

COMMENTS ON
RCRA FACILITY ASSESSMENT
DRAFT PRELIMINARY REVIEW REPORT
MARINE CORPS AIR STATION, EL TORO
EL TORO, CALIFORNIA

GENERAL COMMENTS

1. There are two major problems with the report:
 - individual solid waste management unit (SWMU) descriptions have not been provided
 - release potentials have not been addressed.
2. General problem: Text needs to refer to "sites" or units, areas of concern (AOCs), and spills by SWMU number and identify by unit number on a site map.
3. It would be useful to have a table listing buildings by building number, or area (such as airfield) with the building function or operations, wastes managed, and associated SWMU numbers. [Example: (Fictional units for illustration purposes only) Building 513 Aircraft Paint Stripping; wastes managed: waste, solvents, paint, sludge, metals; SWMU 112 Drum Storage Area; SWMU 113 Paint Wash-down Booth; SWMU 114 Aircraft Washrack.]
4. Site Operations and Hazardous Waste: This section is seriously underdeveloped. It should provide a clear explanation of operations and specific information on where, when, and how waste materials generated at the site are disposed or transported offsite for disposal.

This section needs, at a minimum, a list of wastes or a description of the categories and generation points of wastes managed at the site. Other hazardous materials (non-wastes) should be mentioned as appropriate or known (for example, PCB transformers on page 3-46, asbestos, or chemical storage areas).
5. The report should state the total number of SWMUs and areas of concern (AOCs) identified in the PR report (appropriate for Section 1.0 introduction and/or Executive Summary).
6. It is obvious from the PR report that a great deal of effort went into reviewing file material from a wide variety of sources. The thoroughness of such a review is appreciated. The focus of the RFA PR is the identification of SWMUs. The record information reviewed needs to be

presented in a detailed SWMU-by-SWMU description format, which has not been done in this PR report. Information to be included in each SWMU description includes the type of information in Table 5-1, VSI Checklist (wastes managed, materials of construction, release controls, period of operation, location, dimensions/capacity, etc.). The VSI is to be used as a supplemental tool to update, correct, and fill in information gaps in the PR SWMU descriptions.

7. Release controls are not addressed in the PR report. There also is no Exposure Pathways and Human and Environmental Receptors section. (Region IX RFA report format guidance lists it as a separate chapter.)
8. With respect to Section 3, it is good that so many records were reviewed for this PR report. Instead of 72 pages of summarizing records by source, the information should briefly describe the sources, list them as references, and group the discussion into appropriate areas -- SWMU descriptions, regulatory history, site operations, and past and ongoing contamination investigations.

SPECIFIC COMMENTS

1. **Table of Contents (iii):** Missing 1.1, Purpose of the RCRA Facility Assessment (RFA Report Format, Region IX RCRA Facility Assessment Brief Guidance to EPA Work Assignment Managers).
2. **Table of Contents (iii):** Missing historical description of facility section.
3. **Page 1-3, Section 1.2. Site Location:** Report fails to state approximate distance to recently developed commercial, light industrial, and residential land use.
4. **Page 1-4, Section 1.4.** Information contained in Section 3.0 Records Review (especially Page 3-49 on RCRA violations) is also relevant to Section 1.4.
5. **Page 1-5, Figure 1-1.** Site Location Map is missing North arrow.
6. **Page 1-10, Section 1.4. Previous Site Investigations and Regulatory History:** Discussion changes from TCE to VOCs. What other VOCs were found; why change from TCE to VOC? Text mentions shallow groundwater -- what depth?
7. **Page 2-8, Section 2.7. Ecology.** Residential land use is mentioned on Page 1-3, Section 1.2. Is the residential property mentioned on Page 1-3 the same as the 6,000 resident population at the facility? What is the distance and direction to the nearest offsite residential property? Are there schools or parks located near the site?
8. **Page 3-1, Section 3.0.** The statement is made in the report that not all SWMUs and areas of concern will be included in the RI/FS. Because SWMU release potentials have not been evaluated in this report, how can it be determined that the units do not pose an environmental threat worthy of investigation under the RI/FS.
9. **Page 3-2, Section 3.1.** Detailed descriptions of the 22 previously identified RI/FS sites should be presented in this RFA PR report.
10. **Page 3-5, Section 3.1, Table 3-1.** "Site" name or unit title underneath site number would be helpful. The SWMU number would be preferable, but "Tank #" or "Southwest Landfill," for example, would be acceptable.
11. **Page 3-17, Section 3.2.1.2. Inspections and Notices of Violations.** Runoff from Bordier's Nursery is referred to. What is Bordier's Nursery; is it on the facility property or offsite? Does runoff from the nursery possibly contain pesticides or herbicides?

12. Page 3-17, Section 3.2.1.3. Miscellaneous Correspondence from MCAS El Toro to the RWQCB and Telephone Records. It is good to know that the Marine Corps is instituting a program to better control aircraft and vehicle washing operations and unauthorized discharges.
13. Pages 3-17 and 3-18, Section 3.2.1.3. Was any soil or sediment sampling performed after the spills? Do residues/contaminants remain? Was there any file data indicating results of sampling and chemical analysis?
14. Page 3-19, Section 3.2.2. California Department of Health Services. Is open burning/open detonation currently occurring at the facility? If so, what is the SWMU No.?
15. Page 3-20, Section 3.2.2. A PCB storage area is mentioned. Is this a SWMU? Include additional information on the PCB storage unit (location, period of operation, building materials, operation procedures, length of storage, type of container, and source of generation).
16. Page 3-23, Section 3.2.3. Change "No SWMUs or areas of concern were identified..." to read "No *additional* SWMUs or areas of concern were identified...."
17. Page 3-24, Section 3.2.4. Orange County Health Care Agency (OCHCA). Results or summary of soil sampling for tank releases are not presented. The report states that no areas of concern were identified from the OCHCA records review, yet there is no information in the report on the quantity spilt or cleanup activities.
18. Page 3-27, Section 3.2.6. Irvine Ranch Water District. This is the first mention of a sewage treatment plant at the facility. Such information would be appropriate in Section 1.0 describing facility waste management. Are there any laboratory sinks or repair areas (other than oil/water separators) that discharged to the sanitary sewage system?

Clarify in the text that the sewage treatment plant at MCAS El Toro is no longer operating at the site (per information contained on p. 3-30, Section 3.4: Identification of Sewer Lines).

19. Page 3-28, Section 3.3. Comprehensive List of USTs at MCAS El Toro. Keep in mind before eliminating individual tanks to review what the past contents were, not just current contents. Tanks once containing wastes that now contain product, even if the tank has been thoroughly cleaned, can be considered SWMUs.

The second paragraph mentions discrepancies found in UST information. Discrepancies should be evaluated during the VSI. The VSI checklist should provide a list of specific discrepancies and relevant questions to be asked, such as, "Did Tank No. XX at the Primary Motor Pool contain waste oil prior to mid-1980s?" Listing specific questions for units identified by number or name prior to conducting the VSI helps to ensure that the information gap will not be overlooked and allows for an

inspector, who did not prepare the PR report, to conduct the VSI adequately. (Cross Reference Comment re: Section 5.0, Page 5-1, Next Phase of Work - Visual Site Inspection.)

20. Page 3-29, Section 3.3. Comprehensive Lists of USTS at MCAS El Toro. Sufficient proof has not been provided that the OCHCA permit applications are in error regarding No. 2 waste oil/No. 2 fuel oil. These tanks under question should remain as potential SWMUs until verified during the VSI. Add specific questions about this unit to the VSI checklist.
21. Page 3-29, Section 3.3. Although product USTs are not viewed as SWMUs, it is regarded as prudent to visually inspect the tank area during the VSI. The last paragraph is a good example of planning to investigate inconsistent PR findings during the VSI.
22. Page 3-30, Section 3.4. Paragraph 2 mentioned the MCAS El Toro Sewage Treatment Plant that operated from approximately 1943 to the 1960s. Where was this system located? What is there now? Is there any information on what tanks, treatment units, or ponds were associated with the system?
23. Page 3-31, Table 3-5. Waste Underground Storage Tanks. A MCAS Environmental Department Recycling Section is identified under the Comments on this Table. Information about this department should be included in Section 1.3 Site Operations and Hazardous Waste of the PR Report.

If tank-testing data is available, include it in this Table. The separate columns for Current Contents and Original Contents are well presented, as well as the fact that installation dates are known for so many units.

What type of solvent is stored in Tank 359C (500-gallon steel tank, installed 1982)?

24. Page 3-46, Section 3.5.1.3. Has the "major leak" of PCB-containing fluid from a transformer south of Building 457 been identified as a SWMU/AOC? Were soil sampling data or cleanup information available?

Regarding irrigation of the MCAS Golf Course with water effluent from the onsite wastewater treatment plant, is any effluent water quality data available? Were there any routine tests of effluent quality? Were there past experiences of unauthorized releases to the sanitary sewer system? (For example, on Page 3-48, the report mentions that it was standard practice to release film-processing wastes to the sanitary sewer.) Unknown information should be investigated during the VSI.

25. Page 3-47, Section 3.5.2.1. Based on the report that the facility regularly discharged wastewater containing oils, caustic compounds, and detergents from wash racks to storm sewers, careful review of storm sewers is suggested. Discharge was estimated to be as great as 100,000 gallons per day and as little as one million gallons/month. Also, runoff from other, unbermed areas, such as a crash crew training pit was reported.

Based on a discussion of film processing waste (Page 3-48), look for evidence of film processing waste discharge to storm sewers near present and former film developing areas. This may also be an area for suggested sampling.

26. Page 3-48, Section 3.5.2.1. PCB and fuel spills between 1978 and 1983 are discussed. Have these spills been addressed as SWMUs/AOCs? (If so, what SWMU/AOC number or area?)
27. Page 3-49, Section 3.5.2.1. The first paragraph mentions RWQCB citations of the MCAS sewage treatment plant for discharging "inferior quality effluent." Is there information on which constituents/characteristics and concentrations were out of compliance? This is of concern, because effluent from the plant was used for irrigation of the golf course. Should the golf course be evaluated as an area of concern?
28. Page 3-49, Section 3.5.2.2. SOUTHWESDIV Box 2. This is the first mention of facility RCRA Interim Status. Information provided here (RCRA Interim Status and violations) is not included in Section 1.4: Previous Site Investigations and Regulatory History.

Hazardous waste storage areas and the DRMO should be mentioned in Section 1.3, Site Operations and Hazardous Waste Generating Activities.
29. Page 3-49, Section 3.5.2.2. The DRMO is not included in Table 4-1, SWMUs and Areas of Concern. (Cross reference to Table 4-1.) Verify during the VSI that hazardous wastes are no longer stored at the DRMO.
30. Page 3-50, Section 3.5.2.2. Remedial action for UST 398 was not found in Appendix A, as stated on Page 3-50.
31. Page 3-50, Section 3.5.2.2. Is it appropriate to just say "Leaking USTs and precision testing of tanks are being addressed in other CTOs under the Navy CLEAN Program" without providing anything other than a list of tank information in Appendix A? No discussion is presented on what activities are planned under CTOs. There are over 400 USTs at the site, many dating back to 1943.
32. Page 3-50, Section 3.5.2.3. The VSI of the drainage channels should include a close observation near Building 359 (SWMU No. 100 and 101) where two degreasing tanks discharged to the storm sewer (and a possible recommendation for sampling). At least one of the tanks contained TCE.
33. Page 3-51, Section 3.5.2.4. RWQCB Cease and Desist Order 72-5 should be mentioned in Section 1.4, Previous Site Investigations and Regulatory History, and/or Section 3.2.1.2, Inspections and Notices of Violations.
34. Pages 3-52 and 3-53, Section 3.5.2.4. Note: Units associated with the former MCAS wastewater treatment plant and industrial discharges to storm sewers should be evaluated for the constituents mentioned on Page 3-52: chromic acid, sodium cyanide, sodium silicate, phosphates, cadmium and

zinc salts, soaps, cresol, oils and greases, acids, pigments, arsenic, hydrofluoric acid, and chromium (Page 3-53).

35. Page 3-54, Section 3.5.2.5. Open burning of trash reported in the County of Orange Air Pollution Control District letter. Is open burning included as an area to be addressed during the VSI?
36. Page 3-55, Section 3.5.3.2. Geotechnical Branch. Several soil investigation reports are referred to in this section. Soil characteristics, conditions, and the summary of boring data should be included in Section 2.4, Geology.
37. Page 3-57, Section 3.5.4. MCAS El Toro Files. Additional Marine Corps records that could be consulted for historical information include purchase orders, material inventories, and historic operations, such as unit commands assigned to the facility.
38. Page 3-57, Section 3.5.4. List the three land-farming sites. How long has the "ongoing" land-farming of contaminated soil been occurring? Is the material being sampled either prior to or after land-farming?
39. Page 3-58, Section 3.5.4. True, non-routine or one-time spill sites do not fall under the EPA definition of a SWMU; however, they can be investigated as an Area of Concern. If spills are of sufficient quantity, highly toxic or inadequately cleaned, or on bare ground, they should probably be investigated as an Area of Concern during the VSI.
40. Page 3-63, Section 3.6.3. First mention in the report of sludge drying beds associated with the former sewage treatment plant. A comprehensive description of the sewage treatment plant should be provided in an early section of the report.
41. Page 3-63, Section 3.6.3. Building 673 is referred to as a permitted hazardous waste storage facility. Presumably this means it is an Interim Status storage facility. Please check the correct status and terminology (i.e., it is not a true RCRA-permitted storage facility unless the Part B Permit has been approved.)
42. Page 3-64, Section 3.6.4. True, it is highly speculative to say whether darkened areas in aerial photographs represent staining. Do these darkened areas have vegetation, possible vehicle traffic markings, stored items, or possible pond or sludge areas? Are the areas rectangular or irregular in shape; how do they change from photograph to photograph?
43. Page 3-65, Section 3.6.4. Orange County Flood Control. This reviewer disagrees with the statement that aerial photographs from 1947 and 1952 were not worth reviewing, because the scale (1 inch = 3,000 feet) was such that a meaningful identification could not be made. It is true that with such a scale, it is difficult to see detail; however, if the same reviewer compares aerial photographs from 1947 or 1952 with 1970 photos, changes in development or land use can be seen.

It would be appropriate, however, to say that 1947 aerial photographs from another source with greater detail (scale: 1 inch = 600 feet) were reviewed; thus, the 1 inch = 3000 feet scale photographs were not reviewed for this PR.

44. Page 3-65, Section 3.6.4. Whittier College. EPA disagrees with the statement that photographs pre-dating the existence of the facility are of "no value to the RFA." Such photographs show what the land use was prior to facility use and are relevant to the site history. In addition, facility startup dates are often shaky, and related activities often precede official facility operations. Pre-facility photographs often show natural topography. Activities such as backfilling of natural drainage ways can influence contaminant dispersal and migration, which may be relevant to later soil and groundwater investigations.
45. Page 3-66, Section 3.7. Abandoned Wells. The two abandoned oil wells may provide a conduit for transfer of groundwater contaminants to lower aquifers.
46. Page 3-67, Section 3.8. Excellent job of contacting two retired workers from the facility. As can be seen, long-time employees can be a source of otherwise undocumented history of operations.

Incinerator used to burn wastes for volume reduction in the 1950s should be mentioned in Section 1.

47. Page 3-68, Section 3.8. EPA disagrees with grouping the abandoned metal plating sewer lines with the existing (and currently used) sewer lines as one SWMU. Because different waste streams are managed and are under different periods of operation, it is suggested they be viewed as separate SWMUs.
48. Page 4-5, Table 4-1. SWMUs and Areas of Concern. Good, detailed table, but the print is too small, and the table is difficult to read. Suggestions: Increase the size to 11" x 17" and narrow the column width for easier viewing.

Use the SWMU numbers presented in the first lefthand column whenever referring to a particular SWMU in the text.

Please explain SWMU Nos. 1 and 2, "Other Solid Waste Site." What are these units?

Add sites currently under the RI/FS to Table 4.1. RI/FS sites can be identified as such in the table.

More detail can be added to the Current/Original Contents column. For example, SWMU No. 7, the PCB Transformer Storage Area, has been left blank. Please add PCB transformers under the Contents column.

49. Page 4-23, Section 4.2.1, Table 4-2. List of RWQCB Sites Excluding USTS and Drum Storage Areas. It is not immediately clear if the units in this table are included in Table 4-1 or are additional units. Please add a footnote to Table 4-2 or SWMU numbers to the table's title. Do the same with Table 4-3, Hazardous Waste Storage Areas.
50. Page 4-3, Section 4.2. Give the SWMU number each time a specific unit is mentioned in the text. (It is difficult to determine if a unit is the same as the one previously identified or a newly-introduced unit.)
51. Page 5-1, Section 5.0. The report states that one of the objectives of the VSI is to fill data gaps identified in the PR. Specific questions and information needs should be written prior to the VSI to ensure that the necessary data gaps are addressed.
52. Page 5-3, Section 5.0, Table 5-1. Add to VSI Checklist:
- | | |
|------------------------------|--|
| Under Unit Design: | Secondary containment/release controls |
| Under Unit Operation: | Period of Operation
Operation Process |
| Under Physical Condition: | Maintenance/housekeeping
cracks or corrosion |
| Under Waste Characteristics: | Volume, quantity |
| Under Exposure Potential: | Nearby receptors (schools, playground,
pond, forest, wells, etc.) |
53. Page 5-11, Section 5.0, Table 5.2 SWMU/Area of Concern Evaluation Form: Under Recommendations, a fourth option is to suggest a RCRA Facility Investigation (RFI) or address under the RI/FS program.
- Additional information that could be included in a VSI checklist includes a review of facility documents such as manifests, inventories, and monitoring reports. Interview site workers if possible.
54. Page 5-13, Section 5.0. The revised "Draft PR Report" submitted after the VSI should be identified as a Draft PR/VSI Report.
55. Page A-4, Appendix A. UST Inventory from EG&G Idaho report. Abbreviation "cc" under Tank Type is not identified. What is "cc"? What test methods were used for the Leak Test? Based on this reviewer's experience, it is suspicious that all tanks tested passed, especially considering the age (1943) of many of the tanks. Is any integrity data available on concrete tanks?
56. Pages A-20, A-21, A-22. Please revise these pages. Pages refer to Table 3-3. There is no Table 3-3. Footnote numbers on Page A-20 do not match either the UST Inventory (Page A-1) or A-20.

57. **Pages B-1 to B-29, Appendix B.** Includes detailed information appropriate for individual SWMU writeups.
58. **Page C-4, Appendix C.** The 1945 James M. Montgomery report states, "The groundwater is very high in this area and is constantly being drained away by drainage ditches." Due to the lack of other site-specific shallow groundwater and hydrology information contained in Section 2, this comment should be added to the text.
59. **Page C-25, Appendix C. Oily Waste Inventory.** Inactive Paint Spray Booth discharge of wastewater with paint to the storm sewer is not mentioned in the text. Add waste paint to the list of materials discharged to storm sewers. (Building 370, 130).
60. **Page C-27, Appendix C.** Seepage pit at Building 626 Steam Cleaning Area should be included as part of the storm sewer investigation.
61. **Page C-32, Appendix C.** A map in Appendix C shows onsite housing, school, playgrounds and ball fields; these should be identified on a site map and/or described in the Ecology Section.
62. **Page C-36, Appendix C.** A survey of Air Emission Sources at MCAS El Toro provides a good example of activities conducted at specific buildings. This survey could be referenced to in Section 1 of the PR Report.