

## SAFETY EVALUATION REPORT

DATE: June 24, 2020

DOCKET: 040-08903

LICENSEE: Homestake Mining Company of California

SITE: Grants Reclamation Project

PROJECT MANAGER: Ron Linton

TECHNICAL REVIEWER: Ronald A. Burrows

SUBJECT: Qualification of Radiation Safety Technician Designees for Performing Daily Inspection

### **BACKGROUND**

Homestake Mining Company of California (HMC) holds U.S. Nuclear Regulatory Commission (NRC) License No. SUA-1471 for its Grant Reclamation Project (GRP), a former conventional uranium mill near Grants, New Mexico. Homestake has been a licensee since the late 1950s. The GRP ceased active uranium recovery operations in 1990. The GRP is currently under U.S. Environmental Protection Agency Superfund status and has a groundwater discharge permit from the state of New Mexico. Upon decommissioning and termination of HMC's license, the GRP will likely be transferred for long-term stewardship to the U.S. Department of Energy.

By letter dated May 5, 2020,<sup>1</sup> HMC submitted a request to amend its Materials License SUA-1471.<sup>2</sup> Specifically, HMC requested that License Condition (LC) 32 be amended to allow qualified designees to conduct daily inspections when the radiation safety officer (RSO) and radiation safety technician (RST) must both be absent from the GRP (e.g., sick leave, training, weekends, holidays, or anytime the RSO and RST must otherwise be absent during Site operations). This report documents the results of the NRC staff's review of this request.

### **REGULATORY REQUIREMENTS**

The NRC staff reviewed the May 5, 2020, HMC submission to determine that HMC demonstrated that it meets the requirements of 10 CFR 40.32(b) and (c) for the GRP as they relate to the acceptability of management audits to ensure protection of health and minimize danger to life and property. 10 CFR 40.32(b) and (c) provides that an application for a specific

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<sup>1</sup> Agencywide Documents Access and Management System (ADAMS) Package Accession No. ML20133J903.

<sup>2</sup> ADAMS Accession No. ML19323D125.

license will be approved if the applicant is qualified by reason of training and experience to use the source material for the purpose requested in such manner as to and the applicant's proposed equipment, facilities and procedures are adequate to protect health and minimize danger to life or property.

HMC is required by LC 32 to follow the guidance in Regulatory Guide (RG) 8.31.<sup>3</sup> This RG provides for inspections of worker health protection practices and radiation protection and As Low As is Reasonably Achievable (ALARA) program audits. RG 8.31 provides that a daily walk-through inspection of all work and storage areas of a uranium recovery facility be conducted by the RSO or designated health physics technician (called radiation safety technician, or RST, at the GRP).

## **DISCUSSION**

HMC provided details in Attachment 1 of their May 5, 2020, submission on the qualification requirements and responsibilities of a qualified designee who would be performing the daily inspections pursuant to RG 8.31. The qualification requirements for a qualified designee proposed by HMC include minimum training and experience, as well as RSO- or RST-led on-the-job training before the designee is considered qualified to perform the daily inspections. The proposed qualification requirements also include a minimum grade of 70 percent on initial and annual refresher tests covering the topics identified by HMC.

The NRC staff evaluated HMC's proposed program for qualified designees performing the daily inspections pursuant in RG 8.31 contained in HMC's May 5, 2020, submission. Although Section 2.3.1 of RG 8.31 states that the daily inspections be performed by the RSO or RST, the NRC staff has determined that HMC's proposed program for qualified designees is otherwise consistent with Section 2.3.1 of RG 8.31.

This determination of consistency by the NRC staff is based on the following findings:

- The operational status of the GRP is different from a fully operational uranium recovery facility.
- The performance of these daily inspections is only one aspect of the responsibilities of HMC's radiation protection staff.
- The skills required for the daily inspections represent a small subset of the qualifications for an RSO or RST, as stated in Section 2.4 of RG 8.3.1.
- The majority of the daily inspections will still be performed by the RSO or RST.
- HMC will ensure that an RSO or RST will be available by phone during times when a qualified designee is performing the daily inspection.
- Any reports generated by a qualified designee will be reviewed by the RSO or RST in a timely fashion.

Based on these findings, the NRC staff has determined that HMC's proposed program for qualified designees performing the daily inspections (HMC, 2020) pursuant to Section 2.3.1 of RG 8.31 is acceptable and will include HMC's commitments discussed above as a license condition.

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<sup>3</sup> ADAMS Accession No. ML021260630.

## **CONCLUSION**

### *ORGANIZATIONAL CHANGE TO SUA-1471, LC 32*

HMC identified the requirements for personnel that will perform daily inspections in the absence of the RSO and RST. The following license condition reflects the NRC staff's approval of this program, which is an alternative to the program in RG 8.31.

The NRC staff notes that NRC Materials License SUA-1471, Amendment 55, LC 32, referenced RG 8.22 as "Bioassay at Uranium Recovery Facilities". This was an incorrect title and will be changed to read, "Bioassay at Uranium Mills," which is the correct title of RG 8.22. Each of the RG's referenced in LC 32, RG 8.22, RG 8.30, and RG 8.31, will be referenced as "(as revised)", as each RG has had at least one revision since it was published.

Additionally, under the [Applicable Amendments] section, the reference to Applicable Amendment 2 will be replaced with 27. NRC Materials License SUA-1471, LC 32A was deleted by amendment 27,<sup>4</sup> not amendment 2.

NRC Materials License SUA-1471, Amendment 56, LC 32 shall read:

32. The licensee shall follow the guidance set forth in U.S. Nuclear Regulatory Commission Regulatory Guides 8.22, "Bioassay at Uranium Mills" (as revised), and 8.30, "Health Physics Surveys in Uranium Recovery Facilities" (as revised), or NRC-approved equivalent.

The licensee shall follow the guidance set forth in U.S. Nuclear Regulatory Commission Regulatory Guide 8.31, "Information Relevant to Ensuring That Occupational Radiation Exposures at Uranium Recovery Facilities Will Be as Low as Is Reasonably Achievable" (as revised), or NRC approved equivalent, with the following exception:

The licensee may temporarily assign qualified designee(s) to perform daily inspections in the absence of the Radiation Safety Officer (RSO) and Radiation Safety Technician (RST). Qualified designee(s) may perform daily inspections on weekends, holidays, or anytime the RSO and RST must otherwise be absent during Site operations, subject to the training requirements and limitations specified in Attachment 1 of the May 5, 2020, license amendment request (NRC Agencywide Documents Access and Management System (ADAMS) Accession No. ML20133J904).

- A. DELETED by Amendment 27.
- B. Any time uranium in a worker's urine specimen exceeds 15 micrograms per liter (ug/l), the annual ALARA audit will indicate what corrective actions were considered or performed.

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<sup>4</sup> ADAMS Accession No. ML080030089.

C. DELETED by amendment 34.

[Applicable Amendments: 27, 34, 56]

Based upon the review conducted by the NRC staff, as supplemented with the noted license condition, the NRC staff concludes that HMC's management audit and inspection program meets the requirements of 10 CFR 40.32(b) and (c) as they relate to the acceptability of management audits to ensure protection of health and minimize danger to life and property.

*ADMINISTRATIVE CHANGE TO SUA-1471, LC 36 A.*

During the review of this license amendment request and review of past license amendments, the NRC staff determined that, beginning with License Amendment 49<sup>5</sup> to SUA-1471, text from the license was inadvertently removed from LC 36 A. The lost text was first identified by NRC staff in SUA-1471, License Amendment 24,<sup>6</sup> dated July 30, 1996, when it was added to the license. The NRC staff cannot find any record of the following text being deleted or amended from the license during the applicable amendments 25, 36, 41, or 45 that amended LC 36 A.

Therefore, the following text will be added back into Materials License SUA-1471, LC 36 A.

For the Small Impoundment - May 31, 1997.

(2) Placement of the interim cover to decrease the potential for tailings dispersal and erosion:

For the Large Impoundment - December 31, 1996.

For the Small Impoundment - May 31, 1997.

(3) Placement of final radon barrier designed and constructed to limit radon emissions to an average flux of no more than 20 pCi/m<sup>2</sup>/s.

License Condition 36 A. will read in its entirety as shown in previously in License Amendment 48:<sup>7</sup>

36. The licensee shall complete site reclamation in accordance with an approved reclamation plan. The ground-water corrective action plan shall be conducted as authorized by License Condition No. 35. All activities shall be completed in accordance with the following schedules.

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<sup>5</sup> ADAMS Accession No. ML17061A464.

<sup>6</sup> ADAMS Accession No. ML20116C853.

<sup>7</sup> ADAMS Accession No. ML16264A091.

A. To ensure timely compliance with target completion dates established in the Memorandum of Understanding with the Environmental Protection Agency (56 FR 55432, October 25, 1991), the licensee shall complete reclamation to control radon emissions as expeditiously as practicable, considering technological feasibility, in accordance with the following schedule:

(1) Windblown tailings retrieval and placement on the pile

For the Large Impoundment - December 31, 1996.

For the Small Impoundment - May 31, 1997.

(2) Placement of the interim cover to decrease the potential for tailings dispersal and erosion:

For the Large Impoundment - December 31, 1996.

For the Small Impoundment - May 31, 1997.

(3) Placement of final radon barrier designed and constructed to limit radon emissions to an average flux of no more than 20 pCi/m<sup>2</sup>/s.

For the Large Impoundment which has no evaporation ponds - December 31, 2012.

For the Small Impoundment, tailings pile surface areas are essentially covered by evaporation ponds constructed as part of the ground-water corrective action program. Prior to *December 31, 2013*, the areas not covered by the evaporation ponds shall have interim cover in place. Final radon barrier placement over the entire pile shall be completed within 2 years of completion of ground-water corrective actions.

[Applicable Amendments: 25, 36, 41, 45, 56]

## **ENVIRONMENTAL REVIEW AND CONSULTATIONS**

In accordance with 10 CFR 51.22(b), the NRC staff has determined that an environmental assessment (EA) or an environmental impact statement (EIS) is not required for modifying LC 32, which is organizational in nature. In accordance with 10 CFR 51.22(b), the NRC staff has determined that an environmental assessment (EA) or an environmental impact statement (EIS) is not required for modifying LC 36 A., which is administrative in nature. The actions modifying both LC 32 and 36 A. are categorically excluded under 10 CFR 51.22(c)(11) from the requirement to prepare an EA or EIS, based on the following NRC staff findings:

- the modification of LC 32 and 36 A. will not result in a significant change in the types or significant increase in the amounts of any effluents that may be released offsite;
- there will be no significant increase in individual or cumulative occupational radiation exposure as a result of the deletion or modification of LC 32 and 36 A.;
- the modification of LC 32 and 36 A. will not result in a significant construction impact;  
and
- there is no significant increase in the potential for or consequences from radiological accidents as a result of the modification of LC 32 and 36 A.

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