



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
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January 10, 2013

Cindy Bladey
Chief, Rules, Announcements, and Directives Branch (RADB)
Office of Administration
Mail Stop: TWB-05-B01M
U.S. Nuclear Regulatory Commission
Washington DC 20555-0001

Re: South Dakota Department of Environment and Natural Resources Comments on the Supplemental Environmental Impact Statement for the Proposed Dewey-Burdock In-Situ Uranium Recovery Project in Custer and Fall River Counties, South Dakota

Ms. Bladey,

The South Dakota Department of Environment and Natural Resources (DENR) has reviewed the draft Supplemental Environmental Impact Statement for the proposed Dewey-Burdock In-Situ Uranium Recovery Project. DENR's comments are enclosed for your review. Thank you for the opportunity to review and comment on the draft Supplemental Environmental Impact Statement. If you have any questions, please contact Brian Walsh with DENR's Ground Water Quality Program at 605.773.3296 or brian.walsh@state.sd.us.

Sincerely,

Steven M. Pirner
Secretary

Enclosure

**South Dakota Department of Environment and Natural Resources Comments on the
Supplemental Environmental Impact Statement for the Proposed Dewey-Burdock In-Situ
Uranium Recovery Project in Custer and Fall River Counties, South Dakota**

January 10, 2012

General Comments

1. Groundwater in the production zones will need to be restored to established ambient concentrations or the South Dakota Groundwater Quality standards (South Dakota Administrative rule 74:54:01:04) whichever is higher.
2. The Draft Environmental Impact Statement, in multiple locations throughout the document, states the liquid waste disposal system would be: 1-Class V wells only, 2-land application only, or 3-combination of the two. DENR has proposed a condition in the recommended South Dakota Ground Water Discharge Plan that the land application method can only be used if there is insufficient capacity available in the Class V wells.
3. There are several locations in the Draft Environmental Impact Statement that refer to a ground water discharge Permit. These references should be changed to Ground Water Discharge Plan. (The Ground Water Discharge Plan consists of three separate permits: Construction Permit, Water Quality Variance Permit, and the Ground Water Discharge Permit).

Specific Comments

4. Section 1.5 Applicable Regulatory Requirements

The section describes the state of South Dakota's authority over the in-situ recovery process. In addition to the authorities listed, in order for Powertech to operate the proposed in-situ recovery project in South Dakota they will need to obtain water right permits from DENR.

5. Table 1.6-1 Environmental Approvals for the Dewey-Burdock Project

This table indicates an application for a large scale mine permit has not been submitted to DENR. This is incorrect. Powertech submitted an application for a large scale mine permit to DENR on October 1, 2012.

6. Section 2.1.1.1.2.1 Buildings

This section includes discussions on chemical storage. Storage of these chemicals must comply with Superfund Amendments and Reauthorization Act (SARA) Title III reporting requirements. In addition, gasoline and diesel storage tanks used at the site must comply with DENR's tank rules found in South Dakota Administrative Rule 74:56:01 and 74:56:03.

7. Section 2.1.1.1.2.3.5 Well Construction, Development, and Testing

This section indicates Powertech intends to plug wells at the site in accordance with EPA regulation. In addition to these requirements, Powertech must comply with the applicable plugging requirements in DENR's well construction standards listed in South Dakota Administrative Rule 74:02:04.

8. Section 2.1.1.1.2.4 Liquid Waste Disposal Systems

This section includes descriptions of several wastewater types (such as laundry water), that are more appropriately septic wastes. Only waste waters identified in Powertech's Ground Water Discharge Plan application may be discharged through the land application system. These include production bleed, groundwater generated during aquifer restoration, affected groundwater generated during well development, and liquid process waste such as resin transfer water and brine.

In addition, plans and specifications for small on-site wastewater systems must be submitted to the DENR for approval prior to construction.

9. Section 2.1.1.1.2.4.1 Deep Class V Injection Well Option

Page 2-25, lines 13-15; if inspections reveal pond leakage or releases, DENR must also be notified within 24 hours in accordance with South Dakota Administrative Rule 74:34:01:04.

This section also discusses effluent water quality limits on land application wastewater. DENR is also proposing effluent water quality limits as part of the recommended Ground Water Discharge Plan.

10. Section 2.1.1.1.2.4.2 Land Application Option

Page 2-27, line 10-11 states land application will not occur during winter months and lists November through March as an example. Under the recommended Ground Water Discharge Plan, land application of liquid wastewater is restricted by soil conditions (i.e., frozen or snow covered soil) rather than specific months of the year.

11. Section 2.1.1.1.5.2 Wellfields

This section indicates wellfield decommissioning and surface reclamation would be initiated when the regulatory agencies concur the groundwater in a wellfield has been adequately restored. Please list the regulatory agencies required to review and approve the groundwater restoration data.

As stated in general comment #1, groundwater in the production zones will need to be restored to established ambient concentrations or the South Dakota Groundwater Quality standards (South Dakota Administrative Rule 74:54:01:04) whichever is higher.

12. Section 2.1.1.1.6.2 Liquid Wastes

Line 8 on page 2-49 indicates laboratory chemicals will be part of the plant wastewater stream. Please list the laboratory chemicals and the projected quantities stored at the site.

13. Section 2.1.1.2.2. Surface Water Discharge

This section explores the option of a discharge to surface waters. EPA has promulgated effluent guidelines regulating the discharge of wastewater from in-situ recovery facilities. These guidelines for new sources are in the Code of Federal Regulations Title 40 Section 440.34. These guidelines prohibit the discharge of process wastewater to navigable waters. The Draft Environmental Impact Statement indicates Powertech could not discharge to navigable waters because of the effluent guidelines but they could discharge to non-navigable waters under a state issued National Pollution Discharge Elimination System permit.

South Dakota rules adopt the effluent guidelines by reference substituting "waters of the state" for "navigable waters of the US". DENR is required by EPA to incorporate applicable effluent guidelines into state issued National Pollution Discharge Elimination System permits. Any surface water discharge from the Powertech facility would be expected to reach Beaver Creek, which is a classified fishery and meets the definition of waters of the state. Based on this, DENR would propose a National Pollution Discharge Elimination System permit that would require no discharge of process wastewater.

DENR understands that Powertech is not proposing a surface water discharge of process water and the Draft Environmental Impact Statement is only exploring possible options.

14. Section 3.5.1 Surface Waters

Line 5 on page 3-24 indicates that Beaver Creek is classified as having the beneficial use of cold water marginal fish life propagation. This beneficial use has been changed to warm water semi-permanent fish life propagation.

15. Section 3.6.2 Aquatic

Lines 13, 14 and 15 on page 3-53 indicate for the 2008 reporting cycle the four areas of impairment for Beaver Creek are specific conductivity, total dissolved solids, pH and fecal coliform. Based on the 2012 303(d) list, Beaver Creek is only impaired for pH and fecal coliform.

16. Table 6.2-1 Summary of Mitigation Measures Proposed by Powertech

This table describes the proposed mitigation measures for spills and leaks. In accordance with South Dakota Administrative Rule 74:34:01:04 all regulated substance spills that occur at the site must be reported to DENR and remediated in accordance with state requirements.

17. Table 7.3-1 Background Water Quality Parameters and Indicators for Operational Groundwater Monitoring

This table should also include radon and radium 228.

18. Section 7.5.1.1 Alluvial Monitoring Wells

This section includes discussions on ambient monitoring on the land application compliance points. DENR's recommended Ground Water Discharge Plan includes a condition requiring a minimum of one year of monthly ambient monitoring for the compliance point wells and quarterly until mining operations commence.

19. Table 7.5-2 Proposed Alluvial Monitoring Wells in the Burdock Area

This table is missing the compliance point well BC-3.

20. Section 11.3 State Agency Officials

This section list state agency officials who were provided copies of the draft supplemental Environmental Impact Statement. On future distributions, in addition to Matt Hicks, please include Mike Cepak with South Dakota Department of Environment and Natural Resources, Pierre, South Dakota.