

**TECHNICAL EVALUATION REPORT FOR WESTERN NUCLEAR INCORPORATED'S
PROPOSED 2016 SURETY ESTIMATE
FOR THE SPLIT ROCK MILLSITE**

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

DATE: December 8, 2016

FACILITY: Western Nuclear Inc.'s Split Rock Millsite

TECHNICAL REVIEWERS: Dominick Orlando, Reginald Augustus

PROJECT MANAGER: Dominick Orlando

SUMMARY AND CONCLUSIONS

By letter dated September 29, 2016 (Agencywide Documents Access and Management System Accession Number ML16288A080), Western Nuclear, Inc. (WNI) submitted its annual 2016 financial assurance update for its Split Rock Millsite to the U.S. Nuclear Regulatory Commission (NRC). The NRC staff reviewed the submission and has determined that the decommissioning and reclamation activities are 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 Consumer Price Index (CPI), adequately demonstrates 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 site ceased active uranium recovery operations in 1987 and has been engaging 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" and License Condition (LC) 29 of the Materials License SUA-56 require licensees to maintain an NRC-approved financial surety arrangement to cover estimated costs for its site decommissioning and decontamination activities. They also require that the cost estimates be calculated on the basis of completion of all activities by a third party, and that the cost estimate must be updated annually. LC 29 requires that the annual update be submitted 3 months prior to the December 30 anniversary date.

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 general treasury or appropriate State agency, prior to uranium mill license termination, to account for costs associated with long-term

surveillance.

The NRC staff reviewed WNI's annual financial assurance update using the guidance in NUREG-1620, Appendix, Revision, "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's submittal includes a request to amend its license's current surety amount based on an adjustment for inflation by applying the percent difference of the CPI for Urban Consumers between August 2015 (238.816) and August 2016 (240.853). The result is an increase of \$12,055 to the previous approved surety amount of \$1,132,374 to the new surety total of \$1,144,429. In determining whether an adjustment to increase the surety amount based solely on CPI would be adequate, the NRC staff looked at several factors for adjusting the cost estimate as outlined in 10 CFR 40 Appendix A, Criterion 9(f)(4) that included:

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

WNI's Split Rock facility remains in a non-operational status with no recorded events of spills or leaks. In addition, there has been no change to the amount of waste inventory, changes to the facility, or changes in its authorized possession limits. 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.

WNI submitted its annual financial assurance update on September 29, 2016, 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 LC 29.

In addition, the costs in the annual financial assurance update are estimated based upon third party costs to reclaim, remediate, and decommission facilities and lands affected by past project operations. All unit costs, labor and equipment, and other fees were included. Also, the licensee added 15 percent for contingencies as well as costs for long-term surveillance fees based on \$250,000 (1978 dollars) as required. Therefore, NRC staff has determined that the cost estimate is based upon third party costs, includes an adequate contingency factor of 15 percent, and accounts for long-term surveillance fees as required by 10 CFR 40, Appendix A, Criterion 9 and 10.

Furthermore, WNI has 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 to reflect the new increased amount.

The cost estimate breakdown includes:

(1) Water Monitoring:	
• Sample Collection, Lab Analysis, Report Preparation	\$29,020
(2) Site Transfer Issues:	
• Title Insurance, Legal and Consulting Fees	\$116,535
• NRC License Fees	<u>\$46,543</u>
Subtotal	\$192,098
(3) Contingency(15%)	\$28,815
(4) Long-Term Care Fee (\$250,000 in 1978 dollars)	<u>\$923,516</u>
Total Estimate Costs	\$1,144,429

The long-term maintenance and surveillance fee was determined using CPI.

CONCLUSION

The NRC staff has determined that the WNI's annual 2016 financial assurance update for its Split Rock Millsite adequately reflects: the decommissioning activities, unit costs; contingency; long-term surveillance fees; 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 read: \$1,144,429.