



GRANTS OFFICE

Alan D. Cox
Project Manager - Grants

12 July 2007

Mr. Ron C. Linton
Senior Groundwater Hydrologist/Project Manager
U.S. Nuclear Regulatory Commission
Office of Federal and State Materials
and Environmental Management Programs
Mail Stop T-7E18
Washington, DC 20555-0001

RE: Homestake Mining Company of California

– **License SUA-1471**
Grants Reclamation Project
Update on 2006 Tailings Piles Radon Flux Survey

Dear Mr. Linton:

This letter is intended to provide an update and status regarding Homestake Mining Company of California's (HMCo) soil covering efforts on a portion of the Large Tailings Pile (LTP) to address the radon flux levels observed in our 2006 radon flux survey of the two tailings pile at the Grants Reclamation Project. As you will recall, the 2006 annual flux survey results were transmitted to you in February 2007 along with a description of our planned activities to reduce the average flux levels below the 20 pCi/M²s criteria outlined in Appendix A – 10 CFR Part 40. A copy of that letter is attached for your reference.

We recently completed a soil hauling, placement and compaction program on three (3) selected areas on the LTP where radon flux levels were identified that were good candidates for soil cover reduction. Our objective was to place a six (6) inch lift of soil cover material over these areas, re-survey those areas for radon flux levels, and recalculate an overall pile average to determine if the new soil cover was adequate to bring the average level on the LTP to below the 20 pCi/M²s average criteria. Approximately 7,200 cubic yards of soil cover material were placed on the LTP, at three sample location areas. Results of the re-sampling of flux levels on these areas indicate that the additional soil cover was effective; the recalculated average flux level was reduced to an 18.1 pCi/M²s average for the LTP.

Homestake is presently scheduling the 2007 annual radon flux survey for the Large and Small tailings piles to comply with current License Condition provisions in the project Radioactive Materials License, and to confirm that the overall average radon flux for both tailings pile are below the Appendix A criteria level.

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If you or any members of the NRC staff have any questions, please feel free to contact me. I can be reached at (505) 287-4456 ext. 25 or via cell phone at (505) 400-2794. I can also be reached via e-mail at acox@barrick.com.

Sincerely yours,



**HOMESTAKE MINING COMPANY
OF CALIFORNIA**
Alan D. Cox – Project Manager / RSO

Cc: Bob Evans – Region IV NRC, Arlington, TX

R. Chase – SLC (w/o attachment)
D. Deisley – SLC (w/o attachment)
B. Ferdinand – SLC (w/o attachment)



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Project Manager - Grants

23 February 2007

Mr. Ron C. Linton
Senior Groundwater Hydrologist/Project Manager
U.S. Nuclear Regulatory Commission
Office of Federal and State Materials
and Environmental Management Programs
Mail Stop T-7E18
Washington, DC 20555-0001

RE: Homestake Mining Company of California
- License SUA-1471
Grants Reclamation Project
2006 Tailings Piles Radon Flux Survey

Dear Mr. Linton:

As discussed with you by telephone initially in January and by telephone and email more recently, the results of the 2006 annual radon flux survey completed on the Large Tailing Pile (LTP) and Small Tailings Pile (STP) at the Grants Reclamation Project site indicate that the average radon flux for the Large Tailings Pile (20.6 pCi/M²s) was very slightly above the 20 pCi/M²s criteria for radon flux in 10 CFR 40 Appendix A. The attached survey report prepared by Environmental Restoration Group Inc. presents the results of the 2006 survey for both tailings piles.

Precipitation and associated soil / ground moisture conditions at the Grants site during much of the 2006 summer season prevented the completion of the annual flux survey according to established sampling protocols until late September. When results from the survey were assembled prior to report preparation, it was determined that the average flux level on the Large Tailings Pile (LTP) was 20.6 pCi/M²s. A decision was made at that time to initiate a remedial plan involving placement of supplemental cover on a portion of the LTP to bring the flux level into conformance with the standard. Unfortunately, adverse Fall weather conditions (snow and freezing ground conditions) in early December prevented completion of the work. A trucking contractor was making final preparations to initiate hauling soil during the week of December 4 when wet / snowy weather conditions prevented continuation of work. Since early December, frozen and wet ground conditions have prevented importing and placing additional soil cover on the LTP.

The current plan is to immediately commence with soil hauling, spreading and compaction of a six (6) inch lift of soil material over an area of the LTP as soon as ground conditions allow this Spring. It is anticipated that approximately 6,500 CYDs of soil cover will be placed. The area will be re-sampled for radon flux levels once the soil cover is placed.

As you are aware, in many cases, scarification and re-compaction of existing cover material will reduce radon flux levels. Unfortunately, this is not a feasible option for the LTP at the Grants site due to the numerous pipelines that are in place on top of the pile. These pipelines are integral to the tailings pile water injection and collection operations being conducted as part of the current closure program.

We trust this information is sufficient at this time to inform you of our plans with respect to the LTP. A copy of this letter and the attached radon flux report will be included in the Annual Performance Review Report which is due in your offices by March 31 2007. If you or any members of the NRC staff have any questions, please feel free to contact me. I can be reached at (505) 287-4456 ext. 25 or via cell phone at (505) 400-2794. I can also be reached via e-mail at acox@barrick.com.

Sincerely yours,

**HOMESTAKE MINING COMPANY
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Alan D. Cox – Project Manager / RSO

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