

APPENDIX A

RESPONSE TO COMMENTS

RESPONSE TO COMMENTS ON THE
DRAFT FIVE-YEAR REVIEW REPORT, FIRST FIVE-YEAR REVIEW REPORT FOR
FORT ORD SUPERFUND SITE, MONTEREY, CALIFORNIA
DATED FEBRUARY 27, 2002

I. DEPARTMENT OF TOXIC SUBSTANCES CONTROL
COMMENTS DATED APRIL 18, 2002

Introduction

In accordance with your request, I have reviewed the “*Draft Five-Year Review Report, First Five-Year Review Report for Fort Ord Superfund Site, Monterey, California*”, prepared by the United States Department of the Army, dated February 27, 2002. The report documents the five-year review process conducted by the Army for the former Ft. Ord, and generally follows the recommendations set forth in the United States EPA “*Comprehensive Five-Year Review Guidance*” dated June 2001 (EPA 540-R-01-007). The five-year review encompassed the following: OU1 ROD, OU2 ROD, Basewide Remedial Investigation Sites ROD, Site 3 Interim ROD, No Action Sites ROD, Interim Action Sites ROD and Other Investigations. The report includes a technical assessment regarding whether the remedy for each site is functioning as intended, and whether the remedy is protective of human health and the environment.

General Comments:

Comment 1: The document reviewed did not contain the appropriate registered professional signature. Reports of a geologic or engineering nature that contain conclusions, recommendations, and/or technical interpretations must be signed by a geologist or engineer, respectively, licensed in California (registered geologist or professional engineer of the appropriate discipline) who accepts responsibility for technical content. This is required by California State law – Business and Professions Code (Geologists and Geophysicists Act, Section 7835 and Professional Engineers Act, Section 6735). Technical reports and memoranda submitted to the Department of Toxic Substances Control (DTSC) that address hazardous waste investigations and are available for public review must adhere to legal requirements of the business and professions code. Reports signed by licensed professionals must indicate the license number of the professional who signs the document. Preferably, reports should include a submittal letter bound in the front of the report and signed by the duly licensed individual accepting responsibility for technical content.

Response 1: The 5-year review is a summary of information from numerous existing documents produced by different contractors which have registered professional signatures as appropriate. These documents cover a variety of technical disciplines including geology, geophysics and engineering. It does not appear to be appropriate for a summary document to include a registered professional signature.

Specific Comments and Errata:

- Comment 1:** Chapter 2: Please add more detail to the Site Chronology Table. I suggest following the format used to prepare the site status table/matrix included in Action Memorandum #2.
- Response 1: In accordance with the EPA guidance, the Site Chronology Table provides a list important site events and relevant dates and is presented in the format recommended in the guidance document. The table format has not been changed.
- Comment 2:** Chapter 3: Please add a discussion of major land transfers/leases which have occurred.
- Response 2: Section 3.2.3 has been add to include the requested information.
- Comment 3:** Section 4.2, page 13: The notification announcements at the Community Involvement Workshop (CIW) and Technical Review Committee meeting should be documented. The Post-Workshop Summary notes from the February 2002 CIW which are posted on the Ft. Ord website do not include mention of the 5-year review announcement. Meeting minutes for the February 2002 TRC meeting are not posted on the Ft. Ord website. Additionally, the draft fact sheet distributed at the TRC is not referenced. It is not clear if the draft fact sheet was mailed to the community members listed on the Ft. Ord mailing list.
- Response 3: Section 4.2 has been revised. The fact sheet was not mailed to the community members on the Fort Ord mailing list. It was posted on the Fort Ord Web Page.
- Comment 4:** Chapter 4.5, page 15: This section states that interviews were not conducted as part of the five year review because of the ongoing community involvement efforts conducted by the Army. Although interviews specific to the 5-year review were not conducted, the information generally requested during a Five-Year Review Interview should be summarized in this chapter. Alternatively, a summary of community input could be included with the discussion of each ROD and investigation.
- Response 4: Community input to the RODs and investigation reports is included in each ROD responsiveness section and in the response to comment appendices of investigation reports.
- Comment 5:** Chapter 6.2.1 (OU2): Please include a summary of the lawsuit issues associated with the CAMU.
- Response 5: Lawsuit issues were not part of the remedy selection process and are not appropriate for inclusion in this section.
- Comment 6:** Chapter 6.2.2 and 6.4 (OU2): Please note in the report that the disposal of material from Range 18 in the landfill has not received concurrence from DTSC.
- Response 6: Section 7.4.4 (Site 39 Issues) has been revised to reflect to lack of concurrence by DTSC.

- Comment 7:** Chapter 6.5 (OU2): Please mention the ongoing maintenance and inspection requirements for the landfill cap.
- Response 7: Section 6.5 has been revised to include the requested information.
- Comment 8:** Chapter 7.1 (Sites 2 and 12): This Chapter should include a discussion of the In-Situ Chemical Oxidation Pilot Study for vinyl chloride, and the trial one -year change to the discharge limit for vinyl chloride.
- Response 8: Section 7.1.2.2 has been revised to include the requested information.
- Comment 9:** Chapter 7.3 (Site 31): This Chapter should include a statement that the land use covenant issues associated with Site 31 are still being negotiated between the Army and DTSC.
- Response 9: Section 7.3.4 has been revised to include the requested information.
- Comment 10:** Chapter 7.4 (Site 39): The discussion of Soil Remedial Unit 2 needs to mention that the action levels referenced in current work plans are the EPA residential PRGs (e.g. Range 18 Pilot Study). Lead is mentioned as the primary chemical of concern (COCs), however, other potential COCs such as copper and antimony should be included.
- Response 10: Section 7.4.4 (Site 39 Issues) has been revised to reflect the revised action levels for Range 18.
- Comment 11:** Chapter 7.4 (Site 39): The discussion of the selected remedy should mention that there is not enough room in the Ft. Ord landfill to accept all of the small arms impacted soil as described in the selected remedy and that a pilot study to evaluate other options is being conducted.
- Response 11: Section 7.4.4 (Site 39 Issues) has been revised to include the pilot study.
- Comment 12:** Chapter 7.4 (Site 39): The report notes that the remedy has not been fully implemented due to the presence of ordnance. Please indicate which areas have been remediated via limited OE removals. Please include an estimated schedule for the ordnance removals and implementation of the remedy.
- Response 12: Section 7.4.2.2 has been revised to indicate areas that have been remediated.
- Comment 13:** Chapter 7.7 (Site 33): Please include a statement regarding potential changes in the reuse of the golf course maintenance area.
- Response 13: Section 7.7.4 has been revised to include the requested information.
- Comment 14:** Chapter 8.4 (Site 3 Interim ROD): Include the potential issues regarding shifting sand dunes and the possible discovery of additional areas with greater than 10% bullets as items to be resolved before the finalization of the ROD.
- Response 14: Section 8.4 has been revised to include the requested information.

Comment 15: Chapter 10.5 (IA Sites ROD): For sites where regulatory agency approval is pending, please note that these sites will be revisited in the next 5-year review. This comment applies to the entire report.

Response 15: Section 12 (Next Five-Year Review) has been revised.

Comment 16: Chapter 11.1.2 (Carbon Tetrachloride Investigation): The last paragraph on page 94 should be revised to indicate that DTSC does not believe that sufficient data has been collected to fully evaluate the viability of monitored natural attenuation as a potential remediation alternative for the carbon tetrachloride plume. The current language implies that monitored natural attenuation has been selected as a remedy for the A aquifer.

Response 16: Section 11.2 has been revised to include the requested information.

Comment 17: Chapter 11.7.3 (Building T-111): Please indicate that the closure plan is being revised based upon input from the regulatory agencies.

Response 17: Section 11.7.3 has been revised to include the requested information.

Comment 18: Chapter 11.7.4 (Range 36A): Please indicate that the closure plan for Range 36A will be revised based upon updated soil sampling to be conducted this year.

Response 18: Section 11.7.4 has been revised to include the requested information.

RESPONSE TO COMMENTS ON THE
DRAFT FIVE-YEAR REVIEW REPORT, FIRST FIVE-YEAR REVIEW REPORT FOR
FORT ORD SUPERFUND SITE, MONTEREY, CALIFORNIA
DATED FEBRUARY 27, 2002

I. DEPARTMENT OF TOXIC SUBSTANCES CONTROL
COMMENTS DATED APRIL 19, 2002

Activity Requested

In response to a written request from Ms. Laurie Racca dated March 11, 2002, the Department of Toxic Substances Control's (DTSC) Geologic Services Unit (GSU) has reviewed the Draft Five-Year Review Report, First Five-Year Review Report for Fort Ord Superfund Site, Monterey, California (Draft Five-Year Report), prepared by the Department of the Army, U.S. Army Corps of Engineers, Sacramento District (USACE). As requested by Ms. Racca, the February 27, 2002 Draft Five-Year Report was reviewed for its technical content.

The purpose of the Draft Five-Year Report is to determine whether the remedies at the former Fort Ord Superfund Site continue to be protective of human health and the environment after a period of 5 years from the time the remedies were implemented. In addition, the Five-Year Report documents any newly identified site-related data or issues identified during the review, and identifies recommendations to address them as appropriate.

The GSU's review focused on technical issues associated with Sites 2 and 12, Site OU-1, Site OU-2, and the Carbon Tetrachloride Investigation. Comments and recommendations based on the GSU's review of the Draft Five-Year Report follow.

Comments and Recommendations:

Comment 1: Page xiii, Section 1.0: There is insufficient discussion of issues regarding the groundwater extraction and treatment system for Sites 2 and 12, which are identified and discussed in comment No. 4 below, in Section 1.0 of the Five-Year Review Summary Form.

Recommendation:

The GSU recommends including in Section 1.0 a reference to groundwater treatment system issues at Sites 2 and 12 as they are identified in comment No. 4 below.

Response 1: Section 7.3.1 was revised in response to comment 4. The issues section was not revised.

Comment 2: Page 13, Section 4.4: Site OU-1 is not included in this section as having been inspected to assess the protectiveness of the remedies at the site.

Recommendation:

The GSU recommends an explanation be provided as to why Site OU-1 was not included during the site inspections conducted on January 30, 2002.

Response 2: An explanation was added to Section 4.4.

Comment 3: Page 23, Section 6.0: A very limited discussion of the OU-2 landfill gas extraction and treatment system has been included in the Draft Five-Year Report. Of particular relevance would be the history behind the development of the current landfill gas extraction and treatment system, the ambient air sampling and in-place monitoring programs, and any issues related to the protectiveness of the remedy.

Recommendation:

The GSU recommends expanding the discussion of the OU-2 landfill gas extraction and treatment system in Section 6.0 of the Draft Five-Year Report.

Response 3: Section 6.3.3 has been revised to include the requested information.

Comment 4: Page 43, Section 7.1.3.1, Paragraphs 2 and 3: Based on a review of the historical Sites 2 and 12 trichloroethylene (TCE) concentration figures contained in Harding ESE's November 8, 2001 Draft Sites 2 and 12 Groundwater Remedy Operating Properly and Successfully Evaluation Report (Draft Sites 2 and 12 GROPEs Report), it appears that the overall TCE plume is contracting (specifically the 1 microgram per liter [ug/L], 5 ug/L, and 10 ug/L isoconcentration lines). However, there has been limited change in the areal extent of the 100 ug/L isoconcentration TCE line. It appears that injection at the leading edge of the contaminant plume, and pumping from wells EW-12-03- and -04-180 is adequately addressing remediation of the leading edge of the TCE plume, but that the northern portion of the plume (source area) is not being remediated as aggressively. In the same report it is also noted that the portion of the TCE plume east of EW-12-01-180 and EW-12-02-180 is not being captured by the existing extraction system.

Recommendation:

The GSU recommends including a discussion of the current inability of the groundwater remediation system to capture the portion of the TCE plume east of extraction wells EW-12-01-180 and EW-12-02-180. The GSU also recommends including a discussion of the status of proposed modifications to the current extraction system designed to accelerate the remediation of contaminants in the area near extraction wells EW-12-01-180 and EW-12-02-180 (presumed source area). These issues were referenced in Harding ESE's November 2001 Draft Sites 2 and 12 GROPEs Report.

Response 4: Section 7.3.1 has been revised to include the requested information.

Comment 5: Page 94, Section 11.1.2, Paragraph 3: Referring to the evaluation of natural attenuation of carbon tetrachloride in groundwater presented in Harding ESE's November 29, 2001 report entitled *Draft Natural Attenuation Summary Report, Carbon Tetrachloride Investigation*, it is stated that it appears that the A-Aquifer is being attenuated by both biological and physical processes. However, the RI/FS process for the Carbon Tetrachloride Investigation has not been completed. Natural attenuation may be occurring at the site, but insufficient data exists to fully evaluate the viability of monitored natural attenuation as a

potential remediation alternative for the carbon tetrachloride plume in both the A-Aquifer as well as the Upper 180-Foot Aquifer.

Recommendation:

The GSU recommends including a qualifying statement to Section 111.1.2 that states that insufficient data exists to fully evaluate the viability of monitored natural attenuation to treat the carbon tetrachloride plume in all aquifers currently being investigated.

Response 5: Section 11.1.2 has been revised to include the requested information.

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DRAFT FIVE-YEAR REVIEW REPORT, FIRST FIVE-YEAR REVIEW REPORT FOR
FORT ORD SUPERFUND SITE, MONTEREY, CALIFORNIA
DATED FEBRUARY 27, 2002

I. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION IX
COMMENTS DATED APRIL 22, 2002

General Comments :

Comment 1: Institutional controls/deed restrictions - A number of soil and groundwater remedies include the use of institutional controls/deed restrictions, at least until the remedy is complete. These are treated inconsistently throughout the report. Please clearly identify where institutional controls/deed restrictions are components of a remedy, and how each control/restriction was implemented (e.g., County GW Ordinance, CRUP, deed restriction, notice). Also differentiate between affected properties that have already been transferred and those still within Army control.

Response 1: The appropriate sections have been revised to include the requested information.

Comment 2: Where soil remedies were completed and allow for unrestricted reuse, please make that clear in the remedy implementation and protectiveness sections.

Response 2: Remedy Implementation and Protectiveness sections have been revised where appropriate.

Specific Comments:

Site Inspections

Comment 3: Page 15, Section 4.4.2 - In the description of the site inspection results it says there was extensive dune erosion noted from the "Stormwater Outfalls". This doesn't seem to be mentioned anywhere in the RI Sites section. Since the County and others have designated the dune area an "environmentally sensitive area" it would be good to say more (e.g. funding secured to fix problem, erosion unrelated to the cleanup work).

Response 3: The Stormwater Outfall section was removed since is not related to the remediation or the ROD.

Operable Unit (OU) 1

Comment 4: Page 19, Question A - The EPA Five-Year Review guidance suggests this Question address the issue of whether monitoring is adequate. Are additional monitoring wells required to address the downgradient contamination not currently being captured? If so, it would be good to mention them here.

Response 4: Question A for OU 1 has been revised to include the requested information.

Comment 5: **Page 20, Question C - This would be a good place to note whether any additional source area investigation is needed, or if the new plume portion is an uncaptured piece of the existing plume.**

Response 5: Question C for OU 1 has been revised to include the requested information.

OU 2

Comment 6: **Page 31, Question C, Cell F landfill gas issue - Additional discussion of the landfill gas issue is warranted here, since on page 14 this gas extraction system is described as “a pilot test ... to reduce the amount of landfill gas at the property line of Cell F to meet regulatory standards.” This discussion here on page 31 needs a little more detail. Is it an ARAR in the ROD that is the issue? How is the pilot system working so far? If it’s working, does it need to be expanded? If it isn’t working, what will be tried next? In the meantime, describe whether anyone is living or working nearby.**

Response 6: Question C for OU 2 has been revised to include the requested information.

Comment 7: **Page 32, Section 6.6 - The protectiveness statement only addresses groundwater, not the landfill cap. Need to add a statement for the landfill that includes the gas issue.**

Response 7: Section 6.6 has been revised to include the requested information.

Basewide RI Sites

Comment 8: **Page 39, Sites 2/12 groundwater, Selected remedy - The groundwater remedy includes deed restrictions on groundwater use. Please include in the remedy implementation section 7.1.2.2 and protectiveness statement section 7.1.6 a description of deed restrictions used (e.g., County GW Ordinance) until the ACLs are met.**

Response 8: The requested information has been added to the protectiveness statements for OU 1, OU 2 and Sites 2/12.

Comment 9: **Page 40, Site 2/12 soils, Section 7.1.2.2, and Page 45, Section 7.1.6 (Protectiveness Statement) - Please indicate the soil remedy resulted in the site being available for unrestricted reuse.**

Response 9: Sections 7.1.2.2 and 7.1.6 have been revised to include the requested information.

Comment 10: **Page 51, Sites 16/17, Section 7.2.6 (Protectiveness Statement) - Please indicate the remedy is protective of human health and the environment for any use.**

Response 10: Section 7.2.6 has been revised to include the requested information.

Comment 11: Page 62, Site 39, Section 7.4.6 - The protectiveness statement should read “is expected to be protective,” not “is intended to be protective,” assuming we do expect that. The remedy includes “deed restrictions until remaining ordnance and explosives are removed.” Are these deed restrictions in place?

Response 11: Section 7.4.6 has been revised as suggested. If land is transferred prior to ordnance removal, deed restrictions would apply.

Comment 12: Page 63, Site 39, Section 7.5.2.2 (Remedy Implementation) - Please indicate the remedy was no further action, and allows for unrestricted reuse.

Response 12: Section 7.5.2.2 has been revised to include the requested information.

Interim Action Sites

Comment 13: Pages 82-89, Section 10.2.2 - Many of the site writeups indicate the IA Confirmation Reports have been submitted and are pending approval from regulatory agencies. Please note that EPA has approved all confirmation reports with the exception of the Outfall 15 Report, which we have reviewed and requested additional information.

Response 13: Section 10.2.2 has been revised to include the requested information.

Carbon Tetrachloride Plumes

Comment 14: Page 92 - The discussion mentions one of the Carbon Tet plumes is co-mingled with the OU2 plume. This should also be noted in the OU2 discussion.

Response 14: Section 6.1 has been revised to include the requested information.

Monterey Bay Enhanced Preliminary Assessment

Comment 15: Pages 95-96, Section 11.2 - This discussion should also include reference to the Army’s participation in an effort with the Monterey Bay National Marine Sanctuary, the US Geological Survey, regulatory agencies, and local marine research facilities to investigate sediment and biota, and map the ocean floor in the restricted zone and adjacent areas in Monterey Bay off Fort Ord.

Response 15: Section 11.2.1 has been revised to include the requested information.

Range 36A

Comment 16: Page 103, Section 11.7.4 - The Background section describes how the site was used for additional activities after the 1992 RI was performed. Please include information on your additional closure plan activities to investigate any contamination associated with the activities which began in 1994.

Response 16: Section 11.7.4 has been revised to include the requested information.

OE Program

Comment 17: Page 107, Section 11.8.2 (Status Report) - Please include a short description of the fact that the Army is preparing RI/FS reports for OE Tracks 1-3 pursuant to agency-approved schedules.

Response 17: Section 11.8.1 and 11.8.2 has been revised to include the requested information.

Minor comments

Comment 18: The NCP criterion is “Reduction of toxicity, mobility, and volume through treatment.” Please cite correctly for excavation and containment remedies.

Response 18: Appropriate sections have been revised.

Comment 19: Page 101, Section 11.7.2 (Silver Recovery Unit), first sentence - Please correct the date the unit was removed.

Response 19: Section 11.7.2 has been revised as suggested.