

July 31, 2015

John H. Ellis, President  
Sequoyah Fuels Corporation  
P.O. Box 610  
Gore, OK 74935

SUBJECT: U.S. NUCLEAR REGULATORY COMMISSION STAFF DETERMINATION THAT  
LICENSE AMENDMENT WILL BE REQUIRED FOR APPROVAL OF  
ALTERNATE ROCK SOURCE FOR THE SEQUOYAH FUELS CORPORATION  
SITE IN GORE, OKLAHOMA

Dear Mr. Ellis:

The U.S. Nuclear Regulatory Commission (NRC) staff reviewed your e-mail dated April 30, 2015, and disagrees with Sequoyah Fuels Corporation's (SFC's) determination that no license amendment is needed to approve new rock sources for the disposal cell cover material.

As discussed in our May 28, 2015, telephone conversation with Robert Johnson, in accordance with License Condition 54 (c), a license amendment is required for this action because the change that SFC is proposing is not consistent with NRC's basis and analyses supporting its conclusions regarding the first rock source that we reviewed and approved in the SFC reclamation plan. Furthermore, the NRC considers that durable rock is a key component of the cover design and absolutely essential for ensuring long-term erosion protection and stability of the total cover system. The use of these alternative rock sources represents a significant design change requiring a complete evaluation of the rock sources that must be documented by SFC and independently reviewed and approved by NRC in order to have confidence in the long term protection of the cover system.

The new rock sources SFC is proposing to use have different durability and petrographic data, different scoring, and potentially other features that could negatively affect the durability of the rock and thus affect the long-term erosion protection that the rock provides as a cover for the disposal cell. Also, SFC needs to develop and submit QA/QC production procedures for the alternative rock sources for the NRC's approval because they are different rock types and are being extracted from different quarries from the previously approved rock source. We have previously indicated the importance of obtaining and documenting, in your submittal, that representative samples for both rock sources have been obtained and that potential adverse features, such as bedding planes or shale units, are described so that these features can be avoided and not adversely impact the size of the rock produced or its durability.

None of these issues were discussed in the information SFC provided, although NUREG-1623 notes that these issues need to be considered in evaluating rock quality/durability. Therefore, the NRC staff requests that you respond, by letter, as to when you will submit a license amendment request for the NRC's approval of alternate rock sources.

In addition, the NRC staff understands that you are now planning to emplace raffinate sludge in the disposal cell. We also understand that the raffinate sludge will be emplaced in a different part of the cell from what was described in the reclamation plan that NRC approved and that there may be other changes to the design of the cell. Our initial reaction is that these actions also constitute a significant design change and will also require a license amendment under provision of License Condition 54(c).

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 Agencywide Documents Access and Management System (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 me at (301) 415-6664 or via email at [kenneth.kalman@nrc.gov](mailto:kenneth.kalman@nrc.gov).

Sincerely,

**/RA/**

Kenneth Kalman, Project Manager  
Division of Decommissioning, Uranium Recovery,  
and Waste Management Programs  
Division of Nuclear Material Safety  
and Safeguards

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Sincerely,

/RA/

Kenneth Kalman, Project Manager  
Division of Decommissioning, Uranium Recovery,  
and Waste Management Programs  
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and Safeguards

DISTRIBUTION:

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