



## POWERTECH (USA) INC.

June 19, 2009

United States Nuclear Regulatory Commission  
Attn: Mr. Keith McConnell, Deputy Director  
Division of Waste Management and Environmental Protection  
Office of Federal and State Materials and Environmental  
Management Programs  
Mail Stop T-8F5  
Washington, DC 20555-0001

**Re: Powertech (USA) Inc.'s License Application to Conduct Proposed In Situ  
Leach Uranium Recovery Operations at the Dewey-Burdock, South Dakota  
Site  
Docket No. 40-9075  
TAC No. JOO582**

Dear Mr. McConnell:

On June 11, 2009, members of Powertech (USA), Inc. (Powertech) and its counsel met with NRC Staff to discuss the need to add additional information and analyses or clarify information already presented in Powertech's license application for an NRC uranium recovery license (i.e., combined source material and 11e.(2) byproduct material license) for the proposed Dewey-Burdock in situ leach (ISL) uranium recovery project in the State of South Dakota. In this meeting, NRC Staff provided Powertech with additional explanation of the needed information and analyses and informed Powertech that it was required to make a decision regarding the process by which the application could be supplemented. Pursuant to this discussion, Powertech hereby informs NRC Staff that it plans to withdraw its license application and to re-submit it with the additional information and analyses referenced by NRC Staff in a timely manner (e.g., within 60-90 days).

To expedite the identification of *all relevant information and analyses* that NRC Staff requires, Powertech has developed a list of issues, information, and supporting analyses addressing such issues that it believes will satisfy NRC Staff's request for information. Given that NRC Staff referenced five separate issues for which information has been requested, Powertech has developed a listing of the aforementioned documentation and supporting analysis in accordance with each identified issue area. The aforementioned list is attached to this letter as Attachment A.

5575 DTC Parkway, Suite 140  
Greenwood Village, CO 80111 USA

Telephone: 303-790-7528  
Facsimile: 303-790-3885

Website: [www.powertechuranium.com](http://www.powertechuranium.com)  
Email: [info@powertechuranium.com](mailto:info@powertechuranium.com)

Powertech believes that this list of information encompasses the requested data and information noted at the aforementioned meeting. However, Powertech hereby requests that NRC Staff respond to this letter if any additional information and/or supporting analyses are required in order for NRC Staff to determine that the Dewey-Burdock license application is complete for final technical review. Powertech believes that this will assist in the timely submission of *all relevant information* so that each of NRC Staff's identified issue areas will be addressed to NRC Staff's satisfaction for detailed technical and environmental review.

In addition, NRC Staff informed Powertech that timely re-submission of the Dewey-Burdock license application (e.g., within 60-90 days) would not result in the resetting of NRC's ninety day acceptance review period. Powertech reiterates that it will re-submit its license application within that period of time and requests that NRC Staff re-affirm this statement. Powertech also requests that NRC Staff's response to this letter include an explanation of NRC Staff's preferred procedure regarding re-submission of the application (i.e., whether the application needs to be a complete re-submittal of the application or a targeted supplement with appropriate cross-referencing to the current application). It is Powertech's belief that NRC Staff's requested information is sufficiently targeted to enable a supplement to sections of the existing application and a re-submission of the modified application document in the form of a cross-referenced appendix or appendices). Any clarification that NRC Staff can provide on this issue would be greatly appreciated.

Powertech appreciates the timely and professional discussion with NRC Staff on June 11<sup>th</sup> and looks forward to submitting a modified Dewey-Burdock application as soon as possible. Please do not hesitate to contact me if you have any questions regarding this letter, and thank you for your time and consideration in this matter.

Respectfully yours,



Richard E. Blubaugh  
Vice President – Environmental Health & Safety Resources

Enclosure

cc: R. Clement  
W. Mays  
A. Thompson, Esq.  
C. Pugsley, Esq.  
P. Bergstrom, Knight Piesold

## **Attachment A**

### **POWERTECH (USA) Inc. Dewey-Burdock *In Situ* Leach Uranium Project**

#### **NRC License Application Supplemental Documents**

1. Hydrogeologic Information
  - a. Breccia pipes
    - i. Map showing location of historic drill holes, breccia pipes (per Gott), faults and any other information relevant to the issues of breccia pipes located within or near the license area that could potentially compromise the integrity of confining layers and allow undetected excursions of lixiviant.
    - ii. Clarifying narrative that clearly describes all relevant issues including pressure differential between the Unkpapa and the Inyan Kara.
  - b. Effectiveness of confining units and relevance of pump tests in proposed operating areas
    - i. Clarify description of initial operation plans, zones being mined, confining units, location of monitor wells and rationale for spacing.
    - ii. Maps (2) showing location, monitor wells and facilities of initial operating areas (Dewey and Burdock).
    - iii. Regional cross sections (2)
    - iv. Isopach of Fall River in Dewey area
    - v. Isopach of Lakota in Burdock area
    - vi. Cross sections for both project areas
      1. Longitudinal sections
      2. At least three cross sections perpendicular to well field for each well field
    - vii. Structure Maps for each initial well field area
    - viii. Isopach of Fuson in each area (2).
    - ix. Maps of proposed well fields showing monitor wells including overlying and underlying well surface locations – also show any nearby water wells that are completed in operating zone or could be affected by operations, either chemistry or water pressure (see 1.b.ii).
    - x. Clarifying narrative discussing pump tests, conclusions and relevance – To include both Powertech pump tests at Dewey and Burdock as well as relevance of TWA high volume test
    - xi. Clarifying narrative on results of pump tests and significance to Unkpapa.

- xii. Table of permeabilities for operating horizons and all core tests of underlying and overlying confining units
- xiii. Clarify commitment statement on tests Powertech will complete before initiating injection of lixiviant.
- xiv. Clarifying discussion of SERP: its responsibility and its authority in authorizing modification of production plans

## 2. Liquid Waste Management

- a. Clarify Powertech's statement to the NRC that deep well disposal of waste solutions is not an option in Wyoming as suggested within the application, and that Nebraska is not an option, either. Deep well disposal in a class V well in South Dakota is the preferred option for a deep disposal well planned by Powertech.
- b. Deep well disposal option will require:
  - i. Map (2) for each production area that shows radium settling ponds, holding ponds, pipelines and other facilities that will allow NRC to bound environmental impacts
  - ii. Engineering data for design of disposal well
  - iii. Design of disposal wells (per EPA requirements)
  - iv. Clarify discussion of geohydrology as it pertains to the disposal wells and nearest aquifer
  - v. Regional cross sections and structure maps for entire area (see 1.b.iii above)
  - vi. Clarify nature of water quality for deep well disposal liquids
- c. Surface application
  - i. Location maps of holding ponds and proposed pivot locations, and associated well fields (see 2.b.i)
  - ii. Engineering data including Static Stability Analysis, Seismic Stability Analysis, Settlement Analysis and Seepage Analysis
  - iii. Clarify level of detail required at this stage versus commitment to meet all regulatory requirements for final design

## 3. Location of Extraction Operations

- a. Map of initial planned well fields (see 2.b.i))
- b. Planning map of future well fields relative to drilled mineralized trend
- c. Significance of existing mine waste from open pit mines and Powertech plans relative to underlying ore

## 4. Groundwater Protection

- a. Clarify narrative discussing plans for water well protection
- b. Map of domestic and livestock wells and clarify Powertech plans to move, replace or deepen wells for surface owners
- c. Include copy of relevant portion of surface use agreement allowing Powertech to move wells

- d. Map from UIC application showing Aquifer Exemption Boundary and other relevant data

5. Operational Issues

- a. Clarify Powertech's commitment to using PVC for well construction
- b. Provide table of estimated air particulate emissions and clear narrative on all relevant emission sources and impact of fugitive dust and other relevant air contaminants; and clear commitment to measure baseline fugitive dust prior to start of construction
- c. Clarify commitment to providing 11e.(2) disposal agreement prior to commencing operations