

NUCLEAR REGULATORY COMMISSION

[Docket No. 40-8943; NRC-2012-0281]

Crow Butte Resources, Inc.

Marsland Expansion Area

AGENCY: Nuclear Regulatory Commission.

ACTION: Environmental assessment and finding of no significant impact; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of an amendment to source materials license SUA-1534 that would authorize Crow Butte Resources, Inc., to construct and operate an in situ uranium recovery (ISR) expansion facility at the Marsland Expansion Area (MEA) site in Dawes County, Nebraska. The NRC staff has prepared an environmental assessment (EA) and finding of no significant impact (FONSI) for this licensing action.

DATES: The EA and FONSI referenced in this document are available on May 3, 2018.

ADDRESSES: Please refer to Docket ID **NRC-2012-0281** 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 Web Site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2012-0281**. Address questions about NRC dockets to Jennifer Borges;

telephone: 301-287-9127; email: Jennifer.Borges@nrc.gov. For technical questions, contact the individual 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 <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "[ADAMS Public Documents](#)" and then select "[Begin Web-based ADAMS Search](#)." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or via email to pdr.resource@nrc.gov. The ADAMS accession number for each document referenced (if it is available in ADAMS) is provided the first time that it is mentioned in this document.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

FOR FURTHER INFORMATION CONTACT: Jean Trefethen, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-0867, email: Jean.Trefethen@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Introduction

The NRC staff is considering a request for an amendment to source materials license SUA-1534, issued to Crow Butte Resources, Inc. (CBR or the licensee), to authorize construction and operation of the MEA, an ISR expansion facility that would be located in Dawes County, Nebraska. In accordance with NRC's 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," that implement the National Environmental Policy Act of 1969, as amended (NEPA) (42 U.S.C. 4321 *et seq.*), the NRC staff has prepared an EA documenting its environmental review of the license amendment application that included an environmental report (ADAMS Accession No. ML17325B322) and technical report, as amended (ADAMS Accession Nos. ML15328A422, ML16155A267, ML16155A268, and ML17193A314).

On December 15, 2017 (82 FR 59665), the NRC issued the draft FONSI and draft EA for the proposed MEA license amendment for public review and comment. The NRC received 20 comments. Appendix A of the EA contains the NRC's responses to those comments. Based on the environmental review and consideration of comments received on the draft EA, the NRC staff has determined that the proposed action will not significantly affect the quality of the human environment and preparation of an environmental impact statement is not required, and therefore a FONSI is appropriate.

II. Summary of Environmental Assessment

The EA is publicly available in ADAMS using ADAMS Accession No. ML18103A145. A summary description of the proposed action and expected environmental impacts is provided in this notice.

Description of the Proposed Action

The proposed Federal action is approval of CBR's license amendment application, which would authorize the expansion of CBR's commercial-scale uranium recovery operations to the MEA. Under the proposed action, the licensee would perform construction, uranium recovery operations, aquifer restoration, and decommissioning activities at the proposed MEA, which would encompass approximately 4,622 acres (1,870 hectares). The CBR has proposed eleven production units in the MEA, which is located 11.1 miles (17.9 kilometers) south-southeast of the central processing facility (CPF) at the existing CBR license area. Uranium recovery operations at the MEA would include injection of lixiviant into and pumping of water from the uranium-bearing aquifer, removal of uranium from the pumped water using ion exchange, and transport of loaded ion exchange resin to the CPF at the existing CBR license area for further processing into yellowcake. Approval of the proposed action would authorize CBR to conduct uranium recovery operations at the MEA in accordance with its license amendment application, source materials license SUA-1534, and the requirements in 10 CFR part 40, "Domestic Licensing of Source Material."

Environmental Impacts of the Proposed Action

In the EA, the NRC staff assessed the potential environmental impacts from the construction, operation, aquifer restoration, and decommissioning of the proposed MEA on the following resource areas: land use; geology and soils; water resources; ecological resources; climatology, meteorology, and air quality; historic and cultural resources; demographics and socioeconomics; environmental justice; transportation; noise; scenic and visual resources; public and occupational health; and hazardous materials and waste management. The NRC staff also considered the cumulative impacts from past, present, and reasonably foreseeable future actions when combined with the proposed action.

All long-term impacts were determined to be SMALL. The NRC staff concluded that approval of the proposed action would not result in a significant increase in short-term or long-term radiological risk to public health or the environment. The NRC staff identified a potential for MODERATE short-term impacts to a few resource areas, including noise (temporary impacts to the nearest resident to the MEA during construction), ecological resources (localized and temporary impacts resulting from the loss and slow recovery of forest habitat), and groundwater resources (short-term lowering of the potentiometric surface of the Basal Chadron Sandstone aquifer). While potential MODERATE impacts would be expected for specific aspects of these resource areas, the impacts are short-term and temporary. Therefore, the NRC staff concluded that the overall impacts related to these resource areas would be SMALL. Furthermore, the NRC staff found that there would be no significant negative cumulative impact to any resource area from the MEA when added to other past, present, and reasonably foreseeable future actions, and that a potential positive cumulative socioeconomic impact could result from additional tax revenue, employment, and local purchases.

Environmental Impacts of the Alternatives to the Proposed Action

As an alternative to the proposed action, the staff considered denial of the proposed action (*i.e.*, the “no-action” alternative). Under the no-action alternative, the NRC would not authorize CBR to construct and operate the MEA. In situ uranium recovery activities would not occur within the MEA and the associated environmental impacts also would not occur.

III. Finding of No Significant Impact

In accordance with the NEPA and 10 CFR part 51, the NRC staff has conducted an environmental review of CBR’s request for a license amendment to NRC source materials license SUA-1534 that would authorize construction and operation of the MEA. Based on its environmental review of the proposed action, as documented in the EA, the NRC staff has determined that granting the requested license amendment would not significantly affect the quality of the human environment. Therefore, the NRC staff has determined, pursuant to 10 CFR 51.31, that preparation of an environmental impact statement is not required for the proposed action and a FONSI is appropriate.

Dated at Rockville, Maryland, this 27th day of April, 2018.

For the Nuclear Regulatory Commission.

/RA/

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