

CAMECO RESOURCES
CROW BUTTE OPERATION
86 Crow Butte Road
P.O. Box 169
Crawford, Nebraska 69339-0169



(308) 665-2215
(308) 665-2341 – FAX

January 28, 2020

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ATTN: Document Control Desk Director
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Supplemental information to Alternate Decommissioning Schedule for License
SUA-1534 (November 2014) submitted on December 9, 2019

Dear Director:

On February 5, 2018, Cameco Resources announced its plan to cease production at its U.S. operations due to continued low uranium prices. This announcement was followed by a formal letter dated April 2, 2018, which notified NRC of cessation of production at the Crow Butte Mine (CBO). In this letter, CBO stated that "All production equipment will remain in standby to provide the option to restart full operations in the future should market conditions warrant". Also at that time CBO, committed to providing NRC with an alternate decommissioning schedule for the full site. By letter dated December 19, 2019, CBO submitted an alternate decommission schedule for the full site (Mine Units (MU) 2-11). This submittal included the current status of the mine units, but did not adequately describe the current status of Mine Units 8-11, which have not yet been placed into restoration status. The purpose of this letter is to more clearly communicate the current status of Mine Units 8-11.

As noted in the April 2, 2018 letter, production equipment will remain in standby to provide the option to restart full operations in the future should market conditions warrant. Mine Units 8-11 are currently in this standby mode, awaiting either initiation of restoration in these mine units, or market conditions that warrant resumption of full production in these mine units. In this standby mode, injection has been suspended and an overall inward hydraulic gradient is maintained to control potential excursions. In this state, CBO has the operational ability to easily resume production operations should market conditions warrant. Prior to initiation of restoration activities, a split sample will be collected from each mine unit along with Nebraska Department of Environmental Quality (NDEQ), and a restoration plan will be submitted to NDEQ, in accordance with Class III Underground Injection Control Permit (UIC) requirements.

The primary limiting factor in placing Mine Units 8-11 into restoration is waste water disposal capacity. The restoration schedule submitted with the December 19, 2019 letter reflects the

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site's projected ability to restore impacted groundwater based on the current waste water disposal capacity. As groundwater restoration goals are met in mine units currently in the treatment phase of restoration (MU6 and MU7), these mine units move into the stability monitoring phase of restoration. When this occurs, large volumes of waste water will no longer be generated from the treatment of groundwater in the mine unit, and waste water disposal capacity will become available. As waste water disposal capacity becomes available, additional mine units (MU8, for example) will be placed into restoration through the previously mentioned process, assuming production has not been resumed in these mine units as a consequence of favorable market conditions.

In the interim, the public remains protected from exposure through the site's excursion control process. As previously mentioned, the site maintains an overall inward hydraulic gradient, or "bleed" throughout the site. Additionally, the site, including mine units in standby mode, is still monitored with the site's environmental sampling program which includes in part: bi-weekly sampling of the perimeter monitor wells and shallow monitor wells, 5-year mechanical integrity testing (MIT) of all wells onsite, quarterly sampling of private wells in the area, quarterly sampling of on and off-site surface water, as well as required air sampling programs and continuous flow and pressure monitoring. These monitoring activities are summarized in the semiannual report submitted to NRC.

If you have any questions or require any further information, please do not hesitate to call me at 1(308)665-2215 ext. 117.

Sincerely,
CAMECO RESOURCES
CROW BUTTE OPERATION

Walter Nelson
SHEQ Coordinator

cc: CBO - File
Marty Link- NDEQ Program Coordinator
ec: Amanda Jones- NDEQ Program Coordinator
CR-Electronic File