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

January 22, 2018

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: Elise Striz, Project Manager ***/RA/***
Uranium Recovery Licensing Branch
Division of Decommissioning, Uranium Recovery
and Waste Programs
Office of Nuclear Material Safety
and Safeguards

SUBJECT: PUBLIC MEETING SUMMARY

On December 18, 2017, a public meeting was held with Uranium One USA, Inc. at U.S. Nuclear Regulatory Commission (NRC) Headquarters. The purpose of the meeting was to discuss open issues in the draft Ludeman Project Safety Evaluation Report (SER). A summary of the meeting is enclosed.

Enclosure: Meeting Summary

cc: Meeting Attendees
JTappert, GSuber

CONTACT: Elise Striz, NMSS/DUWP
(301) 415-0708

SUBJECT: PUBLIC MEETING SUMMARY DOCUMENT DATE January 22, 2018

ADAMS Accession No.: ML18016A578

OFFICE	DUWP	FSCE/ERB	DUWP
NAME	EStriz	AWaldron	EStriz
DATE	1/18/18	1/19/18	1/22/18

OFFICIAL RECORD COPY

MEETING REPORT

DATE: December 18, 2017

TIME: 1:00 p.m. to 3:00 p.m.

PLACE: U.S. Nuclear Regulatory Commission
Two White Flint North, Rockville, Maryland
Room TWFN 5D-30

PURPOSE: The purpose of the meeting was to discuss open issues in the draft Ludeman Project Safety Evaluation Report (SER).

ATTENDEES:

See Attendees List (Attachment 1).

BACKGROUND:

Uranium One USA, Inc. (UO) submitted the Ludeman Project amendment request for the Willow Creek Project license SUA-1341 on December 3, 2011 (NRC's Agencywide Documents Access and Management System (ADAMS) Accession number ML12010A178). The NRC staff found the application acceptable for review on May 16, 2012 (ML12131A322). The NRC staff issued requests for additional information (RAIs) for the safety and environmental reviews on January 15, 2013 (ML12352A028, ML12352A030). On April 10, 2013, UO submitted a "change of design" request for the Ludeman Project Expansion (ML13106A238). In this request, UO committed to amend the application to address the proposed "change of design" modifications at a later date. NRC agreed to UO's request to defer submission of the "change of design" amended application to enable UO to include application revisions based on acceptable responses to RAIs. UO submitted almost all of the responses to RAIs on March 13, 2014 (ML14079A127). After a delay of a few months due to the NRC Health Physics (HP) staff working on other high-priority projects, the NRC staff was able to review the HP RAI responses and issued a second round of targeted HP RAIs on December 18, 2014 (ML14350A186). UO responded to the second round of targeted HP RAIs and other remaining RAIs on June 8, 2015 (ML15170A372). NRC staff and UO held public meetings on February 8, 2016 (ML16061A330) and February 22, 2017 (ML17072A180) to discuss numerous unresolved open issues for the safety and environmental review.

UO submitted a revised technical report on June 28, 2017 (ML17192A357) incorporating the major revisions to the original technical report based on the April 2013 "change of design" request, and responses to RAIs and open issues. UO also submitted a revised environmental report on August 25, 2017 (ML17261A460) incorporating the major revisions to the original technical report based on the April 2013 "change of design" request, and responses to RAIs and open issues. The revised technical and environmental reports provide the final basis for the staff's safety and environmental review.

The NRC staff is completing the draft Ludeman Amendment SER. There are several remaining open items that require resolution. To avoid further delay, NRC requested this public meeting to

address the remaining draft Ludeman Amendment SER open items, as well as to provide UO with a list of items it has found in the revised technical report which will require correction.

DISCUSSION:

Attendees of the meeting were asked to provide brief introductions and sign the attendance sheet (Attachment 1). NRC staff provided an agenda for the meeting (Attachment 2).

The NRC staff presented the first open issue that requires resolution. This open issue is associated with UO's preferred option and first alternative for liquid waste disposal. In its application, UO stated the primary liquid waste disposal action under consideration was the use of evaporation and restoration permeate ponds with surface water discharge. The first alternative would be evaporation and restoration permeate ponds with surface water discharge and up to six deep disposal wells. NRC staff stated that in the primary option and first alternative, UO is proposing the on-site disposal of 11e.(2) byproduct material waste by surface water discharge. Therefore, the NRC staff has evaluated the information provided by the licensee regarding disposal of liquid effluents by surface water discharge from the restoration permeate pond.

The NRC staff explained that under Title 10 of the *Code of Federal Regulations (10 CFR)*, Part 20.2001(a)(3), a licensee may dispose of licensed material by release in effluents within the limits in 10 CFR 20.1301, "Dose limits for individual members of the public." The requirement in 10 CFR 20.1302(a), "Compliance with dose limits for individual members of the public," requires licensees to make or cause to be made, as appropriate, surveys of radiation levels in unrestricted and controlled areas and radioactive materials in effluents released to unrestricted and controlled areas to demonstrate compliance with the dose limits for individual members of the public in 10 CFR 20.1301. In order to meet the requirements in 20.1302(b) for demonstrating compliance with the annual public dose limits in 10 CFR 20.1301, the licensee must either: (1) demonstrate by measurement or calculation that the total effective dose equivalent to the individual likely to receive the highest dose from the licensed operation does not exceed the annual dose limit (as specified in 10 CFR 20.1302(b)(1)); or (2) demonstrate that annual average concentrations of radioactive material released in liquid effluents at the boundary of the unrestricted area do not exceed the values specified in Table 2 of Appendix B to Part 20 (10 CFR 20.1302(b)(2)(i)); and if an individual were continuously present in an unrestricted area, the dose from external sources would not exceed 0.002 rem (0.02 mSv) in an hour and 0.05 rem (0.5 mSv) in a year (10 CFR 20.1302(b)(2)(ii)). The NRC staff stated that the licensee did not perform dose assessments for liquid effluent from the permeate ponds that demonstrates compliance with either 10 CFR 20.1302(b)(1) or 10 CFR 20.1302(b)(2)(ii). Therefore, the NRC staff does not have reasonable assurance that the public dose limits would be met for this liquid effluent.

In addition, the NRC staff analyzed the permeate water quality to be discharged as provided in the revised technical report and found that the permeate water quality may exceed the values in Table 2 of Appendix B to 10 CFR Part 20. In addition, the licensee did not provide the location and features of the surface water body that will receive the liquid effluent. Without this information, NRC staff cannot make a determination that the liquid effluent reaches any nearby surface water body where public doses are likely to occur as a result of liquid effluent from the

permeate pond. NRC staff informed UO that it does not have reasonable assurance that the public dose limits in 10 CFR 20.1301 would be met for liquid effluent from the permeate pond.

The NRC told UO it has two options to address this open issue. It can provide the information required or it can accept a license condition prohibiting surface water discharge of liquid effluents from the permeate pond until the licensee provides this information for NRC review and approval. UO stated it would accept a license condition to state that it would not conduct surface water discharge from the restoration permeate pond until it provides this information for NRC review and approval. NRC staff stated it will therefore include a license condition in the license amendment.

The NRC asked UO if it required any further clarification on how to address the remaining two HP open issues with respect to License Conditions 9.8 and 9.12 of the overarching Willow Creek License, upon which the Ludeman HP program depends. UO stated it understood what was required to address these HP open issues and was working to provide the information as required.

The NRC then provided the licensee with a description of items that require correction within the revised technical report as follows:

1. The statement in Section 4.2.6.2, page 4-13, that the “Because the permeate ponds are unlined…” needs to be removed. The permeate ponds and evaporation ponds are required to be lined as described in the Addendum 4-A of the revised technical report.
2. In Section 1.2, page 1-3, please correct the top paragraph to corrected state that the URI North Platte project was operated as an ISR pilot under its NRC license.
3. Please correct Table 4-1 to display the waste water quality as corrected by UO in an email dated Dec. 7, 2017 (ML17342B402). Please add another table to include the permeate water quality currently shown in Table 4-1.
4. Please add the surety cost estimates provided by UO in an email dated Nov. 21, 2017 (ML17328A023) to Addendum 6-C of the revised technical report.
5. Please correct Addendum 2.7C, “Summary of Monitor Well Completion” table, on pages 2.7C-1 to 2.7C-3. This table states the JS Well has no completion information. UO identified the JS well to be P9823W, Smith Well 45, in its prior RAI responses. The completion information from P9823W should be added to the table.
6. Please correct Table 2.7B-10 which has well M-13 listed in the 100 sand when it is in the 90 sand.
7. Please correct Table 2.7B-13 which has well M-9 listed in the 70 sand when it is in the 60 sand.

The NRC briefly discussed the Section 106 review and the requirements to protect information from public disclosure. UO stated that it would provide a map related to proposed disturbance and cultural resources within one of the proposed wellfields.

The NRC and UO then discussed the submission of the revised technical report with corrections. It was agreed that UO would provide a “track changes” version and a clean version of the report in electronic format at a future date to be determined.

No members of the public were in attendance at the meeting. The meeting concluded and adjourned at approximately 1:45 p.m. Eastern time.

ACTION ITEMS

No specific action were initiated during the meeting.

Attachments:
1. List of Attendees
2. Meeting Agenda

Meeting Attendees
Date: Monday December 18, 2017
Room TWFN 5D-30
1:00 p.m. to 3:00 p.m.

Topic: To discuss Open Issues in the Draft Ludeman Project Safety Evaluation Report (SER).

NAME	AFFILIATION
Elise Striz	U.S. NRC
Ashley Waldron	U.S. NRC
David Brown	U.S. NRC
Ron Linton	U.S. NRC
Douglas Mandeville	U.S.w NRC
Scott Schierman	Uranium One USA
Greg Kruse	Uranium One USA
Amy Hester Minor	CNWRA (contractor to NRC)
Miriam Juckett	CNWRA (contractor to NRC)

MEETING AGENDA
Uranium One USA Ludeman Project Amendment
Dec.18, 2017
1:00 p.m. – 3:00 p.m.

NRC Two White Flint North, TWFN 5D-30
11545 Rockville Pike
Rockville, MD

MEETING PURPOSE: To discuss Open Issues in the Draft Ludeman Project Safety Evaluation Report (SER).

MEETING PROCESS:

Time	Topic
1:00 p.m.	Introductions, Opening Remarks
1:05 p.m.	Discussion of Open Issues
2:45 p.m.	Public Comments
3:00 p.m.	Closing Remarks, Adjourn