



Grants Reclamation Project

Homestake Mining Company of California

David W. Pierce  
*Closure Manager*

May 5, 2020

Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Mr. Ron Linton, Project Manager  
Project Manager, Materials Decommissioning Branch  
Decommissioning, Uranium Recovery & Waste Programs  
Office of Nuclear Materials Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
MS T-5A10, 11545 Rockville Pike  
Rockville, MD 20852

**RE: Homestake Mining Company of California – Grants Reclamation Project: Request for Amendment to License No. SUA-1471 to Permit RST Designees for Daily Inspections**

Dear Mr. Linton:

Homestake Mining Company of California (HMC) is submitting this revised request to the U.S. Nuclear Regulatory Commission (NRC) to amend NRC License SUA-1471 for the Grants Reclamation Project (Site) to permit appropriately trained, qualified temporary designees to conduct daily walkthrough inspections of Site facilities on occasions when the radiation safety officer (RSO) and radiation safety technician (RST) for the Site are absent due to weekends, holidays, vacation, sick leave or other reasons (e.g. offsite training). This revised Amendment Request replaces the January 14, 2020 and March 9, 2020 submittals under the same title.

Unlike an operational uranium mill, all milling facilities at the Site were demolished decades ago, windblown contaminated soils were removed and placed in the tailings piles, and interim cover soils or evaporation ponds serve to contain/isolate tailings and other radioactive byproduct materials (e.g. residual solids from water treatment operations) from the active surface environment where human exposures would otherwise be possible. Based on decades of occupational radiation monitoring, worker exposures to radioactive materials and respective radiological doses are very low as typified by the data shown in Figure 1.

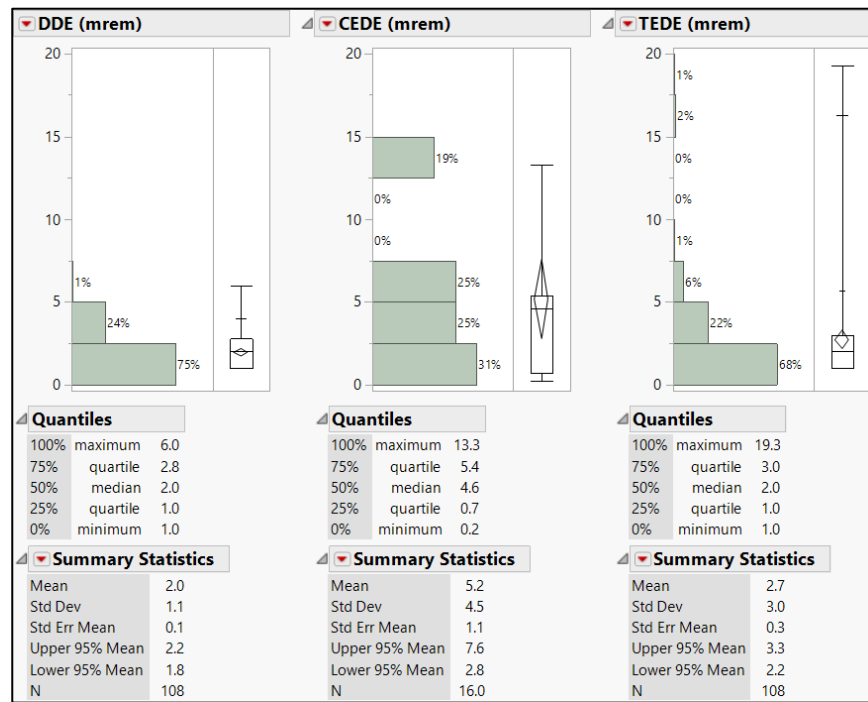


Figure 1: Occupational radiation doses for Site workers in 2018.

Given the above circumstances, the primary objective of daily inspections is to identify upset conditions such as leaks or spills or signs of erosion or other physical/environmental factors that if not addressed, could lead to new exposure pathways, including unplanned releases of solid or liquid radioactive materials from engineered containment facilities [e.g. ponds, tailings piles and tanks/piping associated with the reverse osmosis (RO) water treatment plant]. Given the historically documented low potential for radiological exposures since major Site decommissioning activities were completed in the early 1990's (ERG, 1995; AKGI, 1996), effective daily inspections no longer warrant the level of health physics and radiation protection training/experience specified in NRC Regulatory Guide (RG) 8.31 for full-time radiation protection staff at an operational uranium milling facility.

Specifically, this license amendment request (LAR) proposes a change in license condition 32 (LC-32) to make the following exception to the general reference to RG 8.31 with respect to daily walkthrough inspections conducted by the RSO or RST:

*"The licensee may temporarily assign qualified designee(s) to perform daily inspections in the absence of the RSO and 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 April 19, 2020 License Amendment Request)."*

This exception to RG 8.31 specifications under LC-32 is necessary to avoid potential interruptions to continuous groundwater restoration operations at the Site, and given the radiological circumstances described above, this exception will not compromise the objectives of LC-32 or the effectiveness of the

radiation protection program (RPP) in terms of keeping doses to workers and members of the public as low as reasonably achievable (ALARA). This license amendment request is consistent with the ALARA objectives of generic reference to RG 8.31 in LC-32.

Please note that a signed copy of NRC Form 313 is included in Attachment 2 to this submittal. Thank you for your time and attention on this matter. If you have any questions, please contact me via e-mail at [dpierce@barrick.com](mailto:dpierce@barrick.com) or via phone at 505.238.9701.

Respectfully,



**David W. Pierce**

Closure Manager  
Homestake Mining Company of California  
Office: 505.287.4456 x34 | Cell: 505.238.9701

Copy To:

M. McCarthy, Barrick, Salt Lake City, Utah (electronic copy)  
G. George, Davis, Wright and Tremaine, San Francisco, California (electronic copy)  
D. Lattin, Barrick, Elko, Nevada (electronic copy)  
R. Whicker, Environmental Restoration Group, Albuquerque, New Mexico (electronic copy)

REFERENCES:

Homestake Mining Company of California (HMC). 1995. Completion Report for Reclamation of Off-Pile Areas at the Homestake Mining Company of California Uranium Mill. Grants Operation. License No. SUA 1471. November 1995.

AK Geoconsult, Inc. (AKGI). 1996. Completion Report, Mill Decommissioning, Homestake Mining Company of California Grants Uranium Mill. February 29, 1996.

Enclosures: Attachment 1 – Qualified Designee Requirements  
Attachment 2 – NRC Form 313

**ATTACHMENT 1**

**Qualified Designee Requirements**

## REQUIREMENTS FOR QUALIFIED DESIGNEE(S) TO PERFORM DAILY INSPECTIONS

1. QUALIFICATIONS: Qualified designee(s) to perform daily facility inspections under License Condition 32 and the Radiation Protection Program shall be a regular HMC employee with at least one year of experience working at the Site to ensure familiarity with Site objectives, operations and facilities, and to include routine attendance at annual radiation protection training (given to all regular employees by the RSO) and weekly staff safety meetings. In addition, the designee must demonstrate to the satisfaction of the RSO adequate knowledge of daily inspection objectives and requirements.
2. TRAINING: Qualified designee(s) shall attend at least two hours of specialized classroom instruction for daily inspections and a minimum of 3 sessions of on-the-job training during daily inspections led by the RSO or RST. An exam will be given to RST designee trainees following successful completion of all associated training. Qualified designees shall also receive refresher classroom training and an exam on an annual basis. Trainees must attain a minimum exam score of 70%, including the annual refresher exam, to qualify as an RST designee for daily inspections. All training for this role will be documented and will cover the following scope of daily Site inspections:
  - Facilities to be inspected during each day of licensed operations shall include the ponds (EP-1, EP-2, EP-3, and the East/West Collection Ponds), Large Tailings Pile, Small Tailings Pile, operational Zeolite Water Treatment Systems (including treatment cell liners and berms, piping and valves, and chemical containment vessels), Reverse Osmosis Plant (including tanks, piping, valves, etc., both inside and outside the RO Plant), and groundwater wells and conveyance piping in the immediate vicinity of these facilities.
  - Applicable regulatory requirements under 10 CFR 20 and 10 CFR 40 along with related specifications from NRC Regulatory Guide 8.31 as required by License Condition 32.
  - Types of radioactive materials stored at the Site and where/how these materials are contained in storage to prevent human exposure and environmental migration.
  - Site facilities and access controls.
  - Daily inspection objectives, what to look for, and what to do if upset conditions are observed. Examples of what to look for during daily inspections shall include:
    - Spills or leaks of impacted groundwater.
    - Damage or failure of primary and/or secondary containment systems for caustic, acid or fuel tanks.
    - Release of liquid or solid waste materials from water collection or evaporation ponds.
    - Erosional rills, gullies, piping or subsidence of cover or embankment materials in localized areas on the LTP, STP, and evaporation/collection ponds.
    - Spread of evaporative salts beyond pond liners and/or embankments.
    - Malfunctioning or damaged equipment.
    - Trapped or deceased wildlife.
  - Documentation of inspection results on the daily inspection form and requirements for review of these reports by the RSO and/or RST.
  - Response to unplanned release of radioactive materials and spill reporting criteria [from SOP-21 Spill Response and Reporting, applicable NRC regulations (10 CFR 20.60), NM Administrative Code regulations, License Condition 41 and Discharge Permit DP 200 requirements].

- Radiation Protection Staff contact information (cell numbers for RSO, RST and Closure Manager).
3. LIMITATIONS: Because the RSO and RST do not routinely work onsite on weekends, yet groundwater treatment systems and procedures are designed for continuous year-round operation, qualified designees will primarily provide daily inspection coverage on weekends. As such, and given additional accommodation for holidays, vacation and sick leave, qualified designee(s) may perform daily inspections for up to 120 individual days in any given calendar year, not to exceed 7 consecutive days during any period of RSO/RST absence.
  4. ADDITIONAL REQUIREMENTS: Daily inspection reports will be reviewed by the RSO or RST no later than the end of the first day of return to work following an absence, and will sign/date the inspection form to document the review. The licensee will ensure that the RSO or RST are available by phone during designee inspections, and the designee shall contact the RSO or RST as soon as possible to report any upset conditions or identified changes in Site conditions that raise potential radiological exposure concerns with respect to licensed radioactive materials.

**ATTACHMENT 2**

**NRC Form 313**

<b>NRC FORM 313</b> (01-2020) 10 CFR 30, 32, 33, 34, 35, 36, 37, 39, and 40	 <b>U.S. NUCLEAR REGULATORY COMMISSION</b>  <b>APPLICATION FOR MATERIALS LICENSE</b>	<b>APPROVED BY OMB: NO. 3150-0120</b>  Estimated burden per response to comply with this mandatory collection request: 4.3 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Send comments regarding burden estimate to the Information Services Branch (T-6 A10M), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NE0B-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.				
<b>EXPIRES: 01/31/2020</b>						
<b>INSTRUCTIONS: SEE THE CURRENT VOLUMES OF THE NUREG-1556 TECHNICAL REPORT SERIES ("CONSOLIDATED GUIDANCE ABOUT MATERIALS LICENSES") FOR DETAILED INSTRUCTIONS FOR COMPLETING THIS FORM: <a href="http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/">http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/</a>. SEND TWO COPIES OF THE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.</b>						
<b>APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:</b>  MATERIALS SAFETY LICENSING BRANCH DIVISION OF MATERIAL SAFETY, STATE, TRIBAL AND RULEMAKING PROGRAMS OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS U.S. NUCLEAR REGULATORY COMMISSION WASHINGTON, DC 20555-0001	<b>IF YOU ARE LOCATED IN:</b>  ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:  MATERIALS LICENSING BRANCH U.S. NUCLEAR REGULATORY COMMISSION, REGION III 2443 WARRENVILLE ROAD, SUITE 210 LISLE, IL 60532-4352					
<b>ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:</b>  <b>IF YOU ARE LOCATED IN:</b>  ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA,	<b>IF YOU ARE LOCATED IN:</b>  ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MISSISSIPPI, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING,					
<b>SEND APPLICATIONS TO:</b> LICENSING ASSISTANCE TEAM DIVISION OF NUCLEAR MATERIALS SAFETY U.S. NUCLEAR REGULATORY COMMISSION, REGION I 2100 RENAISSANCE BOULEVARD, SUITE 100 KING OF PRUSSIA, PA 19406-2713	<b>SEND APPLICATIONS TO:</b> NUCLEAR MATERIALS LICENSING BRANCH U.S. NUCLEAR REGULATORY COMMISSION, REGION IV 1600 E. LAMAR BOULEVARD ARLINGTON, TX 76011-4511					
<b>PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS.</b>						
1. THIS IS AN APPLICATION FOR (Check appropriate item) <input type="checkbox"/> A. NEW LICENSE <input checked="" type="checkbox"/> B. AMENDMENT TO LICENSE NUMBER <b>SUA-1471</b> <input type="checkbox"/> C. RENEWAL OF LICENSE NUMBER	2. NAME AND MAILING ADDRESS OF APPLICANT (Include zip code)  <b>Homestake Mining Company of California</b> <b>P.O. Box 98</b> <b>Grants, NM 87020</b>					
3. ADDRESS WHERE LICENSED MATERIALS WILL BE USED OR POSSESSED  <b>Homestake Mining Company of California</b> <b>560 Anaconda Road</b> <b>Route 605</b> <b>Milan, NM 87021</b>	4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION <b>David W. Pierce</b>  <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">BUSINESS TELEPHONE NUMBER <b>(505) 287-4456 ext. 34</b></td> <td style="width:50%;">BUSINESS CELLULAR TELEPHONE NUMBER <b>(505) 238-9701</b></td> </tr> <tr> <td colspan="2">BUSINESS E-MAIL ADDRESS <b>dpierce@homestakeminingcoca.com</b></td> </tr> </table>		BUSINESS TELEPHONE NUMBER <b>(505) 287-4456 ext. 34</b>	BUSINESS CELLULAR TELEPHONE NUMBER <b>(505) 238-9701</b>	BUSINESS E-MAIL ADDRESS <b>dpierce@homestakeminingcoca.com</b>	
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BUSINESS E-MAIL ADDRESS <b>dpierce@homestakeminingcoca.com</b>						
SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE						
5. RADIOACTIVE MATERIAL a. Element and mass number, b. chemical and/or physical form, and c. maximum amount which will be possessed at any one time	6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED					
8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS	7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE					
10. RADIATION SAFETY PROGRAM	9. FACILITIES AND EQUIPMENT					
12. LICENSE FEES (Fees required only for new applications, with few exceptions*) (See 10 CFR 170 and Section 170.31) *Amendments/Renewals that increase the scope of the existing license to a new or higher fee category will require a fee.	11. WASTE MANAGEMENT					
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">FEE CATEGORY</td> <td style="width:20%;">AMOUNT ENCLOSED \$</td> </tr> </table>			FEE CATEGORY	AMOUNT ENCLOSED \$		
FEE CATEGORY	AMOUNT ENCLOSED \$					
<b>PER THE DEBT COLLECTION IMPROVEMENT ACT OF 1996 (PUBLIC LAW 104-134), YOU ARE REQUIRED TO PROVIDE YOUR TAXPAYER IDENTIFICATION NUMBER. PROVIDE THIS INFORMATION BY COMPLETING NRC FORM 531: <a href="https://www.nrc.gov/reading-rm/doc-collections/forms/nrc531info.html">https://www.nrc.gov/reading-rm/doc-collections/forms/nrc531info.html</a></b>						
13. CERTIFICATION (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.  THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 37, 39, AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF. WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION						
CERTIFYING OFFICER -- TYPED/PRINTED NAME AND TITLE  <b>David W. Pierce     Closure Manager</b>	SIGNATURE 	DATE <b>May 05, 2020</b>				
<b>FOR NRC USE ONLY</b>						
TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED \$	CHECK NUMBER	COMMENTS	
APPROVED BY				DATE		