

**TECHNICAL EVALUATION REPORT FOR WESTERN NUCLEAR INCORPORATED'S
PROPOSED 2017 SURETY ESTIMATE
FOR THE SPLIT ROCK, WYOMING SITE**

Docket No.: 040-01162 **License No.:** SUA-56

DATE: 2018

FACILITY: Western Nuclear Inc.'s Split Rock, Wyoming site

TECHNICAL REVIEWERS: Dominick Orlando, Reginald Augustus

PROJECT MANAGER: Dominick Orlando

SUMMARY AND CONCLUSIONS

By letter dated September 26, 2017, Western Nuclear, Inc. (WNI) submitted the 2017 financial assurance update for its Split Rock, Wyoming site and requested that the U.S. Nuclear Regulatory Commission (NRC) amend Source Materials License SUA-56 to incorporate the revised surety amount (Agencywide Documents Access and Management System (ADAMS) Accession Number ML17279A141). The NRC staff reviewed the submission and determined that the decommissioning and reclamation activities were adequately described and reasonable cost estimates for each activity were provided. Appropriate cost estimates were also provided for contingencies and long-term maintenance and surveillance. The NRC staff determined that WNI's method of increasing its cost estimate, based solely on inflation using the Urban Consumer Price Index (CPI), adequately demonstrated compliance with the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 40, Appendix A, Criteria 9 and 10.

BACKGROUND

WNI is the holder of NRC Materials License SUA-56 for its former Split Rock conventional mill site near Jeffrey City, Wyoming. The site consists of three reclaimed tailings impoundments occupying approximately 180 acres and other reclaimed disposal areas. WNI has been an NRC licensee since 1958. The Split Rock mill ceased active uranium recovery operations in 1987 and has been engaged in final site reclamation activities since then.

TECHNICAL EVALUATION

WNI's license was issued under 10 CFR Part 40, Domestic Licensing of Source Material. 10 CFR 40, Appendix A, Criterion 9, "Financial Criteria" requires licensees to maintain an NRC-approved financial surety arrangement to cover estimated costs for site decommissioning and decontamination activities. Criterion 9 also requires that the cost estimates be calculated on the basis of completion of all activities by a third party, and that the cost estimate is updated annually. License Condition 29 of Materials License SUA-56 also requires that WNI maintain an NRC-approved surety arrangement to cover estimated costs for decommissioning and decontamination activities and that the annual update be submitted 3 months prior to December 30.

In addition, 10 CFR 40, Appendix A, Criterion 10, requires that a minimum charge of \$250,000 (1978 dollars) must be paid by each mill operator to the U.S. Treasury or appropriate State agency, prior to uranium mill license termination, to account for costs associated with long-term maintenance and surveillance.

The NRC staff reviewed WNI's annual financial assurance update using the guidance in NUREG-1620, Appendix C, Revision 1, "Standard Review Plan for the Review of a Reclamation Plan for Mill Tailings Sites Under Title II of the Uranium Mill Tailings Radiation Control Act of 1978," dated June 2003 (NUREG-1620, Rev. 1).

WNI submitted its annual financial assurance update on September 26, 2017, which was more than 3 months prior to December 30. Therefore, NRC staff has determined that the submittal meets the license requirement for a surety update to be submitted at least 3 months prior to the December 30 anniversary date specified in License Condition 29.

WNI's submittal includes a request to amend the current surety amount, based on an adjustment for inflation, by applying the percent difference between the CPI for Urban Consumers for August 2016 (240.853) and August 2017¹ (245.519). The result is an increase of \$22,171 to the previously approved surety amount of \$1,144,429 for a new surety estimate of \$1,166,600. In determining whether an adjustment to increase the surety amount based solely on the UCPI would be adequate, the NRC staff considered several factors for adjusting the cost estimate as outlined in 10 CFR 40 Appendix A, Criterion 9(f)(4) including:

- Spills, leakage or migration of radioactive material leading to additional contamination;
- Waste inventory increase above previous estimate;
- Waste disposal cost increases
- Facility modifications;
- Any changes to authorized possession limits;
- Actual remediation costs above previous cost estimate;
- Any other conditions that affected the costs, and
- Onsite disposal costs.

WNI's Split Rock facility remains in a non-operational status with all reclamation activities completed. There are no recorded events of spills or leaks. There have been no changes to the amount of waste, or waste disposal cost increases, changes to the facility, changes in authorized possession limits or on-site disposals costs. Furthermore, there has been no increase to the actual remediation costs of the site nor any other known conditions affecting the cost estimate. Therefore, the NRC has determined that an increase to the cost estimate based solely on CPI meets the requirements in 10 CFR 40 Appendix A, Criterion 9.

The costs in the annual financial assurance update are estimated based upon the actual costs that WNI will pay for site license termination activities and ground and surface water monitoring until the license is terminated. Therefore, third party costs to reclaim, remediate, and decommission facilities and lands affected by past operations are not applicable to the site

¹ The licensee erroneously stated "August 2016" in the financial assurance update. However, the actual CPI value quoted was for August 2017.

because these activities have been completed. The licensee included groundwater and surface water monitoring as well as site transfer costs and NRC licensing fees in their cost estimate. The licensee also included 15 percent for contingencies, as well as costs for long-term care and maintenance based on \$250,000 (1978 dollars). Therefore, NRC staff has determined that the cost estimate is appropriate, includes an adequate contingency factor of 15 percent, and accounts for long-term care and maintenance as required by 10 CFR 40, Appendix A, Criterion 9 and 10.

Finally, the long-term care and maintenance cost was determined using the CPI.

The cost estimate breakdown includes:

(1) Water Monitoring:	
• Sample Collection, Lab Analysis, Report Preparation	\$29,582
(2) Site Transfer Costs:	
• Title Insurance, Legal and Consulting Fees	\$118,793
• NRC License Fees	<u>\$47,445</u>
Subtotal	\$195,820
(3) Contingency(15%)	\$29,373
(4) Long-Term Care Fee (\$250,000 in 1978 dollars)	<u>\$941,407</u>
Total Estimated Costs	\$1,166,600

WNI previously submitted an NRC-approved surety bond and standby trust agreement to demonstrate compliance with 10 CFR 40, Appendix A, Criterion 9. Upon approval of the current financial assurance update, WNI must submit, within a reasonable amount of time, a finalized update to its surety bond and Schedule A of the Standby Trust Agreement to reflect the new increased amount.

CONCLUSION

The NRC staff determined that WNI's 2017 financial assurance update for its Split Rock, Wyoming site adequately reflects the decommissioning activities, unit costs, a 15 percent contingency, long-term maintenance and surveillance costs, and, financial assurance mechanism, as required by 10 CFR Part 40, Appendix A, Criterion 9, 10, and LC 29.

PROPOSED LICENSE AMENDMENT:

Revise License Condition 29 to change the required surety amount to \$1,166,600.