

June 18, 2013

Mr. Jim Viellenave, President  
AUC LLC  
1536 Cole Blvd., Suite 330  
Lakewood, CO 80401

SUBJECT: ACCEPTANCE REVIEW OF LICENSE APPLICATION FOR AUC LLC, RENO  
CREEK IN-SITU RECOVERY PROJECT, CAMPBELL COUNTY, WYOMING  
(TAC J00699)

Dear Mr. Viellenave:

On October 3, 2012, the U.S. Nuclear Regulatory Commission (NRC) received the AUC LLC (AUC) submission of a combined source and byproduct materials license application requesting authorization to construct and operate its proposed Reno Creek ISR Project near Wright, Wyoming. On November 30, 2012, NRC staff acknowledged receipt of the application and noted that the application was placed in NRC's Agencywide Documents Access and Management System (ADAMS) under Accession No. ML122890785. NRC staff also noted that it could not commence its acceptance review until March 2013. The staff commenced the acceptance review in March 2013 and is notifying AUC that the NRC staff has completed its acceptance review and found the application acceptable for detailed technical review.

During the acceptance review, staff identified two places where information was missing from the license application. Specifically, the technical report was missing Addendum 2.7-E (Hydrogeologic Integrity Test Report), and Attachment I of Addendum 4-B, UIC Class I Deep Disposal Well Permit Application. AUC subsequently submitted this information on June 11, 2013, which is in ADAMS under Accession No. ML131680092.

The NRC staff is taking this opportunity to provide some preliminary comments prior to any formal issuance of a request for additional information. AUC's response to the enclosed comments will facilitate our technical review and potentially reduce the time and effort to respond to any future request for additional information. The staff expects to complete the first phase of the technical review and issue any request for additional information by January 2014.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders," 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, which is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

J. Viellenave

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If you have any questions, please contact me via email at [Chad.Glenn@nrc.gov](mailto:Chad.Glenn@nrc.gov) or by phone at (301) 415-6722.

Sincerely,

*/RA/*

Chad Glenn, Senior Project Manager  
Decommissioning and Uranium  
Recovery Licensing Directorate  
Division of Waste Management  
and Environmental Protection  
Office of Federal and State Materials  
and Environmental Management Programs

Docket No.: 040-09092

Enclosure:  
Acceptance Review Comments

cc: See next page

J. Viellenave

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(CLOSES TAC NO. J00699)

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<b>OFC</b>	DWMEP	DWMEP	DWMEP	DWMEP
<b>NAME</b>	CGlenn	BGarrett	SCohen	CGlenn
<b>DATE</b>	6/12/13	6/18/13	6/17/13	6/18/13

**OFFICIAL RECORD COPY**

cc:

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## NRC Staff Acceptance Review Comments

1. In Technical Report (TR) Section 2.7.1.4, Surface Runoff Estimates, the applicant did not include the input or output files for the HEC-HMS modeling of surface water flow. The NRC Standard Review Plan (SRP) NUREG-1569, Section 2.7.2 Review Procedure (2) states “[i]f surface water or erosion modeling is used by the applicant, verify that acceptable models and input parameters have been used in the flood analyses”. The applicant has provided summary tables; however, staff needs to verify the model input as well. To facilitate verification of the model runs, the staff requests the input and output files for the HEC-HMS modeling of surface water flow.
2. In TR Addendum 2.7-C, Groundwater Modeling Report, the applicant did not provide MODFLOW groundwater model input and output files. To facilitate verification of the model runs, staff requests the input and output files for the MODFLOW groundwater modeling.
3. In TR Section 2.9.8, Ground Water Sampling and Section 2.9.9 Surface Water Sampling, the applicant did not provide laboratory analytical reports or field sampling data sheets for sampling and analyses of surface water and ground water. The SRP review procedures generally state that supporting documentation should be used in the staff’s independent review of an application. Therefore, the staff requests the laboratory analytical reports and field sampling data sheets for sampling and analyses of surface water and ground water. In addition, the applicant should correct the table numbers for Tables 2.9-1, 2.9-2, and 2.9-3 (pgs., 2.9-32, 2.9-33, and 2.9-37), which are inconsistent with the table numbers listed in the Table of Contents (pg., 2.9-ii).
4. In TR Section 2.3, Lithologic Characteristics, the applicant commits to providing the petrographic analysis of the core samples but does not specify when the data will be provided. The SRP review procedures generally state that supporting documentation should be used in the staff’s independent review of an application. Therefore, the staff requests the petrographic analysis of the core samples.
5. In TR Section 4.3.5, Lined Backup Storage Pond Design and Addendum 4-A, Subsurface Exploration and Geotechnical Report, the applicant provides a geotechnical report in Addendum 4-A; however, acknowledges that a detailed backup storage pond design is not complete. The applicant commits to providing the complete design as “the licensing process progresses” and further states a commitment to complete the design “[p]rior to commencement of pond construction”. The staff will need to review this information in conjunction with its detailed technical review. Therefore, the staff requests that applicant move forward with the completion of the detailed design now so this information is available for a timely response to a potential future request for information.
6. In TR Section 2.9, Baseline Radiological Survey Characteristics, NRC staff reviewed Figure 2.9-1 and observed that the pre-operational soil (and direct radiation) sampling was not conducted from the center of the proposed mill. The location of the proposed mill on Figure 2.9-1 and the pre-operational soil sampling (and direct radiation) are at two different locations. The applicant should provide soil (and direct radiation) sampling from the center of the proposed mill or explain why it’s not necessary. Regulatory Guide 4.14 recommends, during pre-operational soil (and direct radiation) sampling, collecting up to 40 soil samples at 300 meter interval to a distance of 1500 meters in each of eight directions from the center of milling area. On page 4.14-3, Regulatory Guide 4.14 states that the center is defined as the

point midway between the proposed mill and the tailings area. Since the applicant does not propose any tailings impoundment, NRC staff defines the proposed mill as the center.

In addition to the soil (and direct radiation) sampling, NRC staff determined that the current air particulate (radon, soil, and direct radiation) sampling stations may not be properly located in accordance with the center of the mill and wind rose information provided by the applicant. The applicant should re-evaluate the locations of the air particulate (including radon, soil, and direct radiation) sampling stations with respect to the proposed mill location as defined in Figure 2.9-1 and determine if the current air particulate sampling stations are in locations consistent with the annual wind rose as provided by the applicant. The NRC staff has determined that these are important issues that need to be resolved prior to operations.

7. In TR Section 2.1, Environmental Report (ER) Chapter 7.1.3.1 and Addendum 3.8-A, the applicant provides conflicting descriptions of potentially disturbed acreage and area of potential effects (APE). In Section 2.1, the area of disturbance is identified as 154 acres. However, in Chapter 7.1.3.1, the description of the proposed project states the construction impact could be as large as 481 acres, which is equal to the controlled area acreage in Section 2.1. This description conflicts with the proposed area of potential effects in the Historic and Cultural Resources Report (ER Addendum 3.8-A).

The staff requests updates to the ER, TR and Historic and Cultural Resources Report for a consistent description of the area of potential ground disturbance. Specifically, the staff requests the following:

- A localized map identifying the direct APE (i.e., the area of direct potential physical ground disturbance) and explanation of the basis of the APE.
- The indirect APE, also *generally* known as the above-ground, or visual APE for historic structures and traditional cultural property, if appropriate, drawn on a localized map, and explanation of the basis.

Per 36 CFR § 800.4(a)(1) and § 800.11(a), the APE determination must be "...supported by sufficient documentation to enable any reviewing parties to understand its basis." A non-public version of the APE maps should be submitted that include all cultural and historic properties (above and below ground), National Register of Historic Places (NRHP) eligible and potentially eligible<sup>1</sup> properties, and National Natural Landmark sites. A redacted version of the APE maps with all eligible and potentially eligible historic properties removed should also be submitted.

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<sup>1</sup> NRHP potentially eligible historic properties include those properties proposed non-eligible, but without State Historic Preservation Office concurrence.