



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 14, 2017

Mr. Mike Thomas
Cameco Resources
Smith Ranch Highland Operation
P.O. Box 1210
Glenrock, WY 82637

SUBJECT: STATUS OF REQUEST FOR ADDITIONAL INFORMATION RESPONSES
LICENSE RENEWAL APPLICATION FOR SMITH RANCH HIGHLAND
URANIUM IN-SITU RECOVERY FACILITY, CONVESE COUNTY, WYOMING

Dear Mr. Thomas:

The U.S. Nuclear Regulatory Commission (NRC) staff received your letter dated January 10, 2017 (Agencywide Documents Access and Management System [ADAMS] Accession Number ML17025A075), that included a schedule for providing revised responses to the NRC staff's request for additional information (RAI) on the Smith Ranch Highland license renewal request. The NRC staff understands that Cameco Resources (Cameco) intends to submit revised responses that are not related to health physics issues by the end of the 2nd quarter 2017. Cameco seeks to have additional discussions with the NRC staff prior to submitting responses to issues related to health physics.

The NRC staff will make itself available for additional discussions to aid Cameco's efforts to develop adequate responses to the NRC staff's RAIs. The NRC staff held a public meeting with Cameco on April 6, 2017 to initiate discussions of the RAIs. The April 6 meeting focused on RAIs related to hydrogeology. The NRC staff believes that the April 6 meeting was productive. The NRC staff recognizes that at least one additional meeting may be necessary to clarify Cameco's approach prior to submittal of the hydrogeology related RAI responses.

The NRC staff looks forward to participating in further discussions with Cameco to address the remaining health physics related RAIs; however, the NRC staff does not agree with postponing discussions of health physics related RAI responses until after additional meetings are held with the uranium recovery industry. Your January 10, 2017, letter contained several statements outlining Cameco's position on the need for additional meetings with industry on this issue before Cameco responds to the NRC's RAIs. The NRC staff disagrees with some of these statements, as outlined below.

The letter from Cameco dated January 10, 2017, stated that ". . . the guidance is still in a draft form and not usable by NRC or industry." In August 2011, the NRC staff published draft interim staff guidance related to radon at uranium recovery facilities, *Evaluations of Uranium Recovery Facility Surveys of Radon and Radon Progeny in Air and Demonstrations of Compliance with 10 CFR 20.1301* (draft radon ISG) (ADAMS Accession Number ML112720481). In November 2011, the NRC staff solicited comments on the draft radon ISG (76 FR 72006). The NRC staff published a revised draft interim staff guidance (ADAMS Accession Number ML13310A198)

and solicited an additional round of comments on the document in March 2014 (79 FR 17194). You are correct that the draft radon ISG has not been finalized. However, several uranium recovery licensees, have used this draft guidance to develop plans to measure radon and radon progeny from their facilities. For example, Cameco's Crow Butte facility has an NRC approved plan. The NRC staff understands that Cameco intends to use the approach approved at Crow Butte at the Marsland Expansion Area as well.

The letter from Cameco dated January 10, 2017, also included the statement ". . . the NRC should be able to produce results and ways for all companies to perform the monitoring program without each and every company addressing the issue individually and at great expense and resource commitment." Compliance with 10 CFR 20.1301 must take into account site-specific characteristics and source terms, including all significant exposure pathways. Also, the NRC staff observes that the notion of having one approach that all licensees use would remove the flexibility that the draft radon ISG provides. Additionally, a one size fits all method is contrary to the NRC's performance based licensing approach. The NRC staff has initiated a review of the results obtained to date of the semiannual effluent monitoring reports for licensees that have developed plans demonstrating compliance with 10 CFR 20.1301. The NRC staff plans to share its observations on these results at an upcoming workshop on this issue.

The NRC staff observes that its assessment of the results of the initial monitoring plans is not necessary to develop a plan to demonstrate compliance with 10 CFR 20.1301. The existing draft radon ISG identifies ways that licensees can demonstrate compliance with 10 CFR 20.1301. As previously discussed, several uranium recovery licensees, including Cameco's Crow Butte facility, have developed plans that were approved by the NRC. The NRC approved plans are identified in the enclosure to this letter. These plans are publicly available in ADAMS and are available for Cameco to consider as it develops its plan for Smith Ranch. The NRC staff recognizes that some of the evaluation work that Cameco used in its plan for the Crow Butte facility has also been performed at Smith Ranch (ADAMS Accession Number ML14247A155). Note that with the exception of the Smith Ranch facility and two other facilities, each uranium recovery licensee has successfully developed an effluent monitoring program that accounts for the differences in design, construction or operation at a particular site and demonstrates compliance with the regulations. The NRC staff will review and approve and necessary adjustments to the plans based on its assessment of the initial results.

The NRC staff observes that continued delays in responding to the RAIs, particularly those related to health physics will impact the staff's ability to complete current and future licensing actions. Once the NRC staff has determined that the RAI responses contain sufficient information to proceed with the review, the NRC staff will establish a schedule for completion of Cameco's license renewal request for Smith Ranch Highland.

In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter 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 Douglas Mandeville at (301) 415-0724 or via email at Douglas.Mandeville@nrc.gov.

Sincerely,

/RA A. Kock for/

John R. Tappert, Director
Division of Decommissioning, Uranium Recovery
and Waste Programs
Office of Nuclear Material Safety
and Safeguards

Enclosure: Plans for Demonstrating
Compliance

Docket No.: 40-8964
License no.: SUA-1548

cc: Robin Jones, WDEQ
Brent Berg, Cameco

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URANIUM IN-SITU RECOVERY FACILITY, CONVESE COUNTY, WYOMING

cc: Robin Jones, WDEQ
Brent Berg, Cameco

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OFC	NMSS:URLB	NMSS:URLB	NMSS:URLB	NMSS:DUWP
NAME	D. Mandeville	S. Achten	B. VonTill	J. Tappert (<i>A. Kock for</i>)
DATE	02/09/2017	02/10/2017	03/20/2017	04/14/2017

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Enclosure

The NRC staff approved plans for demonstrating compliance with 10 CFR 20.1301 at uranium in situ recovery facilities are provided below.

Cameco Crow Butte

CBO (Cameco Resources Crow Butte Operation). 2015. Letter from D. Pavlik, CBO, to NRC, dated January 2, 2015, RE: Source Materials License SUA-1534, Response to License Condition 11.11(A), 11.11(B), 11.11(C) and 11.11(D). ADAMS Accession No. ML15009A031. Supplemented by additional submittals dated June 30, 2015 (ADAMS Accession No. ML15217A332) and September 21, 2015 (ADAMS Accession No. ML15310A373) and e-mails dated November 24, 2015 (ADAMS Accession No. ML15335A040) and December 4, 2015 (ADAMS Accession No. ML15341A030).

Lost Creek

LCI (Lost Creek ISR, LLC). 2015a. Letter from J. Cash, LCI to J. Saxton, NRC, dated January 16, 2015, RE: Reply to NRC's November 3, 2014 Letter Regarding License Condition 12.10 Lost Creek ISR Project License SUA-1598, Docket 040-09068, TAC J00717. ADAMS Accession No. ML15029A423. Supplemented by additional submittals dated July 28, 2015 (ADAMS Accession No. ML15218A055) and January 26, 2016 (ADAMS Accession No. ML16043A365).

Strata Energy

Strata (Strata Energy, Inc.). 2015. Letter from M. Griffin, Strata to NRC, dated March 1, 2015, RE: Strata Energy Ross In Situ Recovery Project, Crook County, Wyoming, Source Materials License SUA-1601, Docket No. 040-09091, License Condition Amendment Request Regarding License Conditions 12.6, 12.7, and 12.8. ADAMS Accession No. ML15076A014. Supplemented by additional dated July 30, 2015 (ADAMS Accession No. ML15224B400), October 23, 2015 (ADAMS Accession No. ML15296A240), November 5, 2015 (ADAMS Accession No. ML15313A274), and November 10, 2015 (ADAMS Accession No. ML15314A439).

Uranerz

Uranerz (Uranerz Energy Corporation). 2014. Letter from M. Thomas, Uranerz to NRC, dated February 19, 2014, RE: Uranerz SUA-1597 LC 12.8 Response. ADAMS Accession No. ML14051A113. Supplemented by additional submittals dated February 28, 2014 (ADAMS Accession No. ML14063A214), March 6, 2014 (ADAMS Accession No. ML14066A051), and March 11, 2014 (ADAMS Accession No. ML14071A092).

Uranium One

Uranium One (Uranium One USA, Inc.). 2015a. Letter from S. Schierman, Uranium One, to R. Linton, NRC, dated January 20, 2015, Re: License Condition 11.3, Parts a-d, Materials License SUA-1341. ADAMS Accession No. ML15040A077. Supplemented by additional submittal dated June 5, 2015 (ADAMS Accession No. ML15181A357).