

March 10, 2014

Nuclear Regulatory Commission
Mr. Jack Parrott, Senior Project Manager
U.S. Nuclear Regulatory Commission
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Dear Mr. Parrot:

The Bluewater Valley Downstream Alliance (BVDA), a core member of the Multicultural Alliance for a Safe Environment (MASE), hereby submits the following comments regarding a proposed amendment to the radon monitoring program at the Homestake-Barrick Gold Uranium Mill Tailings site north of Milan, New Mexico. The proposed amendment was brought to BVDA/MASE attention via a letter from the NRC. No one from the NRC offered to meet with members of our community or offered to explain what this proposed change might mean for our community members, who have been living over 40 years now with radon in the ambient air that, according to a recent USEPA Human Health and Risk Assessment draft report, is five times the EPA limit and represents 18 times the EPA's acceptable lifetime cancer risk standards.

For the reasons given below, BVDA requests the NRC staff deny Homestake-Barrick Gold's (H-BG) application to change the location of its background radon monitor.

Introduction

The Nuclear Regulatory Commission (NRC) provided public notice of a proposed amendment to the radon monitoring program October 29, 2013, in the Federal Register at 78FR64553.

The NRC claims the proposed License Amendment is supported by:

- "Basis for Selection of a Representative Background Monitoring Location for the Homestake Uranium Mill Site, SUA-1471," September 2013, prepared for Homestake-Barrick Gold by Environmental Restoration Group (ERG) – hereinafter called "HMC Analysis" – NRC ADAMS ID ML13281A790;
- "License Amendment Request for Homestake Mining Company of California, Grants Reclamation Project, Cibola County, New Mexico", October 17, 2103 – HMC's

formal license amendment application – hereinafter called “HMC License Application” - NRC ADAMS ML13274A401; and

- “Acknowledgement of Receipt of Grants Reclamation Project – Request to Change Radon Background Location from HMC-16 to HMC-10ff (DOCKET NO. 40-08903, LICENSE NO. SUA-1471)” – NRC’s acknowledgement of receipt and acceptable as complete for technical review - hereinafter called “NRC acceptance-as-complete letter” – NRC ADAMS ID ML 13274A290.

The amendment proposes to change the radon monitoring array used at the Homestake tailings site by replacing the radon monitoring site used as the baseline data source for NRC license purposes for more than two decades, named HMC-16, located about 3 miles north-northwest of the tailings, with a radon monitoring site located about 2 miles east of HMC-16 (“16” in “green square”) and about 2 miles north-northeast of the large tailings pile, named HMC-10ff (“1” in “blue circle”) as shown in the figure below.

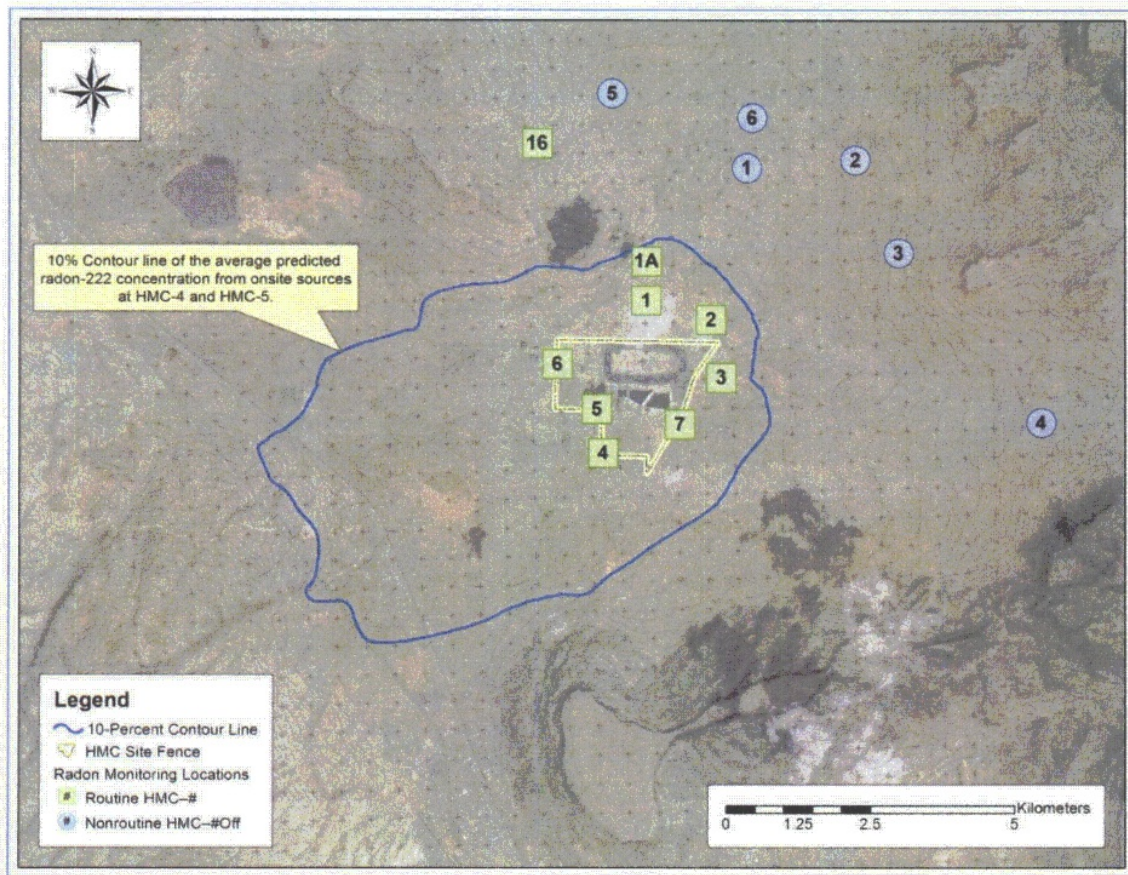


Figure 4-1 Predicted transport of on-site sources of radon normalized to HMC-4 and HMC-5 average

In brief, H-BG’s Analysis supporting this proposed change asserts that HMC-16 may “underestimate background” and HMC-10ff would not.

H-BG's Analysis concludes,

"...[M]onitoring location HMC-16 is not an appropriate background location for radon in outdoor air and measurements made therein likely underestimate the background radon concentration."

BVDA believes the conclusion section (Section 6, p. 28) of the application succinctly states the consultant's reasons (Application, p. 28) for recommending moving the background location to HMC-10FF, and these reasons are exactly why the NRC should not sanction this change. Homestake-Barrick Gold's proposal seems to be based solely on finding a site that has a higher average annual radon level than HMC-16. The proposal is designed to lessen safeguards for our working class community that has suffered exposure for more than 40 years, and diminish the multi-billion dollar Homestake-Barrick Gold's accountability.

Clearly, lower background radon levels would be more protective of air quality and health in the affected communities than higher background levels. Because releases are regulated based on incremental increases above background levels, it is in the affected communities' best interest to have the lowest appropriate background levels used in the license. BVDA believes the NRC recognizes this crass move by Homestake-Barrick Gold as the tactical assault on our community that it is and should thus deny the proposed amendment.

Lower background is likely to reflect the environmental conditions least affected by man-made releases of uranium and uranium decay products, therefore lower average radon baseline data sites should be preferable as baseline data sources compared to sites with higher average radon content. On the other hand if, "during calm conditions radon transport is driven predominantly by topography" (p. 3), then it makes no sense to put a monitor in a low-lying area where radon will "hang" and may be influenced by uranium and radium levels in the soils of the San Mateo creek channel where it is well documented uranium mill and mine wastes were discarded for years.

NRC's acceptance-as-complete letter states that the NRC anticipates having its technical review completed by December 31, 2013. BVDA requests representatives from NRC come to our community to meet with BVDA/MASE representatives to share and explain the NRC technical review of this absurd proposal and reassure the community NRC will not support such outrageous moves on the part of the perpetrator, Homestake-Barrick Gold.

We expect that the NRC will keep in mind that:

- H-BG consultants did not provide evidence that they considered site history in their assessment, nor scientifically determined whether the location of HMC-10ff is "impacted" or "non-impacted" as those terms are used in the MARISSM strategy. While MARISSM was developed primarily to determine if buildings and properties have residual radiation from licensed activities, its concepts can be applied to questions like establishing a new background RN

monitor location. H-BG does not pass the first step because it did not characterize existing impacts at the new monitor location.

- Retention of HMC-16 as background sustains continuity of previously approved monitoring data collection and analysis;
 - No long-term data are available for HMC-10ff for full integration into existing monitoring data database;
 - Homestake-Barrick Gold's radon monitoring data analysis provides a biased, rather than randomized database for development of the HMC model.
- Therefore, the analysis and conclusions do not provide adequate technical support for the proposed amendment. Additionally, even though there remain concerns about whether HMC-16 may be influenced by anthropogenic sources of Rn, its location is clearly more in agreement with criteria for a legitimate background location (generally upwind and distant from a Rn source) than the proposed location of HMC-10ff (downwind of and closer to the source). Neither is ideal, but HMC-10ff is ludicrous.

Neither the FR notice, License Amendment Application, nor NRC acceptance-as-complete letter identify a basis for or rationale for the proposed amendment.

BVDA's technical experts examined 10 years of radon monitoring data for Homestake-Barrick Gold's monitors in a May 2010 TASC report. At one point, these technical experts questioned whether HMC-16 might be influenced by anthropogenic sources of radon. This was because HMC-16 recorded a concentration of 2.5 pCi/l-air in 2009, which was clearly an outlier in terms of the previous measurements. However, even including the anomalous reading, this technical report shows that radon levels were significantly higher at Homestake-Barrick Gold fenceline monitor stations, except at HMC-3 and HMC-7 (both on the eastern-southeastern) fenceline, when compared with levels at HMC-16. If the outlier were removed from the data set, the mean Rn level for 10 years at HMC-16 would be 1.1 pCi/l, not 1.16 pCi/l, and it is possible that levels at HMC-3 and -7 would be significantly higher than the background levels at HMC-16.

Table 4.2 of the HMC consultants' report shows that Rn levels at location HMC-10ff are as high as ambient levels at the two monitors closest to the community -- HMC-4 and HMC-5 -- which, historically, have had the highest levels and therefore demonstrate substantial lung exposure risks to the people living closest to the large tailings pile. The consultants' report presents no data on soil uranium or radon levels at the HMC-10ff location. Wind rose patterns in the consultants' report, presented previously by Homestake-Barrick Gold, clearly show that the 10ff site would be in the direction of the most frequent winds, on the order of 8% to 10% of the time.

According to the USEPA, H-BG consultants' use of AERMOD for modeling emission sources is inappropriate. The USEPA recommends a different model and the community would like to better understand these modeling concerns. This is

another reason for the NRC to involve the community in this process.

Clearly Homestake-Barrick Gold's consultants set out to find the site that has the highest radon and justify using that as background. This method would not pass an 8th grader's science fair experiment in which the scientific method is supposed to be demonstrated -- state a question or hypothesis, conduct an experiment to test the hypothesis, and use the data you obtain to prove or disprove the hypothesis. The consultants proved only that they found a site that has higher ambient Rn than HMC-16, and therefore, the new site should be chosen.

HMC-16 is not ideal as a background location, but it has attributes that make it the best of a group of poor choices. It is located 3 miles upwind of the LTP and on a topographic high, a better location to measure true background than in a low-lying area that was subject to anthropogenic activity. Homestake-Barrick Gold's recent monitoring data for HMC-16 show its Rn levels to be more consistent with the broad range of actual background identified from more than 30 years of reports: 0.19-0.71 pCi/l between 1972 and 1983. (This report as well as the TASC report referenced above is available by contacting BVDA.)

This proposed change is clearly technically unfounded, a blatant attempt to ease accountability for Homestake-Barrick Gold, and we would like to hear from the NRC soon assuring us that the agency will not seriously consider this clearly flawed proposal further.

Sincerely,

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