April 18, 1995

Mr. Brad Shipley, OSC
U.S. Environmental Protection Agency
Region IX
75 Hawthorne Street
San Francisco, CA 94105-3901

RESPONSE TO CENTRAL EUREKA MINE SITE ACTION MEMORANDUM (3-21-95)

Dear Mr. Shipley:

The Department of Toxic Substances Control (DTSC) has reviewed the Action Memorandum dated March 21, 1995, for the Central Eureka Mine Site. DTSC's goal is a permanent solution which must contain the mesa mine tailings from movement and erosion, and eliminate the exposure potential from contaminated soils or tailings on the mesa, yards and lots, creek, and head frame area. DTSC recognizes many effective strategies can be engineered and combined with institutional controls to achieve the required goal.

DTSC concurs with the general concepts of the U.S. Environmental Protection Agency's (U.S. EPA) remedial actions of containment, encapsulation, excavation, and access restriction. DTSC has specific concerns which are detailed in this letter.

CENTRAL EUREKA MINE HEAD

DTSC concurs that the Central Eureka Mine Head should have erosion control measures implemented and be fenced and posted with warning signs to prevent unrestricted access. In addition, air monitoring should be conducted to determine the potential for fugitive dust emissions. However, these are only interim remedial measures. A permanent solution should be implemented.

MESA DE ORO TAILING PILE

DTSC agrees the top of the mesa must be capped to prevent direct contact and control offsite migration of arsenic contaminated tailings.

The proposed retaining walls below the mesa would be a permanent, low maintenance solution to preventing recontamination of properties adjacent to the mesa from slope slumping and soil creep. In addition, the retaining walls would prevent the creek
from eroding tailings between the properties on 115 Bryson Drive and 360 Gold Strike Court. However, the retaining walls only partially achieve the goal of eliminating exposure, because the slope material will still be exposed.

DTSC agrees that the slope of the mesa is currently too steep for placement of a cover soil, but strongly disagrees that a vegetative cover will be adequate for slope stabilization and human health protection. A vegetative cover is not a permanent solution, because it will not prevent mine tailings from being exposed to the surface via erosion, animal activity, and/or other means. Thus, children playing on the slope could still be exposed to arsenic contaminated tailings.

Potential remedial options for the slope include decreasing the angle of the slope to allow for encapsulation with clean soil and/or terracing the slopes with a series of retaining wall structures with a clean soil cover at the base of each tier. While other remedial options may be possible, it is critical the solution be permanent and prevent exposure to contaminated soils.

RESIDENTIAL CLEANUP LEVEL

The proposed cleanup level for arsenic is 22 parts per million based on acute exposure. This concentration corresponds to approximately $10^4$ chronic cancer risk. This is on the high risk end of the $10^4$ to $10^6$ risk management range. Because natural levels of arsenic commonly exceed the $10^6$ point of departure, remedial action clean up levels have often been at background concentrations. The background concentration of arsenic has not been determined for the site. We request that background be determined for arsenic and cleanup to background be evaluated.

RESIDENTIAL YARD CLEANUP

DTSC concurs with the proposed yard cleanup activities of excavation, backfill, capping, and landscaping. In addition, DTSC requests each resident's crawl space be evaluated for the need to install gunnite or a synthetic liner under the home to prevent direct contact with contaminated soils during storage or maintenance activities.
U.S. EPA should consider professional cleaning of each residence once the entire yard cleanup and mesa encapsulation project is completed. This is to limit the potential for contaminated soil to be tracked into cleaned homes by children and pets before the entire remediation is completed.

DISPOSAL

DTSC believes onsite disposal of contaminated soils is appropriate as long as long term operation and maintenance plans are in place to maintain and monitor the disposal site. Because a permanent goal without operation and maintenance should be considered, DTSC requests U.S. EPA to evaluate the possibility of disposing of the mine tailings in a Class I or Class II landfill as appropriate. DTSC believes a repository should be identified to handle any future contaminated soils from sediment traps, maintenance activities, or yard excavations which require removal of mine tailings.

A suitable location for disposal of excavated tailings and contaminated soil must be identified which will contain the contaminated soil/tailings in a way to prevent environmental and public exposures and have continuing operation and maintenance oversight to assure future protection.

INSTITUTIONAL CONTROLS

DTSC recommends residential development of the top of the mesa be discontinued and alternative land use options evaluated. Full residential development of the top of the mesa greatly increases the potential for the soil cover to be compromised. If residents currently living on the mesa stay in their homes, assuming they are not impacted by remedial activities, institutional controls should be established to protect the integrity of the cover and minimize future exposure to residents.

Any institutional control must protect future residents and workers who may be digging below the cover, including properly handling of exposed tailing material, and ensure that the cover is restored upon completion of work. Such institutional controls will need to be implemented on all remediated properties because of the potential for contaminated soils to exist under homes, permanent structures, driveways, and yards where tailing are left
in place. Guidelines for handling excavated contaminated soils (i.e., utility trenches or swimming pool installation) should be developed in conjunction with local officials to implement institutional controls.

Disclosure laws pursuant to Section 25359.7 (a) of the Health and Safety Code require a landowner to provide written notice of release of hazardous substances to any future landowner. However, U.S. EPA should require landowners to record a deed restriction prior to issuing certification letters for remediated properties.

OPERATION AND MAINTENANCE

Any solution other than complete removal of all tailings material to a permitted landfill will require future operation and maintenance of remedial measures. Identified responsible parties need to provide financial assurance that they will maintain the remedial measures so the project’s goals continue to be achieved in the future.

ARARS

State ARARs for this site are identified in a letter to U.S. EPA from DTSC dated March 22, 1995.

If you have any questions or concerns please contact Mr. Daniel Ziarkowski at (916)255-3689.

Sincerely,

Frances E. Anderson
Chief
Responsible Party Unit
Site Mitigation Branch