

**From:** [Saxton, John](#)  
**To:** [John Cash](#)  
**Cc:** [Augustus, Reginald](#)  
**Subject:** RAI on 2017-18 Financial Surety Update  
**Date:** Wednesday, January 10, 2018 9:40:00 AM

---

John,

Below please find the request for additional information regarding the 2017-18 financial surety update.

John

## **Request for Additional Information (RAI) Input for Lost Creek ISR Project 2017-18 Surety Estimate**

### **Description of Deficiency**

The 2017-2018 surety estimate does not include a line item with detailed information or an explanation of estimated costs for remediation of radioactive contamination in onsite subsurface material.

Since operations were initiated in 2013, Lost Creek has experienced 29 reportable unplanned releases, based on Wyoming criteria for reportable spills and Lost Creek's Standard Operating Procedures (for purposes of this RAI, an unplanned release is referred to as a "spill"). In accordance with license condition 11.6, Lost Creek has maintained records of the site areas where these spills have occurred and provided notification of the spill to the NRC and the State of Wyoming. However, many spill notifications and subsequent reports did not include soil sampling results. In response to an inquiry during a recent NRC inspection, Lost Creek committed to obtaining the soil sample results (ML17215A944).

In response to a recent spill of 188,000 gallons, the NRC staff obtained an estimate of occupational dose that was provided by Lost Creek (ML18003A578). While the response is correct that no remediation is warranted relative to occupational dose, the reported radium-226 concentration of 16 pCi/g above background exceeds the Lost Creek's proposed unrestricted cleanup soil standard for radium-226 of 1.8 pCi/g for spills. Furthermore, review of recent annual reports to the State of Wyoming suggests that soil levels in other site areas where unplanned releases occurred may exceed Lost Creek's proposed soil cleanup levels.

The regulations permit Lost Creek to defer cleanup of the soils until decommissioning provided adequate financial surety is set aside for the cost of the cleanup.

### **Basis for Request**

Criterion 9(b)(2) of 10 CFR Part 40, Appendix A states that each cost estimate must contain "[a]n estimate of the amount of radioactive contamination in onsite subsurface material."

## **Formulation of RAI**

The surety estimate should provide costs for cleanup of the subsurface radioactive contamination. For the historical spills, please provide, at a minimum, the area of impacted soils, the soil sampling results, estimated background soil levels for that spill area, the depth of the impacted soils, and, unit and totals costs for any cleanup. If a historical spill does not warrant remediation, then please list the cost for that unplanned release as "\$0.0".