ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

REMEDIAL ACTION COMPLETION CERTIFICATION

April 29, 1994

Ms. Melita Elmore
Safeway Inc.
4th and Jackson Street
Oakland, CA 94660

RE: STID 1196, Safeway Truck Repair Facility - Fueling Complex
2000 Adams Street, San Leandro

Dear Ms. Elmore:

This letter confirms the completion of site investigation and remedial action related to the three (3) former fuel underground storage tanks at the above site. With the provision that the information provided to this agency was accurate and representative of existing conditions, this office has determined that no further action is required at this time.

Based on the information submitted and current requirements, the RWQCB has also accepted the determination of this agency that no further action is required at this time. Further work could be required if conditions change or a water quality threat is discovered at the site.

If you have any questions regarding this letter, please give Scott Seery a call at (510) 271-4530.

Very truly yours,

Rafat A. Shahid
Assistant Agency Director

RAS:SS:st

c: Edgar B. Howell, Chief, Hazardous Materials Division - files
Rich Hiett, RWQCB
Mike Harper, SWRCB
Mike Bakaldin, San Leandro Fire Department

LOP\Completion

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION **Date: 3/28/94**

Agency name: **Alameda County-HazMat** Address: **80 Swan Wy., Rm 200**
City/State/Zip: **Oakland** Phone: **(510) 271-4320**
Responsible staff person: **Scott Seery** Title: **Sr. Haz. Materials Spec.**

II. CASE INFORMATION

Site facility name: **Safeway Truck Repair Facility - Fueling Complex**
Site facility address: **2000 Adams Street, San Leandro**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **1196**
URF filing date: **7-14-89** SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
Melita Elmore	4th & Jackson Streets Oakland, CA 94660	510/891-3670

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	12,000 gal.	diesel	removed	9/10/90
2	12,000 "	"	"	"
3	6,000 "	gasoline	"	"

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: piping leaks/structural tank failure

Site characterization complete? YES

Date approved by oversight agency: 9/22/89

Monitoring Wells installed? YES Number: 5

Proper screened interval? YES

Highest GW depth below ground surface: 3.79′ Lowest depth: 6.46′

Flow direction: predominantly WSW; has ranged from SSE to W to NE

Most sensitive current use: AGRICULTURAL/INDUSTRIAL

Are drinking water wells affected? NO Aquifer name: UNK

Is surface water affected? NO Nearest affected SW name: NA

Off-site beneficial use impacts (addresses/locations): NONE

Leaking Underground Fuel Storage Tank Program

Report(s) on file? **YES** Where is report(s) filed? **Alameda County**
80 Swan Wy., Rm 200
Oakland CA 94621

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment of Disposal w/destination)	Date
Tank	2 x 12,000; 6,000 gal.	H&H Ship Service, So. S.F.	9/10/90
Piping	UNK	UNK	4/89
Free Product	3600 gal.	H&H Ship Service, So. S.F.	6 - 9/90
Soil	2500 yds.	BFI, Livermore	8/91
Groundwater	18,900 gal.	H&H Ship Service, So. S.F.	6 - 9/90
Barrels	UNK	UNK	

III. RELEASE AND SITE CHARACTERIZATION INFORMATION (Continued)
Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppm)	
	Before	After	Before	After
TPH (Gas)	1300	2.0	FP	ND
TPH (Diesel)	21000	33	"	0.071
Benzene	17	0.30	"	ND
Toluene	31	ND	"	"
Xylene	70	0.43	"	"
Ethylbenzene	10	0.08	"	"
Oil & Grease	NA			
Heavy metals	"			
Other	"			

Comments (Depth of Remediation, etc.):

Three (3) fuel USTs were located SE of the truck repair facility at this site, comprised of two 12,000 gallon diesel and one 6000 gallon gasoline tanks. (Presumed) compliance monitoring well CL-1 was constructed in proximity to the noted gasoline tank and dispenser island.

The gasoline UST reportedly failed its integrity test in September 1986. Two "stress fractures" were repaired by Owens-Corning during 2/87, who then recertified tank. At the direction of ACDEH, an attempt to collect soil samples from around this tank through use of slant borings resulted in the auger impacting an underlying concrete pad, deflecting it into and damaging the tank. Backfill material collected adjacent to this tank exhibited 1600 ppm TPH-G. This tank failed a subsequent integrity test during 4/88. Owens-Corning again repaired the tank during 5/88. During this time a 30x30 inch "bulge" was also discovered in the side of one of the diesel USTs. This UST was reportedly repaired during 8/88. Two more borings advanced next to gasoline UST. GW encountered at 6' BG. Strong HC odor detected. One inch (1") of free product (FP) was noted in well CL-1.

Leaking Underground Fuel Storage Tank Program

A leak was discovered 7/88 in diesel product pipeline below dispenser island, and was repaired. An ULR was issued. Tank tests reportedly performed during 2/89 identified possible leaks in vent and product lines. Beginning 4/89, all product lines removed under SLFD oversight, and replaced with double-wall FRP lines. (SEE: *Additional Comments* section for continuation)

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Undetermined

Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Undetermined

Does corrective action protect public health for current land use? YES

Site management requirements: NA

Should corrective action be reviewed if land use changes? YES

Monitoring wells Decommissioned: NO (not yet)

Number Decommissioned: 0 Number Retained: 4

List enforcement actions taken: NONE

List enforcement actions rescinded: NONE

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Scott Seery Title: Sr. Haz. Mat. Spec.
Signature: Date: 3/28/94

Reviewed by
Name: ~~Eva Chu~~ Thomas Peacock Title: Haz. Mat. Spec.
Signature: Date: 3/28/94

Name: Juliet Shin Title: Haz. Mat. Spec.
Signature: Date: 3/28/94

VI. RWQCB NOTIFICATION

Date Submitted to RB: 3/28/94 RB Response: Concur
RWQCB Staff Name: Rich Hiett Title: San. Eng. Assoc., Date:

R.C. Hiett 4.27.94

VII. ADDITIONAL COMMENTS, DATA, ETC.

Soil samples were collected during 5/89 during replacement of product piping. Piping trenches were sampled approximately every 20 feet. Up to 21,000 ppm TPH-D and 1300 ppm TPH-G detected in these samples. Dispensers were located near the southwest property boundary shared with Coast Truck Equipment and Repair (Coast).

An additional assessment of the site was performed 10/89. Three (3) wells and three (3) borings (SSL8-SSL10) were installed at the Safeway site. 240 ppm TPH-G and 7600 ppm TPH-D in 4′ sample from SSL9. GW encountered @ approximately 8′ BG. FP noted in compliance well CL-1. Soil contamination noted at 4′ depths, only. Only that GW encountered in MW-1 (near and downgradient of gasoline UST) impacted: TPH-G, 1100 ppb; TPH-D, 120 ppb; benzene, 120 ppb). GW flow towards SSE. Consultant recommends FP removal, monitoring, further assessment.

Further additional assessment performed 12/89. Ten (10) borings (SSL11-SSL20) advanced at Safeway and Coast sites, near USTs and dispenser island, to delineate extent of soil contamination, one of which (SSL16) installed downgradient and adjacent to oil/water separator on the Safeway site (no contaminants detected). Five (5) of the borings advanced on the Coast site to the W/SW of UST cluster. A total of 20 soil samples collected. Soil contamination found in shallow material, only, between 4 - 7′ BG, within the sand/pea gravel fill emplaced throughout both sites, <u>above</u> native sediments. "Soil" contamination was detected at this depth interval on Coast property, up to 2300 ppm TPH-D (SSL14). FP noted in well CL-1. Miller Environmental Company (MEC) proposes FP removal, soil remediation, and additional wells.

As result of this assessment, MEC, on behalf of Safeway, proposes to remove USTs, FP, and contaminated soil, estimated at the time to be approximately 800 yds^3, and perform further assessment to define extent of contamination. Additional wells are proposed. Excavation estimates include materials encountered on Coast site. Additional wells to be installed on Coast site. MEC proposes to "bioremediate" excavated materials by augmentation using Solimar Corporation proprietary saprophytic bacteria. Results of "waste classification" analyses confirm materials to be biotreated are not "hazardous" per Title 22 CCR criteria - no treatment permit from DTSC required. Complete work plan finally approved by ACDEH during 9/90.

Between June and September 1990, MEC removed three subject USTs and excavated approximately **1150 yds^3** of contaminated material, to a depth of approximately 1′ below water level (approx. 7′ BG). FP found on water in excavation. Approximately 3600 gallons of product and 18,900 gallons impacted H_2O removed from excavation by H&H Ship Service. Another 7500 gallons of GW pumped from excavation and stored on-site in Baker tank pending disposal. Mass balance equations conclude approximately 1800 gallons of product removed with excavated material; estimate 5400 gallons of fuel removed in the process of removing "soil," FP and water.

Leaking Underground Fuel Storage Tank Program

Thirty two (32) sidewall samples collected 9/90 after excavation: twelve (12) exceeded 1000 ppm TPH-D; twenty one (21) exceeded 100 ppm. Pit water sample exhibited 16 **ppm** TPH-D, 0.32 **ppm** TPH-G, 0.001 **ppm** benzene. Overall, the highest concentrations were found on the western side of the pit, adjacent to the Coast site. Wells MW-1 and CL-1 properly destroyed in the process of UST removal and overexcavation. MEC followed by drilling seven (7) additional borings on the Coast property (CTR1-7), west of the excavation, and three (3) adjacent to storm drain line on Safeway site (SSL21-23), in order to define limits of "soil" contamination. Maximum depth of each boring was approximately 7' BG. Pea gravel/sand fill encountered in first 4' of boring CTR1, -2, and -3; all others drilled into native clay. Only borings CTR2 and -3 encountered contaminants, up to 1300 ppm TPH-D (CTR2), directly adjacent to western-most corner of UST excavation. Safeway negotiating access to Coast property for well sites.

Further excavation of 200 yds^3 impacted material during January/February 1991, along the three flanks of the original excavation present on the Safeway property. Final sidewall samples, collected at GW level from this excavation, exhibited low concentrations of latent TPH-D, a maximum of 33 ppm (OX-2). Latent TPH-G was found at a maximum of 0.2 ppm (OX-1); total BEX of 0.81 ppm (SW3-2). Two (2) wells installed on Coast site, designated MW-4 and -5 on 2/11/91. Soil samples collected from borings were "ND" for TPH/BTEX. MEC recommends further excavation of contaminated "soil" on Coast property.

"Soil" excavation on Coast property during 5/91, removing material down to approximately 7' BG. The original effort to overexcavate the Coast site was expanded when preliminary samples indicated elevated levels of contaminants, up to 1000 ppm TPH-D (SLW2). The excavation was consequently expanded to remove these remaining few "hot spots." Subsequent sidewall samples were "ND" for TPH-D; maximum TPH-G was found at 2 ppm and xylenes at 0.016 ppm (SLW1). Approximately 600 yds^3 of material was removed from the Coast site. Contaminants were not found in native sediments.

Bioremediation of excavated material continued concurrently with other site activities, ending 6/91. Final samples ranged up to 960 ppm TPH-D; no BTEX was detected. Approximately 2500 yds^3 of treated material was subsequently transported to BFI landfill, Livermore, during 8/91.

Ground water was sampled and monitored 10/17/89 in wells MW-1, -2, and -3. Well MW-1 was subsequently destroyed during UST removal and overexcavation. Wells MW-2, -3, -4, and -5 were sampled/monitored 5/91, 8/91, 12/91, 3/92 and 10/92. Except for the first sampling of well MW-1, BTEX have not been detected in any of the wells in the network. Only a maximum of 540 **ppb** TPH-D range has been detected over the course of the investigation (MW-4; 3/13/91), excluding the sole sampling of well MW-1. Both MW-5 and -4, located on the Coast site, have experienced one or two "hits" for TPH-D, respectively, the most recent being the 3/91 sampling in MW-4. MW-2, located on the Safeway property at the western edge of the completed excavation, exhibited 71 ppb TPH-D during the last (10/92) event.

Ground water flow has been predominantly to the WSW, since and including the 8/91 monitoring event, with three events indicating flow to the south, NE and ESE. The current network appears to provide an appropriate array of wells to monitor the release(s) from the UST system(s) at the Safeway site.

Review of boring logs for the wells associated with this case reveals that GW appears to be under confined conditions. GW was first encountered at approximately 8' BG, yet has been shown to stabilize at between 4 and 6.3' BG. Native sediments encountered are typical of those encountered elsewhere near the SF Bay fringe, primarily black, stiff, organic-rich clay/silty clay, generally grading with depth to gray, plastic clay/silty clay. The site is covered by an asphalt cap, underlain by as much as 7 feet of pea gravel/sand fill, which in turn overlies the native sediments.

It has been reasoned that the distribution of contaminants was a result of GW transport not through the native water-bearing zone, but rather by transport <u>above</u> the native sediments, through the more permeable sand/pea gravel fill. As GW welled into the UST pit and potentiometrically stabilized, ground water, now in contact with and distributed through the mantle of fill material blanketing the site, carried with it the fuel released from the former USTs. This is confirmed by the **absence** of fuel compounds in samples collected from native materials (the exception being SSL9 @ 4' BG, collected in apparent native sediments), and the apparent exclusive presence of fuel compounds detected in sampled fill material.