



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street

1994 SEP 29 PM 2:04  
San Francisco, CA 94105-3901

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MCAS EL TORO  
SSIC # 5090.3

September 26, 1994

Mr. Wayne Lee, Assistant Chief of Staff  
Environment and Safety  
MCAS El Toro  
P.O. Box 95001  
Santa Ana, CA 92709

Dear Mr. Lee:

EPA has reviewed the "Draft Soil Gas Survey, Technical Memorandum," prepared for Marine Corps Air Station, El Toro, California, dated September 6, 1994. Please address the enclosed comments (Enclosure A). As mentioned in the comments, EPA is very concerned about the schedule for the workplan submittal. If you have any questions, I can be reached at (415) 744-2389.

Sincerely,

Bonnie Arthur  
Remedial Project Manager  
Federal Facilities Cleanup Branch

Enclosure

cc: Mr. Juan Jimenez, DTSC  
Mr. John Broderick, RWQCB  
Mr. Joseph Joyce, SW DIV  
Mr. Andy Piszkin, SW DIV  
Mr. Dante Tedaldi, Bechtel

EPA COMMENTS ON THE  
MCAS EL TORO  
RI/FS DRAFT SOIL GAS SURVEY  
TECHNICAL MEMORANDUM  
SITES 24 AND 25

**GENERAL**

- 1) EPA is very concerned about the schedule for the workplan submittal. This report states that the workplan will be submitted in October. At the August 12, 1994 meeting this date was revised to November, however, the new date appears to be December 1994 (telephone call between Bechtel and DTSC). EPA realizes that there are serious problems with the FFA deadlines for Operable Units 2 and 3, and that schedule negotiations will be scheduled in October, however, all attempts by the team must be made to prevent further schedule delays.
- 2) EPA recommends a meeting with the Navy and Bechtel (and possibly CH2MHill) during the workplan preparation to resolve the following issues:
  - a) The advantages/disadvantages of using soil gas versus soil borings at Site 24.
  - b) Further testing of the methanol preservation method with samples with concentrations greater than the methanol method detection limits.
  - c) Soil gas and boring locations and analytes; although this investigation focused on VOC source areas, any soil sampling completed at EL Toro should also include metals analyses, if appropriate given historical operations (for example, Site 10).
- 3) Ensure greater consistency between concentration values used on maps and tables. For example, for SG294, the unnumbered "TCE Maximum Concentration" figure uses the FID level and Table 4-1 uses the ECD level. According to page 2-20, the FID was used for quantification if the VOC levels present exceeded the linear calibration range of an ECD. Thus, it seems appropriate to use the FID level on all tables and figures.
- 4) Areas not mentioned for "Proposed Investigations" in Table 4-1 which need further evaluation:
  - a) Sample location 245; SE border of Site 24 (as defined by Plate 1). According to Table C-1, TCE was detected

at 79.1 (FID) and 13.5 (ECD) ug/l.

- b) Sample location 443; According to Table C-1, TCE was detected at 59.6 (FID) and 12.9 (ECD) ug/l.
  - c) Clarify the sample number and concentration of vinyl chloride (VC) for the sample in the center of Building 295, depicted in the unnumbered "VC soil gas concentrations, 12-20 feet bgs sample" figure.
- 5) As discussed on page 3-34, "subgrade pits or leaky buried utility lines" are potential sources at El Toro. Please clarify and provide details regarding locations for the next phase of investigations which address these potential sources.
  - 6) Discuss the degradation products, such as 1,1 DCE, in the beginning of the report (1,1 DCE discussed on page 3-37).
  - 7) Future data reports should include any prior sampling results for areas under evaluation (i.e. Site Assessment data).

#### **SPECIFIC**

- 1) Page 1-1; Future reports should contain an overview of the FFA sites. Include a discussion of which Operable Unit is addressed in the report introduction.
- 2) Page 2-2; It appears that the industrial waste sewer lines were only addressed if abandoned (Plate 2). Please consider these lines as well as other chemical distribution lines in future source investigations.
- 3) Page 2-13, 2-20; The discussion and reporting of Freon 113 results should be consistent. It appears that the Freon 113 concentrations are qualitative for Phase 1, however, after 6/22/94 a Freon 113 standard was incorporated into the analyses protocol. Please clarify on all tables and figures.
- 4) Page 2-15; Include a brief description of the Corrective Action Plan (from Jacobs QA Audit, 28 July 1994).
- 5) Page 2-17; Include a brief description of the field lab audit.
- 6) Page 2-24; Investigation Derived Waste (IDW) sample results should be included in data reports.
- 7) Page 2-25; Clarify why the sampling procedures and disposal for the "personal protective equipment [PPE] has not yet

been developed." These materials should not be stored above 90 days on-site if classified as hazardous waste.

- 8) Page 2-26; According to the report, the OC Integrated Waste Management Department oversees waste disposal in OC landfills and criteria for disposal in Class III landfills is supplied in Table 2-5. Please include a discussion of disposal of PPE and IDW determined to be hazardous waste and how the IDW and PPE waste will be stored and disposed of during the transition from CLEAN I to CLEAN II. As mentioned above, these materials should not be stored above 90 days on-site if classified as hazardous waste.
- 9) Table 3-9; Include a key for flags.
- 10) Table 3-9; Provide rationale for selection of close sample intervals within each location.
- 11) Table 3-11; Include a key for chemical abbreviations (i.e. PCE and TCE).
- 12) Page 4-5; Reference extensive source information included in Table 3-4. Only refurbishing operations are cited in the text.
- 13) Page 4-14; Include rationale for selecting a 30 foot maximum depth during the soil gas investigations at El Toro. If there are drilling limitations due to the subsurface geology please elaborate.
- 14) Table 4-1; This table is very useful, with a few limitations as discussed below.
  - a) Clarify the location of the DPDO Storage Area.
  - b) Clarify the nature of "Dope Shop" operations.
  - c) Provide a key for the table (for example, OWS, SWMU).
  - d) Provide the Station ID # for Area 3-1. Also, for Area 3-1, change 4 borings to 4 samples.
  - e) For Area 1A-1, soil gas results are not consistent with the "Maximum 1,1 DCE Figure" and Table 4-1. Table 4-1 shows no 1,1 DCE and the Figure shows 1,1 DCE at either 88.1 or 68.1 inside Building 296's south side (this could not be verified by Table C-1).
  - f) Area #1A-3; Indicate the areas of the Building where soil gas levels increase with depth (the table cites areas where concentrations decrease with depth).

- g) It is only appropriate to use Categories 1-4 in qualitative terms. VOCs cannot be compared equally without considering relative toxicities.
- 15) Tables 4-1 and 4-3, EPA has the following comments regarding the recommendations proposed:
- a) Area 4-3; Do not concur with recommendation of no further investigations in this area. It is difficult to determine the area covered by the "Area 4-3" description because some nearby samples did contain 1,1-DCE and the table states that 1,1-DCE was not detected in the area.
  - b) Area 2B-2; Recommend adding soil sampling and additional vertical definition, utilizing soil borings or soil gas.
  - c) Area 3-2; Agree with Table 4-3 and not Table 4-1 regarding the need for soil samples.
  - d) Area 3-4; Do not concur with recommendation of no further investigations in this area. Additional soil gas should be completed near Building 295.
  - e) Area 3-5; Do not concur with recommendation of no further investigations in this area. Additional soil gas should be completed east of Area 3-5, along S. Marine Way.
  - f) Area 4-4; Do not concur with recommendation of no further investigations in this area. Additional soil gas should be completed to provide further vertical definition.
- 16) Table 4-2; Include recommendations for the SWMU/AOC 265, as described on page 5 of Table 3-4.
- 17) Table C-1;
- a) Clarify presentation of chemical abbreviations.
  - b) Include a complete key for "U, E."
  - c) There are 2 entries for sample #24-SG279.
- 18) Table D-1; Provide the sampling date.

**COMMENTS ON FIGURES AND MAPS**

- 1) Plate 1; The numbers for Buildings 295 and 299 are obscured by the sample number. Also, units were omitted from the

Plate.

- 2) Plate 2; Include sewer lines and building chemical distribution/drainage lines (it appears that only the abandoned lines were included). Additionally, "Site 24" should be part of the plate title.
- 3) Figure 4-2; Please identify the Agua Chinon Wash either by written notation or with a different graphical notation. The notation for wash and/or streams is not clear on the one color maps.
- 4) Figures 3-12, 3-13. It appears that the maximum concentrations were omitted from figures or figures may be mislabeled.
- 5) Figure 3-13; Dotted lines should be used to define the edges of the plumes.
- 6) Figure 3-20; Soil sample numbers should be depicted on the figure for all sample points (especially important for those with no chemical levels as those with levels detected are designated by number in the box).
- 7) Figure 3-20; The figure only depicts 1 soil sample location NE of Building 800 and Table 4-1 cites 2.
- 8) Appendix C-2; The VOC soil gas concentration maps should be numbered.
- 9) Include a figure with monitoring wells depicted since monitoring wells are cited in Table 4-1.
- 10) Table 3-7; It would be easier to review this table if the non-detects were deleted.