



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

September 17, 2025

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 FOR CROW BUTTE RESOURCES, INC.'S CROW BUTTE PROJECT AND MARSLAND EXPANSION AREA IN DAWES COUNTY, NEBRASKA (DOCKET NUMBER: 40-8943)

Dear President Gene Small:

The purpose of this letter is to initiate Section 106 consultation under the National Historic Preservation Act of 1966, as amended (NHPA), for a U.S. Nuclear Regulatory Commission (NRC) license renewal review. Specifically, the NRC is conducting a review of the environmental effects of Crow Butte Resources, Inc.'s (CBR's) request to renew source material license SUA-1534 for the Crow Butte Project in situ uranium recovery (ISR) facility and Marsland Expansion Area (MEA) in Dawes County, Nebraska. CBR submitted the license renewal application on September 24, 2024, and, in response to NRC's requests for supplemental information (Agencywide Documents Access and Management System (ADAMS) Accession No. [ML25030A279](#)), CBR submitted additional information about the license renewal request and a revised Combined Environmental and Technical Report ([ML25121A171](#)) on April 30, 2025. The NRC accepted CBR's license renewal application for docketing and detailed technical review on July 31, 2025 ([ML25202A079](#)). If the NRC renews license SUA-1534, CBR will have met the NRC's requirements to be able to continue operations at the existing Crow Butte Project facility and to pursue construction and operation at the MEA. The NRC's ADAMS is accessible at <https://www.nrc.gov/reading-rm/adams.html>.

To satisfy the NRC's obligations under the National Environmental Policy Act of 1969, as amended (NEPA), the NRC staff is preparing an environmental assessment (EA) that will be used to determine whether an environmental impact statement is necessary, or a finding of no significant impact is warranted. Therefore, the NRC staff is coordinating the Section 106 process with the preparation of the EA consistent with Title 36 of the *Code of Federal Regulations* (36 CFR) 800.8, "Coordination with the National Environmental Policy Act."

Undertaking's Proposed Activities and Project Location

The existing Crow Butte Project consists of 11 wellfields, a central processing facility (CPF), an office building, evaporation ponds, parking, access roads, and a research and development facility. The Crow Butte Project license area is approximately 1,149 hectares (ha) (2,840 acres [ac]) of which approximately 485 ha (1,199 ac) have been affected by licensed activities. The entire license area, with the exception of one 16 ha (40 ac) parcel owned by the State of Nebraska, is privately-owned land. The Crow Butte Project is located approximately 6.4

kilometers (km) (4 miles [mi]) southeast of the city of Crawford, Nebraska, in portions of Sections 11, 12, 13, and 24 of Township 31 North, Range 52 West and Sections 18, 19, 20, 29, and 30 of Township 31 North, Range 51 West, Dawes County, Nebraska. In November 2014, the NRC renewed source material license SUA-1534 for the Crow Butte Project facility with a 10-year license term. The license authorized CBR to produce up to 907,185 kilograms (2 million pounds) per year of triuranium octoxide (U_3O_8), or yellowcake.

In May 2018, the NRC amended the license to add the MEA. CBR intends to construct the MEA and conduct ISR operations there as an extension of the ISR operations at the existing Crow Butte Project facility. At Marsland, CBR plans to extract uranium-bearing water from 11 wellfields, process the uranium from the water onto ion exchange resin at a satellite facility located within the MEA, and transport the loaded resin by truck to the existing Crow Butte CPF for further processing and production into yellowcake. The MEA is located 18 km (11 mi) south-southeast of the existing Crow Butte CPF and 24 km (15 mi) south-southeast of Crawford, Nebraska, within Sections 26, 35, 36 of Township 30 North, Range 51 West, Sections 1, 2, 11, 12, 13 of Township 29 North, Range 51 West and Sections 7, 18, 19, 20, 29, 20 of Township 29 North, Range 50 West. The entire MEA license area is privately owned except for the southwest quarter of Section 36, which is State Trust Land.

CBR is requesting renewal of NRC license SUA-1534 for a 20-year term. The existing Crow Butte Project facility began commercial operations in 1991 and ceased commercial operations in 2018. Seven mine units are undergoing groundwater restoration, but three mine units remain on standby and could be restarted. CBR anticipates beginning construction of the MEA when economic conditions are favorable. CBR does not have an estimate at this time for beginning work in the Marsland area.

Undertaking's Area of Potential Effects

As documented in [NRC's 2014 EA \(ML14288A517\)](#) for the previous license renewal review, the staff defined the entire 1,149 ha (2,840 ac) license area for the existing Crow Butte Project facility as the area of potential effects (APE). Likewise, the NRC staff defined the APE for the MEA during the 2018 license amendment review as the entire MEA license area, which comprises approximately 1,870 ha (4,622 ac). Enclosure 1 shows the locations of the Crow Butte Project and MEA (Figure 1) and the APEs (Figures 2 and 3).

Identification Efforts to Date

Cultural resources investigations have been conducted at both the Crow Butte Project and the MEA. As described in the NRC's 2014 EA, the University of Nebraska and the Nebraska State Historical Society conducted intensive field surveys for historical and archaeological sites in 1982 and 1987, respectively, within the Crow Butte Project license area. The surveys recorded a total of 21 prehistoric and historic period archaeological sites. Table 3-13 of NRC's 2014 EA lists the 21 recorded sites. Six sites were evaluated as being "potentially eligible" for listing in the National Register of Historic Places (NRHP). During construction and operation of the existing facility, CBR has avoided impacts on these six sites, treating them as eligible sites and implementing avoidance measures.

In 2021, Quality Services, Inc., conducted a tribal cultural survey with the Oglala Sioux Tribe within the Crow Butte Project's license area ([2022 tribal cultural survey report \(ML22160A272\)](#)). The survey identified 24 archaeological sites or isolated finds that were recommended as not eligible for listing in the NRHP, and four archaeological sites or isolated finds that were

recommended as eligible for listing in the NRHP or were characterized as unevaluated. CBR treats all sites recommended as eligible and all unevaluated sites as eligible sites. The NRC staff concluded that historic properties would not be affected because these four sites are located outside the developed area where ground disturbing activities would occur. In addition to these archaeological sites and isolated finds, various other resources of significance to the Oglala Sioux Tribe (e.g., plant species, fossils, waterways, bison remains, and vision quest sites) were also documented in the 2022 survey report, and the NRC staff found these not eligible for listing in the NRHP. The NRC staff evaluated these resources under NEPA and concluded that there would be no significant impact on any of the identified resources. The [NRC's 2022 supplemental EA \(ML22278A108\)](#) provides additional information about these sites and resources.

In 2011 and 2012, ARCADIS U.S., Inc. conducted an intensive field survey of 1,821 ha (4,500 ac) of the MEA. ARCADIS recorded 15 newly discovered historic period sites and six historic isolated finds and further documented two previously recorded historic homesteads. None of the sites were found eligible for listing in the NRHP. Table 3-11 of [NRC's 2018 EA \(ML18103A145\)](#) lists the results of those inventories. In 2013, the Crow Nation and Santee Sioux Nation conducted field investigations at the MEA and identified 12 sites of potential religious and cultural significance. None of the sites were found eligible for listing on the NRHP and, thus, the NRC staff concluded that no historic properties would be affected. However, the Crow Nation and the Santee Sioux Nation recommended that CBR observe a buffer zone with a radius of either 30 or 61 meters (100 or 200 feet) during project construction and operation activities and use Tribal monitors if there are future project impacts in the immediate vicinity of the identified sites. Additional information can be found in a [2013 tribal field survey report \(ML13093A123\)](#), [2013 NRC staff field documentation \(ML14174B378\)](#), and NRC's 2018 EA.

Initiation of Section 106 Process for the Undertaking

In accordance with 36 CFR 800.2(c)(2)(ii), the NRC staff is inviting the Oglala Sioux Tribe to participate as a consulting party in the Section 106 process for the staff's review of CBR's license renewal request for the Crow Butte Project and MEA.

The NRC staff's review will include an assessment of potential effects on historic and cultural resources and historic properties. The NRC staff anticipates completing its environmental review by July 15, 2026.

The NRC staff wishes to ensure that Indian Tribes that might attach religious and cultural significance to historic properties in the APE are afforded the opportunity to identify their concerns, provide advice on the identification and evaluation of historic properties, including those of traditional religious and cultural significance, and, if necessary, participate in the resolution of any adverse effects to such properties. The NRC staff invites you to submit any comments or concerns that you may have to offer on the NRC's Section 106 consultation and historic and cultural resources evaluation within 30 days of receipt of this letter.

As part of its Section 106 consultation, the NRC staff plans to hold an informational virtual meeting with potential consulting Tribes within 30 days. The NRC staff will coordinate and provide meeting details via email in the coming weeks.

Please note that future correspondence will be sent via electronic format. If you would prefer to receive hard copy correspondence, please contact the people listed below.

If you have any questions, please contact Diana Diaz-Toro by email at Diana.Diaz-Toro@nrc.gov or by phone at 301-415-0930; Beau Goldstein by email at Beau.Goldstein@nrc.gov or by phone at 301-415-1765; or Christine Pineda by email at Christine.Pineda@nrc.gov or by phone at 301-415-6789.

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.

Sincerely,



Signed by Davis, Desiree
on 09/17/25

Desiree Davis, Acting Chief
Environmental Technical Review Branch 1
Division of Rulemaking, Environmental,
and Financial Support
Office of Nuclear Material Safety
and Safeguards

Docket No. 40-8943

Enclosure:
Location of the Project and
Area of Potential Effects

cc: Teanna Limpy, Tribal Historic Preservation Officer
teanna.limpy@cheyennenation.com

Letters Initiating Section 106 Consultation for Crow Butte License Renewal DATE September 18, 2025

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ADAMS Accession No.: ML25253A339; Ltr ML25255A246

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