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October 29, 2012

Mr. John Buckley, NRC Project Manager  
U.S. Nuclear Regulatory Commission  
Decommissioning and Uranium Recovery Licensing Directorate  
Division of Waste Management and Environmental Protection  
Mail Stop T-8F5  
Washington, DC 20555

**Subject:** Transmittal of New Mexico Environment Department additional comments on the Updated Corrective Action Plan for the Grants Reclamation Project at the Homestake Mining Company Superfund Site (EPA ID: NMD007860935) in Milan, New Mexico

Dear Mr. Buckley:

The New Mexico Environment Department (NMED) has completed review of the draft-final Corrective Action Plan (CAP) prepared for the Nuclear Regulatory Commission (NRC) by the Homestake Mining Company (HMC) of California dated March 2012. NMED provided preliminary comments on the CAP to NRC in a transmittal letter dated May 29, 2012. NMED's additional comments primarily focus on concerns related to the discharge permits managed by NMED's Ground Water Quality Bureau, Mining Environmental Compliance Section.

NMED currently is in the process of renewing and modifying Discharge Permit-200 (DP-200), which regulates discharges associated with HMC's operation of its ground water remedial system components in accordance with New Mexico Water Quality Control Commission regulations (20.6.2 NMAC); DP-725, which regulates the operation of two existing collection ponds and three existing evaporation ponds, is not due for renewal until 2015, but may be combined into DP-200 during this renewal process. Although all of the specific conditions for renewal and modification of DP-200 have not yet been determined, the permit generally will specify maximum allowable discharge quantities, in gallons per day, for specific components of the ground water remediation system. Additionally the permit will specify both the wells, and the operational mode of those wells (i.e., extraction, injection, or monitoring) within each of the remedial system components. DP-200 will likely include requirements for reporting and notification to NMED of changes to the operational mode of specific wells or well series. HMC will be required to maintain the quality of any injected fluids in compliance with 20.6.2.3103 NMAC, as well as to demonstrate the ultimate capture of ground water contaminants that are mobilized through its injection activities. HMC also will be required to report discharged water quality and quantities on at least an annual basis, coincident with its current reporting to NRC. NMED may also require HMC to submit interim reporting throughout the year.

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HMC will be permitted to continue land application of contaminated water for a period of no more than two years following the effective date of the DP-200 renewal; the quality of water discharged within this component of the remedial system must comply with limits that will be specified in the permit. Concurrent with this activity, HMC will be required to progress toward implementation of additional treatment and disposal capacity that can replace the land application by no later than Spring 2015. Alternatively, pending NMED approval, HMC may implement alternative treatment technologies to replace or offset requirements for additional evaporative capacity, subject to NMED approval. NMED will require HMC to continue its current moisture transport and ground water quality monitoring activities within the land application areas, and to demonstrate that future ground water quality degradation will not result from this activity.

Additional permit conditions that are likely to be included within the final modified DP-200 include the following:

- implementation of dedicated up- and down-gradient monitoring wells that are completed within the upper 20 feet of the San Andres aquifer;
- implementation of a sitewide Data Quality Objectives-based ground water monitoring system;
- required post-closure demonstration of ground water quality restoration stability over at least a 2 year period ("ground water compliance demonstration period"), subject to NMED approval.

Please contact David L. Mayerson of the NMED, Mining Environmental Compliance Section at (505) 476-3777, if you have any questions.

Sincerely,



Jerry Schoeppner, Chief  
Ground Water Quality Bureau  
New Mexico Environment Department

Attachment: NMED Additional Comments on Grants Reclamation Project - Homestake Mining Company Superfund Site, Updated Corrective Action Program (CAP), Draft-Final CAP, dated March 2012.

Copies: Sairam Appajai, U.S. EPA Region 6, Remedial Project Manager  
Phyllis Bustamante, Acting Manager, NMED, Superfund Oversight Section  
Angelo Ortelli, Project Manager, NMED, Superfund Oversight Section  
David Mayerson, Project Manager, NMED, Mining Environmental Compliance Section

	Page	Section	Sentence/Text (as stated)	Comment
		General		<p>NMED requires HMC to submit detailed workplans for future initiatives related to ground water restoration, such as alternative treatment technologies evaluation, to NMED for review, comment and approval prior to initiating such work.</p>
		General		<p>As discussed in the HMC Executive Steering Committee meeting on June 6, 2012, NMED requests that the license boundary be extended to include the areas where land application has occurred, in order to provide for long-term monitoring for possible impacts to ground water under eventual DOE stewardship. If this extension of the license boundary is not granted, NMED will request to re-examine the existing financial assurance, which is currently held by NRC, to assure that adequate financial safeguard against long-term ground water impacts exists for these areas.</p>
2-1	2-1		<p>The site license boundary occupies an area of approximately 1,085 acres</p>	<p>Based upon discussions among the regulatory agencies for this Site, NMED understands that the license boundary during the remedial process includes all areas in which ground water impacts originating from the Site have been identified. Figures 1-1 and 2-1 must be revised to reflect this redefinition.</p>

	<b>Page</b>	<b>Section</b>	<b>Sentence/Text (as stated)</b>	<b>Comment</b>
	2-6	2.4.1 2 <sup>nd</sup> paragraph, 5 <sup>th</sup> sentence	License Condition No. 39, including the method used to determine the site standard for each COC, is included in Appendix A.	The two versions of the Source Material License that are included within Appendix A indicate that Condition No. 39 was deleted by Amendment No. 31. Please correct the reference.
	5-11 through 5-14	5.4 General		The brief descriptions of the alternative treatment technologies that are currently under evaluation indicate that these technologies only address a limited set of COCs. Please clarify or else indicate how these other standards will be achieved if any of these technologies are proposed for implementation.
	6-3	6.3.2 2 <sup>nd</sup> paragraph, 1 <sup>st</sup> three sentences	HMC is considering adding wells to supplement the plume control program... These proposed wells include a series of wells named the B series on the south and southwest sides of the LTP and a series of wells named the S series on the west side of the LTP.	The CAP should provide a more detailed discussion of how these additional wells will achieve plume control in these areas.

NMED Additional Comments on Grants Reclamation Project - Homestake Mining Company Superfund Site,  
 Updated Corrective Action Program (CAP), Draft-Final CAP, dated March 2012.  
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	<b>Page</b>	<b>Section</b>	<b>Sentence/Text (as stated)</b>	<b>Comment</b>
	7-7	7.2.1 1 <sup>st</sup> paragraph, 1 <sup>st</sup> sentence	There are no POC wells for the Middle and Lower Chinle aquifers because they subcrop with the alluvial aquifer outside of the NRC license boundary.	The CAP should address how long-term monitoring of water quality in these aquifers will be conducted to insure standards are achieved.
	9-2	9.0 2 <sup>nd</sup> paragraph, 4 <sup>th</sup> sentence	Phosphate treatment would be used in a variety of implementation approaches to remove uranium <i>in situ</i> .	This brief description of <i>in situ</i> phosphate treatment technology does not indicate how other ground water COC exceedances would be addressed.