

APPENDIX 1.0-A

**Large Scale Mine
Permit Application**

Department of Environment and Natural Resources
Minerals and Mining Program
Joe Foss Building
523 East Capitol Avenue
Pierre, South Dakota 57501-3181
Telephone: (605) 773-4201 Fax: (605) 773-5286

**APPLICATION FOR
MINING/MILLING PERMIT**
Pursuant to SDCL 45-6B:
Relating to The Extraction and
Processing of Minerals in
Operations Affecting More
Than 10 Acres Per Year
and/or Removing Over
25,000 Tons Per Year

Name of Operator: Powertech (USA) Inc.

General Office Address:
 5575 DTC Parkway, Suite #140
Greenwood Village, CO 80111

Telephone:
 (303) 790-7528

Name and Address of Surface Owner: (Enter additional owners on last page)
 See Appendix 2.2-A in accompanying report

Legal Description of Affected Land:
 See Sec. 2.0 in accompanying report

County: Custer and Fall River

Minerals to be Extracted and, if Applicable,
Milled:
 Uranium (U3O8) and, potentially, vanadium

Size of Area to be Worked at Any One Time
(acres):
 <100 acres of well field pattern area

Estimated Tonnage Mined Per Year
 1 million pounds U3O8 per year

Estimated Tons of Ore Per Year:
 1 million pounds U3O8 per year

Overburden/Waste Tons Per Year:
 N/A - ISR project

Source of Legal Right to Enter and Initiate Operations:
Attach Copy
 Lease Letter USFS Permit

Local Address:
 310 2nd Avenue
P.O. Box 812
Edgemont, SD 57735

Telephone:
 (605) 662-8308

Name and Address of Mineral Owner: (Enter additional owners on last page)
 See Appendix 2.2-A in accompanying report

Name and Address of Operator's Legal Resident Agent
(if out-of-state corporation):
 Powertech (USA) Inc. is a SD corporation and
has a registered agent: CT Corporation System,
319 S. Coteau St., Pierre, SD 57501

Proposed Starting Date: 3/1/2013

Proposed Completion Date: 12/31/2035

Estimated Working Days Per Year:
 365

Estimated Duration of Operation (years):
 20

Reclamation Type:
 Return to rangeland or cropland use

Source of Legal Right to Dispose of Tailings:
Attach Copy
 Lease Letter USFS Permit
NRC source and byproduct material license

INSTRUCTIONS (Reference SDCL 45-6B)

Before a Hearing on the Permit May be Conducted by the the SD Board of Minerals and Environment, the Applicant Must Submit the Following Materials:

This Application Must be Accompanied by:

1. A Narrative Description of Methods of Mining and Milling to be Employed as Per Section 6 (8).
See Section 5 (Mine Plan)
2. A Reclamation Plan Pursuant to Section 7.
See Section 6 (Reclamation Plan)
3. A Map of the Affected Area Pursuant to Section 10.
See Plates 5.3-1 and 5.3-2
4. A Fee of \$1,000 (\$50,000 for precious metals, coal, or unaium) Pursuant to Section 14.
\$50,000 will be provided under separate cover
5. A List of the Names and Addresses of the Landowners of the Affected Land.
See Appendix 2.2-A

1. Certified Mail Receipts Confirming Mailing of Notice to all Surface Owners and Lessees Pursuant to Section 17.
2. A Copy of the Affidavit of Publication of Notice Pursuant to Section 16.
3. Proof of Filing a Copy of the Application with the Register of Deeds Pursuant to Section 15.
4. Surety in an Amount to be Determined by the Department Pursuant to Section 20.
5. A copy of Instruments of Consultation From All Surface Landowners, if Different than the Owner of the Minerals Pursuant to Section 12 and 13.

STATE OF Colorado

COUNTY OF Anapahar

On this 27th day of September

20 12, before me personally appeared

Richard Blumbaugh

who acknowledged himself to be the VP
(Title)

for Powertech USA Inc
(Operator)

that he is authorized to execute the Application for Mining/ Milling Permit for the purposes contained therein.

Barbara Houston
Notary Public

My Commission Expires: 3/9/2016

Applicant hereby affirms that the mining and milling will be conducted pursuant to SDCL 45-6B, or any regulations promulgated thereunder; that he will grant access to the Board of Minerals and Environment or its agents to the area under application from the date of the application and during the life of the permit as is necessary to assure compliance with SDCL 45-6B.

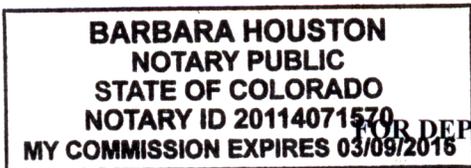
I declare and affirm under the penalties of perjury that this claim (petition, application, information) has been examined by me, and to the best of my knowledge and belief, is in all things true and correct.

Phil E. Shultz
Signature

Vice Pres. Enviro. Health & Safety Resources
Title

Date

SEAL



FOR DEPARTMENT USE ONLY

DATE APPROVED: BOND AMOUNT: PERMIT NUMBER:

Chairman, SD Board of Minerals & Environment

Operator's Name: Powertech (USA) Inc.

Permit Number: _____

In preparing the Operating and Reclamation Plan, please address each item in detail, referring to SDCL 45-6B as needed. Attach additional pages if extra space is needed.

1) Describe the proposed method of mining, and if applicable, milling to be employed:

A) Contour basis for the mining -

Due to the nature of ISR, very little surface disturbance will occur. The only significant grading will be associated with ponds, access roads, and diversions. During reclamation, these areas will be regraded to approximate original contours. Plate 6.4-1 depicts the approx. postmining contours.

B) Depth to which and the direction in which mining will proceed -

The targeted uranium sandstones occur in the Fall River Formation and Chilson Member of the Lakota Formation at a depth of 200 to 800 feet. Uranium ISR will occur through phased well field development.

C) Proposed disposition of mine spoil and tailings -

Refer to Sec. 5.4 in accompanying report. Wastewater associated with ISR operations will be treated and disposed in Class V deep disposal wells or land application systems. Byproduct material will be disposed in an NRC or NRC agreement state-licensed disposal facility.

D) Method of blasting and control -

Not applicable; no blasting will occur.

2) Provide a narrative description of the types of reclamation the operator proposes to achieve in the reclamation of the affected land (e.g. return to cropland, pasture, building sites, recreational area, forest planting, etc. Refer to SDCL 45-6B-7 and 45-6B-45):

Reclaim all disturbed lands to meet the designated postmining land uses, including rangeland and agricultural or horticultural crops.

3) What is the reason for choosing the above methods of reclamation?

Landowner preference. Refer to Appendix 6.4-A in accompanying report for postmining land use consultation. Refer to Section 6.4 in accompanying report for a description of reclamation methods.

4) Itemize the amount of acreage accorded to each of the reclamation types described in Number 2:

The amount of area within the 10,580-acre permit area designated as rangeland postmining land use is approximately 9,660 acres. Approximately 780 acres are designated as agricultural or horticultural cropland. The balance is BNSF right-of-way. Refer to Plate 6.4-1 in accompanying report.

- 5) How will the reclamation plan be implemented to meet the reclamation standards which are described in SDCL 45-6B-37 through 45-6B-46 (Refer to these sections in 45-6B):

45-6B-37 Grading -

Refer to Section 6.4.3.1 in accompanying report. Very limited grading will be required during reclamation of ponds (including sediment ponds), diversion channels, and access roads. Grading will be performed to approximate original contours.

45-6B-38 Removal of Refuse -

Refer to Section 6.3 in accompanying report. Process buildings, equipment and other facilities will be removed and disposed off site. Contaminated soil also will be removed and disposed off site.

45-6B-39 Revegetation -

Refer to Section 6.4.3 in accompanying report. The reclamation seed mixture has been provided by the NRCS. Seeding will be done with a rangeland drill or with a broadcast seeder where practical. Reclamation performance criteria are provided in Appendix 6.4-D.

45-6B-40 Topsoil Storage -

Refer to Sections 5.3.7 and 6.4.3 in accompanying report. Topsoil will be salvaged from disturbed areas and temporarily stockpiled in designated topsoil stockpiles. Stockpiles will be located to avoid wind/water erosion, seeded, and identified with highly visible signs.

45-6B-41 Surface and Groundwater Protection -

Refer to Sections 5.6.4.2 and 5.6.3.2 in accompanying report. Extensive mitigation measures will be used to minimize potential impacts to surface and groundwater quantity and quality.

45-6B-42 Highwall Reduction -

Not applicable. No highwall will be constructed.

45-6B-43 Erosion Control/Weeds -

Refer to Sections 6.4.3.5 and 6.4.3.6 in accompanying report. Sediment and erosion control measures will be inspected routinely during reclamation. An active weed control program will be implemented, including routine inspections, identifying areas of weed growth, and chemical control.

45-6B-44, 45 Type of Reclamation -

Reclamation shall be carried out by removing facilities, restoring topography to approximate original contours, replacing topsoil, reseeding, and monitoring to assess reclamation performance.

45-6B-46 Reclamation Timetable -

Refer to Section 6.5 in accompanying report. Reclamation will be carried out in an ongoing process concurrently with ISR operations.

- 6) Provide a detailed description of how the intended reclamation methods described above will rehabilitate the affected land. This description shall include, but is not limited to, restoration of the natural vegetation, wildlife, water, air, and soil:

Refer to Section 6 in accompanying report. Reclamation will result in the entire permit area being suitable for postmining land use and being released by the U.S. Nuclear Regulatory Commission for unrestricted (i.e., DENR-approved postmining) use.

- 7) Provide a statement describing the location of proposed reservoirs, tailings ponds, tailings disposal sites, dams, dikes, and diversion canals. Denote such locations on the map required under SDCL 45-6B-10.

Refer to Figures 5.3-1 and 5.3-2 and Plates 5.3-1 and 5.3-2 in the accompanying report for the location of all proposed facilities, including ponds, diversions and sediment control reservoirs for the initial well fields.

- 8) Describe what provisions will be made for the stripping and storage of overburden and topsoil:
Refer to Sections 5.3.7 and 6.4.3 in accompanying report. Topsoil will be salvaged from disturbance areas and stockpiled in designated stockpiles. Overburden (spoil) will be excavated from ponds and diversion channels during construction and stockpiled separately.
- 9) Describe the methods to be used in returning the overburden and topsoil during reclamation, and describe when this activity will take place:
Refer to Section 6.4.3 in accompanying report. Overburden (spoil) will be replaced, the topography graded to approximate original contours, and topsoil will be replaced.
- 10) Describe the post-closure plan for mine waste disposal facilities required under SDCL 45-6B-5 (5):
Refer to Section 6.8 in accompanying report. Post-closure activities will include surface and groundwater monitoring, vegetation monitoring, and maintenance and inspection of sediment and erosion control structures.
- 11) What is the expected cost of implementing the proposed reclamation work (cost per acre/ total cost)?
Refer to Section 6.7 and Appendix 6.7-A in accompanying report.
- 12) Provide a statement which describes any characteristics of the affected land of historic, archaeological, geologic, scientific, or recreational significance which are known to the applicant:
Sec. 2.3 in accompanying report provides a statement of any characteristics of the affected land of historic, archeological, geologic, scientific, or recreational significance known to Powertech (USA).

In addition to addressing the above items, please attach the following items to the Reclamation Plan:

- 1) A standard soil survey of the affected land prepared by the local Conservation District (paid for by the applicant). Refer to Appendix 3.3-A in accompanying report.
- 2) A vegetation survey report on the affected land prepared by the local Conservation District (paid for by the applicant), including a description of the dominant species present, approximate size, and density.
Refer to Appendix 3.7-A in accompanying report.
- 3) A reclamation report prepared by the local County District Conservationist giving his recommendations and guidelines concerning how the area should be revegetated. This report should include a recommended seed mixture. Refer to Appendix 6.4-B in accompanying report.
- 4) A wildlife survey report on the affected land prepared by the Department of Game, Fish, and Parks (paid for by the applicant), including a description of the dominant species of wildlife inhabiting the area.
Refer to Appendix 3.9-A in accompanying report.
- 5) A post reclamation map showing the anticipated physical appearance of the reclaimed mine, and portraying the outline of the proposed final land use for each portion of the reclaimed land.
Refer to Plate 6.4-1 in accompanying report.
- 6) The baseline water quality and water-level data for the area (the Department shall designate what parameters should be tested for after on-site inspection, and the applicant shall use testing methods as approved by the Department). Refer to Sections 3.4 and 3.5 in accompanying report.

I declare and affirm under the penalties of perjury that this claim (petition, application, information) has been examine by me, and to the best of my knowledge and belief, is in all things true and correct.

Operator's Signature: 

Title: Vice Pres. Enviro. Health & Safety Resources

Date: September 27, 2012

Enter additional surface and mineral owners

Name and address of surface owner:

Refer to Appendix 2.2-A in accompanying report.

Name and address of mineral owner:

Refer to Appendix 2.2-A in accompanying report.

Department of Environment and Natural Resources
Minerals and Mining Program
523 East Capitol Avenue
Pierre, SD 57501-3182
Telephone: (605) 773-4201 Fax: (605) 773-5286

STATE OF SOUTH DAKOTA
BEFORE THE SECRETARY OF
THE DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

IN THE MATTER OF THE)
APPLICATION OF Powertech (USA) Inc.) CERTIFICATION OF APPLICANT

STATE OF Colorado)
) SS
COUNTY OF Arapahoe)

I, Powertech (USA) Inc. , the applicant in the above matter after being duly sworn upon oath hereby certify the following information in regard to this application:

South Dakota Codified Laws Section 1-40-27 provides:

"The secretary may reject an application for any permit filed pursuant to Titles 34A or 45, including any application by any concentrated swine feeding operation for authorization to operate under a general permit, upon making a specific finding that:

(1) The applicant is unsuited or unqualified to perform the obligations of a permit holder based upon a finding that the applicant, any officer, director, partner, or resident general manager of the facility for which application has been made:

- (a) Has intentionally misrepresented a material fact in applying for a permit;*
- (b) Has been convicted of a felony or other crime of moral turpitude;*
- (c) Has habitually and intentionally violated environmental laws of any state or the United States which have caused significant and material environmental damage;*
- (d) Has had any permit revoked under the environmental laws of any state or the United States;*
- (e) Has otherwise demonstrated through clear and convincing evidence of previous actions that the applicant lacks the necessary good character and competency to reliably carry out the obligations imposed by law upon the permit holder; or*

(2) The application substantially duplicates an application by the same applicant denied within the past five years which denial has not been reversed by a court of competent jurisdiction. Nothing in this subdivision may be construed to prohibit an applicant from submitting a new application for a permit previously denied, if the new application represents a good faith attempt by the applicant to correct the deficiencies that served as the basis for the denial in the original application.

All applications filed pursuant to Titles 34A and 45 shall include a certification, sworn to under oath and signed by the applicant, that he is not disqualified by reason of this section from obtaining a permit. In the absence of evidence to the contrary, that certification shall constitute a prima facie showing of the suitability and qualification of the applicant. If at any point in the application review recommendation, or hearing process, the secretary finds the applicant has intentionally made any material misrepresentation of fact in regard to this certification, consideration of the application may be suspended and the application may be rejected as provided for under this section.

Applications rejected pursuant to this section constitute final agency action upon that application and may be appealed to circuit court as provided for under chapter 1-26."

Pursuant to SDCL 1-40-27, I certify that I have read the forgoing provision of state law, and that I am not disqualified by reason of that provision from obtaining the permit for which application has been made.

I declare and affirm under the penalties of perjury that this claim (petition, application, information) has been examined by me, and to the best of my knowledge and belief, is in all things true and correct.

Dated this 15th day of November, 2012.

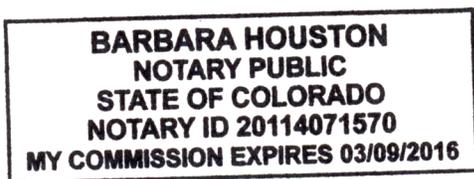
Phil E. Bluyz, VP-HS&E Resources
Applicant

Subscribed and sworn before me this 15th day of November, 2012.

Barbara Houston
Notary Public

My commission expires: 3/9/2016

(SEAL)



**PLEASE ATTACH SHEET DISCLOSING ALL FACTS PERTAINING TO
SDCL 1-40-27 (1)(a) THROUGH (e).
ALL VIOLATIONS MUST BE DISCLOSED, BUT WILL NOT
AUTOMATICALLY RESULT IN THE REJECTION OF AN APPLICATION.**