



Grants Reclamation Project

Homestake Mining Company of California

David W. Pierce  
Closure Manager

April 06, 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 Temporary Exemption of RST Qualifications Due to COVID-19 Global Pandemic**

Dear Mr. Linton:

Homestake Mining Company of California (HMC) is submitting this request to the U.S. Nuclear Regulatory Commission (NRC) to temporarily relax the Radiation Safety Technician (RST) qualifications under RG 8.31 specifications as referenced by License Condition 32. This request is made specifically to address unforeseen circumstances as the result of the COVID-19 pandemic. Relaxation of these qualifications will allow HMC to operate the site with current personnel [REDACTED]. Attached, please find a technical memorandum and training log for our RST and proposed temporary RST prepared by our Radiation Safety Officer (RSO), Mr. Randy Whicker.

Thank you for your prompt 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)

Enclosures

MEMORANDUM	
<b>To:</b> David Pierce (HMC)	<b>Date:</b> April 6, 2020
<b>From:</b> Randy Whicker (ERG)	<b>Project:</b> HMC Grants Reclamation Project
<b>Direct:</b> 970-556-1174	<b>Task(s):</b> Health Physics Support
<b>Cc:</b> Brad Bingham (HMC); Chuck Farr (ERG)	
<b>Subject:</b> Temporary alternate RST approval request per COVID-19 response.	

Dear Mr. Pierce,

As you know, the Statewide response to the COVID-19 pandemic has profoundly impacted operations at the Homestake Mining Company of California (HMC) Grants Reclamation Project (Site). [REDACTED]

[REDACTED]. This situation leaves a number of critical Site operations unsupported in terms of radiation protection requirements under License Condition 32, which specifies minimum qualifications for the RST role based on NRC Regulatory Guide 8.31 recommendations for a full-time RST at a full-scale operational uranium recovery facility.

As a logical solution, HMC's current Shift Supervisor, William Archuleta, has many years of operational experience in the RST role at the Site, and clearly has the necessary skills and experience to temporarily cover RST responsibilities. However, Mr. Archuleta lacks a portion of the training qualifications specified in RG 8.31. It is requested that until the COVID-19 response has abated along with associated restrictions on business activities in New Mexico, that NRC grant a temporary exception to RST qualifications under RG 8.31 specifications as reference by License Condition 32. This exception will not materially impact radiation safety at the Site and will allow time-critical groundwater treatment operations to resume as soon as possible, including cleanup of a recent spill of liquid and solid wastes from a failed blowdown pump seal associated with Clarifier #2 and replacement of the pump seal prior to resumption of site activities. A Radiation Work Permit (RWP) has been issued for the cleanup and repair work, but the work cannot proceed without an NRC-approved alternate RST to implement RWP requirements for radiation protection under the RWP.

Since May 2017, Mr. Archuleta has received a total of 68 hours of specialized training relevant to the radiation protection program at the Site. This training, provided by the RSO and alternate RSO, is well documented, and while not entirely sufficient to meet RG 8.31 specifications, the HMC Site is not a full-scale operational facility, the RST role at the Site is not a full-time position, and Statewide restrictions under the COVID-19 response have eliminated the potential to contract with an outside resource that is qualified under RG 8.31 to perform daily RST functions as an alternate when the currently approved RST is unavailable. For these reasons, it is requested that HMC be granted a temporary exception to License Condition 32 reference to RG 8.31 qualifications for the RST role, and that Mr. Archuleta be temporarily approved to perform RST responsibilities at the Site under the direction of the RSO.

Please let me know if you have questions or need more information regarding this matter.

Thanks,



***Randy Whicker, CHP***

***Radiation Safety Officer***

***HMC Grants Reclamation Project***



Environmental Restoration Group, Inc.

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Albuquerque, NM 87113

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**HMC GRANTS RECLAMATION PROJECT - 2017 to Current RST TRAINING LOG**

Date	RST Hours		Instructor	Training Topics and Notes
		William Archuleta		
5/18/2017	5	5	Randy Whicker (RSO)	Site tour: 1) EP1 - discussed setting new pumps for turbo misters in EP1 - no RWP needed but need to scan items for disposal (worker PPE, non-working pumps, etc.) and document surface contamination readings for disposal in trenches. 2) Walked through RST key activities onsite (wells, xeolight/RO Plants, POC, EP2 sludge, etc.) and discussed radiological issues associated with duties. 3) Watched at existing video of rad training, occasionally paused video to discuss various subjects in more technical depth.
5/24/2017	4	4	Chuck Farr	Involved discussion and hands-on training with the primary instruments used on site (Ludlum Model 19, Ludlum Model 12/43-5, Ludlum Model 12/44-9, and Ludlum Model 3030). Discussion was on instrument type, fundamental such as how they work and how they can break, where they are used and why.
6/2/2017	5	5	Randy Whicker (RSO)	Discussions of wells on LTP and past techniques for interim radon cover placement, review of instruments training, in-depth review of radioactive materials license, with emphasis on license conditions relevant to RST duties. This lead to instruction on the reasons for contamination surveys and environmental monitoring, radionuclides involved, chemical/physical forms, associated transport mechanisms, half life concepts, and relevance to human dose and environmental impacts.
6/27/2017	4	4	Randy Whicker (RSO)	Formal training on external and internal radiation dose to humans, along with related relevant discussions and review of previous training concepts and terminology.
6/27/2017	2		Chuck Farr	Involved discussion and hands-on training related to Clean Area Survey. Why they are performed and at what frequency, what paperwork is involved, and what areas surveyed.
7/6/2017	2	2	Randy Whicker (RSO)	Review of basic regulations applicable to radiological aspects of the Site and RML (NRC jurisdiction yet Agreement State), leading to discussions of the nuclear fuel cycle along with NORM and MSHA jurisdiction for operational mines.
7/21/2017	4	4	Randy Whicker (RSO)	Tour of environmental air monitoring stations and review of associated procedures. Visit to zeolite facility and review of related procedures, including discussions of potential occupational dose pathways for uranium in loaded zeolite media and/or contaminated groundwater sources. Visit to former land application areas and discussions of potential public dose pathways.
7/27/2017	4	4	Chuck Farr	Review of the hi-vol air-particulate sampling program, air volume calculation spreadsheet, and historical documentation on what and why U-nat, Th-230, Ra-226 analyzed. Discussed 10 CFR 20 App B Table 2, and compared HMC results to published effluent concentration limits in Table 2.
8/18/2017	6	6	Randy Whicker (RSO) and Chuck Farr	Review of previous training topics, including discussion of atomic structure, radioactive decay, half life, radioactivity, and how ionization mechanisms govern penetrability of alpha, beta and gamma radiations, and how penetrability relates to detection capabilities with instruments as well as dose. Gave quiz with 40 questions covering previous training topics, followed up with further discussions of concepts that were still not clear to RSTs. The quiz/follow-up discussion approach appears effective for facilitating student understanding and retention versus just lectures.
8/31/2017	4	4	Chuck Farr	Review of efficiency calculations, calculation spreadsheet, sources on site, and some routine RCT tasks (additional review of clean area surveys).
12/8/2017	4	4	Randy Whicker (RSO)	General Annual Radiation Safety training for all site workers.
2/28/2018	2	2	Chuck Farr	Training on new alpha/beta survey instruments (Model 43-93 alpha/beta scintillation detector with Model 2360 ratemeter/scaler) and revised version of SOP 12 [Radiological Contamination Surveys and Decontamination (HP-2)], including use of the new Forms EDF-5 and EDF-15 as indicated in SOP 12 (e.g. survey data and efficiency information are entered into an electronic version of EDF-5 which automatically calculates results in decays per minute).
3/21/2018	7		Chuck Farr	Training on the new RPP, procedures within; specifically the SOP-12, SOP-16, SOP-18, SOP-21 and the associated forms.
12/4/2018	3	3	Randy Whicker (RSO) and Chuck Farr	General Annual Radiation Safety training for all site workers.
1/25/2019	6	6	Chuck Farr	Training on HMC's NRC License SUA-1471 contents, conditions, amendments and requirements. Further discussion on miscellaneous tie-downs and background. Discussion and training on Reg Guides and HMC Procedures.
7/2/2019	1		Chuck Farr	Reviewed shipping materials as UN2910. Went through survey requirements, paperwork and labeling of consignment. Training in addition to their NV5 Safety Training Academy (former Dade Moeller) certification.
7/17/2019	6		Online Training	Online training through Radiation Safety Academy (formerly Dade Moeller, now NV5). Course is titled DOT, IATA and NRC Requirements for Shipping Limited Quantity Radioactive Materials with Radiation Fundamentals. Must pass module exams to pass course.
7/24/2019		6	Online Training	Online training through Radiation Safety Academy (formerly Dade Moeller, now NV5). Course is titled DOT, IATA and NRC Requirements for Shipping Limited Quantity Radioactive Materials with Radiation Fundamentals. Must pass module exams to pass course.
7/24/2019		1	Chuck Farr	Reviewed shipping materials as UN2910. Went through survey requirements, paperwork and labeling of consignment. Training in addition to their NV5 Safety Training Academy (former Dade Moeller) certification.
11/7/2019	1		Chuck Farr	Discussion of total efficiency (NUREG 1579 (MARRSIM) and ISO 7503-1 Annex) calculations. Worked through the total efficiencies for instruments on site. Additional discussion on Th-230 and Tc-99 check sources, backscatter, etc...
11/13/2019	4	4	Chuck Farr	On the job training associated with radon determination and investigation as a result of elevated radon measured on contractors on site. Measurements made, clothing collected and tested (bagged), radon-in-air concentrations measured using Durridge RAD7. Spent time over multiple days investigating and discussing radon.
12/4/2019	4	4	Randy Whicker (RSO) and Chuck Farr	General Annual Radiation Safety training for all site workers.
12/11/2019	40		Fred Straccia (RSCS)	40-Hour RSO Training Course in Las Vegas. Covered several HP/RSO related stopics.
1/17/2020	2		Chuck Farr	Discussion and practical on Ludlum Model 43-93 operation (how a dual-channel Phoswich detector works) and mylar replacement do's and don't's. Also reviewed/worked through some questions from the RSO 40-Hour course.
<b>Total</b>	<b>120</b>	<b>68</b>		