



March 24, 2021

RE: 2104-N

U.S. Nuclear Regulatory Commission  
Mr. Doug Mandeville, Project Manager  
Fuel Cycle Facilities Branch  
Division Fuel Cycle Safety and Safeguards, NMSS  
Two White Flint North  
11545 Rockville Pike  
Rockville, MD 20852 - 2738

Federal Express Tracking # 7732 5697 9218

RE: Sequoyah Fuels Corporation  
License SUB-1010; Docket No. 40-8027  
License Condition 54.e.: performance based license; annual report

Dear Mr. Mandeville:

Enclosed is the Annual Performance Based License Report for year 2020 as required by the subject license. If you have any questions, please contact me at (918) 489-5511, ext. 226.

Sincerely,

John H. Ellis, President  
Sequoyah Fuels Corporation

Enclosures: (1) 2020 Annual Performance Based License Report  
(2) Technical Specifications for the Sequoyah Fuels Corporation Disposal Cell,  
03 February 2020

# Sequoyah Fuels Corporation

## 2020 Annual Performance Based License Report

### Background

By letter dated 24 September 2009, Sequoyah Fuels Corporation (SFC) submitted a request to amend License SUB-1010 to enable SFC to make changes to the Reclamation Plan without approval of U.S. Nuclear Regulatory Commission (NRC). The request was subsequently revised by letters dated 25 March 2010 and 04 October 2010. The NRC staff reviewed the proposed license condition and determined that it was comparable to license conditions that are in other NRC licenses for similar sites and could be implemented without being detrimental to the safety of the facility or public. The NRC approved the request on 12 December 2010 as License Condition 54 of Amendment 35 to License SUB-1010 [ML102740426].

### Objective

The aforementioned license amendment effects a performance based license condition (PBL) delegating additional regulatory authority to SFC for various aspects of license activities. The authority may be exercised such that any change does not erode the basis for the NRC's original licensing decision. It is recognized that the review conducted by the licensee is not a review of safety or environmental acceptability: the licensee is obligated to ensure that any change considered should be safe and environmentally acceptable. Rather the licensee provides a determination of whether the proposed change(s) require prior NRC review; i.e., the licensee is responsible for determining if the proposed change needs to be submitted to the NRC. There will be circumstances where the licensee finds that the proposed change is acceptable; however, it may still require a NRC review.

### Responsibility

SFC's determinations concerning the PBL are made by the Plant Review Committee (PRC). The PRC completes the determinations in accordance with a written operating procedure.

### Scope

The PBL includes, in summary, that the licensee shall furnish, in an annual report to the NRC, a description of changes made pursuant to the PBL. The report shall include a summary of the safety and environmental evaluation of each change. This letter serves as the annual report for 2020.

Additionally, the licensee shall submit to the NRC, changed pages, which shall include both a change indicator for the area changed and a page change identification to reflect changes made pursuant to the PBL. The required submittal is included herein as,

- Reclamation Plan Sequoyah Facility
  - Attachment A, Technical Specifications for the Sequoyah Fuels Corporation Disposal Cell, 03 February 2020 (Technical Specifications).

### Requirement

The PBL requires, in summary, that the determinations concerning the PBL be made with respect to frequency or consequences of accidents evaluated or accidents different than evaluated, or an increase in likelihood of occurrence or a different occurrence of a malfunction of a facility structure, equipment, or monitoring system (SEMS) important to safety previously evaluated.

## Results

The PBL was applied one time in 2020. A description of the change is as follows:

### **Control Number**

CL021

### **Description of Change**

Minor modifications were made to the materials and placement methods for the subsoil layer and erosion protection materials for the disposal cell cover system. The erosion protection on the side slopes of the cell cover has been changed from riprap and filter zone layers to a topsoil- riprap mixture (Rock Mulch). The method of cover subsoil placement has also been modified. Additional description is provided below for the affected Technical Specification sections.

#### Technical Specifications –

**Section 7.2.5** was revised to describe placement of topsoil to form the Rock Mulch.

**Section 7.2.7** describes the erosion protection filter, and was removed since the filter material is no longer needed with the change to a Rock Mulch. The revisions to the rock sizing on the cover were previously documented in CL009<sup>1</sup>.

**Section 7.3.5** was modified to remove specific references to layer thicknesses, since cover layer thicknesses have been modified, and the text in this section now refers directly to the drawings.

**Section 7.3.6** has been modified to remove the specification for Filter Material placement. Filter Material was removed from the drawing set and is no longer relevant in the technical specifications (CL009)<sup>1</sup>. This section has also been revised to refer to the most recent design drawings for Rock Mulch and other layer thicknesses.

**Section 7.3.7** was modified to include a layer of topsoil to be placed on the sideslope rock. The section was also edited to remove the topsoil placement from the apron rock, and a sentence was added allowing for variation in the thickness of the side slope topsoil layer in order to match the thickness of the topsoil layer on the top of the cell.

**Section 7.4.4** was revised to describe the lift thickness of the subsoil zone being used to control placement rather than “verify” since no density testing of this material is required.

**Section 7.4.5** was modified to remove reference to the Souter Quarry and allow GPS-guided grading equipment to be used for layer construction.

**Section 7.4.6** was modified to allow for the use of GPS-guided grading equipment for cover layer construction.

**Section 7.4.7** pertained to testing of the erosion protection filter, and was removed as it is no longer relevant to the design (CL009)<sup>1</sup>. The Topsoil Testing section is now Section 7.4.7.

**Section 7.4.8** (formerly Section 7.4.7) was modified to remove language specifying the minimum width of the rock apron, and revised to include language requiring as-built surveys be used to verify completed layer thicknesses.

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<sup>1</sup> Change of License Application, CL009, construction of the disposal cell limited to a maximum elevation of 615 feet, 15 November 2013.

These changes are also identified by the respective control number within the included copy of the subject plan.

A summary of the safety and environmental evaluation of these changes follows:

- i. The accidents evaluated in the license application do not consider the design or construction of the disposal cell thus there is not an increase in the frequency of occurrence of an accident previously evaluated.
- ii. The evaluations in the license application do not consider any functioning facility structure or equipment thus there is not an increase in the likelihood of occurrence of a malfunction of a SEMS important to safety.

The evaluations in the license application include the cover system. No change to the performance of the cover system is implied or required here. No change to the placement of the material cell with respect to the overlying soils (i.e., soils between the material cell and the cover system) and cover system is implied or required here.

The changes to the Technical Specifications were developed to maintain the original design effectiveness.

- iii. The accidents evaluated in the license application do not consider the design or construction of the disposal cell thus there is not an increase in the consequences of an accident previously evaluated.
- iv. The evaluations in the license application do not consider any functioning facility structure or equipment thus there is not an increase in the consequences of a malfunction of a SEMS previously evaluated.

The evaluations in the license application include the cover system. No change to the performance of the cover system is implied or required here. No change to the placement of the material cell with respect to the overlying soils (i.e., soils between the material cell and the cover system) and cover system is implied or required here.

The changes to the Technical Specifications were developed to maintain the original design effectiveness.

- v. The changes to the plans do not reduce the performance or function of the disposal cell, thus there is not a possibility for an accident of a different type than any previously evaluated in the license application.

- vi. The evaluations in the license application do not consider any functioning facility structure or equipment thus there is not a possibility of a malfunction of a SEMS with a different result than previously evaluated.

The evaluations in the license application include the cover system. No change to the performance of the cover system is implied or required here. No change to the placement of the material cell with respect to the overlying soils (i.e., soils between the material cell and the cover system) and cover system is implied or required here.

The changes to the Technical Specifications were developed to maintain the original design effectiveness.

- vii. The changes do not result in a departure from the methods of evaluation described in the license application (as updated) used in establishing the FSER or the EIS or other analyses and evaluations.

### Conclusion

Application of the PBL in calendar year 2020 included the Technical Specifications. The changes were consistent with the NRC conclusions, or the basis of, or analysis leading to, the conclusions of actions, designs, or design configurations analyzed and selected in the site or facility Safety Evaluation Report (April 20, 2009 [ML090260323]) and Environmental Impact Statement (NUREG-1888, May 2008 [ML081300103]). This includes all supplements and amendments, and safety or technical evaluation reports, environmental assessments, and environmental impact statements issued with amendments to License SUB-1010.