

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

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MCAS EL TORO
SSIC # 5090.3

January 24, 1995

Mr. Wayne D. Lee
Assistant Chief of Staff
Environmental Safety
U.S. Marine Corps Air Station - El Toro
P. O. Box 95001
Santa Ana, California 92709-5001

Dear Mr. Lee:

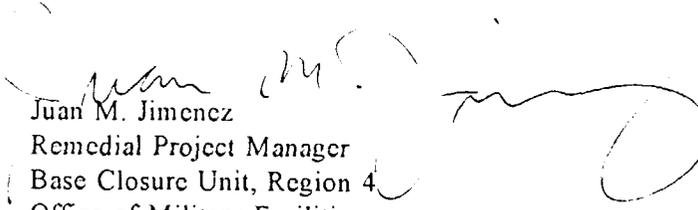
REVIEW COMMENTS ON THE ENGINEERING EVALUATION/COST ANALYSIS (EE/CA),
SITE 13 FOR MARINE CORPS AIR STATION EL TORO

The Department of Toxic Substances Control (Department) has completed its review of the EE/CA site 13 of MCAS El Toro. The report was received by the Department on December 23, 1994. The enclosed comments are from: the California Regional Water Quality Control Board, Santa Ana Region (RWQCB) and the Department.

Overall this is a well written plan. The general and specific comments are attached. The Department is available to coordinate a phone conference or in person meeting to resolve or clarify these comments.

We look forward to working with you on these and other issues. Feel free to contact me at (310) 590-4919.

Sincerely,


Juan M. Jimenez
Remedial Project Manager
Base Closure Unit, Region 4
Office of Military Facilities

Enclosures

WLEEJ

Mr. Wayne D. Lee
January 24, 1995
Page 2

cc: Ms. Bonnie Arthur
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Engineering Evaluation/Cost Analysis (EE/CA) Site 13, Marine Corps Air Station El Toro

General Comments:

1. For all future submittals please print on both sides of the paper.
2. These comments should be responded to via a Responsiveness Summary format. A formal rewrite may or not be necessary depending on the level of changes necessary. Lets discuss.
3. The cost analysis needs to be more extensive. Specifically, the cost estimates need to include the dollar amounts associated with each alternative. The assumptions and principal differences should also be delineated.
4. There is insufficient or no mention of the extent of contamination or the cleanup criteria for the polynuclear aromatic hydrocarbons, (PAHs) i.e., benzo(a)pyrene (BaP) or carbon tetrachloride. Is there sufficient data to delineate the extent of these chemicals? What is the cleanup goal for carbon tetrachloride and its breakdown products? How will the confirmation sampling event verify that the cleanup objectives have been met?
5. The waste type mentioned is usually associated with heavy metal contamination. Has the Navy looked for and determined that metals are not present or that they do not pose a threat at this site? This could affect the risk analysis, the treatment technologies evaluated and selected, the sampling strategy and the confirmation sample strategy necessary to implement a no further action Record of Decision (ROD).
6. A clarification needs to be made in terms of the 1000 parts per million (ppm) for TRPH which may be left in the soil. This is a no further action criteria for soil left in place under specific conditions. See the Mr. Vitale's page 2, paragraph 1 of his comments. The distinction has to be made as to what levels can be attained using bioremediation and/or thermal desorption and what levels of TRPH can be left in place. A distinction should be made which makes this perfectly clear. Keep in mind that BaP would drive any threat concerns to human health or the environment and the confirmatory samples would have to show that the over riding criteria of protection of human and environmental health has been attained.
7. Please provide a more detailed discussion on the cleanup criteria selected. State whether or not these levels have been agreed to by the BCT.
8. This EE/CA has a preferred alternative of thermal desorption. Specify how this cleanup method will be used at other sites in El Toro and Tustin.
9. All references need to be very specific so that the Restoration Advisory Board (RAB) or any other people reading this document can find the appropriate information in a timely manner. Please limit the amount of references as much as possible.

10. Supporting documents such as the QAPP and the Action Memorandum must be approved prior to implementation of this EE/CA.

Specific Comments:

SUMMARY

1. Pg. i,
Please add a detailed summary of the Public Participation requirements and how they will be addressed.
2. Pg. i, Para. 3.
The statement "Analytical data from the Phase I remedial investigation have delineated the nature and extent of contamination." should be modified. An acceptable summary would say: The nature and extent have been sufficiently characterized to attempt a removal action. Additional verbiage could be added, in close proximity to the prior statement, that should the confirmatory samples indicate that vertical extent goes beyond the scope of this activity it will be brought back into the remedial investigation for further delineation of extent.

INTRODUCTION

3. Pg. 1-1, Para. 3
The California Regional Water Quality Control Board (RWQCB) is part of Cal/EPA. Please revise the last sentence.

2.1.2 TYPE OF FACILITY AND OPERATIONAL STATUS

4. Pg. 2-1, Para. 5
Does it make sense to address the contamination associated with the three areas of concern discussed in this section at this time? If so, what benefits could be obtained in terms of reuse potential, protection of groundwater, economies of scale for the treatment of similar wastes and discharges to the surface and subsurface, etc.?
5. Pg 2-2, Figure 2-1
Please include a scale on all figures, including figure 2-1, as needed.

2.2.1 PREVIOUS REMOVAL ACTIONS

6. Pg 2-6, Para. 4
Please provide the details for the previous removal actions which have taken place at Site 13, Unit 1. How much was excavated, what happened to it, etc.?

2.3 SOURCE, NATURE AND EXTENT OF CONTAMINATION

7. Pg.2-7, Para. 3

See specific comment 2, above on "... nature and extent of contamination."

8. Pg 2-7, Para. 4

Please provide the details, in this section, as to what is known about the extent of polynuclear aromatic hydrocarbons (PAHs) and discuss, in the confirmation samples section, what criteria will be used to: a) stop removing PAH contaminated soils and b) at what level will the treatment be considered final. How difficult would it be to produce a map, similar to Figure 2-4, for PaH contamination. If it is not too difficult please include such a map for PaH contamination. If there is information available for carbon tetrachloride please do the same for this chemical.

2.5.2 HEALTH EFFECTS ASSOCIATED WITH THE CHEMICALS OF POTENTIAL CONCERN AND THE POTENTIAL THREAT TO HUMAN POPULATIONS AND ECOLOGICAL RESOURCES .

9. Pg. 2-11, Para. 4

Please elaborate as to which chemicals are "... high enough to adversely affect organisms inhabiting the site.". A separate paragraph or two should address this.

10. Pg. 2-12

Paragraphs 1 and 3 are contradictory. Paragraph 3 states that "The CLEAN I RBC for TRPH is not applicable at Site 13." while the first paragraph states that two chemical substances exceed their respective CLEAN I RBCs. If the CLEAN I RBC is not applicable, can an applicable criteria be developed? If not, lets use the RBC for the chemical which most closely resembles TRPH and its chemical characteristics. Do the TRPH levels present adversely impact ecological receptors? Lets discuss.

2.5.4 SENSITIVE POPULATIONS

11. Pg. 2-12

Paragraph 7 on page 2-12 and paragraph 4 of page 2-11 are diametrically opposed. Are there ecological populations at risk? See comment 9.

3.3 DETERMINATION OF REMOVAL SCHEDULE

Pg. 3-2,

Please delineate the details for the factors "...which will affect the removal schedule." In addition, assuming that the money was made available and that enough information was known as to nature and extent of contamination, how long will it take to prepare the Action Memorandum, review and approve all documents, implement the preferred alternative and

provide a Report of Completion? Please provide sufficient details and a schedule chart which clearly delineates the critical path for this removal action.

3.5 REMOVAL ACTION OBJECTIVES

13. Pg. 3-4, Para. 3

Cleanup objectives are developed on a case by case basis. In order to compare whether or not "This standard has been used at other sites in California and Arizona as an acceptable cleanup level..." this statement is relevant, certain parameters must be similar enough to be comparable. Do all the sites mentioned have the identical situation as Site 13, i.e., are they comparable?

14. Pg. 4-2, Para. 2

The cleanup level should be more a function of the treatment method and the levels which can be achieved, than what can be left in the soil as TRPH. See previous comments on soils left in place and cleanup goals based on treatment method used. This applies over the remainder of the report.

4.1 ALTERNATIVE 1--ON-SITE THERMAL DESORPTION

15. Pg. 4-2, Para. 2

How was EPA Method 418.1 chosen? It is possible to determine that oily substances are present on the soil using the observational approach, specially for used motor and crankcase oils. What benefit does EPA Method 418.1 provide over using EPA Method 8310 or 8270 in conjunction with the observational method? This will specify the petroleum fractions present as PA PaHs and provide more precise information.

16. Pg. 4-5, Para. 3

TRPH is not the chemical of concern, PaHs are. The test to see if the cleanup is successful should quantify benzo(a)pyrene, the indicator chemical. This, confirmation samples taken after the soils are treated must be able to detect benzo(a)pyrene at a practical quantification detection limit which is below the cleanup criteria agreed to by the Base Closure Team. The same comment goes for the other alternatives.

4.1.3 COST

17. Pg. 4-7, Para. 2

The cost section of the EE/CA should be expanded. The document should include a section listing the assumptions used to develop the costs, e.g., explain distributables. In addition, an estimate of the confidence error associated with the costs should be included. This comment applies for sections 4.2.3 and 4.3.3.

ATTACHMENT A, APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

General Comments:

18. The Department reserves the right to state an ARARs position once the details of the proposed EE/A are specified in the Action Memorandum.
19. This ARAR evaluation is very exhaustive and well written.

Specific Comments:

1.2 SUMMARY OF CERCLA AND NCP REQUIREMENTS

20. Pg. A1-25
The Closure of incinerator portion is an ARAR.

1.4.1 TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

21. Pg. A1-57, 58
Once again, the cleanup level and soil TRPH levels left in place must be addressed separately, see previous comments.

2 SUMMARY OF CERCLA AND NCP REQUIREMENTS

22. Pg. A1-1
Please add a summary of the Public Participation requirements and how they will be addressed.

5 SUMMARY

23. Pg. A5-1
Please re-write the second paragraph to emphasize that the indicator chemical of concern is benzo(a)pyrene NOT TRPH. This is what is driving the risks to human and ecological receptors...