

## **SAFETY EVALUATION REPORT**

DATE: September 1, 2016

DOCKET: 040-08903

LICENSEE: Homestake Mining Company of California

SITE: Uranium Mills Tailing Uranium Recovery Facility

PROJECT MANAGER: Jack Parrott

TECHNICAL REVIEWER: Reginald Augustus, Jack Parrott

SUBJECT: Uranium Mills Tailing Recovery Facility 2016 Surety Update

### **BACKGROUND**

Homestake Mining Company of California (Homestake) is the holder of U.S. Nuclear Regulatory Commission (NRC) License No. SUA-1471 for its former conventional uranium mill site near Grants, New Mexico (Uranium Mill). Homestake has been a licensee since the late 1950's. The Uranium Mill site ceased active uranium recovery operations in 1990. The site is currently under US Environmental Protection Agency Superfund status and has a permit from the state of New Mexico. Upon closure, the site will be transferred to the Department of Energy.

By letter dated March 31, 2014, Homestake's parent company Barrick Gold Corporation (Barrick), submitted to the NRC, for review and approval, its 2014 annual surety update (Agencywide Documents Access and Management System (ADAMS) Accession Number ML14105A164) for the Uranium Mill facility. NRC staff reviewed the surety and found issues which needed additional information in order to determine if the submittal was acceptable. By cover letter dated February 25, 2015 (ADAMS Accession Number ML15022A031), NRC submitted a request for additional information (RAI) to Homestake (ADAMS Accession Number ML15022A032).

Additionally, by letter dated March 27, 2015, Homestake's parent company Barrick, submitted to the NRC, for review and approval, its 2015 annual surety update (ADAMS Accession Number ML15146A004) for the Uranium Mill facility. NRC staff reviewed the surety and found that the issues identified in the 2014 submittal had still not been addressed. By letter dated December 15, 2015, NRC re-submitted the 2014 as well as additional RAIs to Homestake (ADAMS Accession Number ML15281A115). However, per the phone conversation between NRC staff and Homestake on January 15, 2016, the licensee and staff agreed that the RAIs in the 2015 surety submittal would be addressed in the licensee's 2016 surety submission. During this time when the 2014 and 2015 surety update submittals had not been approved by NRC, the previously approved surety and amount, identified in the license, remained in force per the requirements in 10 CFR Part 30, Appendix A and 10 CFR Part 40, Appendix A. Based on the NRC staff's knowledge of the reduction of reclamation and decommissioning activities during that time period, and the absence of any new site conditions affecting costs, it was the NRC

staff's judgement that the previously approved surety amount was conservative and remained adequate until establishment of the sufficiency of the new reduced amount (see "Discussion" section below).

Finally, by letter dated March 30, 2016, Homestake submitted to the NRC, for review and approval, its 2016 annual surety update for the Uranium Mill facility (ADAMS Accession Number ML16113A182). NRC staff from the Performance Assessment Branch (PAB) were requested to provide technical assistance in the review of the annual surety update. Specifically, the PAB staff were requested to review the sufficiency of the cost estimate and appropriateness of the financial instrument used to maintain the surety. This included a review of the 2014 and 2015 submittal RAIs to determine if the previously identified issues had been addressed. This report documents the results of PAB staff's review of the 2016 annual surety update.

### **REGULATORY REQUIREMENTS**

Homestake's license, SUA-1471, was issued under Title 10 of the *Code of Federal Regulations* (10 CFR) Part 40, Domestic Licensing of Source Material. 10 CFR Part 40, Appendix A, Criteria 9, "Financial Criteria" and License Condition 28 require Homestake to maintain an NRC-approved surety arrangement to cover estimated costs for its decommissioning and decontamination activities. Specifically, 10 CFR Part 40, Appendix A, Criterion 9 requires that the cost estimate contain "a detailed cost estimate for decontamination, decommissioning, and reclamation" that reflects "the costs of an independent contractor ... adequate contingency factor ... estimate of the amount of radioactive contamination in onsite subsurface material ... identification and justification for using the key assumptions ... and a description of the method of assuring funds."

Additionally, 10 CFR Part 30, Appendix A requires licensees who use a Parent Company Guarantee (PCG) to "provide reasonable assurance of availability of funds for decommissioning" demonstrate that the parent company can pass the required annual financial test. Part 30 to Appendix A also requires that the PCG agreement state that the PCG "will remain in force unless the guarantor sends notice of cancellation." "If the licensee fails to provide alternate financial assurance ... within 90 days after ... notice of cancellation ... the guarantor will provide alternative financial assurance that meets the provisions of the Commission's regulations."

Furthermore, "the parent company guarantee and financial test will remain in effect until the Commission has terminated the license, accepted in writing the ... alternative financial assurance, or accepted in writing the licensee's financial assurances. A standby trust ... must be established for decommissioning costs before the parent company guarantee agreement is submitted."

### **DISCUSSION**

#### ***Sufficiency of the Cost Estimate***

NRC staff used NUREG-1620, Rev. 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" (SRP) as guidance in determining elements to be included in a surety review.

Specifically, NRC staff used the review procedures and acceptance criteria guidance in Appendix C of the SRP.

The surety calculations in Homestake's submittal included costs for decommissioning and decontamination, reclamation of sites, structures, and equipment used in conjunction with facility operations. The Staff finds that the licensee used either guidance consistent with Appendix C of the SRP (when applicable) or actual costs in the development of the cost estimate.

Homestake estimates the cost to decommission and decontaminate the facility by an independent party at \$62,490,490. This constitutes a decrease of \$19,358,162 below the previously NRC approved surety estimate of \$81,848,652 on March 28, 2013. The significant decrease in the cost estimate amount is due to reclamation work completed by Homestake since the last approved decommissioning cost estimate. The cost estimate is based on costs of a third party contractor, does not take credit for any salvage value, and includes a 15 percent contingency factor.

Additionally, NRC staff had previously, issued a RAI to Homestake in 2015 for: (i) revisions to the PCG agreement to account for the latest year-end audited financial statements; (ii) a standby trust agreement; and (iii) a statement regarding off-balance sheet transactions in order to confirm that the parent company meets the financial test. Homestake provided all of the additional information requested in its current annual surety submission dated March 30, 2016.

NRC staff reviewed the cost estimate adjustments and finds those adjustments are consistent with proposed changes in the operations and that the licensee identified all expected changes during the period for which the proposed surety will be in effect. The NRC staff finds that the licensee has included in the update all activities: (1) listed in the reclamation plan or in Appendix C of the SRP in NUREG-1620, Rev. 1; and (2) to be conducted during the period covered by the estimate. NRC 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.

Furthermore, the NRC Staff reviewed the costs to perform the decommissioning and reclamation of those changes to operations as well as at the currently existing facility. The NRC staff finds that the values used in the surety estimate are based on current dollars and reasonable costs for the required reclamation activities are defined. Criterion 9 does not specify a specific contingency factor to be used in the surety calculations. Guidance in the standard review plan NUREG-1620, Rev. 1, recommends a minimum 15 percent contingency as an acceptance criterion. The contingency used by the licensee is consistent with that guidance.

Therefore, 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***

The instrument to be used by the licensee for the financial assurance update is a PCG. The PCG submission which included revised language that included the current decommissioning cost estimate amount, expressly stated that the PCG would remain in force unless cancelled and replaced with alternative financial assurance, and stated that the PCG and financial test

would stay effective until alternative financial assurance was approved by NRC. Moreover, the PCG submission included all the elements of the financial test as set forth in 10 CFR Part 30, Appendix A.2.

In addition, licensees who use a PCG are required to have a Standby Trust Agreement (STA) in place, pursuant to criteria in 10 CFR Part 40, Appendix A, Criterion 9, which states, “[I]f a trust is not used, then a standby trust fund must be set up to receive funds in the event the Commission or State regulatory agency exercises its right to collect the surety.” The purpose of an STA is to provide a separate account to hold decommissioning funds in the event of a default. The licensee has provided a draft STA agreement in order to hold funds in event of a default by the licensee.

Therefore, NRC staff finds that the licensee has established an acceptable financial assurance mechanism based on the requirements in 10 CFR Part 30, Appendix A.

### **CONCLUSION**

Based on the information provided in the application and the detailed review conducted of the surety estimate for Homestake’s Uranium Mills facility, the NRC staff concludes that the current financial surety reasonably includes funds sufficient to cover the estimated current costs of the facility. In addition, the submission includes a PCG and a draft STA agreement required in 10 CFR Part 30, Appendix A, when using a PCG. Upon approval, Homestake will provide NRC with a finalized version of the STA agreement. Therefore, the financial surety for the current surety period is acceptable.

### **REFERENCES**

1. Letter from A. Al-Joundi, Barrick Gold Corporation, “Financial Test to Demonstrate Financial Assurance,” March 31, 2014. ADAMS Accession Number ML14105A164.
2. Letter from Jack D. Parrott, Nuclear Regulatory Commission, “Request for Additional Information Regarding the Homestake Mining Company of California 2014 Annual Financial Assurance Update,” February 25, 2015. ADAMS Accession Number ML15022A031 (Cover Letter) & ML15022A032 (Request for Additional Information Memo)
3. Letter from Melvyn N. Leach, Barrick Gold Corporation, “Financial Test to Demonstrate Financial Assurance,” March 27, 2015. ADAMS Accession Number ML15146A004.
4. Letter from Jack D. Parrott, Nuclear Regulatory Commission, “Request for Additional Information Regarding the Homestake Mining Company of California 2015 Annual Financial Assurance Update,” December 15, 2015. ADAMS Accession Number ML15281A115.
5. Letter from J. Toepfer, Homestake Mining Company of California, “2016 Financial Surety,” March 30, 2016. ADAMS Accession Number ML16113A182.

6. U.S. Nuclear Regulatory Commission, "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," NUREG-1620, Rev. 1, June 2003. ADAMS Accession Number ML032250190.