From: Burrows, Ronald
Sent: Thursday, December 18, 2014 4:15 PM
To: Crow Butte (Larry_Teahon@cameco.com)
Cc: Lancaster, Thomas
Subject: Acknowledgement of receipt and status of license condition submittals for 10.12, 11.11, and 11.15 under renewed license SUA-1534

Larry Teahon
Manager, SHEQ
86 Crow Butte Road
P.O. Box 169
Crawford, Nebraska 69339-0169

SUBJECT: ACKNOWLEDGMENT OF RECEIPT AND STATUS OF VARIOUS LICENSE CONDITION SUBMITTALS UNDER RENEWED LICENSE SUA-1534, CROW BUTTE RESOURCES, INC., DAWES COUNTY, NEBRASKA, DOCKET # 040-08943

Dear Mr. Teahon,

Below is a description of submittals the Nuclear Regulatory Commission (NRC) staff has received in regards to Crow Butte Resources, Inc.'s (CBR's) renewed license SUA-1534 (ML13324A090).

License Condition 10.12 – By letter dated December 12. 2014 (ML14351A128), CBR submitted a response discussing its security measures for mine units and header houses. This submittal is accepted for a detailed technical review. If, after beginning the technical review, the NRC staff has questions on this submittal, CBR will be notified.

License Condition 11.15 – By letter dated December 4, 2014, CBR submitted a response discussing its proposed operational soil sampling program. The NRC staff is in the process of making this document publicly available in NRC's Agencywide Documents Access and Management System (ADAMS).

This submittal is accepted for a detailed technical review. If, after beginning the technical review, the NRC staff has questions on this submittal, CBR will be notified.

License Condition 11.11 A-D – By letter dated June 24, 2014 (ML14178A063), CBR submitted a response discussing its proposed approach for addressing License Condition 11.11 A-C.

Because CBR did not address License Condition 11.11 D in the June 24, 2014 , submittal, the NRC staff does not accept this submittal for a detailed technical review. However, the NRC staff provides the following observations on the responses to License Condition 11.11 A-C:

License Condition 11.11 A

Section 1.0, pages 1-2

- CBR states that particulate and gamma sampling at the current stations will continue in order to address 10 CFR 40.65. It is not clear to NRC staff how particulate

concentrations from these stations will be used to derived quantities of radionuclides as required by 10 CFR 40.65.

- Regarding the use of track etch detectors in ventilation systems, the NRC staff observes that this approach has not been approved by the EPA. Furthermore, the NRC staff has discussed this configuration with Landauer and has determined that this approach has not been tested or calibrated by Landauer. For an approved approach, refer to Amendment 2 of the Uranerz license (ML14087A244).
- Please provide a more detailed operational analysis for substantiating the use of three sample sets to represent long-term conditions.
- Please specify how a "significant change to the process" is defined.

Section 1.1, pages 2-3

- How are the 5 highest predicted radon concentration locations determined?
- What radon concentration will be used in the plant activity formula (average, maximum, etc.)?
- For tank releases not measured, how will these releases be estimated?
- Please provide a drawing(s) that indicates where radon concentrations and flow rates will be measured.

Section 1.2, page 3

- With only 5 header houses being measured for radon during any 6-month period, how will it be determined that any single header house is "significantly" higher than the others?
- What value for "Time" will be used in the header house activity equation?

Section 1.3, page 3

- What value for "Release rate" will be used for the wellfield activity formula?

Section 1.4, pages 3-4

- Please provide a more detailed discussion on the measurement data used for ongoing MILDOS model comparisons.

License Condition 11.11 B, page 4

- Please describe any plans for updating this analysis on an annual basis.

License Condition 11.11 C, pages 4-5

- Please describe how occupancy factors for the Edelman resident will be determined.
- Regarding the alternate approach for determining the dose to the maximally exposed member of the public, the NRC staff observes that strictly calculational methods are not consistent with current guidance and therefore are generally not accepted. The NRC staff would have to specifically approve this methodology.

TACs will be opened to track the costs of reviewing these actions. These TACs will be sent to you at a later date.

In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this e-mail will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's ADAMS. ADAMS is accessible from the NRC web site at http://www.nrc.gov/reading-rm/adams.html.

If you have any questions concerning the above, please contact me at (301) 415-6443 or via email
at Ronald.Burrows@nrc.gov.

Sincerely,

Ronald A. Burrows

Ronald A. Burrows CHP, RRPT
U.S. Nuclear Regulatory Commission
Federal and State Materials and Environmental
Management Programs
Uranium Recovery Licensing Branch
301.415.6443