



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

February 16, 2017

MEMORANDUM TO: John Saxton, Project Manager
Uranium Recovery Licensing Branch
Division of Decommissioning, Uranium Recovery,
and Waste Programs
Office of Nuclear Material Safety and Safeguards

FROM: Reginald Augustus, Financial Project Manager */RA/*
Performance Assessment Branch
Division of Decommissioning, Uranium Recovery,
and Waste Programs
Office of Nuclear Material Safety and Safeguards

SUBJECT: LOST CREEK *IN SITU* RECOVERY FACILITY 2016-2017
ANNUAL SURETY UPDATE SAFETY EVALUATION REPORT

Enclosed is the Performance Assessment Branch's (PAB) Safety Evaluation Report input with respect to the 2016-2017 annual surety update for the Lost Creek *In Situ* Recovery Facility site located in Sweetwater County, Wyoming. Please contact Reginald Augustus if you have any specific questions regarding PAB's input.

Docket No.: 040-09068
License No.: SUA-1598

Enclosure:
Safety Evaluation Report Input

CONTACT: Reginald Augustus, NMSS/DUWP
(301) 415-0165

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 Performance Assessment Branch
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SUBJECT: LOST CREEK *IN SITU* RECOVERY (ISR) FACILITY 2016-2017
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ADAMS Accession No.: ML17027A045

OFC	DUWP/PM	DUWP/LA	DUWP	DUWP/BC
NAME	RAugustus	CHolston	JSaxton	(ALS for) CMcKenney
DATE	2/7/17	2/7/17	2/9/17	2/16/17

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SAFETY EVALUATION REPORT INPUT

DATE: January 26, 2017
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 2016-2017 Annual Surety Update

REGULATORY REQUIREMENTS

The Performance Assessment Branch's (PAB) 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 PAB 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, the 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 24, 2016, Lost Creek ISR LLC (Lost Creek) submitted to the U.S. Nuclear Regulatory Commission (NRC), for review and approval, its 2016-2017 annual surety update (ADAMS Accession No. ML16306A193). Staff from PAB was requested to provide technical assistance in the review of the annual surety update. Specifically, PAB 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 PAB staff's review of the annual surety update.

Adequacy of the Calculations

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

Enclosure

Lost Creek estimates the cost to D&D the facility by an independent party at \$15,585,300. This figure represents an increase of \$588,400 over the surety established for the prior year of \$14,996,900. The increase is mainly attributed to the addition of portions of Mine Unit 2 and the Class V disposal system. Other costs that affected the surety amount include additional costs associated with header houses and contaminated materials and increased unit costs for disking/seeding. 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.

The PAB 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.

The PAB 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 based on the requirements in 10 CFR Part 40, Appendix A, Criterion 9.

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 should include 100 percent of NRC's portion. NRC will obtain a copy of the updated instrument once approval of the cost estimate has been submitted to the licensee. The surety bond will have a face value of at least \$15,585,300. Staff will find that the surety instrument meets the criteria in 10 CFR Part 40, Appendix A, Criterion 9, once receipt of the updated instrument has been received. 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, staff is requesting that the licensee provide supplemental information in the form of an STA agreement.

CONCLUSION

Based on the staff's review, as discussed above, the PAB staff concludes that 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, pending receipt of the revised surety bond amount, the proposed financial surety bond and surety estimate are consistent with 10 CFR Part 40, Appendix A, Criterion 9, and therefore acceptable.