



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

March 1, 2005

Mr. Jerry Dunaway
Southwest Division,
Naval Facilities Engineering Command
1220 Pacific Highway
San Diego, CA 92101-8517

RE: Responses to EPAs comments on the Draft Remedial Investigation for Investigation Area F2, Mare Island, Vallejo, CA, October 13 2004

Dear Mr. Dunaway:

EPA has reviewed your October 13, 2004 response to our remaining comments on the Navy's draft Remedial Investigation for Investigation Area F2 on Mare Island. We originally commented on this document on August 21, 2003. Navy responded to our comments on May 11, 2004, and EPA submitted a revised comment letter on August 19, 2004. The following are our remaining comments.

Comments on the Human Health Risk Assessment:

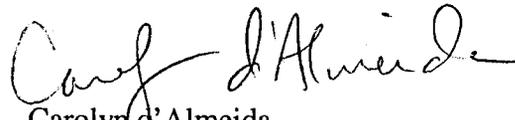
Comment S3: The proposed treatment of metals present at ambient concentrations is not clear. A simple comparison of exposure point concentrations with appropriate risk-based benchmarks is consistent with current EPA guidance only if the resulting risk and hazard estimates are included as part of the total cumulative risk and hazard estimates for the site. (EPA, 2002 Role of Background in the CERCLA Cleanup Process., Office of Solid Waste and Emergency Response, OSWER 9285.6-0P. April 26.) An analysis of "ambient risk for metals present at ambient levels" presented as an adjunct to the overall risk presented in the baseline risk assessment is not acceptable. The contribution to the overall risk estimates of metals determined to be present at ambient levels should be discussed in the risk characterization discussion. A separate analysis, indicating the contribution of metals present at ambient levels, is acceptable only in the context of including risk from ambient metals in the cumulative risk and hazard estimates.

Comment S5: The action proposed in the response is adequate. However, it appears that the Navy is confusing the purpose of a central tendency exposure (CTE) and a reasonable maximum exposure (RME) analysis. According to the cited guidance, the average concentration should be used as exposure point concentration in both analyses. Due to uncertainties associated with estimating the true mean, the 95 percent upper confidence limit on the mean is always used as representative of the site mean to avoid underestimating this value. The difference between a CTE and RME analysis is that certain sensitive exposure parameters should be based on the high

end of the range of possible values to assure that a higher proportion of the potentially exposed population is protected. In a CTE analysis, median values should be selected for each of the critical exposure inputs (e.g., contact rate and frequency) so that the resulting exposure estimates represent an estimate of the median.

Thank you for the opportunity to review this report. If you have any questions, please call me at (415) 972-3150.

Sincerely,


Carolyn d'Almeida
Remedial Project Manager

cc: Gary Riley, RWQCB
Chip Gribble, DTSC
Henry Chui, DTSC