

**DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
RECOMMENDATION
POWERTECH (USA) INC.
LARGE SCALE MINE PERMIT APPLICATION**

The Department of Environment and Natural Resources is recommending conditional approval of Powertech (USA) Inc.'s application for its proposed Dewey-Burdock Project, a uranium in situ recovery mining operation. Powertech's address is PO Box 812, Edgemont, South Dakota 57735. The resident agent is CT Corporation System, 319 South Coteau Street, Pierre, South Dakota 57501. The legal location of the proposed operation is:

E1/2 NE1/4, E1/2 SE1/4, SW1/4 SE1/4, S1/2 NW1/4 SE1/4, SE1/4 SW1/4, and S1/2 NE1/4 SW1/4 Section 20; W1/2, W1/2 W1/2 NE1/4, and W1/2 NW1/4 SE1/4 Section 21; S1/2 Section 27; N1/2 NW1/4, SW1/4 NW1/4, and SW1/4 Section 28; Section 29; Section 30; E1/2 Section 31; Section 32; NW1/4, SW1/4, SE1/4, and S1/2 NE1/4 Section 33; Section 34; and Section 35; T6S-R1E, Custer County

Section 1; Section 2; Section 3; W1/2 W1/2 Section 4, Section 5; Section 10; Section 11; Section 12; NW1/4, W1/2 NE1/4, and NE1/4 NE1/4 Section 14; and N1/2 Section 15; T7S-R1E, Fall River County

General Location: Approximately 13 miles northwest of Edgemont, South Dakota.

The proposed mining operation will involve in situ leach recovery methods. Powertech will use injection wells to pump groundwater fortified with oxygen and carbon dioxide into ore deposits to dissolve uranium. Production wells will be used to pump the uranium-laden fluids to the surface for recovery. The fluids from the production wells will be processed at two separate facilities at the mine site to extract and concentrate the uranium. Powertech may also recover vanadium in the future which will require additional processing equipment. After uranium has been removed from the ore body underlying a well field, the groundwater will be restored to meet Nuclear Regulatory Commission restoration standards. Powertech will also be required to obtain a U.S. EPA aquifer exemption for any well field. Wastewater generated by the operation will be treated and disposed primarily by injection in Class V injection wells permitted through the EPA Underground Injection Control Program. If there is not sufficient capacity in the Class V wells, the excess wastewater may be disposed by land application permitted under a Groundwater Discharge Plan, which is subject to approval by the State Water Management Board. The proposed post-mining land uses are rangeland and agricultural or horticultural crops.

The total acreage within the proposed permit boundary is about 10,580 acres, mostly on private land. About 240 acres of Bureau of Land Management land are included in the permit boundary. Powertech proposes to affect 2,528 to 3,792 acres depending upon whether primary deep injection or secondary land application is used for wastewater disposal. Estimated production is one million pounds of uranium oxide (U₃O₈) per year. Estimated duration of the operation is 20 years.

Pursuant to ARSD 74:29:01:15, the department is recommending conditional approval of Powertech's permit application. The department has determined that the application addresses all of the requirements of SDCL 45-6B and ARSD 74:29, and should be approved subject to the conditions attached to this recommendation. The application, with the recommended conditions, provides to those portions of the operation within the jurisdiction and regulation of the board, the necessary safeguards to protect the environment during and following the term of operation and ensures that the land is appropriately reclaimed to a beneficial use following termination of the operation. This recommendation does not cover those elements of the mine that were previously subject to regulation under ARSD Chapter 74:29:11 (In situ leach mining) including the well fields, well field monitoring, well construction, excursion detection and mitigation, uranium processing facilities, and ground water restoration. These elements will be regulated by the U.S. EPA and the federal Nuclear Regulatory Commission.

This recommendation is being mailed to you pursuant to ARSD 74:29:01:15. Petitions to intervene and become party to the proceedings pursuant to ARSD 74:29:01:09 must be filed with the Department of Environment and Natural Resources no later than April 22, 2013. Since intervention petitions were received after the Notice of Filing was published, a hearing on the mine permit application will be scheduled for a future date. All parties to the hearing will be notified of the date and location of the hearing when scheduled.

A copy of the application may be reviewed at the department's Minerals and Mining Program, 523 East Capitol Avenue, Pierre, South Dakota, on the department's web page at <http://denr.sd.gov/des/mm/powertechpage.aspx>, the Custer County Register of Deeds in Custer, South Dakota, or the Fall River County Register of Deeds in Hot Springs, South Dakota. Information about the contents of a petition to intervene can be found at ARSD 74:09:01:01 (<http://legis.state.sd.us/rules/DisplayRule.aspx?Rule=74:09:01:01>). Petitions should be mailed to the Minerals and Mining Program, 523 East Capitol Avenue, Pierre, South Dakota 57501-3182.

Persons needing further information about this permit application may contact Mike Cepak, Minerals and Mining Program, Department of Environment and Natural Resources, 523 East Capitol Avenue, Pierre, South Dakota 57501-3182, or phone (605) 773-4201.

Steven M. Pirner
Secretary
Department of Environment and Natural Resources

April 15, 2013