



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**REGION IX**  
75 Hawthorne Street  
San Francisco, CA 94105

March 16, 2000

Dennis Wong, Code 5090  
Department of the Navy  
Engineering Field Activity, West  
900 Commodore Drive  
San Bruno, California 94066-5006

**Re: Draft Site 13 Emulsion Recycling Treatability Study Report, Alameda Point**

Dear Mr. Wong:

EPA has reviewed the above referenced report prepared by Tetra Tech EM Inc, and submitted by the Navy to the regulatory agencies on February 23, 2000. Overall, the report provides a well written and informative summary of the treatability study. As a result of EPA's fairly general review of the report, we offer the following comments.

1. The emulsion recycling study focused on reducing levels of TPH and lead in the soil. It appears that the techniques employed were successful at reducing the levels of TPH. However, the study found that the lead in the soil was more difficult to immobilize and various changes in the additives were needed in order to meet STLP levels in the post-treatment tests. Considering that the levels of lead in the soil at Site 13 are not very high to begin with (most are below the EPA action level of 400 ppm), the inability of the emulsion process to immobilize these relatively low levels seems to point to this process not being very useful for metals contaminated soils. It does appear that the emulsion treatment will work for the fairly low levels of lead at Site 13, but the technology may not be transferrable to a site with higher levels of lead or metals contamination.
2. This point deals with the comparative benefits of emulsion treatment versus off-site disposal. The NCP states a preference for remedies that utilize treatment and reduction in mobility of contaminants over disposal as one of the nine criteria used in evaluating remedies. This emulsion technology satisfies that preference. However, the savings in cost between the treatment and off-site disposal is not significant, especially considering that treatment remedies often end up costing more than initially budgeted.

3. An editing comment: On page 5, Section 1.3, first sentence of the second paragraph, Boring B13-20 is referenced and should be changed to Boring B13-30.

Thank you for the opportunity to review this report. If you have any questions regarding these comments, please contact me at (415) 744-2367.

Sincerely,



Anna-Marie Cook  
Remedial Project Manager

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