

**CAMECO RESOURCES  
CROW BUTTE OPERATION**



**86 Crow Butte Road  
P.O. Box 169  
Crawford, Nebraska 69339-0169**

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May 18, 2016

**CERTIFIED MAIL  
RETURN RECEIPT REQUESTED**

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

Request for Additional Information  
License Condition 9.5, Financial Assurance Update  
License SUA-1534 (TAC No. L00796)

Dear Director:

By letter dated April 14, 2016 (received April 21, 2016), the U.S. Nuclear Regulatory Commission (NRC) staff indicated that they had reviewed letters dated September 30, 2013, September 30, 2014, and September 28, 2015, submitted by Crow Butte as required by License Condition 9.5. During the technical review of these submittals the staff identified certain areas of deficiency for which they are requesting additional information. The NRC staff's Requests for Additional Information (RAI) are listed below.

**Background**

License Condition 9.5 states in part:

Proposed annual updates to the financial assurance amount, consistent with 10 CFR Part 40, Appendix A, Criterion 9, shall be provided to the NRC by October 1 of each year.

In its submittals dated September 30, 2013, September 30, 2014, and September 28, 2015, the licensee submitted to the NRC staff an update to its estimated costs for decommissioning and decontamination (Cameco, 2013; 2014; and 2015).

NM5520

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**RAI 1:**  
**Description of Deficiency**

As currently presented, the 2016 Surety Estimate (Cameco 2015) does not include sufficient information for the NRC staff to verify that reasonable labor rates were included in the surety calculations.

**Basis for Request**

The requirements in 10 CFR Part 40, Appendix A, Criterion 9, specify information that must be considered by the licensee in developing its decommissioning cost estimate and requires that the NRC staff verify that the amount of coverage provided by the financial assurance is adequate to complete all decommissioning activities in conjunction with facility operation.

In addition, the guidance in NUREG-1569, Appendix C. states that the “licensee shall supply sufficient information for the NRC to verify that the amount of coverage provided by the financial assurance will permit the completion of decontamination, decommissioning, and reclamation of sites, structures, and equipment used in conjunction with facility operation.” (NRC, 2003)

The Master Cost Basis worksheet presents Operator, Pulling Unit Operator, Engineer, and Radiation Technician labor rates used in the Surety Estimate, as follows:

<b>Labor Category</b>	<b>Labor Rate from 2016 Surety Estimate</b>
Operator	\$137.70 (daily rate)
Pulling Unit Operator	\$149.06 (daily rate)
Engineer	\$6,378.04 (monthly rate)
Radiation Technician	\$4,683.01 (monthly rate)

The licensee stated that the “Costs are from: Nebraska Department of Labor,” but does not provide any further information on the source of the rates. The Nebraska Department of Labor, Office of Market Information, Occupational Employment Statistics Program was referenced to verify that reasonable costs were included in the surety calculations. The dataset, however, provides varying labor rates for numerous types of operators, engineers, and technicians. (Cameco 2015)

Additionally, the annual surety submission included an “Independent Accountants’ Report on Applying Agreed-Upon Procedures” from Fred A. Lockwood & Co., P.C. (Falco). Falco’s report included, among other things, a statement that, “[I]abor rates for



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Operator Labor, Engineer Costs, and Radiation Technician Expenses were agreed to by the Nebraska Department of Labor Web site for labor statistics 2<sup>nd</sup> Quarter 2014.” Falco therefore, is attesting to verification of rates based on the 2<sup>nd</sup> quarter of 2014 as opposed to more current rates from a quarter in 2015. Furthermore, the previous Falco report from the licensee’s previous annual surety submission attest to rates from the same quarter and year. (Cameco, 2015)

#### Request for Additional Information

To ensure that adequate funding is available to cover decommissioning costs, please revise the Surety Estimate or justify the labor rates used in the cost estimate by providing documentation identifying the specific data source (e.g., report, dataset) and occupation/labor categories used for the labor rates.

#### **CBO Response**

CBO’s Class III UIC Permit (NE0122611) Part VIII, requires the permittee to submit prior to October 1<sup>st</sup> of each year an annual update of the surety estimate. Also required is an audit statement from an independent professional auditing firm. CBO will respond to the NRC staff’s request in the 2017 Surety Estimate which will be reviewed by an independent professional auditing firm and submitted prior to October 1, 2016.

#### **RAI 2**

##### Description of Deficiency

While reviewing the licensee’s 2016 surety estimate (Cameco, 2015), the NRC staff determined that the estimate is not prospective of all work to be performed at the site.

##### Basis for Request

As required by license condition, the licensee shall maintain an NRC-approved financial surety arrangement, consistent with 10 CFR Part 40, Appendix A, Criterion 9, adequate to cover the estimated costs for decommissioning and decontamination, if accomplished by a third party, including groundwater restoration.

Appendix C of NUREG 1569 (NRC 2003) states, “The annual surety estimate must be prospective of all work to be performed at the site.”

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The licensee's 2016 Surety Estimate (Cameco, 2015) provides estimated restoration periods for mine units (MUs) 4, 5 and 6 using a model (MODFLOW2000) and states, "The model is calibrated periodically to reflect current mine conditions." Staff observes that the model estimates for providing formal requests to remove MUs 4, 5, and 6 from restoration appear to be calibrated to reflect current mine conditions and not projected mine conditions up to the licensee's next annual update of the Surety Estimate (i.e., 2017 Surety Estimate submittal).

The licensee's estimated dates for providing formal requests to remove MU-2 and MU-3 from restoration are prior to the date of this RAI. Since staff has not received these formal request for MU-2 and MU-3, these estimated dates should be updated and the Surety Estimate should account for any additional work associated with the development of the requests (e.g. development of an Alternate Concentration Limit (ACL) application in accordance with 10 CFR Part 40, Appendix A, Criterion 5B(6)).

Request for Additional Information

The Surety Estimate should be updated to provide prospective estimates in the following areas:

- a. Estimated submittal dates for requesting the removal of MU-2 and MU-3 from restoration,
- b. Estimated submittal dates for requesting the removal of MUs 4, 5, and 6 from restoration as modeled using projected mine conditions at the time of the next Surety Estimate (i.e., 2017 Surety Estimate submittal) or provide justification for the estimated remediation periods as presented, and
- c. Sufficient funds to cover any revisions to MU restoration periods and any associated work (e.g. development of an ACL application per Part 40, Appendix A, Criterion 5B(6)) by a third party.

CBO Response

CBO's Class III UIC Permit (NE0122611) Part VIII, requires the permittee to submit prior to October 1<sup>st</sup> of each year an annual update of the surety estimate. Also required is an audit statement from an independent professional auditing firm. CBO will respond to the NRC staff's request in the 2017 Surety Estimate which will be reviewed by an independent professional auditing firm and submitted prior to October 1, 2016.

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If there are any further questions or concerns feel free to contact me at (308) 665-2215 ext. 122.

Sincerely,

A handwritten signature in black ink, appearing to read 'Bob Tiensvold'. The signature is stylized and cursive, with the first letters of the first and last names being prominent.

Bob Tiensvold  
Mine Manager

Enclosure

cc: Deputy Director  
Division of Decommissioning  
Uranium Recovery and Waste Programs  
Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
Mail Stop T-8F5  
11545 Rockville Pike  
Two White Flint North, Rockville, MD 20852-2738

CBO- File

cc: CR-Casper