



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

April 7, 1994

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

Re: Draft Operable Unit 5 Feasibility Study, dated February 18, 1994

Dear Mr. Chao,

The U.S. Environmental Protection Agency (EPA) has received the subject document and submits the following comments. 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)  
Mike Young (PRC) (Fax)

**REVIEW COMMENTS  
OPERABLE UNIT 5  
DRAFT FEASIBILITY STUDY, DATED FEBRUARY 18, 1994  
NAVAL AIR STATION, MOFFETT FIELD, CALIFORNIA**

**General Comments**

1. As a general matter, the entire FS appears to predetermine the selection of a "no-action" recommendation. This recommendation is based on certain assumptions concerning the potential future use of Moffett Field. The prevailing assumption is that it will not be used for residential purposes in the future, and that even if it is, the groundwater is of such poor natural quality that it is not likely to be used in the future as a drinking water source. As such, the Navy asserts that cleanup of the groundwater to drinking water quality is not needed. This "predetermination" seems to undermine the purpose of the FS process. While it is appropriate to consider the foreseeable future uses of the groundwater based on expected local land use, it is not appropriate to do so in a manner that excludes an in depth analysis of alternative land use scenarios. That appears to have been done here. The FS should not include this bias towards a no-action recommendation. This is better decided after the FS has been reviewed by the agencies.

2. In general, the language of the FS report should be tightened. The Navy has inserted "qualifying" words that either imply that the risks associated with the groundwater at Moffett are minimal, or that question the validity of the data collected during the RI. These characterizations need to be eliminated from the report as they undermine the credibility of the FS and the analysis therein.

Numerous comments in the FS are conclusory in nature and inappropriately "characterize" the site data. Detections of various hazardous substances were classified as potentially resulting from "laboratory contamination". Such characterizations should not be made unless there is good reason to believe that lab contamination may have occurred. They undermine the impartial presentation of data that is essential for the agencies to make a decision.

3. To eliminate redundancy in identifying both the federal and state regulations, it is recommended that the provisions of the California regulatory programs that have received federal authorization (i.e., hazardous waste, solid waste, air quality) in lieu of the federal statutes be identified. Portions of the California regulatory programs that have not received federal authorization may require review of both the California and federal requirements to determine the application of these requirements to the OU.

4. Section 3 presents the potential ARARs in Tables 10 to 12. The majority of the ARARs are not provided with the necessary specificity for a FS. For example, the Water Quality Control Plan, San Francisco Bay Region 2 is identified as an ARAR in Table 12. However, Table 12 does not identify if the Plan is applicable or relevant and appropriate, but merely states that the Plan is an ARAR. Additionally, the entire document may not be applicable or relevant and appropriate. Only those provisions of the Plan applied to OU-5 should be

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COMMENTS ON DRAFT FEASIBILITY STUDY  
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management decisions regarding remediation of contaminated sites. But it is imperative that the data be presented as accurately as possible. Because it may be outdated, some of the statements and the data presented here may be perceived as politically motivated. At this point in the RI/FS process, it is important to present the technical facts alone so that decisions are made by the project managers without any misinformation or what may be perceived as posturing by the Navy.

12. In summary, a no action alternative is not acceptable to EPA because of the following reasons:
  - a) The OU5 aquifers are a potential drinking water source.
  - b) Concentrations of PCE and TCE above MCLs exist in the A1 aquifer (OU5 RI).
  - c) Future land use analysis does not determine aquifer use. Groundwater below an industrial site could potentially be pumped offsite for use. Future land use analysis is important when considering the remediation of soil.
  - d) The Navy's development of RBCs is not necessary and they are incorrect in this case because they don't assume all exposure pathways. PRGs exist and have been distributed to the Navy.
  - e) The number of substantive remedial alternatives were insufficient. By considering other alternatives, the cost of actually remediating may be less than \$8 million.
  - f) The value added by remediating the aquifers is well worth the estimated \$8 million cost. There is not a tremendous amount of difference between this cost and the no-action cost of \$3 million. It would almost certainly be quickly accepted by EPA, the State and the community and allow future use without any deed restrictions. There is a high return on this investment.

### Specific Comments

1. Section 1.3.1, p. 10, para 2. A figure depicting a simplified interpretation of the aquifers and aquitards discussed in this section would be helpful.
2. Section 1.3.2.1, p. 11, para 3. Acetone was detected in A1- and A2- aquifer zones but was dismissed as being "...due to analytical laboratory procedures." The text should be expanded to present laboratory data and findings supporting or validating this conclusion. If the conclusion of laboratory contaminants cannot be supported, the sentence should be deleted.
3. Section 1.3.2.1, p. 12, para 2. The discussion of background should be clarified in the first full paragraph. The sentences which read "Background levels were determined. . . not substantially above actual background conditions." should be deleted or explained in more detail. It is not clear what the term "substantially" means, nor what levels represent background. This should be done.
4. Section 1.3.2.2, p. 12, para 1. Chloroform and acetone were detected in the B2 aquifer zone but were dismissed as being "...due to analytical laboratory procedures." The text should be expanded to present laboratory data and findings supporting or validating this conclusion. If the conclusion of laboratory contaminants cannot be supported, the sentence should be deleted.

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inorganic chemicals in the groundwater will be "diluted or that organic chemicals will be vaporized during or after irrigation." This would seem to be contradictory. This needs to be clarified.

13. Section 3.0, p. 39, last para. The definition of applicability presented in the text is misleading. It is recommended that the text be corrected after reviewing p. xiii of the CERCLA Compliance with Other Laws Manual Vol. I, OSWER Dir. 9234.1-01 (EPA 1988).
14. Section 3.0, p. 42, para 2. A discussion of TBC advisories or guidance documents applied to OU-5 should be presented. This is necessary because some of the documents referenced in the potential ARARs tables are TBCs.
15. Section 3.0, p. 42, para 3. The sentence should be corrected to state "five waivers" may be applied with regard to ARARs.
16. Section 3.0, p. 42, para 3. The discussion of ARARs waivers could lead a reader to believe that a waiver is going to be granted at OU5. The focus of this discussion should be changed. Waivers are a possibility, but only after full evaluation of the remedial alternatives indicates that a waiver is required.
17. Section 3.1, p. 43, para. 4. The statement regarding primary beneficial uses of the groundwater at OU5 is incomplete. It is a potential drinking water source as well.
18. Section 3.1, Table 10. The tables in this section (Table 10, pages 44-47) need to be revised to allow for the possibility that the groundwater being addressed in OU-5 can be a drinking water source. The discussion should entail a specific review of the CWA Water Quality Criteria for Protection of Human Health and CWA Ambient Water Quality Criteria for Protection of Aquatic Life applicable to the COCs identified in the FS, including arsenic, benzene, beryllium, chloroform, BCEE, carbon tetrachloride, chromium, 1,2-DCA, 1,1-DCE, phthalates esters, PCE, and thallium. (See, "CERCLA Compliance With Other Laws Manual," August 1988, Exhibit 1-1). The various MCLs and MCLGs that exist for each of the COCs mentioned above, to the extent they differ from the above criteria amounts, should be included for consideration as ARARs.
19. Table 10, p. 45, first row. The federal secondary MCLs are non-enforceable and can be considered only as a relevant and appropriate chemical-specific requirement. Additionally, California has enforceable secondary MCLs that may be documented in lieu of the federal citations.
20. Table 10, p. 46, second row. SWRCB Resolution No. 68-16 is not a promulgated requirement or an ARAR. The resolution may be communicated as a TBC.
21. Table 10, p. 47. The Department of Health Services drinking water action levels are not presented. The recommended action levels may be considered chemical-specific TBC guidance and should be communicated in a retitled Table 10 or a separate table as TBCs. Applicable to all the chemical-specific requirements in Table 10, the chemical-specific action levels for contaminants identified at OU-5 should be identified and presented.

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originate from runoff draining into ditches and drains, the stormwater discharge requirements of the CWA and the application of Best Management Practices (BMP) should be assessed and considered for inclusion as an ARAR.

31. Table 12, p. 53, fifth row. The comment column for the EPA Toxic Pollutant Effluent Standards should be expanded to present the specific requirements of this regulation that may be applied to OU-5. Which contaminants identified in this regulation are applicable to OU-5?
32. Table 12, p. 53, sixth row. The requirement description column for the California Water Code presents the administrative requirements of the law. The requirement description should be confined to discussions of only the substantive requirements applicable to OU-5.
33. Table 12, p. 54, third row. State Board Resolution 68-16 is not a promulgated requirement or an ARAR. The resolution may be communicated as a TBC if the substantive requirements can be identified.
34. Table 12, p. 54, fourth row. State Board Resolution 92-49 is not a promulgated requirement or an ARAR. The resolution may be communicated as a TBC if the substantive requirements can be identified.
35. Table 12, p. 57, first row. Although federal air emission requirements are identified, local air pollution control rules and regulations are not presented. Since the local air pollution rules are presented in the State Implementation Plan (SIP) for EPA approval, they should be considered ARARs. The applicability of local air pollution regulations to OU-5 should be presented.
36. Table 12, p. 59, sixth row. Hazardous waste transportation is only applicable to off-site transport and, therefore, should not be defined as an ARAR. However, the Navy should identify in the text any specific alternative recommending off-site transport, explain how off-site transport will be handled and address compliance with the hazardous waste transportation requirements.
37. Table 12, p. 60, first row. Worker health and safety does not provide substantive requirements for cleanup and is not an ARAR. Additionally, the requirements are not an environmental protection requirement per the discussion on p. 39, Section 3. However, compliance with worker health and safety requirements at a CERCLA site is required and addressed in the NCP.
38. Section 4.1.2, p. 61, para 1. Please provide a reference for the background data used for arsenic and beryllium.
39. Section 4.1.2, p. 61. There is a typo in the third line of the final paragraph.
40. Section 4.1.2, Tables 13-19. The third column in each of these tables is labelled "EPA Risk-Based Concentrations". This is incorrect. They should be either relabelled as Navy RBCs or EPA PRGs.
41. Section 4.1.2, Tables 13, 19. Both of these tables are for Site 10. Can they be

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be maintained with a no action alternative. A discussion should be presented identifying how the no action alternative will maintain the beneficial use of surface water recharging.

Considering A1, A2, and B2 aquifer zones are contaminated with halogenated and non-halogenated organic contaminants, a discussion on achieving CERCLA's "...preferred remedial action which permanently and significantly reduces the volume, toxicity, or mobility of the hazardous substances, pollutants, and contaminants over remedial actions not involving such treatment" should be presented here (CERCLA §121.b.1).

Table 10, first row identifies the Water Quality Control Plan as being an applicable requirement. Section 1.4.3.2 identifies the potential beneficial uses of the aquifer for industrial and agricultural purposes as being limited. Presumably industrial and agricultural usage are restricted but not excluded from future use. If this is the case, the Navy should present the rationale for not achieving the requirements of the San Francisco Bay Basin Water Quality Control Plan and plans to invoke a waiver for this ARAR.

The text states A1 and A2 aquifers are discharged into the wetland and the bay through a storm sewer (p. 35). Table 10 communicates that the FWQC for aquatic life may be relevant and appropriate for OU-5. The Navy should present the rationale for not achieving the requirements of the FWQC and plans to invoke a waiver for this ARAR.

53. Section 7.2, p. 83, para 4. The comments presented for p. 80, Compliance with ARARs, also apply to this sentence.
54. Section 7.3, p. 85. The statement that the treatment option is presented for "comparative purposes only" should be deleted. It is up to the agencies to determine if the treatment option is viable. In a comparative analysis under the NCP's Nine Criteria, this option, in fact, ranks as a more preferred option in all categories compared to the no-action option except for two: cost and implementability (though the treatment option is stated to be readily implementable)(See, Draft Proposed Plan, page 6). It does not make sense to state, without detailed explanation, that this option should be presented for only comparative purposes.
55. Appendix A. Many statements in this appendix are reiterated from the main body of the FS and may need to be corrected. It is unknown when or if the land above the OU5 aquifers will ever become residential, but the aquifers themselves need to be considered a potential drinking water source and remediated to residential standards. Irrigation is not the only potential use of these aquifers.
56. Appendix A, p. A-1. EPA Region 9 reserves the right to consider remediation if risk at a site is within the  $10^{-4}$  to  $10^{-6}$  range, based on site specific issues. Please do not misinterpret the NCP or OSWER Directive 9355.0-30 (April 22, 1991).
57. Appendix A, p. A-25. Tables A-3 and A-4 are missing.