



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

March 4, 2021

MEMORANDUM TO: File: 040-08943  
License: SUA-1534  
Licensee: Crow Butte Resources, Inc.  
Facility: Crow Butte Project, Dawes County, NE

FROM: Bill Von Till, Branch Chief  
Uranium Recovery and Materials  
Decommissioning Branch  
Division of Decommissioning, Uranium Recovery  
and Waste Programs  
Office of Nuclear Material Safety  
and Safeguards

SUBJECT: EXPLANATION FOR WHY ACTIONS QUALIFIED FOR SELECTED  
CATEGORICAL EXCLUSION: AMENDMENT 5 TO SOURCE AND  
BYPRODUCT MATERIALS LICENSE NO. SUA-1534 CROW BUTTE  
RESOURCES, INC., DAWES COUNTY, NE

The purpose of this memorandum is to document the basis for the U.S. Nuclear Regulatory Commission (NRC) staff's conclusion with respect to the satisfaction of the categorical exclusion criteria under Title 10 of the *Code of Federal Regulations* (10 CFR) 51.22(c)(11). This basis is also described in the technical evaluation report for this amendment request. The staff has determined that Amendment 5 to License SUA-1534 qualifies for a categorical exclusion under 10 CFR 51.22(c)(11) because the license amendment is a schedule change as a result of a change in process operations that meets the five criteria in 10 CFR 51.22(c)(11), as explained below:

- There is no significant increase in the types or amounts of any effluents that may be released offsite;

The purpose of granting an extension to the licensee's restoration schedule as described in this review is to extend restoration to enable the licensee to complete decommissioning of individual mine units. There is no change in the restoration process previously approved and evaluated by the NRC staff.

Therefore, there will be no change in the types of effluents that may be released offsite.

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The NRC staff evaluated the most recent annual report with measured emissions from the licensee's operations (refer to Section 2.2.4 of NRC's Agencywide Documents Access and Management System (ADAMS) Accession No. ML19225C170). According to these monitoring results, facility effluents are comprised almost exclusively of radon and its progeny.

The NRC staff reviewed historical radon concentrations measured at the licensee's environmental monitoring stations AM-1 through AM-6 and AM-8 (for sampling locations, refer to Appendix I of ADAMS Accession No. ML20248H492). Measured values from 1991–2007 (refer to Figures 5.8-10 through 5.8-16 of ADAMS Accession No. ML073480264) and the latest values available from 2016–2018 (refer to Table 17 of ADAMS Accession No. ML19225C170) indicate no discernable upward trend of effluents that may be released offsite.

Therefore, this action will not result in a significant increase in the amounts of any effluents that may be released offsite.

- There is no significant increase in individual or cumulative occupational radiation exposure;

The NRC staff evaluated historical individual and cumulative occupational radiation exposure data from 1994–2006 (refer to Sections 5.8.2–5.8.4 of ADAMS Accession No. ML073480264) as well as the most recent (2016–2018) individual occupational radiation exposure data (ADAMS Accession No. ML19225C170). Based on this evaluation, the NRC staff concludes that there are no discernable upward trends in individual or cumulative occupational radiation exposure attributable to restoration activities. In addition, the 2018 data indicates that occupational radiation exposures at the licensee's facility remain below levels that require individual monitoring in accordance with 10 CFR 20.1502.

Therefore, this action will not result in a significant increase in individual or cumulative occupational radiation exposure.

- There is no significant construction impact,

Granting an extension to the licensee's restoration schedule as described in this review will not involve construction activities.

Therefore, this action will not result in a significant construction impact.

- There is no significant increase in the potential for or consequences from radiological accidents.

The purpose of granting an extension to the licensee's restoration schedule as described in this review is to extend restoration to enable the licensee to complete decommissioning of individual mine units. There is no change in the

restoration process previously approved and evaluated by the NRC staff.

Therefore, this action will not result in a significant increase in the potential for or consequences from radiological accidents.

Pursuant to staff requirements memorandum dated February 28, 1984, to SECY-83-286, and guidance in NUREG-1748, as designee for the Division Director, this memorandum documents my concurrence with the staff's evaluation. This memorandum will be placed as a publicly available record in ADAMS under the above referenced docket and linked to the Amendment 5 package (ADAMS Accession No. ML20324A071).

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