

MEETING SUMMARY

DATE: October 23, 2014

PLACE: U.S. Nuclear Regulatory Commission
Two White Flint North, Conference Room 8-A1
1155 Rockville Pike
Rockville, Maryland

PURPOSE: This meeting was held to discuss the AUC LLC (AUC) proposed Reno Creek In Situ Leach Uranium Recovery (ISR) project application for a source material license and responses to requests for additional information.

ATTENDEES: See Attachment 1

BACKGROUND:

On October 3, 2012, AUC submitted a license application requesting authorization to construct and operate its proposed Reno Creek ISR project to be located in the Powder River Basin near Wright, Wyoming. This submittal is publicly available in the U.S. Nuclear Regulatory Commission (NRC) Agencywide Document Access and Management System (ADAMS) via Accession Number ML122890785. The NRC staff's acceptance of the license application request is documented in a letter dated June 18, 2013 (ADAMS Accession Number ML13161A319). The NRC staff proceeded with its review of the license application request and determined that additional information was necessary to complete its review. The NRC staff issued a Request for Additional Information (RAI) on February 10, 2014 (ADAMS Accession Number ML13365A110). On June 13, 2014, AUC submitted responses to NRC's RAI (ADAMS Accession Number ML14169A452). On September 9, 2014, the NRC staff accepted AUC's RAI responses for detailed technical review (ADAMS Accession Number ML14247A276).

DISCUSSION:

This meeting was scheduled to address open items related to the applicant's RAI response package. The attendance list is included as Attachment 1, the agenda is included as Attachment 2, and the NRC presentation "Overview of Regulatory Issues for Effluent Monitoring" is included as Attachment 3. This summary addresses topics in the order they were discussed in the meeting.

Technical Discussions

- Air Quality

RAI-AQ-3 Emission Levels

As a follow-up from the October 8, 2014, NRC-AUC public meeting, the NRC staff asked the applicant to address a couple of clarifying questions on air quality. In this discussion, the applicant was asked how it intends to revise the current RAI responses based on

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recent discussions. The applicant stated their current RAI response package will be revised to incorporate all past and proposed changes, and resubmitted (in redline/strikeout form) as a new revised RAI response package and this update would replace the current RAI response package.

- Radiation Protection

RAI-37, RAI- 41, RAI-50, and RAI-74 Effluent Monitoring

As a follow-up from the October 2, 2014, NRC-AUC public meeting, the NRC presented an “Overview of Regulatory Issues for Effluent Monitoring” which relates to RAIs 37, 41, 50, and 74.

In this discussion, the staff responded to a number of questions and comments, including:

- On Slide 6, clarify meaning of the quote under Regulatory Guide 8.37, Unmonitored Effluents. The staff explained that Regulatory Guide 8.37 recognizes that it may not be practicable to monitor all release points and allows licensees to estimate the magnitude of some unmonitored effluents. For example, if the applicant can show that the quantity of effluent releases from secondary release points are small (< 30 percent of total estimated effluent releases) these points need not be monitored.
- If applicant can demonstrate that secondary release points are highly unlikely to result in significant radon concentration (e.g., concentration of radon daughters products of concern do not exceed background), could the applicant propose the use of a large monitoring ring around the Central Processing Plant (CPP) and Track-Etch monitoring devices around header houses? The staff responded that if applicant submitted appropriate supporting information and adequately addressed the questions on Slide 16, such an approach may be acceptable. The staff cited one case where an applicant utilized this approach, and added that the NRC will be issuing additional information on this topic in the next couple weeks. The NRC staff agreed to provide the ADAMS Accession Number for this document to AUC when the document is publicly available (See Action Item 1).
- The applicant asked if Track-Etch monitoring devices would be acceptable. The staff responded that applicant would need to demonstrate that the Track-Etch monitoring device is calibrated and capable of detecting effluent releases at anticipated concentration levels at the point of release. If the applicant provided adequate information to support the use of Track-Etch devices, the staff would evaluate this approach.
- The applicant inquired about effluent monitoring at wellfields where natural air flow is highly variable. The staff acknowledged the challenge of effluent monitoring at wellfields and suggested that the applicant consider possible

- sampling approaches. For example, to estimate radon release from a production well, the applicant might consider installing a tent/barrel over a production well (equipped with air sampling equipment) to collect samples at a set air flow rate and time. One person questioned the need for this effluent monitoring because radon levels at wellfields pose no risk to public health and safety and would be inconsistent with the Commission's goal of risk-informed regulations.
- The applicant noted that Uranerz now has over 6 months of operating experience, and asked if the NRC has looked at Uranerz's 6 month monitoring report to see if Track-Etch monitoring data (around CPP security fence line) can distinguish radon levels contributed by CPP from background radon levels. The staff responded that it did look at this data, but not all the data was available. The staff agreed to provide AUC with the ADAMS accession number for this report (See Action Item 2).

RAI 23, RAI-24, and RAI-25 Background Radiological Characteristics

This was a follow-up discussion from the NRC-AUC October 2 and 8, 2014, public meetings. The staff stated that it had no further questions on vegetation sampling. Therefore, staff addressed food (crops and livestock) sampling based on Regulatory Guide 4.14, Table 1. The method for collecting the food samples is a grab sample at the time of harvest or slaughter and analyzed once for natural uranium, R-226, Th-230, Pb-210 and Po-210. The NRC staff has determined that three samples from the crop and/or livestock would constitute three of each type. For example, three crop samples at time of harvest and/or three livestock samples at time of slaughter would meet this recommendation. These samples must be collected from the crop and/or livestock within 3 km of the mill site. If such food products are available within a 3 km radius of the mill site, it is recommended that an agreement be reached with the rancher/owner to obtain such samples. The NRC does not endorse the slaughter of livestock for the sole purpose of sampling. If a rancher/owner does select one or more livestock animal(s) for slaughter for his or her personal consumption or use, the applicant is encouraged to make arrangements with the rancher/owner to obtain the necessary number of samples to satisfy the recommendation for food sampling. It is important that the applicant carefully document the sampling process and amount to demonstrate compliance. If such an arrangement cannot be made with the rancher/owner, the applicant should document the reason for not sampling.

The applicant asked if the rancher/owner only slaughters one livestock animal, can the three livestock samples be taken from the same animal? The staff responded that NRC does not endorse the slaughter of livestock for the purpose of sampling. Therefore, if only one animal is slaughtered, the applicant should document the situation and rationale for taking three sample of the same animal.

Path Forward: The applicant stated that it is proceeding with vegetation and livestock sampling consistent with above discussion.

New RAI Meteorology

The applicant needs to determine if important meteorological parameters (wind speed and wind direction) are representative.

Path Forward: The applicant committed to responding to this RAI in its revision to the RAI response package.

Concluding Remarks:

The NRC staff reviewed its understanding regarding future activities related to this review, and AUC responded and noted that:

- AUC will withdraw RAI responses that discussed the possible incorporation of land application and modify them appropriately in its revision of the RAI response package.
- AUC will submit its revised RAI response package followed by its revised application in accordance with its March 10, 2014 letter (ML14083A404).
- AUC will provide its schedule for submitting the revised RAI response package and revised license application after receipt of NRC information (Action Item 3).

Action Items:

1. The NRC staff agreed to provide the ADAMS accession number for subject document when the document is issued and made publicly available. In response to this action item, subject document has been issued and is publicly available in ADAMS via Accession Number ML14289A073.
2. The NRC staff agreed to provide the ADAMS accession number for the Uranerz 6 month monitoring report. In response to this action item, subject report is publicly available in ADAMS via Accession Number ML14051A113.
3. AUC committed to provide a schedule for submitting revised RAI response package and revised license application after receipt of information noted in Action Item 1.

Public Comments:

Prior to adjourning the meeting, the staff solicited comments from members of the public, but there were no public comments.

Attachments:

1. Attendance list
2. Meeting agenda
3. NRC presentation on effluent monitoring

**NRC Public meeting regarding RAI Response Package for Reno Creek
Project
October 23, 2014
Attendees**

NAME	AFFILIATION	EMAIL/PHONE
Jill Caverly	NRC	jill.caverly@nrc.gov
Chad Glenn	NRC	chad.glenn@nrc.gov
Antoinette Walker-Smith	NRC	antoinette.walker-smith@nrc.gov
Kellee Jamerson	NRC	kellee.jamerson@nrc.gov
Jim Webb	NRC	james.Webb@nrc.gov
Marla Morales	Center - SWRI	marla.morales@swri.org
John Saxton	NRC	John.saxton@nrc.gov
Bradley Wherling	Center - SWRI	bradley.werling@swri.org
Jim Viellenave	AUC	jviellenave@auc-llc.com
Leland Huffman	AUC	lhuffman@auc-llc.com
Aaron Payne	AUC	
Bob Meyer	AUC	rmeyer7@mindspring.com
Ray DeLuna	AUC	rdeluna@treccorp.com
Ronn Smith	AUC	rsmith@imlinc.com

Attachment 2
Agenda
ML14281A800

Attachment 3
Public Meeting Talking Points
ML14294A370