

December 16, 2014

MEMORANDUM TO: Bill Von Till, Chief  
Uranium Recovery Licensing Branch  
Division of Decommissioning, Uranium Recovery,  
and Waste Programs  
Office of Nuclear Material Safety  
and Safeguards

FROM: Ronald A. Burrows, Project Manager */RA/*  
Uranium Recovery Licensing Branch  
Division of Decommissioning, Uranium Recovery,  
and Waste Programs  
Office of Nuclear Material Safety  
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SUBJECT: PUBLIC MEETING SUMMARY

On November 21, 2014, a public meeting was held at the U.S. Nuclear Regulatory (NRC) Headquarters, at the request of the NRC, to discuss the license conditions in Crow Butte Resources, Inc.'s (Crow Butte's) renewed license SUA-1534 with an emphasis on what actions are due within 60 days from the effective date (November 5, 2014) of the renewed license. A summary of the meeting is enclosed.

Enclosure: Meeting Summary

CONTACT: R. Burrows, NMSS/DUWP  
(301) 415-6443

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**ML14345A348**

<b>OFC</b>	URLB	RIV	URLB	URLB	URLB
<b>NAME</b>	RBurrows	LGersey	TLancaster	SAchten	RBurrows
<b>DATE</b>	12/10/14	12/11/14	12/11/14	12/15/14	12/16/14

**OFFICIAL RECORD COPY**

## MEETING SUMMARY

DATE: November 21, 2014

TIME: 10:00 a.m. to 12:00 p.m.

PLACE: U.S. Nuclear Regulatory Commission, Headquarters  
Two White Flint North, Rockville, Maryland  
Room T-8C5

PURPOSE: This meeting was held at the request of the U.S. Nuclear Regulatory Commission (NRC) to discuss Crow Butte Resources, Inc.'s (CBR's) license conditions (LCs) in materials license SUA-1534.

ATTENDEES: See Attached Attendees List.

### BACKGROUND:

By letter dated November 5, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession Number ML13324A090), the NRC staff transmitted renewed source materials license SUA-1534 (license) to CBR. The NRC staff requested this public meeting to provide CBR the opportunity to ask questions regarding the renewed license and to ensure CBR understood what information is required to be submitted to the NRC staff and the time frame for these submittals.

### DISCUSSION:

The NRC staff read an opening statement at the meeting. The NRC staff and CBR addressed the topics set out in the meeting agenda (Attachment 1). Specific action items identified by the staff during this meeting are summarized in the table below.

The NRC staff started with LC 9.1 of the license and went through each license condition sequentially through LC 11.16. Below is a summary of the highlights of issues discussed for specific LCs and responses to specific questions raised by CBR. Responses were provided by either NRC headquarters (HQ) staff or NRC Region IV (RIV) staff, as indicated.

**LC 9.12:** CBR requested clarification on LC 9.12.

Q (CBR) – Do changes to the Quality Assurance Program (QAP) require an amendment or can the changes be made under the Safety and Environmental Review Panel (SERP) process?

A (NRC HQ) – The NRC HQ staff responded that NRC expects that any changes to Crow Butte's program, such as the QAP, will be evaluated under its SERP process to determine if an amendment is required.

Enclosure

**LC 10.6:** CBR asked for clarification on two issues related to LC 10.6. The NRC staff responded that this issue would be an action item for NRC staff and that an answer would be given in the meeting minutes. These questions and the NRC staff's answers are provided below and in the summary table that follows the LC discussion.

1) Q (CBR) – The Nebraska Department of Environmental Quality (NDEQ) requires additional samples for stability monitoring. Should Cameco include all samples for its submittal to NRC?

A (NRC HQ) – The NRC staff responded that all stabilization monitoring sample results for the four quarter period that demonstrates stability should be submitted to the NRC. Thus, if more than four (4) stabilization monitoring sample results exist for the four quarter period used to demonstrates stability, those sample results should also be incorporated into the statistical analysis to demonstrate stability and submitted to the NRC.

2) Q (CBR) - How should Cameco handle sample nondetects in their analysis?

A (NRC HQ) – Acceptable guidance for handling sample nondetects in your analysis is “Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance,” EPA 530/R-09-007, Office of Resource Conservation and Recovery, Program Implementation and Information Division, U.S. Environmental Protection Agency, March 2009.

This action item is completed.

**LC 10.7:** Two questions related to LC 10.7 were directed to NRC staff.

1) Q (NRC RIV) - is the requirement for inward hydraulic gradient an instantaneous value or is it an average value?

A (NRC HQ) – The NRC staff responded that we use a plain reading of this license condition to determine compliance. The requirement for inward hydraulic gradient applies at all times.

2) Q (Cameco) - What happens if we lose power?

A (NRC RIV) – Region IV responded that if the ground water bleed (production or restoration) stops for a couple to several days due to an unplanned event (power outage, etc.), it is not likely we will issue a violation as long as Cameco can demonstrate that they made efforts to correct the problem. But, if an adequate bleed is not sustained over a longer period of time, the NRC would require the Cameco to demonstrate that an inward hydraulic gradient was maintained during that period.

**LC 10.8:** CBR requested clarification on LC 10.8.

Q (CBR) – Is Cameco required to analyze for separate uranium isotopes (e.g., U-235, U-238)

A (NRC HQ) – The NRC staff responded “no”. The intent of this license condition is to determine what mixture of different radionuclides (e.g., Th-234, Ra-226) is contributing to internal exposure. It has already been determined that uranium takes the form of natural uranium at the Crow Butte facility.

**LC 11.2:** The NRC staff pointed out to CBR that this LC is a new record reporting requirement and discussed the specifics of the content to be submitted under this LC.

**LC 11.14:** CBR requested clarification on information previously submitted in accordance with LC 11.14. The NRC staff responded that this issue would be an action item for NRC staff and that an answer would be given in the meeting minutes. This question and the NRC staff's answer are provided below and in the summary table that follows the LC discussion.

Q (CBR) – Please refer to Cameco's August 13, 2014 submittal with Accession # ML14247A155. Does this satisfy the requirements of LC 11.14?

A (NRC HQ) - This submittal does satisfy the requirement of LC 11.14 and is accepted for a detailed technical review. NRC staff may have a request for additional information when it has completed its technical review.

This action item is completed.

### Specific Action Items

License Condition	Issue	Responsible Party	Response/Due Date
10.6	NDEQ requires additional samples for stability monitoring. Should Cameco include all samples for its submittal to NRC?	NRC	<p>All stabilization monitoring sample results for the four quarter period that demonstrates stability should be submitted to the NRC. Thus, if more than four (4) stabilization monitoring sample results exist for the four quarter period used to demonstrates stability, those sample results should also be incorporated into the statistical analysis to demonstrate stability and submitted to the NRC.</p> <p>This action item is completed.</p>
10.6	How should Cameco handle sample nondetects in their analysis?	NRC	<p>Acceptable guidance for handling sample nondetects in your analysis is  “Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance,” EPA 530/R-09-007, Office of Resource Conservation and Recovery Program, Implementation and Information Division, U.S. Environmental Protection Agency, March 2009.</p> <p>This action item is completed.</p>
11.14	Please refer to Cameco’s August 13, 2014 submittal with Accession # ML14247A155. Does this satisfy the requirements of LC 11.14?	NRC	<p>This submittal does satisfy the requirement of LC 11.14 and is accepted for a detailed technical review. NRC staff may have a request for additional information when it has completed its technical review.</p> <p>This action item is completed.</p>

No Members of the public attended this meeting

**ATTACHMENTS:**

1. Agenda
2. List of Attendees

PUBLIC MEETING AGENDA

Discussion of Crow Butte License Conditions

November 21, 2014, 10:00 AM to 12:00 PM

NRC Two White Flint North, 8C5  
11545 Rockville Pike  
Rockville, MD

MEETING PURPOSE: Meeting to Discuss Data Collected to Address Draft License Conditions for The Crow Butte License Renewal

MEETING PROCESS:

10:00 am – 10:05 a.m.: Introductions, Opening Remarks, and Statement of Purpose

10:05 am – 11:30 a.m.: NRC staff to discuss license conditions in License SUA-1534 with Crow Butte Resources, Inc.

11:30 am – 12:00 p.m.: Public Comment/Questions

12:00 p.m.: Adjourn

The time of the meeting is local to the jurisdiction where the meeting is being held.

The NRC provides reasonable accommodation to individuals with disabilities where appropriate. If reasonable accommodation is needed to participate in this meeting, or if a meeting notice, transcript, or other information from this meeting is needed in another format (e.g., Braille, large print), please notify the NRC meeting contact. Determinations on requests for reasonable accommodation will be made on a case-by-case basis.

ADAMS Accession Number: ML14307A712



**MEETING ATTENDEES**

**Date: November 21, 2014**

**Topic: Discussion of Crow Butte license conditions**

NAME	AFFILIATION	PHONE NUMBER	E-MAIL
RON BURROWS	NRC	301-415-6443	RONALD.BURROWS@NRC.GOV
Jose Valdes	NRC	301-415-5259	jose.valdes@nrc.gov
Doug Mandeville	NRC	301-415-0721	douglas.mandeville@nrc.gov
MIRABELLE STROEMAYER	NRC	301-415-6423	MIRABELLE.STROEMAYER@NRC.GOV
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Via telephone:			
Tom Lammers	NRC		
Linda Gersey	NRC		
Larry Teahart	Caneco		
Jim Stokey	Caneco		
Sebrina Fox	Caneco		
Bob Tiensood	Caneco		
Tate Hagman	Caneco		
Casey Yada	Caneco		
Tammy Dyer	Caneco		
Steve Boeselager	Caneco		
Wade Beins	Caneco		
Arlene Tiensood	Caneco		
Larry McGowagle	Caneco		

Attachment 2