

**Cameco Resources  
Crow Butte Operation**



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April 12, 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

Commercial Evaporation Pond #4 Liner Repair  
Source Materials License SUA-1534  
Docket Number 40-8943

Dear Director:

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. From June 2014 to present, CBO has done the following:

- Commercial Evaporation Pond #4 was taken out of service and the contents transferred to Commercial Evaporation Pond #3 to allow for a better visual assessment of the liner.
- During the second half of 2014 and the first half of 2015, several intensive visual inspections of the liner were performed by CBO staff and Colorado Liners and several minor repairs were made to the liner.
- During the first half of 2015, snow melt and rainwater accumulated in the Pond #4 causing the underdrain levels to rise indicating that the minor repairs had been unsuccessful.

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Sincerely,  
CAMECO RESOURCES  
CROW BUTTE OPERATION

A handwritten signature in black ink that reads "Bob Tiensvold". The signature is fluid and cursive, with a large loop at the end.

Bob Tiensvold  
Mine Manager

cc: Ron Burrows - NRC  
CBO - File  
cc: Nancy Harris - NDEQ Program Coordinator  
CR - Casper Office



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- In September 2015, Colorado Liners again inspected the liner and attempted to make several minor repairs to the liner. It was the opinion of Colorado Liners at that time to replace the entire liner.
- Liner replacement for Commercial Evaporation Pond #4 was put into CBO's 2016 Capital Plan.
- At present Commercial Evaporation Pond #4 remains out of service.

During the annual NRC inspection conducted March 8-10, 2016, CBO was informed that after it was decided that the liner should be replaced a corrective action plan should have been submitted to the NRC in accordance with the new requirements described in License Condition 11.9 (LRA November 2014).

It is CBO's intent to replace Commercial Evaporation Pond #4's liner in 2016 through the following process:

- Continue to pump any accumulated precipitation into Commercial Evaporation Pond #3 and remove the sludge from the floor of the pond as it becomes exposed.
- Remove and replace the upper liner once the water and sludge have been removed from the pond.
- Currently there is no indication that there is any damage to the lower liner. If the lower liner is damaged during the replacement of the upper liner, the damaged area will be repaired.
- Due to the pond being taken out of service and the lack of water in the pond; suspend the underdrain sampling requirements as described in Section 2.2.5 of the Evaporation Pond Onsite Inspection Program (February 1996 revision). Sampling will resume once the pond has been repaired and put back into services.
- Continue to collect quarterly water samples from the pond monitor wells.
- Return the pond back to service in Q4 of 2016.
- Current waste flows, deep disposal well capacity, and capacity in Commercial Evaporation Ponds #1 and #3 will not have an impact on having Commercial Evaporation Pond #4 out of service during this time period.

If CBO is unable to complete the repairs in 2016, a new corrective action plan will be submitted to the NRC.

If you have any questions, please feel free to contact me at (308) 665-2215 Ext 122.