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JAN 17 2017

Ref: EPR-N

Cinthya I. Roman, Chief
Environmental Review Branch
Division of Fuel Cycle Safety, Safeguards
and Environmental Review
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

RE: Final Supplemental Environmental Impact Statement (Final SEIS) for the Reno Creek In Situ Recovery Project, CEQ# 20160306

Dear Ms. Roman:

The U.S. Environmental Protection Agency Region 8 has reviewed the U.S. Nuclear Regulatory Commission's (NRC) Final SEIS for the proposed Reno Creek In-Situ Recovery (ISR) Project in Campbell County, Wyoming. Our comments are provided for your consideration pursuant to our responsibilities and authority under Section 102(2)(C) of the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4332(2)(C) and Section 309 of the Clean Air Act (CAA), 42 U.S.C. Section 7609.

Project Background

The Reno Creek Final Supplemental EIS (supplement to NRC's Generic EIS for In Situ Leach Uranium Milling Facilities) analyzes environmental impacts associated with a proposal from AUC, LLC (AUC), the applicant, to recover uranium using the in situ leach process. The proposed project includes processing facilities and 15 sequentially developed production units with one to seven wellfields per production unit. The project is located between the communities of Wright, Edgerton, and Gillette and covers 2,451 hectares, or 6,057 acres, 5417 acres being private land.

The EPA Region 8 office provided comments on the Draft SEIS on September 6, 2016. We rated the Draft SEIS EC-2 (environmental concerns – insufficient information). The Final SEIS analyzes two alternatives: the Proposed Action (Alternative 1) and No-Action (Alternative 2).

Comments

We appreciate the NRC's efforts to address our Draft SEIS comments. We have remaining concerns about mitigation and vertical excursion monitoring. We also have an additional suggestion about legible figures.

Mitigation

The Draft and Final SEIS include two mitigation measures tables: Table 6-1 Summary of Mitigation Measures Proposed by AUC and Table 6-2 Summary of Mitigation Measures Identified by the NRC. Through a phone conversation between my staff and the NRC project manager, it was clarified that Table 6-1 contains the applicant committed measures included in AUC's license application which will be cited in the NRC license. Since it is not clear from the Chapter 6 text or the Table 6-1 title that these are applicant commitments that must be implemented, we suggest that a clarification be added to the Record of Decision (ROD).

In a follow up phone call, it was indicated that some of the measures listed in Table 6-2 were added to the license application that will be referenced in the license. We suggest that the measures added to the license be identified in the ROD. We noted a number of Table 6-2 mitigation measures that assure the project is operated as proposed. For instance, two Table 6-2 mitigation measures are:

- "Locate all boreholes and wells within 305 meters [1,000 feet] of a wellfield, if possible, and properly plug and abandon them," and

- "Submit results of the hydrogeological characterization and aquifer pump tests (hydrologic test data packages) for NRC review and written verification or approval prior to development of any proposed wellfields."

These measures relate to whether the operation will perform as proposed while also protecting groundwater resources. If there are unplugged boreholes, the ISR operation may not operate correctly and groundwater resources could be impacted. The hydrogeological characterization and aquifer pump tests help assess if the project will operate as proposed and licensed. It is therefore important that these measures be included in the license, along with any additional measures that NRC determines necessary to assure the operation will perform as proposed.

Vertical Excursion Monitoring

The EPA is concerned about the lack of excursion monitoring below the production zone. As displayed in the cross-sections included in the Final SEIS, the sand lenses in the aquitard are discontinuous and not connected, however, the actual geometries and relationships cannot be determined from the information provided, nor the possibility of fractures which may create conduits for fluid migration into the lower aquifers.

Additionally, there are potentially abandoned wells in the area that if not properly plugged could provide connectivity between the production zone and lower aquifers. As stated in the Final SEIS (page 3-33), the groundwater moves "vertically downward from the Lower Tertiary aquifers [includes the production zone], to the Upper Cretaceous aquifers, through the confining unit separating the two aquifers." Both the Lower Tertiary and Upper Cretaceous aquifers are important stock, domestic and municipal drinking water sources throughout the region. Even if not specifically identified for vertical excursion monitoring, we recommend downgradient monitoring occur in the lower aquifers, mainly the Fort Union. This could potentially be accomplished by using already existing wells downgradient of the project.

Figures

Thank you for your efforts to address our Draft SEIS comment about the legibility of the Figure 3.13 key, however, the revised figure uses almost the same gray color to depict the ore body and the 100-year floodplain. This makes it difficult to differentiate the floodplain near the proposed well fields. To aid in understanding this and other figures with similar gray scales, we suggest the NRC make an electronic color version of the Final SEIS available through the NRC web site.

If you have any questions or would like to discuss our comments, please contact me at 303-312-6704, or Lisa Lloyd of my staff, at 303-312-6537.

Sincerely,

Philip S. Strobel
Director, NEPA Compliance and Review Program
Office of Ecosystems Protection and Remediation

Electronic cc: Jill Caverly, NRC (Jill.Caverly@nrc.gov)