




United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

May 9, 1985

Memorandum

To: Pat Port

From: Tom Loomis 

Subject: Review of Final Work Plan Remedial Investigation/Feasibility Study for the Atlas/Coalinga Asbestos sites

General -

There is an ambivalence throughout document as to whether both the Atlas and Coalinga mine sites are being addressed or just the Atlas site. Related to this is the lack of clarity as to where remedial actions are to be focused, -just on the mine site(s) or on the entire watershed from the area of serpentine rock. A serious deficiency of the document is failure to clearly indicate the area of serpentine rock outcrop and asbestos-rich zones.

Other information that should be provided to ensure adequate evaluation of the problem and possible remedial actions includes: location and description of other mines and prospects in area, quantity of tailings at Atlas site, stability of tailings, and discussion of other activities in the area that could have a bearing on susceptibility of the soils to erosion.

Sample plan-

Stream sample sites S-5 thru S-8 sample tributaries in the upper reaches of White Creek; S-3 samples White Creek just above its confluence with Pine Canyon Creek, after numerous tributaries have augmented the flow. I would suggest an additional sampling site on White Creek just below site S-5; this will provide a check on any stream flow and sediment yields that might be derived from S-5 thru S-8.

In view of the very real question as to the relative significance of the quantity of asbestos contribution by the mine sites compared with that occurring naturally from the soils of the area, a more rigorous sampling program should be developed for soil areas adjacent to the mine sites. Six sample locations (p. A11) hardly seems an adequate representation, on which to base background asbestos estimates for the area. Again, lack of definition of the asbestos-rich zone and serpentine rock outcrop area as a whole makes this difficult to evaluate. The question also arises as to whether the serpentine area is well enough defined to allow representative sampling.

I note that only stream samples S-12 and S-13 are to be analyzed for heavy metals - these represent only the immediate areas of the Atlas and Coalinga asbestos mine sites, a very small portion of the asbestos-rich zone and the serpentine drainage area. There

are both mercury and chromium mines and prospects in the drainage area of concern. At least two other samples should be selected for heavy metal analyses - one to represent the serpentine area and one from a drainage outside the serpentine area as a control.

I note that soil samples from four mine site locations are to be analyzed for heavy metals. Again, in view of the mineral history of the area, some of the soil samples from the serpentine area should be similarly analyzed to establish local background levels.

Sample analysis-

It seems to me that the analysis method ("total release") proposed to determine asbestos levels in sediments will give unnaturally high results - beyond what might be expected from normal attrition through stream flow. However, not knowing the extent of grinding proposed, the washing procedures, etc., I can't evaluate the protocol further. I would urge that at a minimum some samples (both sediments and soil splits) be processed both with and without grinding as a control.

Finally, I question both the wisdom and the importance of relying on EMS Laboratories for the sediment asbestos analyses. The rationale that they have done the previous asbestos studies for DWR-an interested party in this case-is not persuasive; rather it would seem that the question of bias could be raised. Other competent laboratories using accepted protocols should be able to produce comparable analyses. Reproducibility of results, by others as well as the original laboratory, is a critical criteria of an acceptable analysis.

In summary, it does not appear that the sampling program as designed has the capability to provide the information sought. In particular, the sampling of the soil areas adjacent to the mines and the analytical procedures for free asbestos determinations should be reevaluated. The heavy metal screening analyses should include samples away from the two mine sites. In view of the unique questions and problems presented by this site, as well as the importance and controversial nature of the problem, it is essential that the results obtained from any studies conducted be defensible.

T. J. P.
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