

September 13, 2012

MEMORANDUM TO: Bill Von Till, Chief  
Uranium Recovery Licensing Branch  
Decommissioning and Uranium Recovery  
Licensing Directorate  
Division of Waste Management  
and Environmental Protection  
Office of Federal and State Materials  
and Environmental Management Programs

FROM: Ronald A. Burrows, Project Manager **/RA/**  
Uranium Recovery Licensing Branch  
Decommissioning and Uranium Recovery  
Licensing Directorate  
Division of Waste Management  
and Environmental Protection  
Office of Federal and State Materials  
and Environmental Management Programs

SUBJECT: PUBLIC MEETING SUMMARY

On August 30, 2012, a public meeting was held at U.S. Nuclear Regulatory Commission Headquarters, at the request of Powertech (USA) Inc. (Powertech), to discuss Powertech's proposed environmental monitoring program related to the proposed Dewey-Burdock Project.

A summary of the meeting is enclosed.

Enclosure:  
Meeting Summary

cc: Richard Clement, Powertech  
Richard Blubaugh, Powertech

CONTACT: Ron Burrows, FSME/DWMEP  
(301) 415-6443

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DATE	9 /07/12	9 /07 /12	9 /13/12	9 /11/12	9 /13/12

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## MEETING SUMMARY

DATE: August 30, 2012

TIME: 10:00 a.m. to 11:30 a.m.

PLACE: U.S. Nuclear Regulatory Commission, Headquarters  
One White Flint North, Room T-8C5  
Rockville, Maryland

PURPOSE: This meeting was held at the request of Powertech (USA) Inc. (Powertech), to discuss Powertech's proposed environmental monitoring program related to the proposed Dewey-Burdock in situ recovery (ISR) facility.

### ATTENDEES:

See Attached Attendee List.

### BACKGROUND:

By letter dated July 31, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession Number ML12207A470), U.S. Nuclear Regulatory Commission (NRC) staff transmitted a draft source material license (draft license). Powertech provided comments on the draft license in a letter dated August 10, 2012 (ML12227A584). Powertech requested this public meeting to discuss several of the conditions in the draft license.

### DISCUSSION:

NRC staff read an opening statement at the meeting. NRC staff and Powertech addressed the topics set out in the meeting agenda (Attachment 1). Specific action items identified by the staff during this meeting are summarized in the table below.

Powertech requested clarification on draft License Condition 12.12 A., regarding the number and locations of preoperational air particulate monitoring stations. NRC staff described to Powertech its remaining issues associated with preoperational air particulate monitoring stations proposed for the Dewey-Burdock facility. These included: (1) no station proposed in the predominant downwind direction south of the Burdock area; (2) justification that two monitoring stations is sufficient for the Dewey area; and (3) since wind data collection is ongoing, any changes to the final wind rose should be evaluated to determine if any changes are necessary to the placement of preoperational air particulate monitoring stations (and the associated radon and soil samples for these locations).

NRC staff explained to Powertech that it reviewed the proposed air sampling plan in accordance with the recommendations in Regulatory Guide 4.14 (RG 4.14). Previously, NRC staff also explained to Powertech that it regarded the Dewey-Burdock facility as two distinct milling areas.

Enclosure

Powertech disagrees with NRC staff in this regard. In essence, it is not entirely relevant how many milling areas there are as long as Powertech can justify that its proposed program provides sufficient information on its operations to address the concerns in RG 4.14. Staff agreed that RG 4.14 allows for alternate programs with sufficient justification, so even if it was agreed that there are two separate and distinct milling areas it does not necessarily follow that twice the number of air particulate monitoring stations are required.

Powertech committed to installing an additional air particulate monitoring station in the southeast sector near the site boundary in the Burdock area. NRC staff stated that this sounded acceptable but will make a final determination when it receives the information in writing.

Regarding the issue of a third air particulate monitoring station to cover the Dewey area, NRC staff stated that it was looking for a more complete justification. In its response to RAI 2.9-1, Powertech limited its response to the air monitoring stations that it selected. NRC staff indicated that part of Powertech's justification for its proposed air monitoring program could include: (1) reasons, if any, why any additional air particulate monitoring stations would not provide any information not already provided by the current (including the proposed new station described above) set of preoperational air monitoring stations; (2) as a follow-on to (1) above, Powertech should also address the radon and soil sample measurements associated with air particulate monitoring stations; (3) reasons, if any, why its entire environmental monitoring program, including its operational monitoring program, combine to provide sufficient information to address the concerns in RG 4.14 without additional stations.

Lastly, NRC staff notes that in addition to the possible approaches described above, decades of operational air monitoring data from similar types of facilities exist for Powertech to draw its justification from, and provide a quantitative approach to, its statement that air particulates have not been a concern for the industry.

Powertech stated that it understood that any changes to the final wind rose will have to be evaluated for changes to its preoperational and operation environmental monitoring program.

Powertech requested clarification on draft License Condition 12.12 B., regarding soil sampling depths. In its application, Powertech requested a soil sampling program different from that specified in NUREG-1569, Standard Review Plan for In Situ Leach Uranium Extraction License Applications. Specifically, Powertech did not propose taking soil samples at both a 5-cm and 15-cm depth as recommended by NUREG-1569, Acceptance Criteria 2.9.3(2). NRC staff responded that it re-evaluated Powertech's rationale for its proposed soil sampling strategy in light of the Environmental Protection Agency's (EPA) technical basis for its Ra-226 soil cleanup standard (refer to EPA 520/4-82-013-2, Final Environmental Impact Statement for Remedial Action Standards for Inactive Uranium Processing Sites (40 CFR 192), Volume II, October 1982, pages D-51, 52). Basically, EPA found no difference in health protection between averaging contamination throughout the top 5 cm of soil versus the top 15 cm of soil. As a result of this re-evaluation, NRC staff finds Powertech's proposed soil sampling strategy acceptable.

Regarding draft License Condition 12.12 C, Powertech requested NRC staff feedback on its proposed sediment sampling locations. NRC staff responded that the proposed locations are acceptable.

Powertech requested clarification on whether the sampling and monitoring information to be submitted could be timed to preoperation instead of preconstruction. NRC staff responded that, generally, this will depend if baseline data will be affected by construction. NRC staff will provide a follow-up response to Powertech (see table below).

Regarding draft License Condition 12.13, NRC staff explained that the correction is an administrative matter and provided an example. Powertech understood the requested correction and will provide a corrected reference.

Regarding draft License Condition 12.10, Powertech requested NRC staff feedback on its proposed stream and impoundment sampling locations. NRC staff responded that the proposed locations are acceptable.

Regarding draft License Conditions 12.11 and 12.28, Powertech requested NRC staff feedback on its ground water sampling locations. The staff evaluated these license conditions and determined that License Condition 12.28 is not needed and will be removed from the license. The staff also determined that Powertech has committed to performing the additional sampling stated in License Condition 12.11. However, the staff is leaving this condition in the license, but will revise it to specify the monitoring well ring as the point of measure for the 2 km distance and that this information is due prior to operations. Furthermore, sampling shall continue until ground water restoration is approved by the NRC staff. Powertech will provide a supplemental ground water sampling plan after it receives NRC staff feedback (see table below).

Powertech requested clarification on when the final Technical Report (TR) should be submitted to NRC. NRC staff responded that the final TR should be submitted after there is agreement on the license conditions.

#### Additional issues not on the agenda

As a result of its ongoing technical review of Powertech's application, NRC staff raised several issues that were not on the agenda.

- I. Draft License Condition 12.12 D – Regarding Powertech's response to RAI 2.9-38(b), NRC staff explained that it required the following information on Powertech's analysis: (1) an authoritative reference for its approach, and (2) an objective measure of confidence that the model predictions are not occurring by chance.
- II. NRC staff stated that its analysis indicates that Powertech's restoration water balance is not consistent with the proposed pore volume. Powertech will provide a calculation addressing the restoration schedule (see table below).
- III. NRC staff stated that further justification on the lower limit of detection that Powertech used for air particulate monitoring must be provided. Powertech understood the concern and will provide further justification.

## Specific Action Items -

Draft License Condition	Issue	Responsible Party	Response/Due Date
12.11	Are proposed ground water sampling locations acceptable?	NRC	In its response to the staff's request for additional information, Powertech stated that it will sample all domestic and stock wells within 2 km of the project area. The staff will keep this license condition, except to state that the monitoring well ring is the basis of the distance measurement. The proposed locations are acceptable. Also, the 31 non-production monitoring points and parameters are acceptable; however, the staff will specify in another license condition that monitoring will continue until restoration is approved.
12.11	Supplemental ground water sampling plan.	Powertech	Powertech will submit a supplemental ground water sampling plan two weeks after receiving NRC assessment of ground water sampling locations.
12.12	Powertech requested clarification on whether the sampling and monitoring information to be submitted could be timed to preoperation instead of preconstruction.	NRC	NRC staff will provide Powertech with a response by September 21, 2012, that will indicate which environmental media should be completed prior to operation and which should be completed prior to construction.
12.28	NRC staff will evaluate whether this condition is necessary	NRC	NRC staff has determined that this license condition is not necessary and it will be removed. See additional discussion above.
New	Restoration schedule	Powertech	Two weeks from meeting date.

New	Clarification of pore volume calculation regarding screened volume versus ore body thickness.	Powertech	Two weeks from meeting date.
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Members of the public were given an opportunity to ask questions.

ATTACHMENTS:

1. Agenda
2. List of Attendees

MEETING AGENDA  
Powertech (USA) Inc.  
August 30, 2012

MEETING PURPOSE: Meeting to Discuss Powertech's Proposed Environmental Monitoring Program for the Dewey-Burdock Project

MEETING PROCESS:

<u>Time</u>	<u>Topic</u>	<u>Lead</u>
10:00 a.m.	Introductions	All
	License Condition 12.12 -	All
	A. Air Particulate Sampling Station	
	B. Soil Samples	
	C. Sediment Samples	
	License Condition 12.13 – Plant Uptake Estimates	All
	License Condition 12.10 - Surface Water Sampling	All
	License Conditions 12.11/12.28 – Groundwater Sampling	All
	Submittal of Final TR	All
	Summary of Action Items	Moderator
	Public Comment/Questions	Moderator
11:30 a.m.	Adjourn	



**LIST OF PARTICIPANTS**  
**DATE: August 30, 2012**  
**10 a.m. – 11:30 a.m.**

**MEETING: Powertech (USA) Inc.**

<b>NAME August 30, 2012</b>	<b>ORGANIZATION</b>	<b>PHONE NUMBER or E-mail (work)</b>
Stephen J. Cohen	NRC	301-415-7182
Ronald Burrows	NRC	301-415-6443
Varughese Kurian	NRC	Varughese.Kurian@nrc.gov
Richard Clement*	Powertech	
Richard Blubaugh*	Powertech	
John Mays*	Powertech	
Mark Hollenbeck*	Powertech	
Lisa Scheinost*	Powertech	
Jack Fritz*	WWC Engineering	
Michael Schierman*	ERG	
Jeff Parsons*	Attorney for Intervenors	
Rebecca Leas*		
Cindy Gillis*	Oglala Sioux	
Susan Henderson*		

**\*Participated via Teleconference**