



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

September 29, 2016

Mr. Scott Schierman, Manager
Health, Safety, and Environment
Uranium One USA, Inc.
907 N. Poplar Street, Suite 260
Casper, WY 82601-1310

SUBJECT: URANIUM ONE, USA, INC., WILLOW CREEK PROJECT, CAMPBELL AND
JOHNSON COUNTIES, WYOMING, SOURCE MATERIALS LICENSE SUA-
1341, ANNUAL FINANCIAL ASSURANCE (SURETY) ESTIMATE
ADJUSTMENT (TAC NO. L00793)

Dear Mr. Schierman:

By letter dated August 18, 2015, Uranium One, USA, Inc. (Uranium One) submitted its Annual Financial Assurance update entitled, "Annual Surety Update for SUA1341 Willow Creek Operations, August 2015". The report was made publicly available on September 3, 2015, and was placed in the U.S. Nuclear Regulatory Commission (NRC) Agencywide Documents Access and Management System (ADAMS). The report can be found at ADAMS Accession No. ML15238A246. NRC staff acknowledged receipt of the surety update on August 28, 2015 (ADAMS Accession No. ML15244B035).

By letter dated February 12, 2016, NRC staff requested additional information from Uranium One. (ADAMS Accession No. ML16029A344). Uranium One responded to the request for additional information in a letter dated May 19, 2016, (ADAMS Accession No. ML16154A285) and updated its proposed financial assurance amount. Uranium One updated its financial assurance in a letter dated August 12, 2016 (ADAMS Accession No. ML16231A157). The August 12, 2016, financial assurance update seeks to decrease the financial assurance amount for the Willow Creek Project to a total of \$21,624,510 from the currently approved amount of \$21,672,638.

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 financial assurance estimate of \$21,624,510 proposed in the August 12, 2016, Uranium One financial assurance update, will be adequate to complete groundwater restoration and decommissioning activities at the facility.

Uranium One's current financial assurance instrument is an irrevocable letter of credit held in favor of the State of Wyoming. However, Uranium One does not have a standby trust agreement (STA) in place at this time as required by 10 CFR Part 40, Appendix A, Criterion 9. The NRC staff is currently in the process of evaluating whether the State of Wyoming's separate account provision for financial assurance instruments is consistent with the NRC's STA requirement. Therefore, in accordance with 10 CFR 40.14(a), NRC has, upon its own initiative, elected to grant an exemption to the STA requirements in 10 CFR Part 40, Appendix A,

Criterion 9, for the current financial assurance arrangements for the Willow Creek Project. This exemption was granted and notice of its issuance was published in the *Federal Register* on July 31, 2014 (ADAMS Accession No. ML14212A256).

The NRC staff's review is documented in the enclosed Safety Evaluation Report (SER) (Enclosure 1). In the SER, the NRC staff concludes that there is reasonable assurance of adequate protection for the proposed surety amount of \$21,624,510. License Amendment No. 5 is also enclosed (Enclosure 2).

This licensing action meets the categorical exclusion provisions in 10 CFR Part 51.22(c)(10)(i) because it concerns an amendment to a license regarding changes to surety. Therefore, no further environmental review is required for this action.

If you have any questions regarding this action, please contact Mr. Ron Linton, the Project Manager for License SUA-1341, at 301-415-7777, or by e-mail at ron.linton@nrc.gov.

In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Sincerely,

/RA/

Andrea Kock, Deputy Director
Division of Decommissioning, Uranium Recovery,
and Waste Programs
Office of Nuclear Material Safety
and Safeguards

Docket No.: 040-08502

License No.: SUA-1341

Enclosures:

1. Safety Evaluation Report
2. Amendment No. 5 to License SUA-1341

cc: Luke McMahan, PG. (WDEQ)

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CLOSES TAC L00793

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ML16173A142 (Pkge.); ML16173A144 (Ltr.); ML16173A146 (Lic. Amend.)

OFC	URLB	URLB	SPB	URLB	OGC	DUWP
NAME	R. Linton	S. Achten	R. Augustus	B. VonTill	A. Gendelman	A. Kock
DATE	6/21/2016	6/21/2016	6/24/2016	9/28/2016	9/7/2016	9/29/2016

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**SAFETY EVALUATION REPORT
2015-2016 FINANCIAL ASSURANCE UPDATE FOR THE WILLOW CREEK PROJECT,
JOHNSON AND CAMPBELL COUNTIES, WYOMING**

DATE: September 29, 2016

DOCKET: 04008502

LICENSE NO.: SUA -1341

LICENSEE: Uranium One USA, Inc.

SITE: Willow Creek Project, Irigaray and Christensen Ranch Facilities

PROJECT MANAGER: Ron Linton

TECHNICAL REVIEWER: Reginald Augustus, Ron Linton

SUBJECT: Willow Creek Project Annual Financial Assurance (Surety) Update

BACKGROUND

By License Condition 9.5, Uranium One USA, Inc. (Uranium One) is required to submit to the U.S. Nuclear Regulatory Commission (NRC), annual updates of the financial surety to cover third-party costs for decommissioning and decontamination at the Willow Creek Project, Irigaray and Christensen (CR) Ranch facilities in Wyoming. By letter dated August 18, 2015, Uranium One submitted its annual financial assurance update entitled, "Annual Surety Update for SUA 1341 Willow Creek Operations, August 2015". The update was made publicly available on September 3, 2015, and was placed in the NRC Agencywide Documents Access and Management System (ADAMS). The report can be found at ADAMS Accession No. ML15238A246. Staff from the NRC Uranium Recovery and Licensing Branch and the Performance Assessment Branch in the Office of Nuclear Materials Safety and Safeguards reviewed the annual financial assurance (surety) update. Specifically, staff reviewed the sufficiency of the cost estimate and appropriateness of the instrument used to maintain the financial assurance estimate (surety). NRC staff sent a request for additional information (RAI) to Uranium One on February 12, 2016 (ADAMS Accession No. ML16029A344). Uranium One responded to the NRC RAI in a letter dated May 19, 2016 (ADAMS Accession No. ML16154A285). Uranium One updated its financial assurance in a letter dated August 12, 2016, (ADAMS Accession No. ML16231A157). The surety update, the response to NRC RAI and the update is collectively referred to in this Safety Evaluation Report as Uranium One's financial assurance estimate. This Safety Evaluation Report documents the results of NRC staff's review of the annual financial assurance estimate.

REGULATORY REQUIREMENTS

The NRC staff reviewed Uranium One's Willow Creek Project surety update in accordance with requirements in 10 CFR Part 40, Appendix A, Criterion 9, "Financial Criteria" and in License Condition 9.5 of Materials License SUA-1341. The NRC staff used NUREG-1569, "Standard

Review Plan for In Situ Leach Uranium Extraction License Applications” (SRP) (ADAMS Accession No. ML032250177) 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. The NRC 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 reasonable unit costs were included in the surety calculations.

DISCUSSION

In the surety calculations, the licensee includes costs for decommissioning and decontamination, reclamation of sites, structures, and equipment used in conjunction with facilities operation. The staff finds that the licensee used either guidance consistent with Guideline 12 (when applicable) or actual costs in the development of the cost estimate.

Uranium One has suspended future development at the Willow Creek Project due to the low market price of uranium. The changes to the cost estimate are generally due to changes in miscellaneous costs associated with third party contractors and changes to unit rates in Guideline 12. The cost estimate includes the following items:

- Worksheet 1: Groundwater Restoration
The surety adjustment increased \$308,758 from the previous surety amount. This was due primarily to an increase in the cost of power and inflation adjustment. Additional increases to the surety were due to the annual adjustment for plugging and abandonment of the deep disposal wells and the addition of additional monitoring wells.
- Worksheet 2: Plant Equipment Removal and Disposal
There was a decrease of approximately \$38,808 in the surety amount. This decrease was primarily due to a new disposal agreement obtained by Uranium One in the past year that lowered its disposal costs.
- Worksheet 3: Building Demolition and Disposal
The surety adjustment decreased by \$337,726 which is primarily due to the 6” concrete demolition removal rate published in the Guideline 12 as revised in May 2016. The cost estimate for Demolition and Removal of Railroad Spurs and Facilities Buildings, 6” thick concrete footing and foundations, 6” thick with rebar, was reduced from \$5.80 sq. ft. in the October 2014 Guideline 12 revision to \$0.80 sq. ft. in the May 2016 revision.
- Worksheet 4: Pond Reclamation Cost
Costs increased \$67,275 from the previous cost estimate. This was due primarily to an increase on Worksheet 4 for additional costs for pond leak detection removal.
- Worksheet 5: Well Plugging and Abandonment
Costs increased approximately \$13,000 from the previous cost estimate. The total number of wells for CR MU 10 has been increased to reflect the actual number of wells installed from 638 to 817. The backhoe operator costs decreased from the previous cost estimate as reflected in Guideline 12.

- Worksheet 6: Wellfield Equipment Removal and Disposal
Costs decreased approximately \$133,821 from the previous cost estimate. There was an increase in the surety due to an increase in the number of wells and associated wellfield piping in Mine Unit 10. However, there was a larger decrease due to a new disposal agreement obtained by Uranium One in the past year that lowered its disposal costs.
- Worksheet 7: Topsoil Replacement and Revegetation
Costs decreased approximately \$13,000 from the previous cost estimate. While costs for revegetation were increased, costs were offset by a decrease in unit costs for hauling of material.
- Worksheet 8: Miscellaneous Reclamation
There was a small decrease of approximately \$5,000 in the surety amount as some unit costs for removal decreased slightly.
- Summary of Reclamation/Restoration Surety Estimate
The licensee included a 15% cost for "Project Design" and a 10% cost for "Project Management" under the "Miscellaneous Cost Associated with Third Party Contractors", which provides a 25% contingency factor in the financial assurance amount. Uranium One determined the cost to decommission and decontaminate the NRC licensed Willow Creek Project facilities by an independent party to be \$21,624,510. This constitutes a decrease in the cost estimate of \$48,128 from the current cost estimate amount of \$21,672,638 approved in SUA-1341, Amendment 4, and covered by the current Irrevocable Letter of Credit (LOC) issued in favor of WDEQ of \$21,672,638.

The NRC staff has completed its review of the surety update estimate for Uranium One's Willow Creek Project, Irigaray and Christensen Ranch facilities, and finds that the licensee has included in the update all activities listed in the reclamation plan or in Sections 6.1-6.4 of the standard review plan in NUREG-1569, that are to be conducted during the period covered by the update. The NRC 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 the unit costs published in Guideline 12.

The NRC 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, the NRC 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

Currently the licensee uses an irrevocable letter of credit to satisfy its financial assurance requirements. Pursuant to Criterion 9(d), the NRC,

[M]ay accept financial sureties that have been consolidated with financial or surety arrangements established to meet requirements for other Federal or state agencies and/or local governing bodies for decommissioning, decontamination, reclamation, and long-term site surveillance and control, provided such arrangements are considered adequate to satisfy these requirements and that the portion of the surety which covers the decommissioning and reclamation of the mill, mill tailings site and associated areas, and the long-term funding charge is clearly identified and committed for use in accomplishing these activities.

In accordance with this criterion, Uranium One has consolidated the NRC's financial surety with the financial surety required by the State of Wyoming. As the financial instrument is in favor of WDEQ, the original copy of the financial instrument remains with WDEQ based on an agreement between the State and the NRC. The NRC maintains a copy of the instrument on file as well. Uranium One will continue to use an irrevocable LOC to satisfy its financial assurance obligations in the amount provided for in this update. The NRC will obtain a copy of the instrument from WDEQ once the LOC has been updated to reflect the new higher amount. Once the cost estimate is approved, the LOC will be issued in favor of WDEQ for an amount equal to or greater than NRC's portion of \$21,624,510.

As of December 17, 2012, NRC uranium recovery licensees that do not use a trust fund to satisfy their financial assurance obligations are required to have a standby trust agreement (STA) in place, pursuant to 10 CFR Part 40, Appendix A, Criterion 9. At this time, Uranium One does not have an STA in place, nor has it requested an exemption from the requirement to do so. However, the NRC has the discretion under 10 CFR 40.14(a), to grant an exemption from the requirements of a regulation in 10 CFR Part 40 on its own initiative, if it determines the exemption is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest.

Wyoming law requires that a separate account be set up to receive forfeited decommissioning funds, but does not specifically require a STA. NRC has elected to grant Uranium One an exemption from the STA requirements in 10 CFR Part 40, Appendix A, Criterion 9, for the current surety arrangement to allow the NRC staff an opportunity to evaluate whether the separate account required by the State of Wyoming would satisfy the NRC's requirement for a standby trust agreement. This exemption was granted and published in the *Federal Register* on July 31, 2014 (ADAMS Accession No. ML14212A256). This exemption will expire on December 31, 2016, for the Willow Creek Project. For its next annual surety update, Uranium One will be required to ensure that its financial assurance arrangement includes an STA to receive decommissioning funds, even if this results in Uranium One having to obtain a separate financial surety for the NRC, or Uranium One may apply for another exemption for NRC consideration.

ENVIRONMENTAL REVIEW

A license amendment to reflect an update in the amount of financial assurance or corrective revisions belongs to a category of actions which the NRC has determined do not individually or cumulatively have a significant effect on the environment. Such actions qualify for a categorical exclusion under 10 CFR 51.22(c) and do not require an environmental assessment.

Specifically, the NRC staff has determined that the financial assurance (surety) update is categorically excluded from further environmental review under 10 CFR 51.22(c)(10)(i).

The NRC staff has determined that a Section 7 consultation is not required because the proposed action is administrative/procedural in nature and will not affect listed species or critical habitat. The NRC staff has also determined that the proposed action is not a type of activity that has the potential to cause effects on historic properties because it is administrative/procedural action. Therefore, no further consultation is required under Section 106 of the National Historic Preservation Act.

PROPOSED LICENSE CONDITION

Uranium One submitted its annual surety update (ADAMS Accession No's ML15238A246, ML16154A285, ML16231A157) that estimated the NRC surety amount at \$21,624,510. The NRC staff agrees with Uranium One's updated NRC surety estimate of \$21,624,510 and approves that the financial assurance (surety) for Materials License SUA-1341 be set at an amount no less than \$21,624,510.

The last paragraph of NRC Materials License SUA-1341, License Condition 9.5 will be changed to read:

- 9.5 The licensee's currently approved surety, Irrevocable Standby Letter of Credit issued in favor of the State of Wyoming, Department of Environmental Quality (WDEQ) shall be continuously maintained in an amount no less than \$21,624,510 for the purpose of complying with 10 CFR 40, Appendix A, Criterion 9, until a replacement is authorized by both the State of Wyoming and the NRC.

CONCLUSION

Based on the information provided in the application and the detailed review conducted of the surety estimate for Uranium One's Willow Creek Project, the NRC staff concludes that the current surety estimate includes funds sufficient to cover the estimated current costs for closure of the facilities and the financial instrument is acceptable. The surety arrangement does not include an STA agreement as required in 10 CFR Part 40, Appendix A, Criterion 9. However, NRC granted a temporary exemption to the regulation that requires an STA for this surety arrangement that expires on December 31, 2016.

For the reasons identified above, the NRC staff determined that Uranium One has provided adequate justification for the current financial assurance estimate at Willow Creek Project. Therefore, the NRC staff has reasonable assurance that the financial assurance estimate is sufficient for this financial assurance cycle and accepts Uranium One's estimate for the Willow Creek Project. The revised license condition is shown in this Safety Evaluation Report.