

Sequoyah Fuels Corporation

2019 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 2019.

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,

- Groundwater Monitoring Plan Sequoyah Facility, February 2019 (CAP),
- Corrective Action Plan Report, February 2019 (GwMP),
- Reclamation Plan Sequoyah Facility
 - Attachment E, Disposal Cell Construction Plan for the Sequoyah Fuels Corporation Facility, 07 February 2019 (Plan),
 - Attachment A, Technical Specifications for the Sequoyah Fuels Corporation Disposal Cell, 07 May 2019 (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 three times in 2019. A description of each change is as follows:

Control Number	Description of Change
CL018	<p>The 005 Collection Trench (2224A) and the 005 Monitor Trench (2224B) were completely removed by excavation. The area will be restored in support of reclamation activities.</p> <p><u>Groundwater Monitoring Plan</u> – The GwMP was revised at Table 4 Sampling and Analysis Schedule, Corrective Action Monitoring (Quarterly Sampling Frequency) by deleting monitor IDs 2224A and 2224B.</p> <p><u>Corrective Action Plan Report</u> – The CAP was revised at Section 6.1.3 Performance Assessment for the 005 Intercept Trench to described that the 005 Collection Trench (2224A) and the 005 Monitor Trench (2224B) have been removed by excavation.</p>
CL019	<p>The design of the on site disposal cell originally included an interior cell for disposal of the dewatered raffinate sludge and other named sediments (Material). All of the Material was shipped off site in 2018. The Reclamation Plan (RP), Attachment E <i>Disposal Cell Construction Plan</i> (Plan) and the RP, Attachment A <i>Technical Specifications for the Sequoyah Fuels Disposal Cell</i> (Specifications) are revised to reflect not constructing the Material cell within the disposal cell.</p>
CL020	<p>The Technical Specifications for construction of the disposal cell cover include a requirement that the [c]lay liner material shall have radionuclide activity concentrations lower than the selected subsurface soil cleanup level.¹ This was in anticipation of using clay soils from areas of the site that might have been impacted by facility operations. The subsoil zone of the disposal cell cover may also use soils from areas of the site potentially impacted by facility operations. The Technical Specifications, Section 7.2.4, are revised to include the requirement [s]ubsoil zone material shall have radionuclide activity concentrations lower than the selected subsurface soil cleanup level.</p>

¹ Sequoyah Fuels Corporation, Reclamation Plan Sequoyah Facility, November 2007 (as amended), Attachment A, Technical Specifications for the Sequoyah Fuels Disposal Cell, Section 7.2.1.

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 groundwater monitoring or corrective action, or 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 005 Collection Trench (2224A) or the 005 Monitor Trench (2224B) are not a consideration in the evaluations of the license application.

No change to the placement of the disposal cell contents with respect to the overlying soils and cover system is implied or required here (i.e., soils between the disposed soils etc., and the cover system). No change is made to the construction or performance of the cover system.

- iii. The accidents evaluated in the license application do not consider groundwater monitoring or corrective action, or the design or construction of the disposal cell thus there is not an increase in the frequency of occurrence 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 005 Collection Trench (2224A) or the 005 Monitor Trench (2224B) are not a consideration in the evaluations of the license application.

No change to the placement of the disposal cell contents with respect to the overlying soils and cover system is implied or required here (i.e., soils between the disposed soils etc., and the cover system). No change is made to the construction or performance of the cover system.

- 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 005 Collection Trench (2224A) or the 005 Monitor Trench (2224B) are not a consideration in the evaluations of the license application.

No change to the placement of the disposal cell contents with respect to the overlying soils and cover system is implied or required here (i.e., soils between the disposed soils etc., and the cover system). No change is made to the construction or performance of the cover system.

- 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 2019 included the Groundwater monitoring Plan, the Corrective Action Plan Report, the Disposal Cell Construction Plan, and 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.