

April 15, 2014

MEMORANDUM TO: John Saxton, Project Manager  
Uranium Recovery Branch  
Decommissioning and Uranium Recovery  
Licensing Directorate  
Division of Waste Management  
and Environmental Protection  
Office of Federal and State Materials  
and Environmental Management Programs

FROM: Reginald Augustus, Financial Assurance Project Manager */RA/*  
Special Projects Branch  
Decommissioning and Uranium Recovery  
Licensing Directorate  
Division of Waste Management  
and Environmental Protection  
Office of Federal and State Materials  
and Environmental Management Programs

SUBJECT: LOST CREEK IN SITU RECOVERY (ISR) FACILITY 2013-2014  
ANNUAL SURETY UPDATE SAFETY EVALUATION REPORT

Enclosed is the Special Projects Branch's (SPB) Safety Evaluation Report input with respect to the 2013-2014 annual surety update for the Lost Creek ISR Facility located in Sweetwater County, Wyoming. Please contact me if you have any specific questions regarding SPB's input.

Docket No.: 40-9068

License No.: SUA-1598

Enclosure:  
Safety Evaluation Report Input

CONTACT: Reginald Augustus, FSME/DWMEP  
(301) 415-0165

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<b>DATE</b>	4/7/14	4/7/14	4/8/14	4/11/14	4/15/14

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## SAFETY EVALUATION REPORT INPUT

DATE: April 4, 2014

DOCKET: 040-09068

LICENSEE: LOST CREEK ISR, LLC

SITE: Lost Creek ISR Facility, Sweetwater County, Wyoming

PROJECT MANAGER: John Saxton

TECHNICAL REVIEWER: Reginald Augustus, John Saxton

SUBJECT: Lost Creek ISR, LLC 2013-2014 Annual Surety Update

### REGULATORY REQUIREMENTS

The Special Projects Branch's (SPB) staff reviewed Lost Creek's surety update in accordance with the requirements in 10 CFR Part 40, Appendix A, Criterion 9, and in License Condition 9.5 of Materials License SUA-1598. The SPB staff used NUREG-1569, "Standard Review Plan for In Situ Leach Uranium Extraction License Applications" (SRP) as guidance in determining elements to be included in a surety review. Specifically, Staff used the review procedures and acceptance criteria in Section 6.5, and guidance in Appendix C of the SRP. Staff used Wyoming Department of Environmental Quality (WDEQ) Land Quality Division Guideline 12 "Standardized Reclamation Performance Bond Format and Cost Calculation Methods" (Guideline 12) when applicable, to verify that acceptable and appropriate unit costs were included in the surety calculations.

### DISCUSSION

By letter dated October 22, 2013, Lost Creek ISR LLC (Lost Creek) submitted to the U.S. Nuclear Regulatory Commission (NRC), for review and approval, its 2013-2014 annual surety update (ADAMS Accession No ML13304A504). Staff from the SPB was requested to provide technical assistance in the review of the annual surety update. Specifically, the SPB staff was requested to review the adequacy of calculations used to derive the cost estimates and appropriateness of the instrument used to maintain the surety. This memorandum documents results of SPB staff's review of the annual surety update.

On December 24, 2013, NRC staff sent a Request for Additional Information (RAIs) to Lost Creek. By letter dated February 3, 2014, Lost Creek provided responses to the RAIs to NRC staff (ADAMS Accession No ML14043A125). On February 21, 2014, NRC staff sent a second round of RAIs to Lost Creek requesting clarification to some of its responses to the initial RAIs. On March 13, 2014, Lost Creek provided responses to the additional RAIs (ADAMS Accession No ML14085A419).

Enclosure

### **Adequacy of the Calculations**

In the surety calculations, the licensee includes costs for decommissioning and decontamination of the Central Processing Plant and ancillary equipment, deep disposal wells, ponds, and one mine unit, Mine Unit 1. The unit costs for D&D are consistent with WDEQ Guideline 12.

Lost Creek estimates the cost to decommission and decontaminate the facility by an independent party at \$13,296,000. This figure represents an increase of \$4,696,609 over the surety established for the prior year of \$8,599,391. The increase is attributed to: (1) unit cost increases due to inflation; (2) expansion of active operations to 10 header houses in the first mine unit; (3) decommissioning of a third deep disposal well; and (4) increased time for restoration based on actual disposal rates for byproduct material. The cost estimate is based on costs of a third party contractor, does not take credit for any salvage value and includes a 29 percent contingency factor.

SPB Staff has completed its review of the surety update estimate for Lost Creek's facility and finds that the licensee has included in the update all activities: (1) listed in the reclamation plan or in Sections 6.1-6.4 of the standard review plan in NUREG-1569; and (2) to be conducted during the period covered by the update. Staff finds the licensee has based the assumptions for the financial surety analysis on site conditions, including experiences with generally accepted industry practices, research and development at the site, and previous operating experience.

SPB Staff finds the values used in the financial surety update are based on current dollars and reasonable costs for the required reclamation activities are defined. Therefore, staff finds that the licensee has established an acceptable financial assurance cost estimate in the amount of \$13,296,000, based on the requirements in 10 CFR Part 40, Appendix A, Criterion 9, and is approved.

### **Appropriateness of the Financial Instrument**

The instrument to be used by the licensee for the financial assurance update is a reclamation performance bond to be held in favor of the WDEQ. An original copy of the financial instrument remains with WDEQ for uranium recovery licensing activities based on an agreement between the State and the NRC. NRC maintains a copy on file of the instrument as well. Along with WDEQ's portion, the bond includes 100 percent of NRC's portion. The approved surety bond amount is \$13,296,000. Lost Creek needs to submit an updated surety bond with a face value of at least \$13,296,000. It must meet the criteria in 10 CFR Part 40, Appendix A, Criterion 9, to be acceptable. NRC will then receive a copy of the surety bond. Additionally, a standby trust agreement (STA) must be established by the licensee to receive funds in case of the NRC's need to collect the surety. Because the licensee does not have an (STA) in place at this time as required by 10 CFR Part 40, Appendix A, Criterion 9, in accordance with 10 CFR 40.14(a), staff has elected to issue an exemption to the STA requirements in 10 CFR Part 40, Appendix A, Criterion 9, for the current surety arrangement.

**CONCLUSION**

Based on the information provided in the application, the RAI's and the detailed review conducted of the surety estimate for Lost Creek's facility, the SPB staff concludes the current surety estimate reasonably includes funds sufficient to cover the estimated current costs of the facility and is acceptable during the current surety period. Therefore, the proposed financial surety bond amount and the surety estimate itself includes methods of estimation that are acceptable and are consistent with 10 CFR Part 40, Appendix A, Criterion 9, which requires that financial surety arrangements be established by each licensee.