally throughout a proposed ISR site, as well as vertically between the various formations and facies.

**D. Historical Data Supports Relevance of Recently Purchased TVA Data.**

A central issue for this Board, the EPA, and the SD DENR is the ability of Powertech to contain mine fluids within the geo-hydrological and other site characteristics, in addition to its promises to comply with license conditions and applicable laws and regulations.

While Powertech, echoed by the NRC Staff, contends that any direct hydrolic connection between the Fall River and Chilson (Lakota) aquifers is the result of a single improperly plugged borehole, the historic data indicates that other site characteristics are likely to exist in the Dewey-Burdock area Powertech wants to mine.

Evidence in the record shows that based upon the most extensive pump testing conducted to date in the proposed mine sites, Mark Boggs, on behalf of TVA, concluded in his 1979 report that **“aquifer test results indicate... Fuson member...is a LEAKY aquitard** separating the Fall River and Lakota aquifers” which Boggs “believed to be the result of **“(1) gen. leakage through the primary pore space and naturally occurring joints & fractures** of...Fuson shale”<sup>3</sup> in addition to **“(2) direct connection...via numerous old unplugged... boreholes.”**<sup>4</sup> (Emphasis added). Boggs & Jenkins, 1979 “Analysis of Aquifer Tests Conducted at the Proposed Burdock Uranium Mine, Burdock, SD,” ABSTRACT, p. 31 (Exhibit APP-016-R). Boggs reasoned that the“fact that a greater pumping

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<sup>3</sup> Cited by Applicant in its SD DENR Large Scale Mining Permit Application, Appendix 3.4-E . See, also, Opening Testimony of LaGarry (INT-013, at 3-4) re secondary porosity at the site involving faults and fractures (citing Swinehart and others 1985).

<sup>4</sup> See, Testimony of LaGarry (INT-013, at 3-4) and Moran (OST-001 at 17, 20-21, 23-25, 50) regarding their opinions as to the visibility of faults and fractures in the proposed mine site from satellite imagery and other evidence.

response is observed in Fall River formation than in Fuson during early part of the test indicates that direct (though restricted) avenue through Fuson must exist.”

*Ibid*, ABSTRACT, p. 16. As to the Burdock site, this “**indicates that general leakage through the Fuson itself has caught up with leakage through the open boreholes.**” (Emphasis added). *Ibid*.

In his 1983 Report, Boggs concluded from the pump test data that not a single borehole, but that “direct avenues of hydraulic communication” from “**numerous open pre-TVA exploration boreholes**” in the Burdock area, did not explain the leaky nature of the Fuson so-called “confining” layer, since such boreholes were “**...not present in Dewey area**” where he also found leakage. Boggs, J.Mark, 1983 “Hydrogeologic Investigations at Proposed Uranium Mine Near Dewey, SD,” CONCLUSIONS, p. 21 (Exhibit APP-016-R).<sup>5</sup> Rather than the simple homogeneous model created and submitted by Powertech apparently to the liking of the NRC Staff,<sup>6</sup> Boggs concluded: “**Hydrologic conditions in...site**

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<sup>5</sup> Also cited by Applicant in its SD Large Scale Mining Permit in Appendix 3.4F.

<sup>6</sup> In response to the question of whether the NRC Staff documented their review of the conceptual hydrologic model developed for submission, Powertech witness Errol Lawrence quoted from the SER (Exhibit NRC-00134, at 22):

**Staff reviewed the regional geologic information supplied by the applicant and finds that the description presented by the applicant is consistent with published data** for the regional geologic setting and supports its conceptual model of the subsurface.

Written Testimony of Errol Lawrence, A.43, p. 19. Exhibit APP-37).

**region are complex due to hydrologic boundaries** (e.g., aquifer outcrop zone & Dewey Fault) and the **heterogeneity of the aquifer system.**” (Emphasis added). *Ibid*, RECOMMENDATIONS, p. 22. He further recommended: “Under such conditions **simple analytical methods cannot be applied with an acceptable level of confidence.**” (Emphasis added). *Ibid*.

Intervenors respectfully submit that one could reasonably expect that data obtained from the drilling logs for the thousand of TVA and prior drilled boreholes in the Burdock site would likely be consistent with the conclusions reached by Boggs’ after conducting extensive pump tests at the proposed mine site. Intervenors ask: How could this not be relevant to the issues involved in whether the hydro-geology supports Powertech’s and the NRC staff’s contentions that the site characteristics and Powertech’s promises of compliance with applicable regulations and license conditions would contain the mining solutions as claimed.

Intervenors note that subsequent to the TVA pump tests and the issuance of Boggs’ reports, that TVA abandoned the planned mining of the area.

Intervenors further submit that the recently purchased drilling logs would also likely provide substantial geological and hydrological chemistry data that would either in support of Boggs’ conclusions, or those of the Powertech and the

NRC Staff as to the true nature of the site characteristics in the immediate area. This would include detailed chemistry of the ore-bearing zone-aquifers for input into site characterization, including containment, significantly greater than limited chemistry data collected by Ray Johnson [Exhibit APP-022], purported heresy statements of Johnson at public meetings [Lawrence, APP-037 at 24; DeMuth, APP-013 at 15],<sup>7</sup> upon which Powertech relies on to ostensibly belie the conclusions of those who more extensively studied the hydrology and geology of the area.

Significantly, and in the absence of the recently purchased drilling logs for the thousands of boreholes in the Burdock area, Knight-Piesold, after its 2008 pump tests on behalf of Powertech concluded: “Whether the shale interbeds in the Lakota aquifer are sufficiently thick and continuous to serve as vertical confinement for ISR operations will **probably need to be evaluated by analyzing cores from borings** as well fields are drilled.” (Emphasis added). Knight-Piesold & Co., Powertech (USA) Inc. Dewey-Burdock Pumping Tests: Results and Analysis, §7.1.2 Conclusions, p. 7-2, 7-3 (Exhibit OST:001 at 19).

There can be little question but that the recently purchased borehole drilling

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<sup>7</sup> Intervenors proffer that shortly after releasing his findings and making public appearances with Powertech officials, Johnson quit the USGS and went to work in the industry.

logs and digitalized data are relevant to these proceedings.

**2. The TVA Data Is Discoverable under 10 CFR §2.336(a).**

As the Board, in the August 6<sup>th</sup> Order expressed:

“The data purchased by Powertech and described in Exhibit OST-019 is ... subject to mandatory disclosure as defined in 10 CFR §2.336(a). Mandatory disclosure requires ‘A copy...of all documents and data compilations in the possession, custody, or control of the party that are relevant to the contentions’.”

*Ibid*, Order, p. 4.

The Board similarly noted that the “NRC Staff is required to provide, ‘All documents (including documents that provide support for, or opposition to, the application or proposed action) that both support the NRC staff’s review of the application or proposed action that is the subject of the proceedings and are relevant to the admitted contentions’.” *Ibid*.

**3. Remedy**

Under the current circumstance of non-disclosure of the recently purchased TVA drilling logs, it would not be reasonable by the scheduled start of the August 18, 2014 Trial of this matter, for this Board to determine whether Powertech’s failure to timely acquire and disclose all substantial data material to the proposed license application, requires dismissal of the application. The Board will be similarly hampered from asking any serious questions or make a determination of

the merits of Intervenor Contentions regarding the sufficiency of the FSEIS when compared to the as yet undisclosed newly purchased data or recommend changes in license conditions or whether to rescind the license in its entirety. The experts retained by the OST and Consolidated Intervenor will not be prepared to respond to any contentions by Powertech as to the significance of this newly purchased data, nor will the Intervenor be able to renew or make a motion to cross-examine the witnesses or propose cross-examination questions to be asked by the Board. The Intervenor will be unable to present testimony or evidence in rebuttal to the contents of the undisclosed data.

The balance of the equities in this matter clearly favor public disclosure of the ‘after-acquired data’ as well as disclosure by Applicant of the details of the circumstances giving rise to the suspicious timing of the receipt of such data notwithstanding the long-term plan to acquire the same. Powertech seeks to retain the source materials license issued to it by the NRC Staff, prematurely in our view, prior to the disclosure and analysis of what must be substantial TVA drilling logs and digitalized data, prior to public hearing on the admitted contentions. By so working the system in this way - which it must be presumed to have done at this point unless it can prove it timely pursued and did not delay purchasing the data until after the disclosure deadlines - Powertech has shown that it cannot be trusted

with source materials or to comply with the terms of its license. Perhaps most importantly at this juncture, can Powertech be relied upon, without effective confrontation, for any characterization or opinion of relevancy of such data?

Even if Consolidated Intervenors were to receive the ‘after-acquired data’ today, it would be too late to get a proper and deliberative analysis from our experts. These experts can be very expensive and it would be grossly unfair to drop a large data set on them and their schedules as well as to force Consolidated Intervenors, who are simply members of the public, to do emergency fundraising to pay for an unplanned expert expense. Due process, fundamental fairness and the trust responsibility all call for the data to be properly disclosed and the Hearing continued, or for Contentions 2 and 3 to be held open and/or bifurcated from the hearing scheduled for August 19-21. Further, because it is possible that the ‘after-acquired data’ contains information relevant to Contentions 1A and 1B, we respectfully suggest that Contentions 1A and 1B should be heard at the scheduled hearing but should be held open for further hearings after the ‘after-acquired data’ has been evaluated by our experts and their opinions reviewed by the parties and the Board. It may be that such ‘after-acquired data’ also gives rise to the filing of new contentions based on any new information therein.



## CONCLUSION

Based on the foregoing, Consolidated Intervenors suggest that the Board deny Powertech's Application for its licence, and revoke the issuance of its source materials license. In the alternative, if the Board should fail to deny the Application or revoke the license, the Board should order Powertech to disclose the 'after-acquired data' to the parties in this proceeding and to the public and to disclose the details of the circumstances giving rise to the suspicious timing of the receipt of such data, and fashion an appropriate sanction against Powertech should deliberate delay in purchase and disclosure be found. Further, the Board should continue the entire scheduled Hearing or at least bifurcate the hearing and limit testimony on Contentions 2 and 3 to inquiry as to the knowledge of data and timing of purchase.

Dated this 12<sup>th</sup> day of August, 2014.

Respectfully submitted,

*/s/ David Frankel*

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Facility) )

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing “CONSOLIDATED INTERVENORS’ MOTION IN LIMINE” in the captioned proceeding were served via email per the Board’s order in this matter, on the 12<sup>th</sup> day of August, 2014, which to the best of my knowledge resulted in transmittal of same to those on the EIE Service List for the captioned proceeding.

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