



Homestake Mining Company of California

David Pierce  
Closure Manager

15 May 2019

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

40-8903

Mr. Ron Linton  
Project Manager/Hydrogeologist  
U. S. Nuclear Regulatory Commission  
Office of Nuclear Material Safety and Safeguards  
MS T-5A10, 11545 Rockville Pike  
Rockville, MD 20852

**RE: Homestake Mining Company of California – Grants Reclamation Project –  
Occupational Exposure Monitoring Study Report.**

Dear Mr. Linton:

Homestake Mining Company of California (HMC) is formally submitting the attached report concerning an occupational radiation exposure monitoring study conducted by HMC as required by NRC to verify that routine occupational air monitoring is not necessary for the HMC Grants Reclamation Project (Site). This study, conducted in late 2017 through late May 2018, stemmed from a finding identified by NRC during the September 13-14, 2017 Site inspection.

While the primary objective of the Study was as noted above, a secondary objective was to evaluate ambient average air concentrations of radon gas and radon decay products (progeny) on top of the Large Tailings Pile (LTP) as well as at an offsite upgradient background location (HMC-1OFF) and downgradient from the LTP at air monitoring station HMC-5 which is the environmental monitoring station located closest to the nearest member of the public. HMC believes that these radon data are relevant with respect to the pending radon flux exemption request and required demonstration of compliance with the public dose limits given in 10 CFR 20.1301 and 20.1302.

HMC is requesting NRC review of Sections 3.5 and 3.6 of the attached Report, along with a regulatory opinion on whether these data can provide sufficient measurement evidence to support MILDOS modeling results for the nearest member of the public based on annual radon flux measurements on the LTP and Small Tailings Pile (STP).

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*

NM5501  
NM55

**David Pierce**  
Homestake Mining Company

P.O. Box 98, Grants, NM 87020

Tele: (505) 287-4456

Fax: (505) 287-9289

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)  
C. Burton, Barrick, Henderson, Nevada (electronic copy)  
G. Hoffman, Hydro-Engineering, Casper, Wyoming (electronic copy)  
R. Whicker, Environmental Restoration Group, Albuquerque, New Mexico (electronic copy)

Enclosures: Attached – Occupational Radiation Exposure Study, Final Report.