Department of Toxic Substances Control

Edwin F. Lowry, Director
5796 Corporate Avenue
Cypress, California 90630

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Mr. F. Andrew Piszkin, P.E.
BRAC Environmental Coordinator
Marine Corps Air Station El Toro
Base Realignment and Closure
P.O. Box 51718
Irvine, California 92619-1718

DRAFT RECORD OF DECISION, OPERABLE UNIT (OU)-3, INSTALLATION RESTORATION PROGRAM (IRP) SITE 16, CRASH CREW TRAINING PIT NUMBER 2, MARINE CORPS AIR STATION (MCAS) EL TORO

Dear Mr. Piszkin:

The Department of Toxic Substances Control (DTSC) reviewed the subject document, dated November 2002. The draft Record of Decision (ROD) presents the remedy selected for Site 16 at the MCAS El Toro. As a result of firefighter training activities, residual fuels and combustible fluids were released to soil and groundwater beneath the site. No further action is recommended for shallow soil (0 to 10 feet below ground surface) based upon the results of a baseline human health risk assessment. A significant amount of volatile organic compounds (VOCs) was removed from vadose zone soil (10 feet bgs to groundwater) during pilot testing of the multi-phase extraction technology. This results in a selected remedy that consists of vadose zone monitoring, monitored natural attenuation of groundwater with a contingency remedy, institutional controls, and site grading.

After review of the document, DTSC has the following comments:

1. Declaration, page 2: The last sentence under "Institutional Controls" states, "restrictions will be removed when cleanup goals have been met." The procedures that will be used to determine that the cleanup standards have been met and the parties that will be involved in that determination should be described in the ROD.

2. Section 2, Site History and Enforcement Activities, page 2-1: Paragraph 1, sentence 3 states, "Water solvents may have reached the surface. . . ." Please revise "Water" to "Waste."

3. Section 2.2, Phase I and Phase II Remedial Investigations, page 2-1 to 2-2: Paragraph 1, sentence 2 states that the Marine Corps/DON signed an FFA with ". . . California Department of Health Services (part of which is now the DTSC), and RWQCB (FFA 1990)." This should be changed to ". . . California Department of Health Services and RWQCB (FFA 1990). DTSC is the successor to the Toxic Substances Control Program of the California Department of Health Services."

4. Page 2-4, Section 2.4, Recent Evaluations and Assessments: Paragraph 2 refers to a California "provisional action level" or "PAL" for contaminants in drinking water. This level is more accurately designated as an "action level" or "AL." Please reflect this in the text. Additionally, the proposed public health goal for perchlorate in drinking water is "in the range of 2 to 6 micrograms per liter (µg/L)" rather than at "6 µg/L."

5. Page 2-4, Section 2.4, Recent Evaluations and Assessments: Paragraph 2 summarizes the results of a site-specific perchlorate investigation that was conducted at Site 1. It appears that the intent of this section is to summarize basewide evaluations and assessment. As a result, it may be more appropriate to summarize the purpose and conclusions of the *Draft Final Evaluation of Perchlorate in Groundwater, Marine Corps Air Station, El Toro, California*, dated July 1999. The purpose of the evaluation was to (1) determine the concentrations and distribution of perchlorate in groundwater, (2) provide data for determining whether perchlorate in groundwater is from the Station or a result of ambient conditions, and (3) assess the need for further evaluation. The evaluation concluded that further assessment is required for low-level concentrations (2 to 13 µg/L) of perchlorate detected throughout the Station and a source of perchlorate (detected at 280 µg/L) exists at Site 1. Further monitoring at Site 1 and landfill sites 2, 3, 5, and 17 was recommended. As a result, perchlorate is being evaluated as part of the basewide groundwater monitoring program and through additional site-specific investigations at Sites 1 and 2.

   The "Summary of Findings" in Table 2-1, Summary of Environmental Investigations at Former MCAS El Toro, for the Evaluation of perchlorate in groundwater (1998-1999) should also be modified the reflect the conclusions and recommendations summarized in the previous paragraph.

6. Page 2-4, Section 2.4, Recent Evaluations and Assessments: In Paragraph 3, please clarify that the historical radiological assessment did not indicate that further investigation was required at Site 16 as justification for not including Site 16 in the subsequent survey.

7. Table 2-1, Summary of Environmental Investigations at Former MCAS El Toro, page 2-10: The "Summary of Findings" for the "1998-1999, Evaluation of perchlorate in groundwater" should be consistent with the information provided in comment number 5.

8. Table 2-1, Summary of Environmental Investigations at Former MCAS El Toro, page 2-11, 2001-2002, Radiological survey: The statement, "The survey did not include Site 16," should be clarified by adding that the historical radiological assessment did not indicate that further investigation was required at Site 16.

9. Section 4, Scope and Role of Operable Unit, page 4-1: Paragraph 6, sentence 3 states, "OU-3A Site 11 was addressed in a no action ROD that was signed in September 1999 (SWDIV 1999)." Please clarify that the ROD for Site 11 was not a "no action ROD." Instead, the ROD documented the selected remedy that included no further action for Site 11 (Unit 3) and excavation and off-site disposal for Site 11 (Units 1 and 2).

10. Page 6-1, Section 6.1, Current Land Use: Paragraph 1 states, "Former MCAS El Toro currently encompasses about 3,740 acres." Please add text to clarify that the current area resulted after various transfers including those to the Federal Aviation Administration and Caltrans.

11. Page 7-12, Section 7.5.1, Units 1 and 2: Paragraph 3 states, "The risk to a resident from exposure to lead in the shallow soil (0 foot to 10 feet bgs) of Units 1 and 2 was not assessed because lead was not identified as a COPC in shallow soil." Please add to text to clarify why lead was not identified as a COPC in shallow soil (0 to 10 feet bgs) even though it was identified as a COPC for surface soil (0 to 2 feet bgs).

12. Page 8-1, Section 8.1, Remedial Action Objectives and Cleanup Standards: This section presents the numerical cleanup standard for TCE, which is the only COC in groundwater based upon the results of the risk assessment. However, other organic chemicals were detected in groundwater above their respective MCL. As a result, the MCLs for all chemicals detected should be included as cleanup standards.

13. Page 8-2, Section 8.2, Remedial Alternatives: The citation for the

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA), should read "42 United States Code . . . " rather than "43 United States Code . . ."

14. Page 8-3, Section 8.2.2.2, Institutional Controls: Paragraph 2 should also include institutional controls to provide the DON and regulatory agencies access to the site for completion of the final remedy, including well abandonment.

15. Section 8.2.2.2, Institutional Controls, page 8-4, Implementation of Institutional Controls: Items 1 and 2 should include "and associated buffer zone" after "Site 16 shallow groundwater plume."

16. Section 8.2.2.2, Institutional Controls, page 8-5, Environmental Restriction Covenant and Agreement (Chapters 6.5 and 6.8 of Division 20 of the California Health and Safety Code and California Civil Code Section 1471): A sample of the model Environmental Restriction Covenant and Agreement that was included with the Memorandum of Agreement between the DON and DTSC should be included as an attachment to the ROD. Reference to the attachment can be added to paragraph 1, after the first sentence that ends " . . . and access provisions."

17. Section 8.2.2.2, Institutional Controls, page 8-5, Environmental Restriction Covenant and Agreement (Chapters 6.5 and 6.8 of Division 20 of the California Health and Safety Code and California Civil Code Section 1471): Paragraph 2, sentence 3 states, "The Environmental Restriction Covenant and Agreement(s) will include the legal description of the property overlying the Site 16 shallow groundwater plume and associated buffer zone, and the location of monitoring wells that are included in the remedial action." Add "(and associated piping and equipment as provided in the O&M Plan if Alternative 3 is implemented in the future)" after "monitoring wells."

18. Section 8.2.2.2, Institutional Controls, page 8-6, Environmental Restrictive Covenants in the Quitclaim Deed (California Civil Code Section 1471): Paragraph 2 states that quitclaim deeds between the United States and transferees will include provisions for terminating or modifying the restrictive covenants in the deeds when cleanup levels established in the ROD have been achieved. The ROD should describe the procedures that will be used to determine that the cleanup standards have been met and the parties that will be involved in that determination prior to termination of the restrictive covenants.

19. Page 9-2, Section 9.2, Compliance with ARARs: In Paragraph 2, the citation to CERCLA section 121(d)(1) should read "42 U.S.C. § 9621(d)(1)" rather than "96621(d)(1)".

20. Page 10-4, Section 10.3, Institutional Controls: Paragraph 3 states, "The area requiring institutional controls at Site 16 is shown on Figure 10-1." However, the "area requiring institutional controls" should be more specifically described and shown so that the location of controls and the boundaries of the affected area are certain. DTSC recommends that the "area requiring institutional controls" be shown on a map drawn to scale with reference to monitoring wells with survey data.

21. Section 10.3, Institutional Controls, page 10-7: First partial paragraph begins, "enforceable by the DON against future transferees." Please add "/lessees" after "transferees.

22. Section 10.3, Institutional Controls, page 10-7: First full paragraph, last sentence states, "The DON shall report the results of the inspections to U.S. EPA, DTSC, and RWQCB." Please add that the O&M plan will address the frequency of such reporting and contents of the inspection reports.

23. Page 10-8, Section 10.5, Contingency Remedy: Paragraph 3 lists criteria that would trigger an evaluation of the need to implement the contingency remedy. The first bulleted item states, "VOC groundwater concentration data indicate that, after 10 years, VOCs have extended or will likely extend farther downgradient than the 1,300 feet from the main pit predicted by the groundwater model." Please provide an explanation for the time period of 10 years.

24. Page 10-9, Section 10.6, Termination of Remedial Action: Sentence 2 states, "Groundwater remediation will be considered complete when the concentration of TCE in all monitoring wells reaches and remains at drinking water standards for 1 year." The ROD should specifically describe the procedures that will be used to determine that the cleanup standards have been met and the parties that will be involved in that determination. The ROD should also describe how and when the required 5-year reviews will be conducted in accordance with the FFA and the procedures for ending these reviews.

25. Page 11-10, Section 11.2.3.2, Waste Characterization and Accumulation: Please note that hazardous waste characterization and accumulation are also applicable to treatment residuals such as spent carbon.

26. Table 11-2, Action-Specific ARARs for Selected Remedy: The following ARARs for pre-transport requirements should also be included as applicable for any operation where hazardous waste is generated and transported.

- Hazardous waste must be packaged in accordance with Department of Transportation regulations before transport (Cal. Code Reg., tit. 22, § 66262.30).
- Hazardous waste must be labeled in accordance with Department of Transportation regulations before transport (Cal. Code Reg., tit. 22, § 66262.31).
- Hazardous waste must be marked prior to transport (Cal. Code Reg., tit. 22, § 66262.32).
- A generator must ensure that the transport vehicle is correctly placarded before transporting hazardous waste (Cal. Code Reg., tit. 22, § 66262.33).

27. Responsiveness Summary, Response to Letters Received During the Public Comment Period: DTSC has the following suggestions for clarifying responses to the following comments:

- Mr. Daniel Jung, letter dated 15 October 2002, comment number 2C, part f: It may be helpful to mention that sufficient area to utilize a drill rig to abandon any monitoring or extraction wells upon completion of the remedial action may be needed. The space requirements for a drill rig should be considered during development of a reuse plan. A typical drill rig is approximately 10 feet wide by 35 feet long and can only be used if no overhead utilities are present.
- Dr. Michael Brown, Consultant for the City of Irvine, comment number 6C: It may be helpful to mention that sufficient area to utilize a drill rig to abandon any monitoring or extraction wells upon completion of the remedial action may be needed. The space requirements for a drill rig should be considered during development of a reuse plan. A typical drill rig is approximately 10 feet wide by 35 feet long and can only be used if no overhead utilities are present.

SENSITIVE RECORD

PORTIONS OF THIS RECORD ARE CONSIDERED SENSITIVE AND ARE NOT AVAILABLE FOR PUBLIC VIEWING

ADDRESS OF PRIVATE CITIZEN

FOR ADDITIONAL INFORMATION, CONTACT:

DIANE C. SILVA, RECORDS MANAGER
NAVAL FACILITIES ENGINEERING COMMAND, SOUTHWEST
1220 PACIFIC HIGHWAY
SAN DIEGO, CA 92132

TELEPHONE: (619) 556-1280
E-MAIL: diane.silva@navy.mil

If you have any questions, please contact me at (714) 484-5395.

Sincerely,

Triss M. Chesney, P.E.
Remedial Project Manager
Office of Military Facilities
Southern California Region

Enclosure

cc: Ms. Nicole Moutoux
Remedial Project Manager
U. S. Environmental Protection Agency Region IX
Superfund Division (SFD-8-1)
75 Hawthorne Street
San Francisco, California 94105-3901

Mr. John Broderick
Remedial Project Manager
California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, California 92501-3348

Mr. Robert Woodings
Restoration Advisory Board Co-chair
23161 Lake Center Drive Suite 100
Lake Forest, California 92630

Ms. Marcia Rudolph
Restoration Advisory Board Subcommittee Chair
24922 Muirlands #139
Lake Forest, California 92630

cc: Ms. Polin Modanlou
County of Orange
Planning and Development Services Department
300 North Flower Street, 3rd Floor
Santa Ana, California 92703

Mr. Steven Sharp
Orange County Health Care Agency
2009 East Edinger Avenue
Santa Ana, California 92705

Mr. Marc Smits
Remedial Project Manager
Naval Facilities Engineering Command
Southwest Division - Code 06CC.MS
1220 Pacific Highway
San Diego, California 92132-5187

Ms. Judith Tracy
Staff Attorney
Department of Toxic Substances Control
Office of Legal Counsel
1001 I Street, 23rd Floor
Sacramento, California 95814-2828