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Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

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Benjamin H. Grumbles
Director

September 22, 2010
FPU 11-069

Attention: Monika O'Sullivan, Project Manager
EPA Region IX
75 Hawthorne Street
San Francisco, CA 94105

RE: ADEQ review of the Remedial Alternative Evaluation Technical Memorandum (RAETM) for the Iron King Mine-Humboldt Smelter Superfund Site

Dear Ms. O'Sullivan,

ADEQ appreciates the opportunity to review and comment on the Remedial Alternative Evaluation prepared for EPA by EA Engineering Revision 00 dated August 2010.

General Comments:

1. In accordance with ADEQ policy and Arizona statute, please ensure that the Final Remedial Alternatives Evaluation (Version 01) be stamped by an Arizona registrant, either an Arizona Registered Geologist (R.G.) or Professional Engineer (P.E.). Arizona Revised Statutes, Title 32 Chapter 32-125, specifies that: (A) each seal shall bear the name of the registrant and shall state the profession in which the registrant is permitted to practice; (B) plans, specifications, plats or reports prepared by a registrant or a registrant's bona fide employee shall be issued under the registrant's seal; (C) the registrant is responsible for all documents that the registrant signs, stamps or seals, including those documents prepared by the registrant's bona fide employee.
2. It is recommended to add information about the Declaration of Environmental Use Restrictions (DEURs) used in Arizona. Throughout the document, institutional controls (ICs) are mentioned as a component to be considered for remediation. The report doesn't mention Arizona's DEUR program. It also neglects to mention that land use controls are at the discretion of the property owner. In Arizona, any environmental land use restriction, protective barrier, etc. where contamination is left above regulatory levels requires a DEUR. While the document mentions ICs it does not describe the minimum detail of what is entailed in maintaining this designation in Arizona. The landowner(s) are the party who file, maintain and pay fees for the DEUR to be maintained. At a minimum, the Report should mention the steps involved in placing ICs at properties in Arizona.

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3. Shafts and tunnels pose an immediate safety risk to the public and would be an easy remedy to fix. It would be prudent to add this as a topic of discussion in the RAETM and Feasibility Study.
4. Was remediation and prevention of house dust for primarily lead considered as a remedial alternative? This may be a consideration for homes nearby the site particularly at the Humboldt Smelter that have been exposed to years of dust. Other mine sites commonly find that dust in houses is a problem.
5. Fencing of critical areas such as the settling ponds, smelter stack and soil sealant covered ash piles could be costed out in the Feasibility Study to provide further site safety.

Specific Comments:

1. Section 1.4.1.2: Please delete the fourth sentence from this paragraph as it doesn't relate to the subject heading of COPCs.
2. Section 1.6.4 Ground Water AOI, page 15 of 42: It is mentioned that sulfates may cause harmful effects (e.g. dehydration). To be clear it is suggested to add diuretic effect or diarrhea as well as dehydration to help explain the health effects more clearly other than just dehydration.
3. Section 1.7 Data Gaps, Recommendations and Additional Considerations, page 17 of 42: It is mentioned in the RI Report on page 39 of 344 when discussing the Humboldt Smelter AOI that several underground structures (e.g. tunnels and shafts) "...may pose an impediment to future use and will be considered in the evaluation of remedial alternatives." There is very little further discussion of the underground tunnels in the RAETM. These tunnels pose an immediate safety concern due to instability and risk of collapsing and should be included as part of the remedy to render the site safe. A discussion could be added to the recommendations and applicable section of the RAETM such as in section 3.1.6 *Structures/Debris*.
4. Section 3.1.1 General Response Action, page 26 of 42: Institutional Controls in Arizona are commonly implemented in the form of a Declaration of Environmental Use Restrictions (DEURs) either for institutional or engineering controls and are filed with the County. DEURs run with the burden of the land and include several requirements such as financial assurance and many years of future reporting and inspections.
5. Sections 3.1.6 and 3.2.2.5 indicates that any buildings on-site that have asbestos containing materials (ACM) will be remediated by removing the ACM, demolishing the building and properly disposing of building and debris material. While this document is only an initial discussion, it may be prudent to outline which buildings contain ACM and whether or not owner(s) of those buildings will approve ACM removal and/or demolition. In addition, in the discussion of ACM removal and building demolition, at a minimum stake holders and the Town should be contacted and aware that EPA plans to demolish structures. Many public meeting attendees have expressed an interest in

maintaining historical buildings in the Town, where feasible. As the Report currently reads, it sounds as though EPA will demolish buildings on the site where ACM is present.

6. Section 4.1.2 General Response Action -*Limited Action*: In this section again examples of ICs mention restrictive covenants and deed notices. To be more specific an explanation of the Arizona DEURs would be helpful for readers of the report, property owners and should be cost out in the Feasibility Study.

If you have any questions e-mail me at Stonebrink.Brian@azdeq.gov or call (602) 771-4197.

Sincerely,



Brian Stonebrink,
Project Manager
Federal Projects Unit,
Waste Programs Division, ADEQ

cc: Joellen Meitl, ADEQ Project Hydrologist
Project and Reading File