



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, Ca. 94105-3901

April 18, 1994

Mr. Stephen Chao
Naval Facilities Engineering Command
Western Division
900 Commodore Way, Bldg. 101
San Bruno, CA. 94066

Re: Petroleum Sites Cleanup Level Analysis Technical Memorandum, dated March 4, 1994

Dear Mr. Chao,

The U.S. Environmental Protection Agency (EPA) has received and reviewed the subject document and provides the following comments. EPA's recommendation is to use the State UST criteria to quickly define cleanup levels and remediate the petroleum releases. These criteria are not risk based, but follow a similar procedure using an organoleptic threshold criteria of 1 ppm in water. EPA does not recommend spending any more money to revise this document. Call me at 415-744-2383 if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Michael D. Gill".

Michael D. Gill
Remedial Project Manager
Federal Facilities Cleanup Office

cc: Elizabeth Adams (RWQCB)
C. Joseph Chou (DTSC)
Ken Eichstaedt (URS)
Sandy Olliges (NASA)
Mike Young (PRC) (Fax)

Comments on

Petroleum Sites Cleanup Level Analysis Technical Memorandum, dated March 4, 1994

1. Whereas EPA agrees with the general statement that uncontrolled petroleum products (weathered) should be evaluated based on the individual components detected, we disagree with the premise that the weathered products are less toxic. Once released into the environment, the fuel will partition based on its physical properties, the media, and other conditions which will be site specific. Therefore, a distillation would take place and deposit different components of the mixture into different compartments. Some of the individual fractions could present a more significant hazard than the parent mixture. This would negate the overall assumption of using the general, non-specific TPH determination for a risk based criteria.
2. For recent spills, the available toxicity information on the mixtures would be appropriate, but would be of very limited use at Moffett Field. Using the mixture toxicity values, EPA Region 9 Preliminary Remediation Goals (PRGs) should be consulted to determine the correct exposure pathways for volatile components, as well as calculate the saturation point for the media of concern. It is hard to accept this report seriously when the Navy suggests 40% by weight of gasoline in water as an upper limit. At this point, the gasoline should no longer be considered contamination, but a recoverable resource.
3. Decisions reached in this document appear to rely heavily on models. The use of models to interpret site conditions, e.g. fate and transport, should be used sparingly to make decisions because of the inherent mistakes that arise from the assumptions made. Two questionable assumptions in these calculations that can significantly change the model results are: a) assuming regular rainfall for the Summer's Leaching Model and b) assuming that the aquifer is homogeneous and isotropic. Models should not be the primary criteria in decision making, but should only validate decisions already made using other criteria.
4. Page A-3, para 2 and page A-15, para 1. The interpretation of the Clay memo as a de facto acceptable risk is erroneous and should be removed.
5. Table A-5. The current Region 9 PRG tables explicitly define the procedure which should be used to calculate the RBCs for a volatile contaminant in the appropriate matrix. The groundwater and soil exposure pathways should also include an inhalation exposure route.
6. Tables A-5 and A-6. These tables should present values which are truncated at the saturation levels for both soils and groundwater, per Region 9 PRGs.