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40-8903

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RE: Homestake Mining Company Site Deletion Issues

Dear Petra and Ken:

New Mexico Environment Department (NMED) staff have met with the United States Environmental Protection Agency (EPA), the Nuclear Regulatory Commission (NRC) staff, and representatives from Homestake Mining Company (HMC) to discuss potential deletion of the HMC mill site in Milan, New Mexico from the National Priorities List (NPL). The State of New Mexico agrees that deletion of the site from the NPL may be feasible. This letter outlines the remaining issues that require clarification before the NMED is able to provide final support for deletion of the site from the NPL.

## **1.0 Site Background**

Deletion of the HMC site from the NPL had been considered in 1990, but was not supported by EPA or NMED at that time because contamination still existed above levels that were protective of human health and the environment. Groundwater contamination still exists at concentrations above federal and state regulatory standards. However, during the ensuing ten years, HMC has been a cooperative and proactive responsible party, and site clean-up has progressed well under the direct oversight of the NRC. Surface soil contamination has been mitigated and the tailings piles are covered with a temporary cap during completion of pile dewatering activities. Groundwater restoration continues with an extensive extraction/injection program that is enhanced with the use of reverse osmosis water injection. HMC is experimenting with bioremediation techniques to further accelerate the groundwater clean-up. During recent years, EPA's involvement with the site has been limited because the NRC is effectively taking the lead regulatory oversight role, as defined in a Memorandum of Understanding required by the Record of Decision for the site. NMED provides

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regulatory oversight through its Superfund Oversight Section and through discharge permits DP-200 and DP-725 administered by the Pollution Prevention Section.

## **2.0 Site Deletion Issues**

NMED is considering supporting site deletion because:

- the airborne radon pathway has been eliminated;
- the surface soils have been mitigated;
- the tailings piles are stabilized and the dewatering system is in place and operational;
- the groundwater restoration program is fully constructed and operational;
- the site clean-up of radiological contamination would continue under direct NRC oversight;
- NMED would retain regulatory authority of the discharge and abatement of non-radiological constituents under the discharge permits.

Because groundwater contamination still exists at the site and in the adjacent residential neighborhoods, NMED has identified the following areas of concern that require clarification before the State of New Mexico will support final site deletion:

1. Determination of protectiveness of the remedy;
2. Clarification of regulatory issues upon deletion.

Solutions to these issues are discussed in the following sections.

## **3.0 Determination of Protectiveness of the Remedy**

Before submitting a letter signed by the Secretary of the Environment Department providing concurrence with deletion of the HMC site from the NPL, NMED believes a thorough review of the HMC site, with respect to evaluation of protectiveness of human health and the environment, is necessary. This evaluation should include, at a minimum, the following:

- Evaluation of the effectiveness of the remedy;
- Determination of the threat that groundwater contamination off-site (outside of the NRC license boundary) poses to human health and the environment;
- Evaluation of the anticipated future use of the land, both inside and outside the property boundary;
- Determination of what institutional controls, if any, are/will be required.

The annual reports submitted by HMC contain most of the data needed to make these evaluations. The data need to be assessed to determine the effectiveness of the remedy. NMED anticipates this

evaluation will require minimal additional data presentation/collection to graph data from specific locations over the life of the project and compare the actual data to modeled restoration predictions and performance projections outlined in the corrective action plan (CAP). A close look at the off-site contamination outside of the property boundary must also be made with respect to how this contamination may threaten human health and the environment. NMED is willing to work closely with EPA, NRC, and HMC to complete this evaluation summary.

#### **4.0 Clarification of Regulatory Issues**

NMED has identified several areas requiring clarification should the HMC site be deleted from the NPL. These include:

- Off-site contamination outside of the HMC property boundary must be addressed in some manner;
- WQCC abatement plan requirements will no longer be waived for certain constituents (specified below);
- NMED and NRC should work closely together to address ACL requests;
- NMED must retain involvement in NRC decisions regarding radiological constituents at the site.

The off-site contamination (the adjacent neighborhoods and an area referred to as Section 3 in the HMC annual report) includes uranium (U), selenium (Se), molybdenum (Mo), and total dissolved solids (TDS) at concentrations above site regulatory standards. This off-site area is not currently included in the NRC license because it is outside of the HMC property boundary. If the site is deleted from the NPL, the off-site contamination would no longer fall under CERCLA oversight. NMED has regulatory authority of non-radiological constituents in the off-site area, but cannot address radiological contamination, as dictated by the Atomic Energy Act. Data suggest the off-site contamination is directly associated with the former HMC milling activities and tailings piles. In that case, NRC could assume regulatory oversight of the off-site radiological contamination. NMED, therefore, recommends NRC extend their license boundary to include the off-site contamination and address the constituents that would be included in their license in some manner. If the NRC can incorporate the off-site contamination (radiological and associated constituents as included in current license) into their jurisdiction, NMED will support deletion of the HMC site from the NPL.

Once the site is removed from the NPL, the site (both on-site and off-site) no longer qualifies for exemption from Section 4104, "Abatement Plan Required" of the New Mexico Water Quality Control Commission (WQCC) Regulations for non-radiological constituents. WQCC abatement requirements would still be waived for radiological constituents covered by the Atomic Energy Act (U, radium (Ra), thorium (Th), and vanadium (Va)), pursuant to WQCC regulation 4105.A.4. Thus,

if the site is deleted, HMC would be required to either submit an abatement plan for non-radiological constituents, or incorporate abatement language for non-radiological constituents into their existing discharge permits pursuant to WQCC Regulation 4105.A.6. The constituents that would require abatement under the WQCC Regulations include sulfate ( $\text{SO}_4$ ), nitrate ( $\text{NO}_3$ ), chloride (Cl), TDS, Se, Mo, and chromium (Cr).

The WQCC-required abatement plan for non-radiological constituents must address both on-site and off-site contamination. The existing corrective action plan (CAP) administered by the NRC may qualify as a portion of the WQCC-required abatement plan for Se, Mo, and Cr; however, the CAP does not currently address off-site contamination, nor does it include  $\text{SO}_4$ ,  $\text{NO}_3$ , Cl, or TDS. Modification of the current discharge permit (DP-200) to include the existing CAP (for abatement of Se, Mo, and Cr), along with supplemental remedial action language to address on-site  $\text{SO}_4$ ,  $\text{NO}_3$ , Cl and TDS contamination will satisfy WQCC abatement requirements for non-radiological contamination *within* HMC's property boundary. In addition, HMC would need to develop abatement plans for addressing the *off-site* Se, Mo, Cr,  $\text{SO}_4$ ,  $\text{NO}_3$ , Cl, and TDS (and any other non-radiological constituents that fall under WQCC) concerns in this area, because no CAP currently exists for this portion of the site. These abatement plans for off-site non-radiological contamination would also be incorporated into the modification of discharge permit DP-200.

To summarize, should the site be deleted from the NPL, HMC will be required to meet the WQCC abatement requirements for non-radiological constituents both on-site and off-site. This can be accomplished by modifying the existing discharge plan DP-200 to include abatement language. A reference to the existing CAP for on-site constituents, plus abatement actions for on-site  $\text{SO}_4$ ,  $\text{NO}_3$ , Cl, and TDS, along with abatement plans for off-site Se, Mo, Cr,  $\text{SO}_4$ ,  $\text{NO}_3$ , Cl, and TDS could be incorporated into the overall, site-wide discharge permit DP-200.

NMED would continue to communicate and coordinate with NRC on corrective action decisions/oversight so that provisions of the discharge permit DP-200 are met. The State is prepared to meet with HMC to assist with the discharge plan renewal application so that all WQCC abatement plan requirements are incorporated.

HMC has indicated that they will, or have, applied for alternate clean-up levels (ACLs) for certain constituents. If the site is deleted from the NPL, EPA would not be required to assess the ACLs under their regulatory process. However, the NRC ACL process would still be required, as well as the NMED ACL process. Currently NRC and NMED dually regulate Se, Mo, and Cr (removed from NRC license, but still included in the NMED discharge plan). The NMED ACL process would apply to all WQCC regulated non-radiological constituents: Se, Mo, Cr,  $\text{SO}_4$ ,  $\text{NO}_3$ , Cl, and TDS. NMED suggests that NRC and HMC work closely with the State such that the regulatory processes may be streamlined to meet both agency's requirements, and to ensure concurrence with ACLs so that decisions can be implemented in a timely fashion.

A general concern with losing EPA and NMED Superfund Oversight Section involvement at the site upon deletion is that the NRC may not continue to include NMED concerns in decisions it makes with regard to the NRC license, radiological constituents, and corrective action at the site. NRC and NMED staff have committed to continuing open communication, and have pledged to include each other on all external correspondence associated with environmental issues at the HMC site. During a March 2000 site visit, Roy Cellan of HMC agreed to send copies of all external communication associated with environmental issues to both the NRC and the NMED. NRC has also pointed to the letter between NRC and the Department of Energy, dated January 7, 1998, establishing agency protocol to involve States prior to license termination. In particular, the protocol language reads as follows:

"The NRC and the DOE will work cooperatively with State regulatory authorities and licensees in an attempt to resolve all appropriate groundwater issues prior to termination of the site-specific license and transfer of the site to the DOE....The NRC agrees that it will not terminate any site-specific license until the site licensee has demonstrated that all issues with State regulatory authorities have been resolved."

## **5.0 Conclusion**

In summary, NMED is willing to support deletion of the HMC site from the NPL provided a thorough assessment of the effectiveness of the remedy, and an evaluation of the protectiveness of human health and the environment are made. NMED is prepared to meet with EPA, NRC, and HMC to provide assistance to complete this assessment.

In addition, clarification of regulatory issues, as described in section 4.0, must be made and documented before the State of New Mexico will support deletion of the site. NMED requests that NRC submit a written determination as to whether they can include the off-site contamination under their jurisdiction and require it be addressed in some manner.

Ideally, should CERCLA no longer apply to the site, the on-site and off-site contamination associated with the HMC site could be addressed as follows:

Radiological Constituents	Have NRC extend the license boundary to include off-site areas; radiological contamination addressed both on-site and off-site by this action.
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Non-radiological Constituents	Incorporate supporting remedial action language and abatement plan requirements into discharge plan DP-200; non-radiological contaminants of concern at the site (SO <sub>4</sub> , NO <sub>3</sub> , Cl, and TDS) addressed both on-and off-site by this action.
Dually-regulated Constituents	These include Se, Mo, and Cr at the site; Have NRC address these by extending license boundary; NMED addresses these by incorporating NRC CAP and abatement language into discharge plan DP-200. These actions result in Se, Mo, and Cr being addressed on- and off-site.

Please call me at (505) 827-0072, or Birgit Landin of my staff at (505) 827-9669, with any questions.

Sincerely,



George Schuman  
Acting Program Manager, Superfund Oversight Section

cc: Birgit Landin, NMED-SOS  
Maura Hanning, NMED-PPS  
Mary Heather Noble, NMED-PPS  
Jane Gunn, NRC  
Roy Cellan, Homestake Mining Company