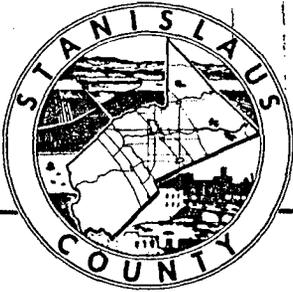


# Stanislaus County

## Department of Environmental Resources



1716 Morgan Road  
Modesto, California 95351-5894  
FAX# (209) 525-4163  
(209)  
525-4150

November 17, 1992

Commander - Western Division  
Naval Facilities Engineering Command  
Attn: Ms. Camille Garibaldi  
Code 1813CG  
P. O. Box 727  
San Bruno, CA 94066

Mr. Terry Lau  
Staff Civil Engineer  
NAS Moffett Field  
Moffett Field, Ca 94035

Re: Contamination Site NP32 - Crows Landing Naval Auxiliary  
Landing Field, Crows Landing, CA

The Hazardous Materials Division has reviewed the report of your consultant, PRC Environmental Management, Inc./Versar, Inc. (March 19, 1991), on a subsurface investigation to evaluate possible releases from three 50,000 gallon underground storage tanks (cluster 1 - tanks CL1, CL2, and CL3) and from three 210,000 gallon underground storage tanks (cluster 2 - tanks CL1, CL2, and CL3). In addition, shop drawings of the 50,000 bbls. (210,000 gallons) underground storage tanks (cluster 2 - tanks CL1, CL2, and CL3) enclosed in the October 23, 1991 follow up letter (Dept. of NAVY, October 23, 1992) were reviewed.

Versar reported that the cluster 1 site is composed of clays to a depth of ten feet underlain by silty sands and clay rich silts. A thin continuous clay layer was recognized at a depth of approximately 32 feet. Groundwater was encountered at a depth of 40 feet and flows to the northwest. Contamination by JP-5 range petroleum hydrocarbons was recognized in the soils and groundwater at all three underground storage tank locations. The soil contamination appears to extend under the tank bottoms. There is no record of the removal or evaluation of possible releases from the connective piping between the tanks in cluster 1.

Cluster 2 site is composed of interbedded sandy and silty clays and minor sand lenses at depth. Groundwater occurs at a depth of

Ms. Camille Garibaldi  
Mr. Terry Lau  
November 17, 1992  
Page 2

approximately 24 feet and flows to the northeast. Soil contamination was detected in soil boring BH5, down gradient from tank CL9, to depth of 27 feet (below the water table). Based on the extent of the soil contamination below the water table in boring BH5, there is probably a groundwater impact associated with the release from tank CL9. There is no record of the removal or evaluation of possible releases from the connective piping between the tanks in cluster 2.

The approval letter of the Hazardous Materials Division (County letter October 15, 1990) modified the work plan and directed that a soil sample for laboratory analyses be obtained from the bottom of all soil borings and from the capillary fringe of all borings utilized as monitoring wells. The soil sampling and analyses required in the approval letter is not presented in the PRC/Versar report.

We have reviewed the NAVY's request to remove all fluids and sludge from tanks CL7, CL8, and CL9 and close all of the underground storage tanks in place. The removal of fluids from Tanks CL7, CL8, and CL9 and the onsite containment and treatment of sludges from the tank bottoms is approved. Fluids from the tanks can be removed and disposed of in the base waste water treatment unit. Sludge from the tank bottoms must be removed and contained on site. A work plan for the removal, on site containment, and treatment/disposal of the tank bottoms must be submitted.

The in place closure of tanks CL7 and CL8 is approved. A work plan describing the closure procedure and methodology is needed. The closure must include the construction of a two foot slab as a cap over the fill material and the excavation, removal of all connective piping in cluster 2 and confirmation soil sampling .

Additional assessment of the extent of the soil and groundwater contamination associated with the leaking underground storage tanks will be required. In place closure of the tanks can not be evaluated until the extent of the contamination and the method of contamination clean up has been determined. Closure of the cluster 1 tanks must include the excavation, removal of all connective piping and confirmation soil sampling .

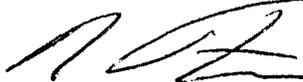
An addendum to the PRC/Versar report presenting the analytical results of the bottomhole and capillary fringe soil samples as

Camille Garibaldi  
Mr. Terry Lau  
November 17, 1992  
Page 3

directed in the Stanislaus County work plan approval letter (October 15, 1990) is required. The addendum is due within forty-five (45) days of the date of this letter.

A work plan for the full identification of the vertical and lateral extent of the soil and groundwater contamination associated with the leaking underground storage tanks will be required. A progress report describing the schedule for the preparation of the work plan is due within forty-five (45) days of the date of this letter.

Please call me at (209) 525-4150 if you have any questions.



ROBERT FOURT  
GEOLOGIST  
Hazardous Materials Division

sd

cc S. R. Bond  
PRC, Inc.  
Versar  
S. Harrigfeld

## Transmittal

Date: 6/3/2003

From: Lynn Marie Hornecker  
Code 06CC.LMH

To: Diane Silva  
Code ~~01LS.DS~~ 05G.DS  
Administrative Record Manager

Subj: CERCLA ADMINISTRATIVE RECORD MATERIALS  
NALF Crows Landing

Installation: NALF Crows Landing

UIC Number: N60211

Document Title:

Author: Robert Fourt St County

Recipient:

Record Date: 17 Nov 1992

Approximate Number of Pages: 3

Sites: CL-1, -2, -3, -7, -8, + -9

Key Words: UST

Contract: N/A

---

CTO Number: N/A