



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
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M60050.003114  
MCAS EL TORO  
SSIC NO. 5090.3

October 2, 2003

Mr. F. Andrew Piszkin  
BRAC Environmental Coordinator  
Base Realignment and Closure  
Marine Corps Air Station, El Toro  
7040 Trabuco Road  
Irvine, CA 92618

RE: Draft Pre-Design Investigation Technical Memorandum, OU2C, Landfill Sites 3 and 5,  
Former Marine Corps Air Station El Toro, dated August, 2003

Dear Mr. Piszkin:

EPA has reviewed the Technical Memorandum for Sites 3 and 5 referenced above. The purpose of the investigation was to further define the boundaries of the landfill and to collect soil gas samples to determine whether the landfill contents were generating gases.

While we feel that the information collected is useful and greatly supplements data previously collected, we are unable to agree with many of the conclusions and recommendations. This may be in part due to the fact that information collected during the RI was used to make these recommendations, yet that information was not presented. In addition, it appears that additional waste areas were uncovered, yet landfill gas probes were not located in proximity to these areas.

We do not concur that, as recommended, no engineering controls or institutional controls are necessary because we do not agree that data has been collected in the appropriate areas. Our attached comments address our concerns more completely.

If you have questions, please call me at (415) 972-3012.

Sincerely,

A handwritten signature in cursive script that reads "Nicole Moutoux".

Nicole Moutoux  
Project Manager  
Federal Facilities Cleanup Branch

cc: Karnig Ohannessian, SWDIV  
John Broderick, RWQCB  
Rafat Abbasi, DTSC  
Marcia Rudolph, RAB Subcommittee Chair  
Robert Woodings, RAB Co-Chair  
Content Arnold, SWDIV

**Comments on Draft Pre-Design Investigation Technical Memorandum Operable Unit  
2C, Landfill Sites 3 and 5, Marine Corps Air Station, El Toro, California, August  
2003**

**GENERAL COMMENTS**

1. During the work plan phase of the landfill delineation project EPA recommended that the Navy install trenches on 50-foot centers around the perimeter of the landfill to delineate the extent of waste at Landfill 3. The logic was that in trench and cover landfills, the trenches are usually linear features wide enough for four trucks to unload their wastes simultaneously, making the typical trench at least 50 feet wide. The Navy declined to install trenches on 50 foot centers, but agreed to install trenches on 200-foot centers and then use judgement to locate trenches between these 200-foot on-center trenches, as necessary. The results of the landfill delineation project at Landfill 3 was the discovery that five (5) areas of waste placement extend beyond the boundaries of previously-identified waste placement (Waste Areas A - E). The average length of the intersection of these five additional waste areas with the previous landfill boundary is 50 feet. One of the new waste areas, Waste Area C, extends 200 feet out from the previous landfill boundary, stopping only at Irvine Boulevard. It appears that other additional waste areas may have been missed by using the 200-foot-wide trench spacing. Please revise the Draft Pre-Design Investigation Technical Memorandum to include an assessment of all areas along the perimeter of Landfill 3 that are longer than 50 feet and for which the Navy does not have some sort of exploratory data, either a boring, trench or geophysical survey, indicating waste is not present.
2. The Site 3 Remedial Investigation Report prepared by Bechtel in 1999 indicates, "Station maps and blueprints, geophysical surveys, borings, trenching, interviews, aerial photographs and the results of previous investigations were used to delineate the limits of buried and exposed wastes at Site 3." However, this information is not incorporated into the Technical Memorandum (TM). In particular, the results of previous subsurface investigations (borings and trenches) are not discussed in detail, and locations of previous borings and trenches are not shown. It appears there are large areas for which there is no subsurface data. Please revise the TM to show the location of previous subsurface investigations, and to address all areas within the former presumed landfill boundary for which the Navy has no subsurface data. In addition, the main area of the landfill west of Agua Chinon Wash, southeast of Waste Area A about 2 acres in extent in which the Navy has not installed any trenches, looks topographically like fill. A subsurface investigation should be conducted in this area, or evidence should be provided that waste is not present in this area (e.g., a pre-World War II topographic map).
3. Waste Area C is shown ending at Irvine Boulevard, however is it likely that Waste Area C pre-dates Irvine Boulevard. Please revise the TM to provide the rationale for not pursuing the footprint of Waste Area C north of Irvine Boulevard.
4. A discussion of groundwater and surface water conditions should be provided. Please address the potential impact of surface water flow within the wash on the landfill.

## **SPECIFIC COMMENTS**

- 1. Section 4.1, Site 3, Page 4-1:** This paragraph states that the IRP Site 3 study area boundary for Phase I and II RIs were based on non-intrusive methods and soil borings; however, on page 1-9, the TM states that trenches were excavated to evaluate the geophysical anomalies, areas of surface wastes, and boundaries of exposed wastes. The results of this trenching is not discussed nor are these trench locations shown in the TM. Please include a discussion of the previous trenching results and show the locations on a figure.
- 2. Section 5, Findings and Recommendations, page 5-1:** The TM concludes that, based on the results of landfill gas investigations to date, landfill gas control is not required at Sites 3 and 5. However, since the waste placement boundary was revised significantly as a result of this investigation, the perimeter gas monitoring wells, with the exception of 03PG03, do not appear to be located near the waste boundaries. Also, it is most likely that any landfill gas present will vent directly upward to the atmosphere rather than travel laterally to the landfill gas well locations. Installation of a cap would prevent migration of gas to the surface thus possibly causing migration of landfill gases to the perimeter to increase. Therefore, the results of investigations to date do not preclude the necessity for monitoring closer to the perimeters of the waste areas when a remedy is implemented or implementation of gas control if necessary.

## **MINOR COMMENTS**

- 1. Section 1.3.1 and Figure 2-2:** Since the investigation of MSCR2 and APHO 46 are discussed in the text, these sites should be shown on figure 2-2. In addition, in the discussion of APHO 46 it is stated that APHO 46 is within an area tentatively identified as a golf course per the 1999 County of Orange plan. Please update the land use information with more recent information.
- 2. Section 2.1, Trenching, Page 2-2:** This section refers to Figure 2-1 for locations of perimeter gas monitoring wells, but these wells are shown on Figure 4-1. Please correct this discrepancy.
- 3. Section 4.1.1.1, Waste Area A, Page 4-1:** This section refers to Figure 1 of Appendix A for location of waste area A trenches and potholes; however, there is no Figure 1 in Appendix A. Please correct this reference.