



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

January 24, 2025

Honorable Gene Small, President
Northern Cheyenne Tribe
P.O. Box 128
Lame Deer, MT 59043

SUBJECT: U.S. NUCLEAR REGULATORY COMMISSION INITIATION OF SECTION 106 CONSULTATION AND NEPA ENVIRONMENTAL REVIEW FOR THE LICENSE RENEWAL APPLICATION OF POWERTECH (USA) INC.'S DEWEY-BURDOCK URANIUM RECOVERY PROJECT IN CUSTER AND FALL RIVER COUNTIES, SOUTH DAKOTA (DOCKET NUMBER: 40-9075)

Dear President Gene Small:

The U.S. Nuclear Regulatory Commission (NRC) is considering a license renewal request from Powertech (USA) Inc. (Powertech) submitted on March 4, 2024, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), Part 40, "Domestic Licensing of Source Material," for the Dewey-Burdock in situ uranium recovery (ISR) project in Custer and Fall River Counties, South Dakota. On April 8, 2014, the NRC issued source material license [SUA-1600](#) to Powertech for the Dewey-Burdock ISR project with a 10-year license term. Powertech is requesting renewal of NRC license SUA-1600 for a 20-year term. The Dewey-Burdock ISR project, however, has not been constructed. As Powertech explains in the license renewal application, "[t]here have been no activities undertaken at the site" and "[t]he project is still years (2-3) away from the ability to start construction." If the NRC renews license SUA-1600, Powertech will have met the NRC's requirements to be able to continue to pursue construction and operation of an ISR facility at the Dewey-Burdock ISR project site. Powertech's license renewal application is available through the NRC's Agencywide Documents Access and Management System (ADAMS), accessible at <https://www.nrc.gov/reading-rm/adams.html> under Accession No. [ML24081A108](#).

As part of the NRC's licensing review, the NRC staff is initiating its Section 106 consultation under the National Historic Preservation Act of 1966, as amended (NHPA) and its implementing regulations at Title 36 of the *Code of Federal Regulations* (36 CFR) Part 800, "Protection of Historic Properties." Consistent with 36 CFR 800.3(a), the NRC's federal action is an undertaking that has the potential to cause effects on historic properties. The NRC staff is also preparing an environmental assessment (EA) in accordance with 10 CFR 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions," the NRC's regulations that implement the National Environmental Policy Act (NEPA) of 1969, as amended. Therefore, the NRC staff is coordinating the Section 106 process with the preparation of the EA consistent with 36 CFR 800.8(a).

Regulatory History

In support of the issuance of NRC license SUA-1600 to Powertech in April 2014, the NRC staff prepared a safety evaluation report ([ML14043A347](#)), which formed the basis for the NRC staff's

conclusion that Powertech's license application complied with the NRC regulations at 10 CFR 40 and 20, "Standards for Protection Against Radiation." Additionally, in accordance with 10 CFR 51, the NRC published a supplemental environmental impact statement (SEIS) on January 31, 2014 (see [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" found at [ML14029A406](#)), documenting its evaluation of potential environmental impacts from construction, operation, aquifer restoration, and decommissioning of the Dewey-Burdock ISR project. Subsequently, the NRC staff published the record of decision for the issuance of license SUA-1600 in the *Federal Register* (FR) (see [79 FR 21302](#)), which was updated on December 3, 2020 (see [85 FR 80194](#)).

The NRC staff also executed a [Programmatic Agreement](#) (PA) on April 7, 2014, which satisfied the NRC's obligations under the Section 106 process of the NHPA for the issuance of NRC license SUA-1600. The 2014 PA can be found in Enclosure 1 or at [ML21005A099](#). Signatories to the PA include the NRC, the South Dakota State Historic Preservation Officer, the Advisory Council on Historic Preservation, the U.S. Bureau of Land Management (BLM), the U.S. Environmental Protection Agency (EPA), and Powertech. BLM and EPA designated the NRC as the lead agency for Section 106 compliance pursuant to 36 CFR 800.2(a)(2). While the 2014 PA has expired, it had not been implemented. Additionally, license SUA-1600 contains a cultural resource condition (see condition 9.8 of SUA-1600 [ML20276A164](#)), which tied the 2014 PA to the license).

Enclosure 2 provides a summary of the NRC staff's Section 106 consultation for the issuance of license SUA-1600 for the Dewey-Burdock ISR project.

Undertaking's Project Location and Proposed Activities

Powertech requested renewal of NRC license SUA-1600 for the Dewey-Burdock ISR project for a 20-year term. As previously discussed, the project has not been constructed and the scope of the planned project has not changed. Powertech plans to recover uranium from the ore body using the ISR process and produce yellowcake, which is used in the production of fuel for commercially-operated nuclear power reactors.

The Dewey-Burdock ISR project will be located in Custer and Fall River Counties, South Dakota, approximately 21 kilometers (km) [13 miles (mi)] north-northwest of Edgemont, the nearest population center, 64 km (40 mi) west of the city of Hot Springs, and 80 km (50 mi) southwest of the city of Custer, in South Dakota. The project area covers 4,282 hectares (ha) [10,580 acres (ac)] and is composed of two contiguous areas: the Burdock area and the Dewey area. Most of the surface land area is privately-owned, while approximately 97.1 ha (240 ac) or 2.3 percent of the surface land area are under the control of BLM. Proposed facilities include a central processing plant in the Burdock area, a satellite facility in the Dewey area, wellfields (injection and production wells), monitoring wells, Class V deep injection wells and/or land application areas for disposal of liquid wastes, and the associated infrastructure (e.g., pipelines and surface impoundments). Enclosure 3 shows the location of the project and the potential wellfield areas. Additional information about the undertaking can be found in Appendix A of NRC's 2014 PA and Section 2.1.1 of NRC's 2014 SEIS.

Undertaking's Area of Potential Effects

The Dewey-Burdock ISR project has not been constructed, no activities have been undertaken at the site, and the scope of the project as proposed by Powertech has not changed since the

NRC issued license SUA-1600. Therefore, the area of potential effects (APE) established during the Section 106 process for the issuance of NRC license SUA-1600 is the APE the NRC staff is defining for this undertaking consistent with 36 CFR 800.4(a)(1). As described in Appendix A of the 2014 PA, the APE for the Dewey-Burdock ISR project coincides with the extent of potential ground disturbance resulting from proposed facility construction and operational activities. The introduction of new visual, auditory, or other sensory elements also has the potential to diminish the integrity of historic properties.

In terms of effects, the APE for the Dewey-Burdock ISR project can vary depending on the option selected by Powertech to dispose of liquid wastes generated during uranium recovery operations. Powertech's preferred disposal option is through Class V deep injection wells. If the capacity of the deep injection wells is not sufficient, Powertech plans to dispose liquid wastes via land application, or a combination of both methods. The proposed land disturbance breakdown for Class V deep injection wells and land application options is provided in Table 1 below.

The APE for visual impacts (indirect effects) includes areas within a 4.8 km (3 mi) radius of the central processing plant in the Burdock area and the satellite processing facility in the Dewey area as these will be the tallest buildings constructed at the proposed Dewey-Burdock ISR project site. Based on proposed locations of the central processing plant and the satellite processing facility, the APE for visual impacts will extend a maximum of 2.3 km (1.45 mi) from the eastern project boundary in the Burdock area and a maximum of 2.7 km (1.7 mi) from the western project boundary in the Dewey area. Enclosure 3 shows the APE.

TABLE 1. TOTAL LAND DISTURBANCE ESTIMATES

Liquid Waste Disposal Option	Including Wellfields*
Land application	565.7 ha (1,398 ac) 13.2 percent of the project area
Class V deep well injection	98.3 ha (243 ac) 2.3 percent of the project area

*Estimates consider site facilities, pipeline installation, impoundments (ponds), access roads, and center pivot circles for land application option. The project would also include a buffer zone of 969 ha (2,394 ac) surrounding the 98.3 ha (243 ac).

Source: NRC's 2014 SEIS

Initiation of Section 106 Process for the Undertaking

In accordance with 36 CFR 800.2(c)(2)(ii) and because the Northern Cheyenne Tribe participated in the Section 106 consultation for the 2014 issuance of NRC license SUA-1600, the NRC staff is inviting the Northern Cheyenne Tribe to participate as a consulting party in the Section 106 process for NRC staff's review of Powertech's license renewal application for the Dewey-Burdock ISR project.

Considering the proposed undertaking has not changed, has not been constructed, and the 2014 PA has not been implemented, the NRC staff proposes to execute a new PA, pursuant to 36 CFR 800.4(b)(2), using the 2014 PA as a starting point draft for development of the new PA to satisfy the Section 106 obligations under NHPA. The NRC staff is seeking input on this proposal or regarding any alternative proposals for Section 106 compliance for this undertaking. Additionally, the NRC staff is seeking input on the content of a new PA. Should the NRC staff

confirm developing a new PA using the 2014 PA as a starting point, the staff will consider the comments on the 2014 PA received in response to this initiation request in developing a first draft of a new PA for consulting party review.

If the Northern Cheyenne Tribe would like to participate as a consulting party, please respond in writing and provide any comments on the execution of a new PA, including its content, to Diana Diaz-Toro, Project Manager, at diana.diaz-toro@nrc.gov within 45 days of the receipt of this letter.

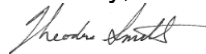
As part of the NRC staff's Section 106 consultation, the NRC staff plans to hold virtual meetings with potential consulting parties within these 45 days to discuss the NRC's license renewal review for, regulatory history of, and Section 106 path forward for the Dewey-Burdock ISR project, and answer questions. The NRC staff will coordinate and provide meeting details via phone and/or email in the coming weeks.

Because the NRC staff is coordinating the Section 106 review with its NEPA review, the NRC staff also welcomes any information you may want to provide regarding the NEPA environmental review.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders," a copy of this letter will be available for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's ADAMS.

If you have any questions, please contact Diana via email, or by phone at 301-415-0930.

Sincerely,



Signed by Smith, Theodore
on 01/24/25

Theodore Smith, Acting Deputy Director
Division of Rulemaking, Environmental,
and Financial Support
Office of Nuclear Material Safety
and Safeguards

Docket No. 40-9075

Enclosures:
As stated

cc:
Teanna Limpy, THPO
teanna.limpy@cheyennenation.com

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**Summary of the U.S. Nuclear Regulatory Commission Staff's Section 106 Consultation
for the Issuance of License SUA-1600
for the Dewey-Burdock In Situ Uranium Recovery Project**

Appendix B of the [2014 Programmatic Agreement](#) (PA) for the Dewey-Burdock in situ uranium recovery project (Dewey-Burdock ISR project) discusses the U.S. Nuclear Regulatory Commission (NRC) staff's Section 106 consultations for the issuance of license [SUA-1600](#) under the National Historic Preservation Act of 1966, as amended. These consultations supported identification of historic and cultural resources including those of religious and cultural significance to Indian tribes within the area of potential effects (APE), evaluation of whether a property is eligible for listing in the National Register of Historic Places (NRHP), assessment of adverse effects, and identification of measures to avoid, minimize, or mitigate adverse effects on historic properties. A summary of these consultations follows. The 2014 PA is available through the NRC's Agencywide Documents Access and Management System (ADAMS) [ML21005A099](#). ADAMS is accessible at <https://www.nrc.gov/reading-rm/adams.html>.

The NRC initiated the Section 106 review during a face-to-face meeting with the South Dakota State Historic Preservation Officer (SD SHPO) on December 2, 2009. By letters dated March 19, 2010 and September 8, 2010, the NRC initiated the Section 106 consultation with 23 federally-recognized Indian Tribes, including the Cheyenne and Arapaho Tribes of Oklahoma, the Cheyenne River Sioux Tribe, the Crow Nation, the Crow Creek Sioux Tribe, the Eastern Shoshone Tribe, the Flandreau Santee Sioux Tribe, the Fort Peck Assiniboine and Sioux Tribes, the Lower Brule Sioux Tribe, the Lower Sioux Indian Community, the Northern Arapaho Tribe, the Northern Cheyenne Tribe, the Oglala Sioux Tribe, the Omaha Tribe of Nebraska, the Pawnee Nation of Oklahoma, the Ponca Tribe of Nebraska, the Rosebud Sioux Tribe, the Santee Sioux Tribe of Nebraska, the Sisseton-Wahpeton Oyate, the Spirit Lake Sioux Tribe, the Standing Rock Sioux Tribe, the Three Affiliated Tribes (Mandan, Hidatsa & Arikara Nations), the Turtle Mountain Band of Chippewa Indians, and the Yankton Sioux Tribe (collectively Tribes). The NRC staff consulted with the SD SHPO, U.S. Bureau of Land Management (BLM), U.S. Environmental Protection Agency (EPA), the Advisory Council on Historic Preservation (ACHP), and Tribes from 2009 through 2014, culminating with the execution of the 2014 PA in April 2014. The NRC staff's consultation consisted of correspondence, phone calls, emails, site visits, virtual and in-person meetings to answer questions, provide additional information, and gather information in support of identification and evaluation efforts.

The NRC staff also reviewed the Class III cultural resource investigations and evaluative testing reports prepared by the Archaeology Laboratory, Augustana College on behalf of Powertech for the proposed Dewey-Burdock ISR project. Field investigations included pedestrian surveys conducted between July and September 2008, and evaluative testing conducted in 2007, 2008, and 2011. The licensee's Class III archaeological investigations resulted in the identification of 15 historic properties. On February 8, 2013, the NRC staff invited the Tribes to conduct a field survey of the Dewey-Burdock ISR project to identify properties of religious and cultural significance to Tribes. In the spring of 2013, the Dewey-Burdock ISR project site was open to each consulting Tribe to conduct a field survey of any areas within the 4,282 hectares (10,580 acres) Dewey-Burdock ISR license boundary. These surveys resulted in the identification of 47 new cultural discoveries, as well as new features of interest to Tribes at 24 previously reported archaeological sites. Twelve of the new cultural discoveries are located outside of the license boundary. Of the 35 new cultural discoveries located within the license boundary, the Tribes recommended 10 for NRHP-eligibility and 25 remain unevaluated. Based on additional input from a Tribe, the NRC staff changed the eligibility determinations of 12 sites from not eligible to unevaluated. Powertech will protect all unevaluated sites. Further, as described in the 2014 PA, avoidance would be the preferred option for adverse effects. The NRC staff also completed an

assessment of the project's potential visual impacts on historic properties within a 4.8 kilometer (3 mile) radius of the central processing plant in the Burdock area and the satellite processing facility in the Dewey area as these will be the tallest buildings constructed at the proposed Dewey-Burdock ISR project site. Tables 1.0 and 2.0 of the 2014 PA list the identified sites, eligibility determinations, and adverse effects determinations. The tables also describe recommended measures to avoid, minimize, or mitigate adverse effects.

On January 14, 2014, the SD SHPO advised the NRC of its concurrence on the NRHP-eligibility recommendations ([ML14014A307](#)). Because the NRHP-eligibility evaluation of several sites has yet to be completed, Powertech committed to avoid these unevaluated sites.

During the development of the 2014 PA, the NRC staff consulted with the Tribes, SD SHPO, BLM, EPA, ACHP, and Powertech. As described in the 2014 PA, the NRC staff determined a phased approach consistent with Title 36 of the *Code of Federal Regulations* (36 CFR), Part 800, "Protection of Historic Properties," Section 800.4(b)(2) was appropriate to satisfy the Section 106 obligations for the issuance of license SUA-1600 for the Dewey-Burdock ISR project. Specifically, Powertech has not determined the location and extent of ground-disturbing activities associated with the installation of electrical transmission lines necessary for this project. Further, while Powertech's preferred method for disposal of liquid wastes is deep injection well disposal, Powertech might need to use the land application method. Therefore, the need for the land application method to manage and dispose liquid wastes is undetermined. As a result, completion of identification, evaluation, effects determination, and consultation concerning measures to avoid, minimize, or mitigate any adverse effects of historic properties will be carried out in phases. Because avoidance is the preferred method to preserve cultural resources, phasing the evaluation limits unnecessary field testing for eligibility.

The NRC staff hosted four webinars to discuss the content of the PA and sought input from all consulting parties. In response to Tribal comments during the development of the 2014 PA, the NRC staff updated the classification of some Tribal sites from not eligible for listing on the NRHP to unevaluated. This change will require consultation with the Tribes prior to any ground disturbing activities that could affect the sites.

In April 2014, the NRC, ACHP, SD SHPO, BLM, and Powertech entered into PA executed on April 7, 2014, with a duration of 10 years from the date of execution. On November 13, 2020, the EPA joined the PA as a signatory.¹ This PA included stipulations for the protection and evaluation of unevaluated properties within the APE (Stipulation 3), assessment of effects (Stipulation 4), resolution of adverse effects (Stipulation 5), and future identification efforts (Stipulation 6) among other stipulations. Since execution of the PA in April 2014, no project activities have occurred, and the PA has not been implemented. The PA expired in April 2024. However, per condition 9.8 of license SUA-1600, "[i]f the PA is terminated, the licensee shall comply with Stipulation 16(c) of the PA. Therefore, in the event the PA is terminated, Powertech is required to follow the terms and conditions provided in the PA for on-going ground-disturbing activities, and is not permitted to begin ground-disturbing activities in unevaluated areas, until the NRC completes consultation and a new PA is executed, or the NRC has requested, taken into account, and responded to the comments of the ACHP under 36 CFR § 800.7(c)(4)."

¹ EPA signed the 2014 PA for the Dewey-Burdock ISR project as a signatory in accordance with stipulation 7, "Coordination with Other Federal Reviews" ([ML20345A073](#)).