



California Regional Water Quality Control Board

Central Valley Region

Robert Schneider, Chair



Gray Davis
Governor

Winston H. Hickox
Secretary for
Environmental
Protection

Sacramento Main Office
Internet Address: <http://www.swrcb.ca.gov/~rwqcb5>
3443 Routier Road, Suite A, Sacramento, California 95827-3003
Phone (916) 255-3000 • DOD FAX (916) 255-3052

N60211_000365
CROWS LANDING
SSIC NO. 5090.3.A

3 January 2002

Ms. Marianna Potacka
BRAC Environmental Coordinator
BRAC Operations, SWESTNAVFACENGCOM
South West Division
1230 Columbia St., Suite 1100
San Diego, California 92101

SUMMARY REPORT, TIME-CRITICAL REMOVAL ACTIONS, NATIONAL AERONAUTICS AND SPACE ADMINISTRATION CROWS LANDING FLIGHT FACILITY, ADMINISTRATION AREA PLUME, INSTALLATION RESTORATION PROGRAM SITE 17, STANISLAUS COUNTY

We have reviewed the *Summary Report, Time-Critical Removal Actions (TCRA), National Aeronautics and Space Administration (NASA) Crows Landing Flight Facility, Administration Area Plume, Installation Restoration Program (IRP) Site 17, Stanislaus County* (Report), dated 7 November 2001. We have also reviewed NASA's comments to the Report, dated 5 December 2001, and the Navy's response to NASA's comments, dated 12 December 2001.

The Report summarizes the TCRA conducted from December 2000 through June 2001, at the area formerly designated as the UST Cluster 1 petroleum groundwater plume. In 2000, the Navy discovered that the Site 17 carbon tetrachloride (CT) groundwater plume had co-mingled with UST Cluster 1 and UST Site 117 petroleum groundwater plumes. Board staff decided that, due to the high levels of CT and associated chlorinated constituents at the two former petroleum sites, the Navy could no longer address UST Cluster 1 and UST Site 117 as petroleum-only groundwater cleanup sites. Hence, the Navy renamed all three groundwater plumes as the co-mingled Administration Area Plume.

The Report states that the Navy constructed a six-inch diameter extraction well (CL1-EX-01) near the area of the highest known concentrations of groundwater contaminants. The sustained pumping rate for CL1-EX-01 was very low (0.5 gallons per minute). The initial analytical results from groundwater samples collected from CL1-EX-01 reported acetone (70,100 µg/L), benzene (6,830 µg/L), gasoline (96,000 µg/L), and methyl ethyl ketone (12,000 µg/L). After six months of extraction and offsite disposal of approximately 57,620 gallons of groundwater, an estimated 105.7 pounds of combined constituents were removed at CL1-EX-01 and four additional groundwater monitoring wells [CL1-MW-02(S), CL1-MW-10(S), CL1-MW-12(S), and CL1-MW-16(S)] pumped during the TCRA aquifer test. At the conclusion of the removal action, groundwater sample results for CL1-EX-01 reported acetone (199,000 µg/L), benzene (16,500 µg/L), gasoline (55,000 µg/L), and methyl ethyl ketone (32,600 µg/L). The removal cost per pound of contaminant mass reportedly exceeded \$1500 per pound (\$160,000 total).

California Environmental Protection Agency

General Comment:

Although we acknowledge that one stated TCRA goal, "to remove contaminant mass", was achieved by the TCRA removal action, we feel that there is insufficient data presented in the Report to evaluate the effectiveness of the removal action. We agree with NASA's comments that inclusion of initial and remaining estimates of contaminant mass in groundwater, with the existing data provided in the Report, would be more useful to determine the effectiveness of the removal action, as opposed to simply reporting the contaminant mass removed. The fact that concentrations of contaminants from final analyses remain high (and for the most part are higher than the initial concentrations) in the extraction well, suggests that considerable contaminant mass remains in groundwater at that location. The Navy's response, that confirmation of earlier estimates for contaminant mass or calculating new estimates of contaminant mass, were not a goal of the TCRA, seems oddly disconnected from the primary purpose of the removal action, which is to reduce the risk to the drinking water aquifer. It is not possible to evaluate the percent of risk reduction, without knowing how much of the total estimated mass has been removed.

Specific Comments:

1. Section 3 - Time-Critical Removal Actions, page 3: The text shows that the TCRA community relations plan was conducted in accordance with 40 Code of Federal Regulations (CFR) 300.415. The TCRA Action Memorandum, dated 29 November 2000, preceded the Report and also referenced TCRA criteria from 40 CFR 300.415, which covers all types of removal actions, including TCRAs. The criteria also cover petitions to USEPA. Since this is not a National Priorities List (NPL) site, and USEPA is not involved in the TCRA removal actions (or any investigative/remedial activities at Crows Landing), we previously commented on 8 January 2001 that the site is governed by non-NPL sections in CERCLA [Sections 14 and 120(a)(4)], and is subject to State Requirements.
2. Section 3 - Time-Critical Removal Actions, pages 6 and 7: The text on page 6 describes initial February 2001 groundwater analysis concentrations from CL1-EX-01 as greater than 100,000 µg/L, while Chart 1 on page 7 gives the actual value in a table for 12 February 2001, as 70,100 µg/L. Please consistently cite the correct acetone concentration.
3. Section 4 - Findings and Recommendations, page 11: The Report states that hydrogeologic data collected during the TCRA should be used to refine the hydrogeological model of the Administration Area Plume. We concur with the recommendation, and request that the Navy provide additional information as to what document(s) will present the revised hydrogeological model, and the submittal schedule date(s) for release to the agencies.
3. Section 4 - Findings and Recommendations, page 11: The Report also states that the data collected during the TCRA will be used to evaluate remedial alternatives for the Administration Area Plume. The remedial alternatives evaluated should include a full-scale groundwater pump and treat system that provides hydraulic containment of the contaminant plume.
4. Attachment 7: The Hazardous Waste Manifests for groundwater removed from the site do not have signatures for the receiving facility, and, as such, are incomplete. Please provide signed and completed Hazardous Waste Manifests, to show that the hazardous waste was received by the disposal facility.

If you have any questions please contact me at (916) 255-3050 or bartonj@rb5s.swrcb.ca.gov.



James L. Barton, R.G.
Associate Engineering Geologist

cc: Ms. Francesca D Onofrio – CALEPA-DTSC
Mr. Jim Simpson – Stanislaus County DER
Mr. Donald Chuck, NASA
Ms. Lynn Hornacker – US Navy SWDIV

Transmittal

Date: 9 Jan 2002

From: Lynn Marie Hornecker *LMH*
Code 06CC.LMH

To: Diane Silva
Code 01LS.DS
Administrative Record Manager

Subj: CERCLA ADMINISTRATIVE RECORD MATERIALS
NALF Crows Landing

Installation: NALF Crows Landing

UIC Number: N60211

Document Title: *Summary Report Time-Critical Removal Actions*

Author: *James Barton, RWQCB*

Recipient: *Marianna Potacka, SWDIV*

Record Date: *3 January 2002*

Approximate Number of Pages: *3*

Sites: *IRP Site 17*

Key Words: *groundwaters*

Contract: *N/A*

CTO Number: *N/A*