

**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

Reply to a Notice of Violation  
Inspection Report 040-08943/2016-001  
Source Materials License SUA-1534  
Docket Number 040-08943

Dear Sir:

Please find below Crow Butte Resources, Inc. d/b/a Cameco Resources (CR) Crow Butte Operation (CBO) reply to the Notice of Violations issued by the Nuclear Regulatory Commission on April 12, 2016. (Received April 20, 2016) This response is being provided in accordance with 10 CFR 2.201.

**Violation**

During the U.S. Nuclear Regulatory Commission (NRC) inspection conducted March 8-10, 2016, two violation of NRC requirements were identified.

- A. NRC License Number SUA-1534, License Conditions 11.4 dated November 12, 2013 and 11.9 dated November 5, 2014, state, in part, that upon verification of a linker leak, the water quality in the affected standpipe shall be analyzed for the five parameters [specific conductance, chloride, alkalinity, sodium, and sulfate] once every 7 days during the leak period and once every 7 days for at least 14 days following repairs.

Contrary to the above, as of July 2, 2014, the licensee failed to analyze the water quality in the affected standpipe once every 7 days during the leak period.

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Specifically, the licensee identified a liner leak in Commercial Evaporation Pond 4 on May 28, 2014, and analyzed samples on May 29, June 6, June 11, June 25, 2014, and suspended any further analysis of the water quality in the affected standpipe of pond 4. The next analysis should have been performed on July 2, 2014, which was 7 days later, with continued analyses as required by the license condition.

This is a Severity Level IV violation (Section 6.9).

1. Reason for the violation:

On May 28, 2014, water level readings from the north middle and northeast underdrains on Cameco Resources – Crow Butte Operation (CBO) Commercial Evaporation Pond #4 indicated a potential liner leak. Samples were obtained from the underdrains and analyzed for alkalinity, chloride, conductivity, sodium, and sulfate and reported in accordance with License Condition 11.4. Sampling was discontinued on July 2, 2014 due to a small volume of water in the pond that was comprised mainly of precipitation water making the underdrains a poor indicator of water movement. A memo was put into the file noting the gap in data collection; at this time the NRC should have also been notified.

2. The corrective steps that have been taken and the results achieved:

By letter dated April 12, 2016, CBO submitted for NRC review a corrective action plan for repairing the liner in Pond #4. As of this submittal, the corrective action plan is still under review by the NRC staff.

3. The corrective steps that will be taken to avoid further violations:

Upon verification of a liner leak, CBO will notify the NRC in accordance with License Condition 11.6. A corrective action plan will be submitted within 30 days to the NRC for review. Any proposed deviation from the license conditions will be identified in the corrective action plan.

4. The date when full compliance will be achieved:

Full compliance achieved on April 12, 2016.

- B. NRC License Number SUA-1534, License Condition 11.9 dated November 5, 2014, requires that upon verification of a liner leak, the licensee shall submit a corrective action plan within 30 days to the NRC for review. The corrective action plan will document steps to adequately address the leak and procedures used to

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verify that the leak has been adequately addressed and permanently fixed. The corrective action plan should also evaluate how much and for how long the diminished waste capacity will impact operations.

Contrary to the above, as of October 23, 2015, the licensee failed to submit a corrective action plan to the NRC for review. Specifically, the licensee failed to submit a corrective action plan documenting the corrective actions, procedures, and impact to facility operations after verification of a liner leak in Commercial Evaporation Pond 4 on September 23, 2015.

This is a Severity Level IV violation (Section 6.9).

1. Reason for the violation:

On May 28, 2014, water level readings from the north middle and northeast underdrains on Cameco Resources – Crow Butte Operation (CBO) Commercial Evaporation Pond #4 indicated a potential liner leak. Samples were obtained from the underdrains and analyzed for alkalinity, chloride, conductivity, sodium, and sulfate and reported in accordance with License Condition 11.4. (LRA February 1998). Upon verification of the potential liner leak, CBO notified Ron Burrows by voicemail on May 29, 2014 in accordance with License Condition 12.2. This notification was followed up by a letter dated June 26, 2014, which contained details of the liner leak, corrective actions taken, results achieved, and a path forward for correcting the liner leak.

In the letter dated June 26, 2014, CBO indicated that no breach of the liner had been identified and that a third party was being consulted for methods to use to test the integrity of the exposed liner. Once it was decided that the liner needed to be replaced, CBO didn't submit a follow up corrective action plan to the NRC.

2. The corrective steps that have been taken and the results achieved:

By letter dated April 12, 2016, CBO submitted for NRC review a corrective action plan for repairing the liner in Pond #4. As of this submittal, the corrective action plan is still under review by the NRC staff.

3. The corrective steps that will be taken to avoid further violations:

Upon verification of a liner leak, CBO will notify the NRC in accordance with License Condition 11.6. A corrective action plan will be submitted within 30 days to the NRC for review.

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4. The date when full compliance will be achieved:

Full compliance was achieved on April 12, 2016.

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 that reads "Bob Tiensvold". The signature is stylized and cursive.

Bob Tiensvold  
Mine Manager

cc:

Regional Administrator, Region IV  
Division of Materials Safety  
U. S. Nuclear Regulatory Commission  
1600 East Lamar Blvd.  
Arlington, Texas 76011-4511

Director, Office of Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Nancy Harris – NDEQ Program Coordinator

CBO- File

ec: CR-Casper