

**SAFETY EVALUATION REPORT
2014-2015 FINANCIAL ASSURANCE UPDATE FOR THE LOST CREEK ISR, LLC'S LOST
CREEK FACILITY, SWEETWATER COUNTY, WYOMING**

Docket No.: 040-09068

License No.: SUA-1598

Date: June 26, 2015

Facility: Lost Creek ISR Facility, Sweetwater County, WY

Technical Reviewers: John L. Saxton
Reginald Augustus

Project Manager: John L. Saxton

SUMMARY AND CONCLUSIONS:

By letter dated November 21, 2014, Lost Creek ISR, LLC (Lost Creek) submitted to the U.S. Nuclear Regulatory Commission (NRC), for review and approval, its 2014-2015 annual surety update for the Lost Creek ISR Facility in Sweetwater County, Wyoming (Lost Creek, 2014). In response to NRC staff's request for additional information (NRC, 2015a), Cameco submitted a revised estimate on March 27, 2015 (Lost Creek, 2015).

The financial assurance update seeks to increase the financial assurance amount for the Lost Creek ISR Facility to a face value of at least \$14,640,000. This update reflects changes in: unit cost increases due to inflation, inclusion of reclamation and decommissioning costs for all header houses up to HH1-11 in Mine Unit 1, costs for reclamation of UIC Class I drill pads, costs for performing 5-year MIT tests on the Class III wells, and other unit cost revisions.

The NRC staff has reviewed the financial assurance update in accordance with License Condition 9.5, consistent with Criterion 9 of Appendix A to Part 40 of Title 10 of the Code of Federal Regulations (10 CFR Part 40, Appendix A). Based on this review, staff has reasonable assurance that the current financial assurance estimate of \$14,640,000 will be adequate to complete ground water restoration and decommissioning activities at the Lost Creek ISR facility, Sweetwater County, Wyoming.

Staff determined that Lost Creek's financial assurance arrangement does not include a standby trust agreement (STA) as required by 10 CFR Part 40, Appendix A, Criterion 9. Pursuant to 10 CFR 40.14(a), the NRC, upon its own initiative, will grant a limited exemption from the requirement for an STA until the next review cycle in order to conclude discussions with the State of Wyoming regarding the applicability of Wyoming's financial arrangements as a STA.

In addition to the surety update, staff revised the license to reflect the merger of the Office of Federal and State Materials and Environmental Management Programs with the Office of Nuclear Material Safety and Safeguards.

TECHNICAL REVIEW:

Background

By letter dated November 21, 2014, Lost Creek ISR, LLC (Lost Creek) submitted to the U.S. Nuclear Regulatory Commission (NRC), for review and approval, its 2014-2015 annual surety update (Agencywide Documents Access and Management System (ADAMS) Accession Number ML14337A251). The submittal was pursuant to License Condition (LC) 9.5 of source and byproduct materials license SUA-1598, Amendment 2. Staff reviewed the submitted financial assurance cost estimate and sent a Request for Additional Information (RAI) to Lost Creek on March 18, 2015 (ML15072A274). By letter dated March 27, 2015 (ML15099A577), Lost Creek responded to Staff's RAI.

In addition, during the review process, staff has been in contact with Wyoming Department of Environmental Protection (WDEQ) to coordinate each agency's review of the surety calculations. WDEQ provided a copy of their final comments and Lost Creek's responses to their comments on the Lost Creek's Annual Report (ML15162A959).

Discussion

Adequacy of the Calculations

For the revised surety calculations, Lost Creek includes costs for decommissioning and decontamination of the Central Processing Plant, ancillary equipment, deep disposal wells, ponds and two mine units, Mine Unit 1 and Mine Unit 2. Lost Creek estimates the total cost to decommission and decontaminate the facility by an independent party at \$14,640,000. This figure represents an increase of \$1,344,000 over the surety established for the prior year of \$13,296,000. The increase is attributed to: (1) unit cost increases due to inflation; (2) inclusion of reclamation and decommissioning costs for all header houses (HH) up to HH1-11, an additional deep well; (3) costs for reclamation of the Underground Injection Control (UIC) Class I drill pads; (4) costs for performing 5-year Mechanical Integrity Tests on UIC Class III wells; and (5) other unit cost revisions requested by WDEQ-LQD and NRC staff. The cost estimate is based on costs of a third party contractor, does not take credit or any salvage value and includes a 29 percent contingency factor. The unit costs for Decommissioning and Decontamination are consistent with WDEQ Guideline 12.

Staff 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, and previous operating experience. Staff finds the values used in the financial surety update are based on current dollars and reasonable costs for the required reclamation activities (NRC, 2015b). 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. The 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 \$14,640,000. 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, in accordance with 10 CFR 40.14(a), staff has elected to request an exemption to the STA requirements in 10 CFR Part 40, Appendix A, Criterion 9, for the current surety arrangement.

Other Changes to the License

Since the previous amendment, the Office of Federal and State Materials and Environmental Management Programs (FSME) merged with the Office of Nuclear Material Safety and Safeguards (NMSS). Staff revised the license to reflect this administrative change.

Environmental Review

This licensing actions (surety update, administrative changes to NMSS) meet the categorical exclusion provisions in 10 CFR 51.22(c)(10)(i), (ii), and (v). Therefore, no environmental review is required for these actions.

REFERENCES:

Lost Creek, 2014. Letter to Document Control Desk (Nuclear Regulatory Commission) from John Cash (Lost Creek ISR, LLC) Submittal of 2014-2015 Surety Estimate for Lost Creek: NRC License Number SUA-1598, Docket 40-9068, Docket No. 040-09068. ADAMS Accession No. ML14337A251, November 21, 2014.

Lost Creek, 2015. Letter to Document Control Desk (Nuclear Regulatory Commission) from John Cash (Lost Creek ISR) Submittal of Revised 2014-2015 Surety Estimate for Lost Creek: NRC License Number SUA-1598, Docket 40-9068, Docket No. 040-09068. ADAMS Accession No. ML15099A577, March 27, 2015.

NRC, 2015a. Letter to John Cash (Lost Creek ISR, LLC) "Request for Additional Information: 2014-2015 Surety Calculations for the Lost Creek ISR Project, Sweetwater County, WY", Docket No. 040-09068, ADAMS Accession No. ML15072A274, March 18, 2015.

NRC, 2015b. Memorandum to John Saxton (Nuclear Regulatory Commission) "Lost Creek In Situ Recovery Facility 2014-2015 Annual Surety Update Safety Evaluation Report", Docket No. 040-09068, ADAMS Accession No. ML15103A366, April 20, 2015.