[7590-01-P]

NUCLEAR REGULATORY COMMISSION

[Docket No. 40-9075; NRC-2024-0129]

Powertech USA, Inc.;

Dewey-Burdock In Situ Uranium Recovery Project; Environmental Assessment, Finding of No Significant Impact, and Final Programmatic Agreement

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is considering the renewal of source and byproduct materials license SUA-1600 for Powertech USA, Inc.'s (Powertech or licensee) Dewey-Burdock in situ uranium recovery (ISR) project in Custer and Fall River counties, South Dakota, for an additional 20 years. Powertech plans to recover uranium from the ore body and produce yellowcake using the ISR process. Yellowcake, the uranium oxide product of the ISR process, is used in the production of fuel for commercially operated nuclear power reactors. The NRC staff is issuing an environmental assessment (EA), finding of no significant impact (FONSI), and Section 106 Programmatic Agreement (PA) associated with the proposed licensing action.

DATES: The EA and FONSI and Section 106 PA referenced in this document are available on **[INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: Please refer to Docket ID NRC-2024-0129 when contacting the NRC about the availability of information regarding this document. You may obtain publicly available information related to this document using any of the following methods:

- **Federal Rulemaking Website:** Go to https://www.regulations.gov and search for Docket ID NRC-2024-0129. Address questions about Docket IDs in Regulations.gov to Bridget Curran; telephone: 301-415-1003; email: Bridget.Curran@nrc.gov. For technical questions, contact the individual(s) listed in the "For Further Information Contact" section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly available documents online in the ADAMS Public Documents collection at https://www.nrc.gov/reading-rm/adams.html. To begin the search, select "Begin ADAMS Public Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, at 301-415-4737, or by email to PDR.Resource@nrc.gov.
- **NRC's PDR:** The PDR, where you may examine and order copies of publicly available documents, is open by appointment. To make an appointment to visit the PDR, please send an email to PDR.Resource@nrc.gov or call 1-800-397-4209 or 301-415-4737, between 8 a.m. and 4 p.m. eastern time (ET), Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Diana Diaz-Toro, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-0930; email: Diana.Diaz-Toro@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Background

The NRC is making available to the public the "Environmental Assessment for the License Renewal for the Dewey-Burdock Uranium Recovery Project in Custer and Fall River Counties, South Dakota," FONSI, and "Final Programmatic Agreement Among the U.S. Nuclear Regulatory Commission, U.S. Bureau of Land Management, U.S. Environmental Protection Agency, South Dakota State Historic Preservation Office, and Powertech (USA), Inc. Regarding the Dewey-Burdock In Situ Uranium Recovery Project Located in Custer and Fall River Counties, South Dakota." The NRC also prepared a Safety Evaluation Report in December 2025.

II. Introduction

The NRC is considering the renewal of source and byproduct materials license SUA-1600 for Powertech USA, Inc.'s (Powertech or licensee) Dewey-Burdock ISR project in Custer and Fall River counties, South Dakota, for an additional 20 years.

Powertech plans to recover uranium from the ore body and produce yellowcake using the ISR process. Yellowcake, the uranium oxide product of the ISR process, is used in the production of fuel for commercially operated nuclear power reactors. The NRC staff has prepared an EA for this proposed licensing action in accordance with NRC regulations in part 51 of title 10 of the *Code of Federal Regulations* (10 CFR), "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions," which implement the National Environmental Policy Act of 1969, as amended (NEPA). Based on the EA, the NRC has concluded that a FONSI is appropriate. Therefore, in accordance with section 10 CFR 51.31(a), "Determinations based on environmental assessment," preparation of an environmental impact statement is not warranted for the proposed action, and the NRC is issuing a FONSI.

On June 4, 2026, the NRC executed a PA to satisfy its obligations under Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA). The NRC determined a phased process for compliance with Section 106 of the NHPA is appropriate for this proposed action in accordance with 36 CFR 800.4(b)(2), such that completion of the reasonable and good faith identification, evaluation, and assessment of effects on historic properties, and consultation concerning measures to avoid, minimize, or mitigate any adverse effects will be carried out in phases. The NRC staff is coordinating its review under the Section 106 of the NHPA with this NEPA review because the scope of the historic and cultural resources impacts analysis and the path forward used for conducting the analysis under NEPA and Section 106 process are the same. The NRC EA and FONSI, therefore, incorporate by reference the PA.

III. Summary of the Environmental Assessment

Description of the Proposed Action

The proposed action is for the NRC to decide whether to renew Powertech's source and byproduct material license SUA-1600 for the Dewey-Burdock ISR project in Custer and Fall River counties, South Dakota, for an additional 20 years. The NRC will renew license SUA-1600, under 10 CFR part 40, "Domestic Licensing of Source

Material," if the NRC concludes that Powertech has demonstrated it will continue to meet NRC requirements for construction and operation of an ISR facility at the Dewey-Burdock ISR site.

Under the proposed action, Powertech plans to recover uranium from the ore body and produce yellowcake using the ISR process. Yellowcake, the uranium oxide product of the ISR process, is used in the production of fuel for commercially operated nuclear power reactors. The project would consist of processing facilities and sequentially developed wellfields in the two contiguous areas: Dewey area and Burdock area. The facilities would include wellfields, a satellite ion exchange (IX) process plant located within the Dewey area, an IX processing plant along with the central IX resin processing plant to be located at the central processing plant in the Burdock area, and associated infrastructure (e.g., pipelines and surface impoundments). For disposal of liquid byproduct waste, Powertech plans to use Class V deep injection wells, land application areas, or a combination of these two methods. The Dewey-Burdock ISR project, however, has not been constructed.

Purpose and Need for the Proposed Action

The purpose and need for the proposed action is to renew license SUA-1600 for 20 years to authorize Powertech to possess and use source material and byproduct material for its plans to operate a commercial-scale ISR facility at the Dewey-Burdock site. This definition of 'purpose and need' reflects the Commission's recognition that, unless there are negative findings in the NRC's safety review required by the Atomic Energy Act of 1954, as amended, or findings under NEPA that would lead the NRC to reject Powertech's license renewal application, the NRC has no role in a company's business decision to construct and operate an ISR facility at a particular location.

Environmental Impacts of the Proposed Action

The NRC staff has assessed the potential environmental impacts of the proposed action. The results of the NRC's environmental review can be found in the EA. The NRC staff assessed the potential impacts on land use; visual and scenic resources; noise air

quality; geology and soils; water resources; ecological resources; historic and cultural resources; socioeconomics; transportation; public and occupational health and safety; and waste management. The NRC staff relied, as appropriate, on NRC's Supplement 4 of NUREG-1910, "Environmental Impact Statement for the Dewey-Burdock Project in Custer and Fall River Counties, South Dakota: Supplement to the Generic Environmental Impact Statement for In-Situ Leach Uranium Milling Facilities — Final Report". This supplemental environmental impact statement (SEIS) is a supplement to the NRC's 2009 generic environmental impact statement, NUREG-1910, "Generic Environmental Impact Statement for Uranium Milling Facilities—Final Report," or ISR Generic Environmental Impact Statement (GEIS). The SEIS documents the NRC's evaluation of potential environmental impacts from construction, operation, aquifer restoration, and decommissioning of the Dewey-Burdock ISR project under both liquid waste disposal options, Class V deep injection wells and land application.

The project area encompasses 4,282 hectares (10,580 acres); however, the entire project area would not be disturbed. Approximately 13.2 percent of the project area would be disturbed if Powertech uses the land application option for disposal of liquid wastes, and 2.3 percent if Powertech uses Class V injection well for liquid waste disposal. After operations at a wellfield cease, Powertech would begin aquifer restoration to return groundwater quality within the production zone of wellfields to the preoperational water quality conditions or to standards consistent with NRC requirements at 10 CFR part 40, Appendix A, Criterion 5B(5). Groundwater in the production zone aquifer would also have to be restored to State of South Dakota's standards. After groundwater restoration, Powertech would proceed with reclamation and decommissioning. The goal of reclamation and decommissioning is to return disturbed lands back to their pre-production land use.

Non-radiological air emission impacts from the Dewey-Burdock ISR project would primarily involve fugitive dust from vehicles traveling on unpaved roads and wind erosion, and combustion engine emissions from vehicles and diesel equipment. The

construction phase would generate the highest levels of fugitive dust relative to the other phases (i.e., operations, aquifer restoration, and decommissioning). The construction phase would also generate the highest levels of sulfur dioxide, nitrogen oxides, and carbon monoxide from mobile sources when compared to the other phases. In the EA, the NRC staff concluded that total pollutant concentrations for all criteria pollutants from stationary, mobile, and fugitive dust sources would be below the National Ambient Air Quality Standards thresholds established by the U.S. Environmental Protection Agency (EPA).

Soils would be impacted during construction of the Dewey-Burdock ISR project under both the Class V injection well and land application liquid waste disposal options. However, these impacts are anticipated to be small based on how Powertech plans to manage soil erosion and compaction, and construction of mud pits and pipeline ditches. Soils can also be impacted by spills and leaks. Powertech would monitor and record wellfield and pipeline flow and pressure to detect unexpected losses of pressure due to equipment failure, a leak, or a problem with well integrity. Powertech would minimize pipeline failure by burying the pipeline below the frost line and using corrosion free high-density polyethylene or similar piping. Similarly, radium settling and holding ponds would include a leak detection system. During land application, there could be potential impacts to the soil and crops from total dissolved solids and electrical conductivity values in the water to be used for irrigation. During the irrigation season, Powertech would adjust water application rates to optimize both evaporation and crop production. The NRC also requires Powertech to conduct pre-operational and operational sampling of land application areas and the surrounding environment.

Powertech does not anticipate direct disturbance to any potential wetlands or water sources. Should the project involve an impact to a jurisdictional wetland or water source in the future, Powertech would take the appropriate actions in accordance with Section 404 of the Clean Water Act. Compliance with a 404 permit would ensure that any impacts to federal jurisdictional wetlands are appropriately managed. Powertech

does not plan to discharge process effluents to surface waters during construction, operation, or decommissioning of the facility. The only discharge to surface water that Powertech anticipates is stormwater. Powertech would seek coverage under South Dakota's General Permit Authorizing Stormwater Discharges Associated with Construction Activities (General Permit), which requires a Storm Water Pollution Prevention Plan. Powertech would also need to obtain a general industrial stormwater permit during operations, which also requires a Storm Water Pollution Prevention Plan. Powertech plans to remove all domestic wells within the project area and all stock wells from private use within 0.4 kilometer (0.25 miles) of wellfields. It would notify the well owner prior to removing any well from private use and work with the well owner to determine whether a replacement well or alternate water supply is needed. The NRC staff also concluded that the impact from excursions during operations would be small because (1) Powertech would be required to submit wellfield operational plans for NRC and EPA approval, (2) Powertech would maintain inward hydraulic gradients to ensure groundwater flow is toward the production zone, and (3) Powertech will conduct operational groundwater monitoring to ensure that groundwater quality in aquifers outside exempted zones is not impacted by operations. Impacts from vertical excursions would also be small because (1) uranium-bearing production zones in the Fall River and Chilson aquifers are hydrologically isolated from adjacent aquifers by thick, low permeability shale layers; (2) a prevailing upward hydraulic gradient occurs across the major aquifers; (3) mechanical integrity tests would be performed on wells, and (4) Powertech's commitment to properly plugging and abandoning or mitigating any previously drilled wells and exploration holes that may potentially impact the control and containment of wellfield solutions.

Based on historical data from the ISR operation, described in the NRC's ISR GEIS, the NRC staff found that impacts from normal ISR operations would be small. The Dewey-Burdock ISR project operations are not anticipated to be different than the operations evaluated in the NRC's ISR GEIS.

Powertech would dispose of liquid byproduct material via either Class V injection well, land application, or a combination of both options. Before disposal, Powertech would treat liquid byproduct material on-site using IX to remove the uranium, mixing with barium chloride, and discharging into lined radium settling ponds, which would reduce radionuclide activities below the NRC limits in 10 CFR part 20, Appendix B, Table 2. Disposal via Class V injection wells would be conducted in accordance with the EPA Class V injection well permit for the Dewey-Burdock ISR project. Land application would be carried out under a Groundwater Discharge Plan to be issued by the State of South Dakota. The EPA also issued an aquifer exemption and a Class III well permit.

Solid byproduct material does not meet the NRC criteria for unrestricted release and must be disposed of at a licensed disposal site in accordance with 10 CFR part 40, Appendix A, Criterion 2. Condition 12.6 of license SUA-1600 requires that Powertech obtain a solid byproduct material disposal agreement to ensure the availability of sufficient disposal capacity prior to operations.

In accordance with the Endangered Species Act, the NRC staff evaluated potential impacts to federally protected ecological resources that may result from the proposed action. The U.S. Fish and Wildlife Service concurred with NRC staff's effect determinations of "may affect but is not likely to adversely affect" the northern long-eared bat, tricolored bat, monarch butterfly, and western regal fritillary.

While there could be adverse effects to historic and cultural resources from the proposed licensed activities at the Dewey-Burdock ISR project during the proposed license renewal term, the NRC staff executed a PA on June 4, 2026, in accordance with NHPA Section 106 to require avoidance and adverse effect mitigation if avoidance is not possible.

Environmental Impacts of the Alternatives to the Proposed Action

As an alternative to the proposed license renewal for the Dewey-Burdock ISR project, the NRC considered the no-action alternative. Under the no-action alternative, the NRC would not renew license SUA-1600. Consequently, Powertech would not be

able to pursue construction and operation of the Dewey-Burdock ISR project. There would be no environmental impacts on land use, transportation, geology and soils, air quality, water resources, ecological resources, noise, historic and cultural resources, visual and scenic resources, waste management, and public and occupational health and safety. The NRC staff found that construction and operation of the Dewey-Burdock ISR project would result in benefits to local finance from increased employment, economic activity, and tax revenues. Accordingly, these local socioeconomic benefits would not be realized under the no-action alternative. Additionally, under the no-action alternative, this critical minerals mining project would not be available to support the U.S. nuclear fuel supply chain with domestically produced uranium.

Agencies and Persons Consulted

On April 23, 2026, the NRC provided the draft EA to the State of South Dakota's Department of Agriculture and Natural Resources (SDDANR), the U.S. Bureau of Land Management (BLM), and the EPA for review and comment. SDDANR responded on May 22, 2026, with comments regarding the scope and status of the unique lands determination, large-scale mine permit, air quality permit, water appropriations permit, Groundwater Discharge Plan, waste management permit, and wetlands permit. BLM provided comments on May 22, 2026, which provided clarifications regarding BLM's review of the Plan of Operations. The NRC staff addressed all these comments in the EA. The NRC and BLM also cooperated with each other on each agency's corresponding NEPA environmental review in accordance with the "Memorandum of Understanding between the Bureau of Land Management, Department of the Interior, and the Nuclear Regulatory Commission, an Independent Agency."

As part of the NRC's Section 106 process for the proposed renewal of the license for the Dewey-Burdock ISR project, the NRC staff consulted with the South Dakota State Historic Preservation Office, BLM, EPA, Powertech, 25 Federally recognized Tribes, and NDN Collective. BLM and EPA designated the NRC as the lead agency for compliance with requirements of Section 106 of the NHPA.

IV. Finding of No Significant Impact

In accordance with the requirements in 10 CFR part 51, the NRC staff has concluded that the proposed action will not significantly affect the quality of the human environment. Therefore, the NRC staff has determined, pursuant to 10 CFR 51.31, "Determinations based on environmental assessment," that preparation of an EIS is not required for the proposed action, and pursuant to 10 CFR 51.32, "Finding of no significant impact," a FONSI is appropriate. Consistent with 10 CFR 51.32(a)(4), this FONSI incorporates the EA set forth in this notice by reference.

V. Availability of Documents

The documents identified in the following table are available to interested persons through one or more of the following methods, as indicated.

DOCUMENT	ADAMS ACCESSION NO. / WEB LINK / *FEDERAL REGISTER* CITATION
NUREG-1910, "Generic Environmental Impact Statement for Uranium Milling Facilities—Final Report," dated May 2009.	ML091530075 (Package)
Memorandum of Understanding between the Bureau of Land Management, Department of the Interior, and the Nuclear Regulatory Commission, and Independent Agency, dated February 14, 2013.	ML13072A778
Supplement 4 of NUREG-1910, "Environmental Impact Statement for the Dewey-Burdock Project in Custer and Fall River Counties, South Dakota: Supplement to the Generic Environmental Impact Statement for In-Situ Leach Uranium Milling Facilities — Final Report," dated January 31, 2014.	ML14024A477 (Volume 1) ML14024A478 (Volume 2)
Powertech USA, Inc. License Renewal Application for the Dewey-Burdock In Situ Uranium Recovery Project Located in Custer and Fall River Counties, South Dakota, dated March 31, 2025.	ML25091A216 (Package)
U.S. Bureau of Land Management Letter, "Section 106 Consultation Process for Powertech's License Renewal Application for the Dewey-Burdock ISR Project in Custer and Fall River Counties, South Dakota," dated March 6, 2025.	ML25071A049
U.S. Environmental Protection Agency, Region 8, Letter, "Section 106 Process for the Dewey-Burdock Uranium Recovery Project," dated November 14, 2025.	ML25335A023
Final Programmatic Agreement Among the U.S. Nuclear Regulatory Commission, U.S. Bureau of Land Management, U.S. Environmental Protection Agency, South Dakota State Historic Preservation Office, and Powertech (USA), Inc. Regarding the	ML26159A166 (Package)

Dewey-Burdock In Situ Uranium Recovery Project Located in Custer and Fall River Counties, South Dakota, dated June 4, 2026.	
Environmental Assessment for the License Renewal for the Dewey-Burdock Uranium Recovery Project in Fall River and Custer and Fall River Counties, South Dakota, dated June 2026.	ML26163A295

Authority: 42 U.S.C. 2011 *et seq*.

Dated: June 15, 2026.

For the Nuclear Regulatory Commission.

Robert Sun,
Chief,
Environmental Review Materials Branch,
Division of Spent Fuel Storage,
and Transportation,
Office of Nuclear Material Safety,
and Safeguards.

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