



MEMORANDUM

Pima County Department of Environmental Quality

DATE: March 4, 2010

TO: C. H. Huckelberry
County Administrator

FROM: Ursula Kramer *UK*
Director

RE: Update on Asarco Mission Mine November and December Dust Events

This memorandum updates the activities regarding the ASARCO, LLC, Notices of Violations and associated activities.

ASARCO Mission Mine Tailing Dust Analysis -- Pima County Department of Environmental Quality staff took samples from the Asarco Mission Mine tailings, nearby native soil, and dust collected from the patio of a Sahuarita Rancho Resort resident and sent the samples to the U.S. EPA for analysis. The EPA results were analyzed by Dr. Eric Betterton from the University of Arizona (U of A) and indicated that the concentration of heavy metals and toxic metals (such as arsenic and beryllium) in both the tailings and in the patio dust is low and comparable to the native soil sample analyzed.

The U of A Department of Soil, Water and Environmental Science staff conducted an analysis to determine the particle size distribution. According to the U of A analysis, it appears there are twice the number of particles less than 10 microns in diameter in the tailings and patio samples than in the background desert soil sample, and 1.5 times the amount of particles less than 2.5 microns in diameter in the tailings and patio samples than in the background soil sample. These results indicate that the powdery dust from tailings is made up of much smaller particles than native soil. This is a concern since the smaller tailing dust particles get deeper into the lungs and potentially cause more health concerns than the larger airborne particles from background soil. The U.S. health based air quality standard for particulate matter (dust) addresses both 10 um and 2.5 um particles since that size range has been found to present the greatest health impacts.

Professors from the U of A were present to discuss results of their analysis on the tailing dust samples and possible health concerns at a community meeting with Rancho Resort residents on March 3, 2010. The sampling results are posted on the PDEQ website at <http://www.deq.pima.gov/pdf/ASARCO/MissionMineParticleAnalysis3-2-10.pdf>.

Legal Discussions – PDEQ continues to discuss the legal issues with the County Attorney's Office and EPA Region 9.

Meetings with ASARCO – PDEQ met with ASARCO representatives to discuss their proposed berm building plan. The plan states that less than 50% of the tailings will be dry and in berm building mode at any time to minimize the potential for blowing dust.

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Inspections – PDEQ continues to conduct inspections at ASARCO to ensure compliance with applicable air quality requirements.

We are available to discuss this issue at your convenience.

UK/vlb

cc: John Bernal, Deputy County Administrator for Public Works