

# PORT OF OAKLAND

July 31, 2000

Mr. Barney Chan  
Hazardous Materials Specialist  
Alameda County Health Care Services Agency  
Environmental Protection  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

00 JUL 32 PM 3:46  
ENVIRONMENTAL  
PROTECTION

**SUBJECT: FORMER POWERINE OIL COMPANY & OLD KAISER YARD  
2800/2801 SEVENTH STREET, OAKLAND, CALIFORNIA  
STID #3900**

Dear Mr. Chan:

The Port of Oakland (Port) has received your July 6<sup>th</sup> request for information regarding the former Powerine Oil Company & Old Kaiser Yard sites. Since our last exchange of correspondence in 1996, the Port has not performed any additional environmental investigative activities at these two sites.

Please note that any further investigation activities regarding these two sites will be complicated by the present day land usage. Since 1992, construction activities have resulted in the completion of the Port's Berth 30 Terminal. The former Powerine Oil facility is now situated under the Terminal's gate complex an area that receives heavy truck traffic. The former USTs in the area referred to as the old Kaiser yard now lies within the container yard. The exact location of the former USTs was lost following the completion of construction.

If you have any questions, please call me at 627-1373.

Sincerely,

John Prall, R.G.

Associate Environmental Scientist

Cc: Jeff Jones

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335

July 6, 2000  
StID # 3900

Mr. John Prall  
Port of Oakland  
P.O. Box 2064  
Oakland CA 94604-2064

**Re: Request for Technical Reports for 2800/2801 7<sup>th</sup> St., Oakland CA 94607  
Former Powerine Oil Company & Old Kaiser Yard**

Dear Mr. Prall:

As you are aware, the above sites were investigated in 1992 at which time underground tanks were removed and an extensive excavation project was performed. As a result, the Port of Oakland proposed to investigate potential groundwater contamination by installing monitoring wells. The specifics of the work plan was included as part of Geomatrix's **March 1993 Soil Excavation Report and Proposed Work Plan**. My June 10, 1996 letter, copy enclosed, responded to this work plan and offered comments. At that time, our office assumed that the proposed investigation had not occurred.

At this time, our office requests all technical reports regarding environmental investigations subsequent to the above 1992 activities. If no additional work has been done, please submit an updated version of the aforementioned work plan including any additions or changes mentioned or discussed with our office. Specifically, the number and location of the proposed wells were in question. In addition, you will be required to analyze soil and groundwater samples for MTBE, since this analyte was not previously analyzed.

**Please submit all technical reports to our office within 30 days or no later than August 7, 2000.** You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan  
Hazardous Materials Specialist

Enclosure

✓ C: B. Chan, files

Reps2800-2801 7th St.



**Winston H. Hickox**  
Secretary for  
Environmental

*Protection The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption.  
For a list of simple ways you can reduce demand and cut your energy costs, see our website at www.swrcb.ca.gov.*

# State Water Resources Control Board

## Division of Clean Water Programs

1001 I Street • Sacramento, California 95814  
P.O. Box 944212 • Sacramento, California • 94244-2120  
(916) 341-5714 • FAX (916) 341-5806 • www.swrcb.ca.gov/cwphome/ustcf



**Gray Davis**  
Governor

JUN 25 2002

Port Of Oakland

Wendel, Rosen, Black & Dean, LLP

Carmen King

1111 Broadway 24th Fl

Oakland, CA 94607

UNDERGROUND STORAGE TANK CLEANUP FUND (FUND), REQUEST FOR FURTHER DOCUMENTATION DURING INITIAL REVIEW: CLAIM NUMBER 017256; FOR SITE ADDRESS: 2801 7TH ST, OAKLAND

After reviewing your claim application to the Cleanup Fund, we find that the following additional information is needed to determine your eligibility for placement on the Priority List:

### REQUEST FOR PERMIT WAIVER

Claimant has requested the State Water Resources Control Board (SWRCB) to grant a permit waiver in order to access the UST Cleanup Fund. One condition of the permit waiver stipulates that the claimant was unaware of the permit requirement prior to January 1, 1990 and did not intend to avoid the permit requirement or the associated fees. Per my discussion with Alameda County Environmental Health Services (County), I was informed that the County began implementing their UST Program in 1987. In 1988, the County began to notify all known UST owners of UST law and operating permit requirements.

The Port of Oakland (Port) has identified themselves as a UST owner. As a tank owner, it was the Port's responsibility to comply with all applicable permits for the operation of the subject USTs. Based on the information submitted with this claim and other claims submitted by the Port, it is evident that the Port had knowledge of UST law and the requirement to obtain operating permits. The following information appears to support claimant's knowledge of the permitting requirements:

- In 1988, an Interim Permit was issued at the following site: 5110 7<sup>th</sup> Street Terminal, Oakland
- In 1989, an Underground Tank Closure Plan was approved by the County at the following site: 265 Hegenberger Road, Oakland
- In 1989, the County reviewed the Underground Tank Closure at the following site: 801 Maritime Street, Oakland

The Petroleum Underground Storage Tank Cleanup Fund Regulations, Section 2811(B) states for claims filed on or after January 1, 1994, the claimant had and has obtained any permit or permits required of the claimant pursuant to Chapter 6.7, Division 20, of the California Health and Safety Code, or had filed a substantially complete application for such permit or permits not later than January 1, 1990. The SWRCB may waive the provisions of this subparagraph if the SWRCB finds that all conditions have been met. One condition is the claimant was unaware of the permit

requirement prior to January 1, 1990. Based on the above actions by the Port, the SWRCB will not grant the Port a Permit Waiver to access the Fund since they were aware of the requirement.

**REQUEST OWNER/OPERATOR PERMIT**

The Port must provide supporting documentation that they were in compliance with the UST permit requirements. The documentation that would support having met the permit compliance would be an interim permit issued by the County or a substantially complete application filed for such permit or permits not later than January 1, 1990.

**BOARD OF EQUALIZATION FEES**

Claimant is required to provide documentation that all current and prior UST fees due on or after January 1, 1991 imposed by Section 25299.41 of the Health and Safety Code have been paid. If any of the USTs owned or operated had product placed in them on or after January 1, 1991, attach the most recent copy of the UST Fee Return Form filed with the State Board of Equalization (BOE) with proof of payment (copy of canceled check).

**POWER OF ATTORNEY FOR SIGNATURE AUTHORIZATION**

This is in reference to the Authorized Representative Form. In the past the Cleanup Fund allowed claimants to designate a representative to sign certain Fund documents. However, there is a concern that this procedure is not consistent with section 25299.55 of the Health and Safety Code, which requires a Fund claimant to make a sworn verification of the claim and certification of costs. Therefore, the "Authorized Representative Designation Form" is no longer being used by the Fund and we will not accept any future documents signed by the representative that was designated by such form.

We encourage claimants to sign all Fund documents personally. However, there may be circumstances where a claimant wants a representative to be able to sign Fund documents on the claimant's behalf. In this situation, the claimant must submit a notarized Power of Attorney form designating a specific representative to sign and submit documents to the Fund on the claimant's behalf. The designated representative should not be a consultant or contractor performing work on the project site because it could create a conflict of interest.

Claimants should be aware that they will be personally responsible and bound by any assertions made to the Fund pursuant to a Power of Attorney. (An appropriate Power of Attorney form is available on our website or by request)

**NOTE:** Failure to respond to this request within thirty (30) calendar days from the date of this letter may result in an ineligibility determination of your claim.

If you have any questions, please contact me at (916) 341-5714.

Sincerely,

**ORIGINAL SIGNED BY**

Shari Knieriem

Claims Review Unit

Underground Storage Tank Cleanup Fund

Port Of Oakland

-3-

cc: Mr. Steve Morse  
RWQCB, Region 2  
1515 Clay Street, Ste. 1400  
Oakland, CA 94612

Ms. Donna Drogos  
Alameda County EHD  
1131 Harbor Bay Pkway, 2nd Fl.  
Alameda, CA 94502-6577





**Winston H. Hickox**  
Secretary for  
Environmental  
Protection

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website at [www.swrcb.ca.gov](http://www.swrcb.ca.gov).*

RD 101 BC

# State Water Resources Control Board

## Division of Financial Assistance

1001 I Street • Sacramento, California 95814  
P.O. Box 944212 • Sacramento, California • 94244-2120  
(916) 341-5714 • FAX (916) 341-5806 • [www.swrcb.ca.gov/cwphome/ustcf](http://www.swrcb.ca.gov/cwphome/ustcf)



**Gray Davis**  
Governor

Port Of Oakland  
Wendel, Rosen, Black & Dean, LLP  
Carmen King  
1111 Broadway 24th Fl  
Oakland, CA 94607

UNDERGROUND STORAGE TANK CLEANUP FUND (FUND), STAFF DECISION TO REJECT CLAIM: CLAIM NUMBER 017256; FOR SITE ADDRESS: 2801 7TH ST, OAKLAND

Your claim has been found to be ineligible for placement on the Priority List for the following reason:

On March 25, 2002, the Fund received your claim application. After careful review, it was determined that the application was not complete and further documentation was needed in order to make a determination of eligibility for placement on the Priority List.

On June 25, 2002, the Fund requested the additional documentation in order to determine the eligibility of the subject claim. As you know, one of the required documents was the permit for the UST which is required under section 25284 of the Health and Safety Code. On March 5, 2003, the Fund received the requested documentation for the subject claim. The permit information that was provided failed to meet the regulations that govern this program.

The Petroleum Underground Storage Tank Cleanup Fund Regulations, Section 2811. (a) (1) (2) states in part...*"If the underground storage tank ...that is subject to this claim was installed before January 1, 1990, then the claimant must have obtained any permit required by Health and Safety Code, division 20, chapter 6.7 or filed a substantially complete application for any required permit before January 1, 1990."*

NOTE: Sections cited are found in the Petroleum Underground Storage Tank Cleanup Fund Regulations, Title 23, Division 3, Chapter 18, of the California Code of Regulations.

If you disagree with this Staff Decision, you may appeal to the Division Chief pursuant to Section 2814.1 of the Petroleum Underground Storage Tank Cleanup Fund Regulations. If you would like review of the decision by the Fund Manager, please submit your request along with any additional documentation to:

Allan V. Patton, Fund Manager, Claim #017256  
Underground Storage Tank Cleanup Fund  
State Water Resources Control Board

***California Environmental Protection Agency***



Division of Financial Assistance  
P.O. Box 944212  
Sacramento, CA 94244-2120

A request to the Fund Manager must include, at a minimum: (1) a statement describing how the claimant is damaged by the prior Staff Decision; (2) a description of the remedy or outcome desired; and (3) an explanation of why the claimant believes the Staff Decision is erroneous, inappropriate or improper.

If you do not a request review by the Fund Manager within thirty (30) calendar days from the date of this letter, the Staff Decision will then become final and conclusive.

If you have any questions, please call me at (916) 341-5714.

Sincerely,

Shari Knieriem  
Claims Review Unit  
Underground Storage Tank Cleanup Fund

Lustis Case #: 01-1196

cc: Mr. Steve Morse  
RWQCB, Region 2  
1515 Clay Street, Ste. 1400  
Oakland, CA 94612

Ms. Donna Drogos  
Alameda County EHD  
1131 Harbor Bay Pkway, 2nd Fl.  
Alameda, CA 94502-6577

ALAMEDA COUNTY  
HEALTH CARE SERVICES



AGENCY

DAVID J. KEARS, Agency Director

Alameda County CC4580  
Environmental Health Services  
1131 Harbor Bay Pkwy., #250  
Alameda CA 94502-6577  
(510)567-6700 FAX(510)337-9335

June 10, 1996  
StID # 3900

Mr. John Prall  
Port of Oakland  
530 Water St.  
Oakland CA 94607

**Re: Port of Oakland Site, 2800/2801 7th St., Oakland CA 94607  
aka Former Powerine Oil Company & Old Kaiser Yard**

Dear Mr. Prall:

This letter recounts our June 7, 1996 conversation regarding the above sites. It appears that at least three County activities/ investigations have occurred at this location, however, the status of each of these is uncertain. The three activities are as follows:

1. Three steel underground tanks; 1-5,000 gallon gasoline, 1-3,000 gallon gasoline and 1-5,000 gallon diesel, were removed at the site on April 15, 1992. No TPHg,d or BTEX was detected in any of the six (6) soil samples taken, however, TPHg and BTEX was detected in a grab groundwater sample. These results are documented in Geomatrix's June 1992 **Removal of Underground Storage Tanks** report. A Port of Oakland June 15, 1992 letter from Mr. Dan Schoenholz, stated that **"We will provide you with a work plan as soon as we finalize it."** It appears that the work plan was included in the March 1993 Powerine Oil Co. report mentioned below.

2. Upon construction work along the bay fringe of this site, contractors encountered a 1000 gallon steel tank of unknown contents. This underground tank was removed on August 13, 1992 by Zaccor. A representative from Geomatrix took the appropriate regulatory samples. No evidence of release was observed during the removal, however, our office did not receive the tank closure report for this tank removal. Please provide a copy of the tank closure report to our office **within 30 days or by July 11, 1996.**

*Recd  
6/19/96*

3. Thirdly, our office has received and reviewed the **March 1993, Soil Excavation Report and Proposed Work Plan** for the Former Powerine Oil Company Site, authored by Geomatrix Consultants. This report describes the investigation of soils beneath a concrete pad which was being removed during construction activities of the realignment of 7th St. Extensive overexcavation of petroleum contaminated soil occurred generating approximately 2300 cubic yards of soil. This soil was profiled and transported to the Port's bioremediation site off Doolittle Dr. Upon review of the Port's report on the bioremediation site,



Mr. J. Prall  
StID # 3900  
2800/2801 7th St.  
June 10, 1996  
Page 2.

**Uribe's May 16, 1996, Summary of the Source, Treatment, and Disposition of Soils Port of Oakland Bioremediation Site, 5253 cubic yards of soil is to be used at Port Properties. Please clarify this difference in soil volume.**

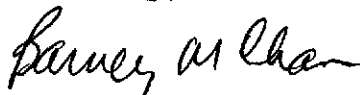
A work plan was proposed within this report which included the installation of three monitoring wells, two near the limits of the overexcavation of the former Powerine site and one near the former tank pit of the three USTs mentioned above. Our office is not aware that these wells were ever installed. Through our conversation, according to your recollection, they have not been installed. If this is the case, please observe the following County comments to this work plan:

a. In order to determine the actual site specific gradient, our office requests that three monitoring wells be installed immediately around the former Powerine excavation. A fourth well may be installed in the area of the three former tanks. Alternatively, because only the grab groundwater sample from this area was impacted with petroleum contamination, you may want to advance temporary boring(s) around the tank pit to verify the extent and degree of contamination, if any. Please analyze the groundwater sample(s) around the USTs for TPHg,d and BTEX. Please analyze the groundwater samples around the former Powerine excavation for TPHg, d and BTEX and semi-volatiles. Should semi-volatiles not be detected in the initial sampling event, its analysis may be dropped in future samplings.

Please inform our office 72 working hours prior to any field work so I may arrange to be present if possible.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,



Barney M. Chan  
Hazardous Materials Specialist

c: Ms. Elizabeth Wells, Geomatrix Consultants, Inc., 100 Pine St., San Francisco, CA 94111

G. Coleman, Files

1-2800-7

ALAMEDA COUNTY  
HEALTH CARE SERVICES  
AGENCY

DAVID J. KEARS, Agency Director



RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

June 30, 1993  
StID # 3900

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

Mr. Dan Schoenholz  
Port of Oakland  
530 Water St.  
Oakland CA 94607

**Re: Request for Status of Investigation at 2801 Seventh St.,  
Oakland CA 94607, Old Kaiser Yard**

Dear Mr. Schoenholz:

As you are aware, this site has been transferred to the Local Oversight Program, (LOP), within the County's Hazardous Materials Division. Recall, three underground storage tanks were removed from this site on April 15, 1992. In addition, a grab water sample was taken on April 16, 1992. The analytical results of this investigation, as well as a narrative was provided in the June 1992 Geomatrix Consultants report. The results indicate that though the soil from within the excavation tank does not appear to be impacted, the groundwater apparently has been. Detectable gasoline and BTEX were found in the April 16th sample.

Because of this result, a groundwater investigation is required at this site. I am not aware that monitoring well(s) have been installed in this area to determine the extent of the groundwater contamination. If wells currently exist, please provide copies of the quarterly monitoring reports. If wells do not exist, please provide a work plan for the installation of appropriately located wells.

Please provide the requested reports to our office within 30 days or by August 1, 1993.

You may contact me at (510) 271-4530 if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Barney M. Chan".

Barney M. Chan  
Hazardous Materials Specialist

cc: G. Jensen, Alameda County District Attorney Office  
E. Howell, files

wp-2801



# PORT OF OAKLAND

RECEIVED

JUL 07 1993

July 6, 1993

DISTRICT ATTORNEY  
ALAMEDA COUNTY  
CEPD

Barney Chan  
Hazardous Materials Specialist  
Alameda County Health Services Agency  
80 Swan Way, Rm. 200  
Oakland, CA 94621

Dear Mr. Chan:

**SUBJECT: STATUS OF INVESTIGATION AT 2801 SEVENTH ST (OLD KAISER YARD) OAKLAND, CA**

This letter is in response to your letter of June 30, 1993, in which you requested a status update on the above-referenced project.

The Port submitted a work plan on March 22, 1993, for installation of three groundwater monitoring wells in the vicinity of the removed tanks in the old Kaiser yard. As described in the workplan, the Port proposes to use the wells to evaluate possible impacts to the groundwater from both the Kaiser yard tanks and from the contaminated soil encountered at the former Powerine Oil Company site (2800 7th St.). A copy of the letter transmitting that work plan is enclosed.

If you have any additional questions, please feel free to contact me at (510) 272-1220.

Sincerely

Dan Schoenholz  
Associate Environmental Scientist

ds

Enclosure

cc(w/enclosure): G. Jensen, Alameda County District Attorney's Office



# PORT OF OAKLAND

March 22, 1993

Don Hwang  
Hazardous Materials Specialist  
Alameda County Health Services Agency  
80 Swan Way, Rm. 200  
Oakland, CA 94621

Dear Mr. Hwang:

**SUBJECT: SOIL EXCAVATION REPORT AND PROPOSED WORK PLAN, FORMER  
POWERINE OIL COMPANY SITE, 2800 SEVENTH ST., OAKLAND**

Enclosed please find a report on soil excavation activities at the Powerine/Berth 30 site, along with a proposed work plan for groundwater monitoring at the site.

As we have discussed previously, the Port is proposing to install three monitoring wells to determine whether petroleum hydrocarbons from the Powerine site or from the three removed underground storage tanks in the old Kaiser Yard (2801 7th St.) have impacted groundwater.

Please review the enclosed report. The Port intends to implement the Work Plan when we have received County approval and when construction activities at the site have been completed.

If you have any questions, feel free to contact me at (510) 272-1220.

Sincerely

Dan Schoenholz  
Associate Environmental Scientist

ds

Enclosure

cc(w/enclosure): Rich Hiatt, RWQCB  
Frank Lobedan  
(w/o enclosure): Neil Werner

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY  
 DEPARTMENT OF ENVIRONMENTAL HEALTH  
 HAZARDOUS MATERIALS DIVISION  
 80 SWAN WAY, ROOM 200  
 OAKLAND, CA 94621  
 PHONE NO. 510/271-4320

Barney Chan  
 815/92 OR Blue

RECEIVED  
 DEPARTMENT OF ENVIRONMENTAL HEALTH  
 HAZARDOUS MATERIALS DIVISION  
 80 SWAN WAY, ROOM 200  
 OAKLAND, CA 94621  
 TELEPHONE (510) 271-4320

These plans have been read and found to be acceptable for the purpose of a permit to be issued for the removal of a tank and piping from the site. The permittee is responsible for the removal of the tank and piping in accordance with the applicable laws and regulations. The permittee is also responsible for the removal of the tank and piping in accordance with the applicable laws and regulations. The permittee is also responsible for the removal of the tank and piping in accordance with the applicable laws and regulations.

Removal of Tank and Piping  
 Sampling  
 Final Inspection

Removal of a tank is not to be dependent on completion of all accepted plans and all applicable laws and regulations.

THIS IS A HAZARDOUS MATERIALS NOTIFICATION

**UNDERGROUND TANK CLOSURE PLAN**

\*\*\* Complete according to attached instructions \*\*\*

1. Business Name Port of Oakland  
 Business Owner Board of Port Commissioners of City of Oakland
  2. Site Address 2801 Seventh Street  
 City Oakland Zip 94607 Phone \_\_\_\_\_
  3. Mailing Address 530 Water Street, P.O. Box 2064, Environmental Dept.  
 City Oakland Zip 94604-2064 Phone (510) 272-1184
  4. Land Owner Port of Oakland  
 Address 530 Water Street City, State Oakland, CA zip 94604-2064
  5. Generator name under which tank will be manifested \_\_\_\_\_  
Port of Oakland
- EPA I.D. No. under which tank will be manifested CAC 000627912

6. Contractor Zaccor Corporation  
Address 791 Hamilton Avenue  
City Menlo Park, CA 94025 Phone (415) 363-2181  
License Type\* A ID# 478799

\*Effective January 1, 1992, Business and Professional Code Section 7058.7 requires prime contractors to also hold Hazardous Waste Certification issued by the State Contractors License Board. Indicate that the certificate has been received, in addition, to holding the appropriate contractors license type.

7. Consultant Geomatrix Consultants, Inc.  
Address 4721 Tidewater Avenue, Ste. C  
City Oakland, CA 94601 Phone (510) 535-2445

8. Contact Person for Investigation  
Name Jon Amdur Title Asst. Env. Scientist  
Phone (510) 272-1184

9. Number of tanks being closed under this plan 1  
Length of piping being removed under this plan 0  
Total number of tanks at facility 1

10. State Registered Hazardous Waste Transporters/Facilities (see instructions).

\*\* Underground tanks are hazardous waste and must be handled \*\*  
as hazardous waste

a) Product/Residual Sludge/Rinsate Transporter

Name Allied Oil Pumping EPA I.D. No. CAT080014277  
Hauler License No. 2477 License Exp. Date 7/93  
Address P. O. Box 399  
City Alviso State CA Zip 95002

b) Product/Residual Sludge/Rinsate Disposal Site

Name Refining Services EPA I.D. No. CA0083166728  
Address 13331 No. Hwy. 33  
City Patterson State CA Zip 95363

c) Tank and Piping Transporter

Name Erickson, Inc. EPA I.D. No. CAD009466392  
Hauler License No. 019 License Exp. Date 5/93  
Address 255 Parr Boulevard  
City Richmond State CA Zip 94801

d) Tank and Piping Disposal Site

Name Erickson, Inc. EPA I.D. No. CAD009466392  
Address 255 Parr Boulevard  
City Richmond State CA Zip 94801

11. Experienced Sample Collector

Name Elizabeth Wells  
Company Geomatrix Consultants, Inc.  
Address 4721 Tidewater Avenue, Ste. C  
City Oakland State CA Zip 94601 Phone (510) 535-2445

12. Laboratory

Name Clayton Environmental  
Address 1252 Quarry Lane, P. O. 9019  
City Pleasanton State CA Zip 94566  
State Certification No. 1196

13. Have tanks or pipes leaked in the past? Yes [ ] No [ ]

If yes, describe. No leaks documented.

14. Describe methods to be used for rendering tank inert

Use 15 lbs. of dry ice per each 1,000-gallon capacity for the tank. Verify with an LEL meter on site.

Before tanks are pumped out and inerted, all associated piping must be flushed out into the tanks. All accessible associated piping must then be removed. Inaccessible piping must be plugged.

The Bay Area Air Quality Management District (771-6000), along with local Fire and Building Departments, must also be contacted for tank removal permits. Fire departments typically require the use of explosion proof combustible gas meters to verify tank inertness. It is the contractor's responsibility to bring a working combustible gas meter on site to verify tank inertness.

15. Tank History and Sampling Information

Tank		Material to be sampled (tank contents, soil, ground-water, etc.)	Location and Depth of Samples
Capacity	Use History (see instructions)		
1,000	Likely installed before 1950; may have been used as a distillate holding tank.	Soil  Groundwater to be sampled if encountered.	One sample at each end of the tank pit, max. of 2 feet below tank pit.

One soil sample must be collected for every 20 feet of piping that is removed. A ground water sample must be collected should any ground water be present in the excavation.



Excavated/Stockpiled Soil	
Stockpiled Soil Volume (Estimated)	<p>Sampling Plan</p> <p><del>20</del> 50</p> <p>One sample for every <del>50</del> cubic yards minimum.</p> <p>4 SAMPLES COMBINED INTO 1 IN LAB.</p>

Stockpiled soil must be placed on bermed plastic and must be completely covered by plastic sheeting.

16. Chemical methods and associated detection limits to be used for analyzing samples

The Tri-Regional Board recommended minimum verification analyses and practical quantitation reporting limits should be followed. See attached Table 2.

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Method Number	Method Detection Limit
1 Soil Sample:  TPHg TPHd TOG BTEX ClHC Metals PNA, PCB	EPA 5030 EPA 3550 SM 5520 E & F EPA 5030 EPA 5030 AA	GCFID GCFID Gravimetric 8020 8010 6010 8270	1 ppm 1 ppm 50 ppm 0.005 ppm
1 Soil Sample:  TPHg TPHd TOG BTEX	EPA 5030 EPA 3550 SM 5520 E & F	GCFID GCFID Gravimetric 8020	1 ppm 1 ppm 50 ppm 0.005 ppm
Analyses per Paul Smith (7/21/92)			

Groundwater if encountered: TPHg d, TOG & BTEX

17. Submit Site Health and Safety Plan (See Instructions)

18. Submit Worker's Compensation Certificate copy

Name of Insurer State Fund Comp. #0801858 Exp. 3/15/93

19. Submit Plot Plan (See Instructions)

20. Enclose Deposit (See Instructions)

21. Report any leaks or contamination to this office within 5 days of discovery. The report shall be made on an Underground Storage Tank Unauthorized Leak/Contamination Site Report form. (see Instructions)

22. Submit a closure report to this office within 60 days of the tank removal. This report must contain all the information listed in item 22 of the instructions.

I declare that to the best of my knowledge and belief the statements and information provided above are correct and true.

I understand that information in addition to that provided above may be needed in order to obtain an approval from the Department of Environmental Health and that no work is to begin on this project until this plan is approved.

I understand that any changes in design, materials or equipment will void this plan if prior approval is not obtained.

I understand that all work performed during this project will be done in compliance with all applicable OSHA (Occupational Safety and Health Administration) requirements concerning personnel health and safety. I understand that site and worker safety are solely the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda.

Once I have received my stamped, accepted closure plan, I will contact the project Hazardous Materials Specialist at least three working days in advance of site work to schedule the required inspections.

Signature of Contractor

Name (please type) Zaccor Companies, Inc.

Signature [Signature], Gary Zaccor

Date July 23, 92

Signature of Site Owner or Operator

Name (please type) DAVID J. McANENY

Signature [Signature]

Date 7-28-92

## INSTRUCTIONS

### General Instructions

- \* Three (3) copies of this plan plus attachments and deposit must be submitted to this Department.
- \* Any cutting into tanks requires local fire department approval.
- \* One complete copy of your approved plan must be at the construction site at all times; a copy of your approved plan must also be sent to the landowner.
- \* State of California Permit Application Forms A and B are to be submitted to this office. One Form A per site, one Form B for each removed tank.

### Item Specific Instructions

2. SITE ADDRESS  
Address at which closure is taking place.
5. EPA I.D. NO. under which the tanks will be manifested  
EPA I.D. numbers may be obtained from the State Department of Health Services, 916/324-1781.
6. CONTRACTOR  
Prime contractor for the project.
10. STATE REGISTERED HAZARDOUS WASTE TRANSPORTERS/FACILITIES
  - a) All residual liquids and sludges are to be removed from tanks before tanks are inerted.
  - c) Tanks must be hauled as hazardous waste.
  - d) This is the place where tanks will be taken for cleaning.
15. TANK HISTORY AND SAMPLING INFORMATION

Use History - This information is essential and must be accurate. Include tank installation date, products stored in the tank, and the date when the tank was last used.

Material to be sampled - e.g. water, oil, sludge, soil, etc.

Location and depth of samples - e.g. beneath the tank a maximum of two feet below the native soil/backfill interface, side wall at the high water mark, etc.

16. CHEMICAL METHODS AND ASSOCIATED DETECTION LIMITS

See attached Table 2.

17. SITE HEALTH AND SAFETY PLAN

A site specific Health and Safety plan must be submitted. We advocate the site health and safety plan include the following items, at a minimum:

- a) The name and responsibilities of the site health and safety officer;
- b) An outline of briefings to be held before work each day to appraise employees of site health and safety hazards;
- c) Identification of health and safety hazards of each work task. Include potential fire, explosion, physical, and chemical hazards;
- d) For each hazard, identify the action levels (contaminant concentrations in air) or physical conditions which will trigger changes in work habits to ensure workers are not exposed to unsafe chemical levels or physical conditions;
- e) Description of the work habit changes triggered by the above action levels or physical conditions;
- f) Frequency and types of air and personnel monitoring - along with the environmental sampling techniques and instrumentation - to be used to detect the above action levels. Include instrumentation maintenance and calibration methods and frequencies;
- g) Confined space entry procedures (if applicable);
- h) Decontamination procedures;
- i) Measures to be taken to secure the site, excavation and stockpiled soil during and after work hours (e.g. barricades, caution tape, fencing, trench plates, plastic sheeting, security guards, etc.);
- j) Spill containment/emergency/contingency plan. Be sure to include emergency phone numbers, the location of the phone nearest the site, and directions to the hospital nearest the site;
- k) Documentation that all site workers have received the appropriate OSHA approved trainings and participate in appropriate medical surveillance per 29 CFR 1910.120; and
- l) Page for employees to sign indicating they have read and will comply with the site health and safety plan.

The safety plan must be distributed to all employees and contractors working in hazardous waste operations on site. A complete copy of the site health and safety plan along with any standard operating procedures shall be on site and accessible at all times.

NOTE: These requirements are excerpts from 29 CFR Part 1910.120(b)(4), Hazardous Waste Operations and Emergency Response; Final Rule, March 6, 1989. Safety plans of certain underground tank sites may need to meet the complete requirements of this Rule.

19. PLOT PLAN

The plan should consist of a scaled view of the facility at which the tank(s) are located and should include the following information:

- a) Scale;
- b) North Arrow;
- c) Property Lines;
- d) Location of all Structures;
- e) Location of all relevant existing equipment including tanks and piping to be removed and dispensers;
- f) Streets;
- g) Underground conduits, sewers, water lines, utilities;
- h) Existing wells (drinking, monitoring, etc.);
- i) Depth to ground water; and
- j) All existing tanks and piping in addition to the ones being pulled.

20. DEPOSIT

A deposit, payable to Alameda County for the amount indicated on the Alameda County Underground Storage Tank Fee Schedule, must accompany the plans.

21. Blank Unauthorized Leak/Contamination Site Report forms may be obtained in limited quantities from our office and from the San Francisco Bay Regional Water Quality Control Board (415/464-1255). Larger quantities may be obtained directly from the State Water Resources Control Board at (916) 739-2421.

22. TANK CLOSURE REPORT

The tank closure report should contain the following information:

- a) General description of the closure activities;
- b) Description of tank, fittings and piping conditions. Indicate tank size and former contents; note any corrosion, pitting, holes, etc.;

- c) Description of the excavation itself. Include the tank and excavation depth, a log of the stratigraphic units encountered within the excavation, a description of root holes or other potential contaminant pathways, the depth to any observed ground water, descriptions and locations of stained or odor-bearing soil, and descriptions of any observed free product or sheen;
- d) Description of sampling methods;
- e) Description of any remedial measures conducted at the time of tank removal;
- f) To-scale figures showing the excavation size and depth, nearby buildings, sample locations and depths, and tank and piping locations. Include a copy of the plot plan prepared for the Tank Closure Plan under item 19;
- g) Chain of custody records;
- h) Copies of signed laboratory reports;
- i) Copies of "TSDF to Generator" Manifests for all hazardous wastes hauled offsite (sludge, rinsate, tanks and piping, contaminated soil, etc.); and
- j) Tabulation of the volume and final destination of all non-manifested contaminated soil hauled offsite.

**TABLE #2**  
**RECOMMENDED MINIMUM VERIFICATION ANALYSES FOR**  
**UNDERGROUND TANK LEAKS**

<u>HYDROCARBON LEAK</u>	<u>SOIL ANALYSIS</u>		<u>WATER ANALYSIS</u>	
Unknown Fuel	TPH G	GCFID(5030)	TPH G	GCFID(5030)
	TPH D	GCFID(3550)	TPH D	GCFID(3510)
	BTX&E	8020 or 8240	BTX&E	602, 624 or 8260
	TPH AND BTX&E	8260		
Leaded Gas	TPH G	GCFID(5030)	TPH G	GCFID(5030)
	BTX&E	8020 OR 8240	BTX&E	602 or 624
	TPH AND BTX&E	8260	TOTAL LEAD AA	
	TOTAL LEAD AA			
	-----Optional-----			
	TEL	DHS-LUFT	TEL	DHS-LUFT
	EDB	DHS-AB1803	EDB	DHS-AB1803
Unleaded Gas	TPH G	GCFID(5030)	TPH G	GCFID(5030)
	BTX&E	8020 or 8240	BTX&E	602, 624 or 8260
	TPH AND BTX&E	8260		
Diesel, Jet Fuel and Kerosene	TPH D	GCFID(3550)	TPH D	GCFID(3510)
	BTX&E	8020 or 8240	BTX&E	602, 624 or 8260
	TPH AND BTX&E	8260		
Fuel/Heating Oil	TPH D	GCFID(3550)	TPH D	GCFID(3510)
	BTX&E	8020 or 8240	BTX&E	602, 624 or 8260
	TPH AND BTX&E	8260		
Chlorinated Solvents	CL HC	8010 or 8240	CL HC	601 or 624
	BTX&E	8020 or 8240	BTX&E	602 or 624
	CL HC AND BTX&E	8260	CL HC AND BTX&E	8260
Non-chlorinated Solvents	TPH D	GCFID(3550)	TPH D	GCFID(3510)
	BTX&E	8020 or 8240	BTX&E	602 or 624
	TPH AND BTX&E	8260	TPH and BTX&E	8260
Waste and Used Oil or Unknown (All analyses must be completed and submitted)	TPH G	GCFID(5030)	TPH G	GCFID(5030)
	TPH D	GCFID(3550)	TPH D	GCFID(3510)
	TPH AND BTX&E	8260		
	O & G	5520 D & F	O & G	5520 C & F
	BTX&E	8020 or 8240	BTX&E	602, 624 or 8260
	CL HC	8010 or 8240	CL HC	601 or 624
	ICAP or AA TO DETECT METALS: Cd, Cr, Pb, Zn, Ni			
	METHOD 8270 FOR SOIL OR WATER TO DETECT:			
	PCB*		PCB	
	PCP*		PCP	
	PNA		PNA	
	CREOSOTE		CREOSOTE	

\* If found, analyze for dibenzofurans (PCBs) or dioxins (PCP)

Reference: Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites, 10 August 1990

**EXPLANATION FOR TABLE #2: MINIMUM VERIFICATION ANALYSIS**

1. OTHER METHODOLOGIES are continually being developed and as methods are accepted by EPA or DHS, they also can be used.
2. For DRINKING WATER SOURCES, EPA recommends that the 500 series for volatile organics be used in preference to the 600 series because the detection limits are lower and the QA/QC is better.
3. APPROPRIATE STANDARDS for the materials stored in the tank are to be used for all analyses on Table #2. For instance, seasonally, there may be five different jet fuel mixtures to be considered.
4. To AVOID FALSE POSITIVE detection of benzene, benzene-free solvents are to be used.
5. TOTAL PETROLEUM HYDROCARBONS (TPH) as gasoline (G) and diesel (D) ranges (volatile and extractible, respectively) are to be analyzed and characterized by GC/FID with a fused capillary column and prepared by EPA method 5030 (purge and trap) for volatile hydrocarbons, or extracted by sonication using 3550 methodology for extractable hydrocarbons. Fused capillary columns are preferred to packed columns; a packed column may be used as a "first cut" with "dirty" samples or once the hydrocarbons have been characterized and proper QA/QC is followed.
6. TETRAETHYL LEAD (TEL) analysis may be required if total lead is detected unless the determination is made that the total lead concentration is geogenic (naturally occurring).
7. CHLORINATED HYDROCARBONS (CL HC) AND BENZENE, TOLUENE, XYLENE AND ETHYLBENZENE (BTX&E) are analyzed in soil by EPA methods 8010 and 8020 respectively, (or 8240) and in water, 601 and 602, respectively (or 624).
8. OIL AND GREASE (O & G) may be used when heavy, straight chain hydrocarbons may be present. Infrared analysis by method 418.1 may also be acceptable for O & G if proper standards are used. "Standard Methods" 17th Edition, 1989, has changed the 503 series to 5520.
9. PRACTICAL QUANTITATION REPORTING LIMITS are influenced by matrix problems and laboratory QA/QC procedures. Following are the Practical Quantitation Reporting Limits:

	<u>SOIL PPM</u>	<u>WATER PPB</u>
TPH G	1.0	50.0
TPH D	1.0	50.0
BTX&E	0.005	0.5
O & G	50.0	5,000.0



Based upon a Regional Board survey of Department of Health Services Certified Laboratories, the Practical Quantitation Reporting Limits are attainable by a majority of laboratories with the exception of diesel fuel in soils. The Diesel Practical Quantitation Reporting Limits, shown by the survey, are:

ROUTINE	MODIFIED PROTOCOL
< 10 ppm (42%)	< 10 ppm (10%)
< 5 ppm (19%)	< 5 ppm (21%)
< 1 ppm (35%)	< 1 ppm (60%)

When the Practical Quantitation Reporting Limits are not achievable, an explanation of the problem is to be submitted on the laboratory data sheets.

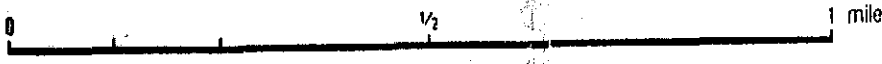
- LABORATORY DATA SHEETS are to be signed and submitted and include the laboratory's assessment of the condition of the samples on receipt including temperature, suitable container type, air bubbles present/absent in VOA bottles, proper preservation, etc. The sheets are to include the dates sampled, submitted, prepared for analysis, and analyzed.
- IF PEAKS ARE FOUND, when running samples, that do not conform to the standard, laboratories are to report the peaks, including any unknown complex mixtures that elute at times varying from the standards. Recognizing that these mixtures may be contrary to the standard, they may not be readily identified; however, they are to be reported. At the discretion of the LIA or Regional Board the following information is to be contained in the laboratory report:

The relative retention time for the unknown peak(s) relative to the reference peak in the standard, copies of the chromatogram(s), the type of column used, initial temperature, temperature program is C/minute, and the final temperature.

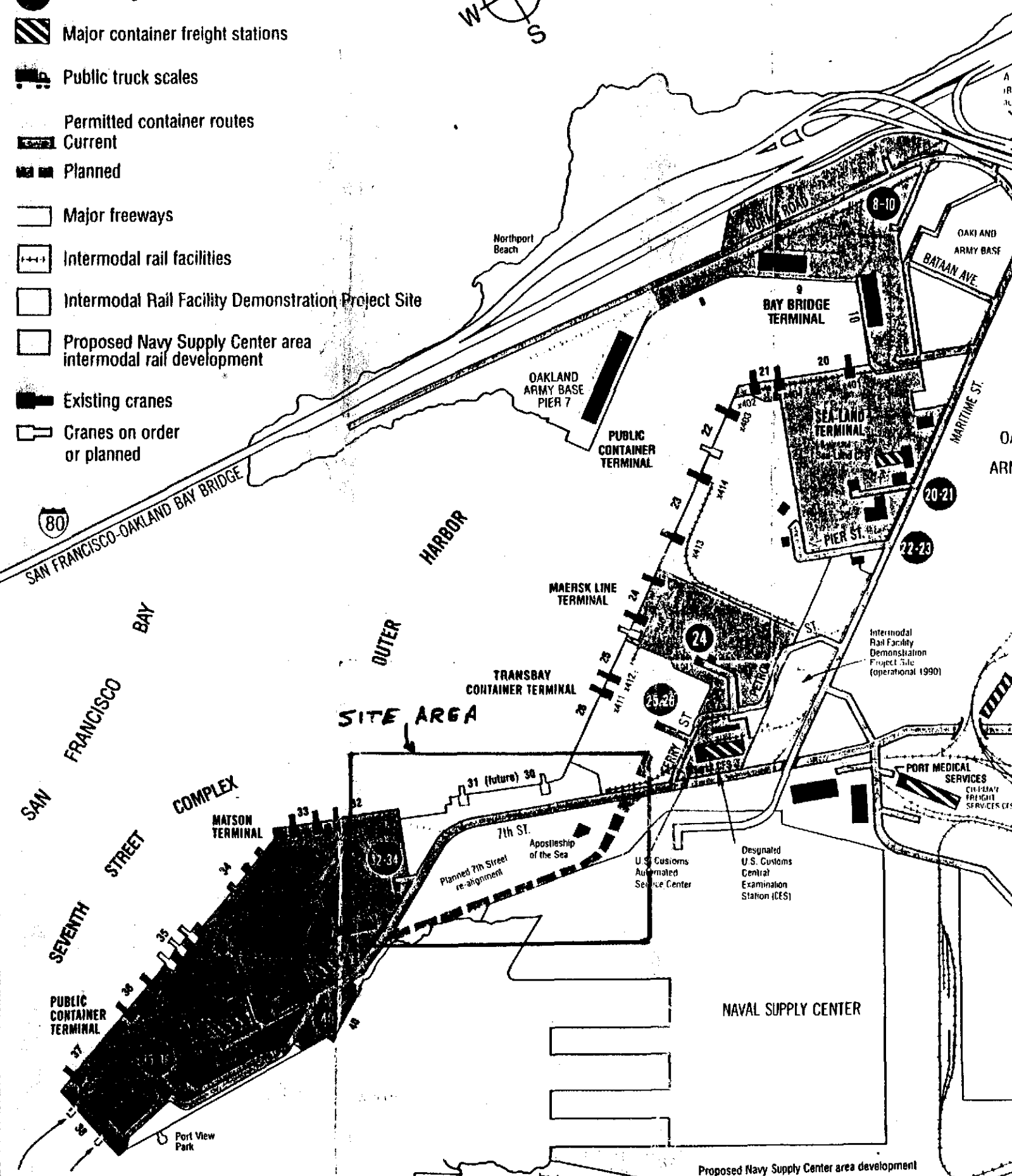
- REPORTING LIMITS FOR TPH are: gasoline standard  $\leq$  20 carbon atoms, diesel and jet fuel (kerosene) standard  $\leq$  50 carbon atoms. It is not necessary to continue the chromatography beyond the limit, standard, or EPA/DHS method protocol (whichever time is greater).

#### EPILOGUE

ADDITIVES: Major oil companies are being encouraged or required by the federal government to reformulate gasoline as cleaner burning fuels to reduce air emissions. MTBE (Methyl-tertiary butyl ether), ETHANOL (ethyl alcohol), and other chemicals may be added to reformulate gasolines to increase the oxygen content in the fuel and thereby decrease undesirable emissions (about four percent with MTBE). MTBE and ethanol are, for practical purposes, soluble in water. The removal from the water column will be difficult. Other compounds are being added by the oil companies for various purposes. The refinements for detection and analysis for all of these additives are still being worked out. If you have any questions about the methodology, please call your Regional Board representative.



- Terminal gates
- Major container freight stations
- Public truck scales
- Permitted container routes
  - Current
  - Planned
- Major freeways
- Intermodal rail facilities
- Intermodal Rail Facility Demonstration Project Site
- Proposed Navy Supply Center area intermodal rail development
- Existing cranes
- Cranes on order or planned

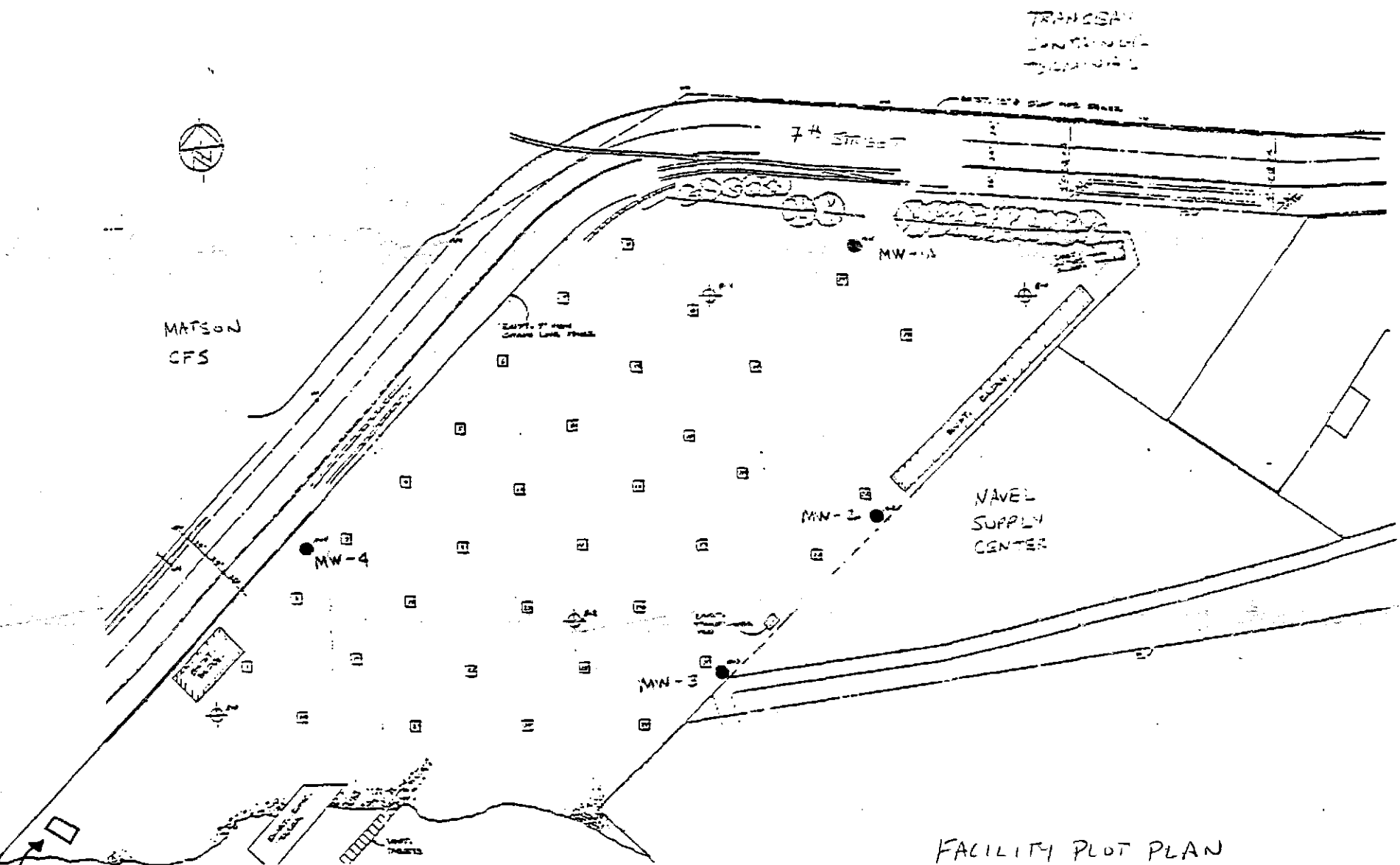


lines x421 and x422 to be

Proposed Navy Supply Center area development

# SITE MAP

MAP #2



FACILITY PLOT PLAN

Approximate \*  
tank location

**STATE  
COMPENSATION  
INSURANCE  
FUND**

P.O. BOX 420807, SAN FRANCISCO, CA 94142-0807

**CERTIFICATE OF WORKERS' COMPENSATION INSURANCE**

JULY 21, 1992

POLICY NUMBER: 0801858 - 92  
CERTIFICATE EXPIRES: 3-15-93

CITY OF ALAMEDA  
ENVIRONMENTAL HEALTH SERVICES  
80 SWAN WAY  
OAKLAND CA 94621

This is to certify that we have issued a valid Workers' Compensation Insurance policy in a form approved by the California Insurance Commissioner to the employer named below for the policy period indicated.

This policy is not subject to cancellation by the Fund except upon ten days' advance written notice to the employer.

We will also give you TEN days' advance notice should this policy be cancelled prior to its normal expiration.

This certificate of insurance is not an insurance policy and does not amend, extend or alter the coverage afforded by the policies listed herein. Notwithstanding any requirement, term, or condition of any contract or other document with respect to which this certificate of insurance may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies.

  
PRESIDENT

EMPLOYER'S LIABILITY LIMIT: \$3,000,000 PER OCCURRENCE.

EMPLOYER

ZACCOR COMPANIES, INC.  
791 HAMILTON AVE.  
MENLO PARK CA 94025

P.22

JUL 20 '92 04:11PM SFDG POLICY SERVICES 415 9748892

TABLE 1

EMERGENCY INFORMATION

EMERGENCY TELEPHONE NUMBERS

In Emergency: 911  
Site Telephone: (415) 608-7188  
(415) 999-5015

Alternate Telephone No.  
(415) 363-2181

Hospital: Providence Hospital  
3100 Summit Ave.  
Oakland, CA 94621  
510-835-4500  
(see attached map)

Police Department: 911 or (510) 238-3481

Fire Department: 911 or (510) 444-3322

Poison Control: 1 (800) 792-0720

Zaccor Companies, Inc.

Project Manager, Gary Zaccor

wk. (415) 363-2181

mo. (415) 999-9015

Site Safety Officer, Scot Zaccor

wk. (415) 363-2181

mo. (415) 608-7188

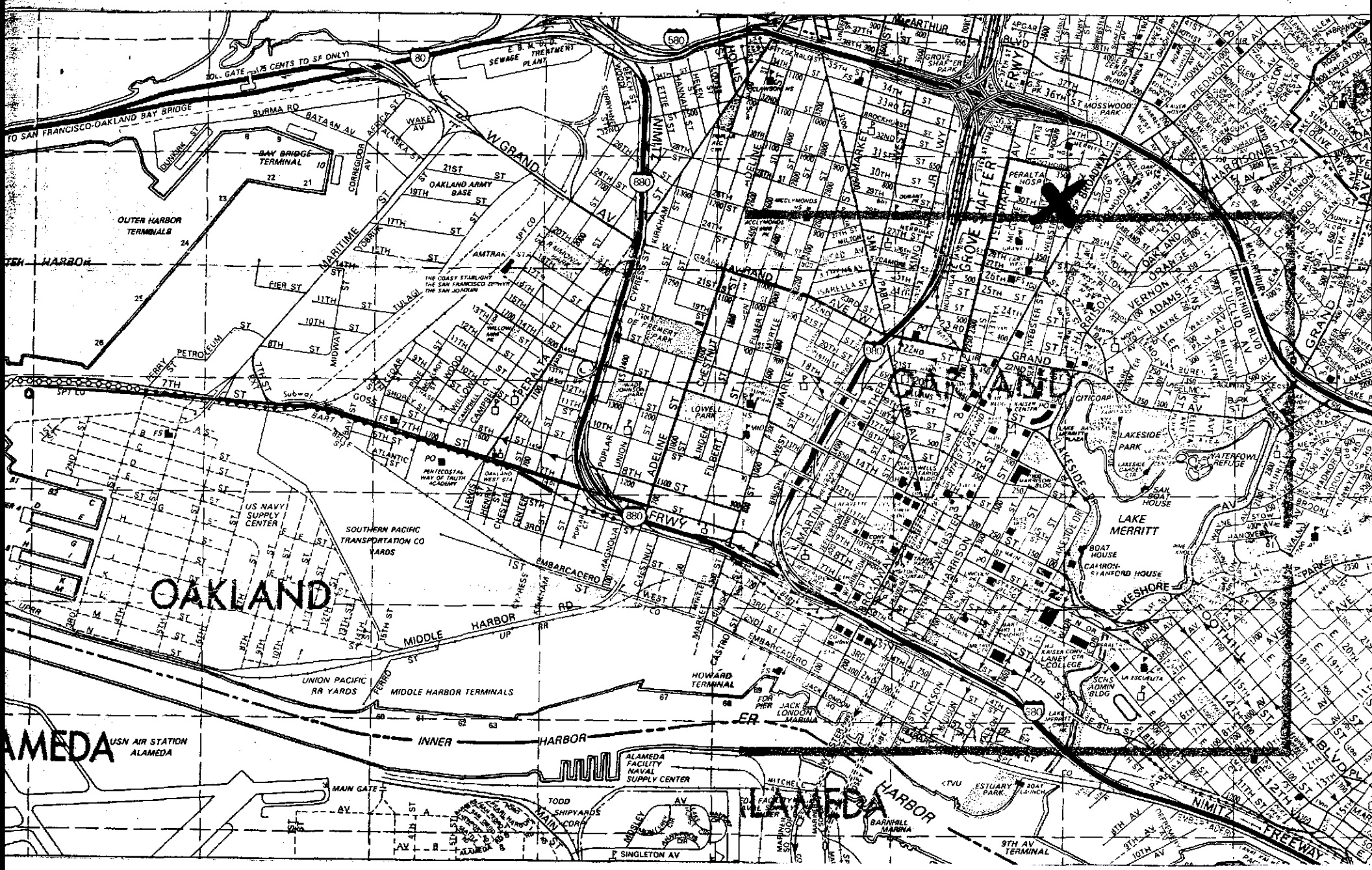
Corp. Safety Officer, Scot Zaccor

wk. (415) 363-2181

mo. (415) 608-7188

Directions to hospital:

Take 7th St. heading southeast, turn left on Adeline St., take Adeline St. to Grand Ave W., make a right turn, Take Grand Ave. W to Telegraph Ave. make left turn, Telegraph to Hawthorne Ave. make a right turn to Webster St. make a right turn to 30th St., the hospital is on the right hand side at Summit Ave.



OAKLAND

ALAMEDA  
USN AIR STATION  
ALAMEDA

ALAMEDA FACILITY  
NAVAL SUPPLY CENTER

ALAMEDA HARBOR

LAKE MERRITT

BAY BRIDGE  
TERMINAL

OUTER HARBOR  
TERMINALS

SOUTHERN PACIFIC  
TRANSPORTATION CO  
YARDS

UNION PACIFIC  
RR YARDS

TODD SHIPYARDS

ESTUARY PARK

LAKE MERRITT

LAKE MERRITT

## SITE HEALTH AND SAFETY PLAN SUMMARY

SITE NAME: Tank Removal at Port of Oakland

ADDRESS: 7th Street Expansion  
Oakland, CA

SITE TELEPHONE: (415) 608-7188 (Scot Zaccor mobile)  
(415) 999-5015 (Gary Zaccor mobile)  
(415) 363-2181 (main office)

INVESTIGATION DATE: upon approval of Env. Health

SITE SAFETY OFFICER: SCOT ZACCOR  
PROJECT MANAGER: GARY ZACCOR

### TYPE OF INVESTIGATION

- Soils Sampling
- Groundwater Sampling (if encountered)
- Site Walkthrough
- Remedial Activities
- Subcontractor Supervision
- Other: Tank Removal

### POTENTIAL HAZARDS

- Organics  Acids
- Inorganics  Bases
- Metals  Fire
- Motor Oil/TOG
- PNA, PCB
- Other: TPHg, TPHd, BTEX

PERSONAL PROTECTIVE EQUIPMENT - Level: A  B  C  D

- Hard Hat
  - Boots
    - Steel toed
    - Chemical resistant
  - Coveralls
    - Cotton
    - Tyveks (std. if necessary)
  - Gloves
    - Disposable inner - laytex or vinyl
    - Disposable outer chemical resistant
- Ear Plugs/Muffs
  - Safety Glasses
  - Respirator
    - Organic vapor cartridge
    - Particulate filters
    - Other
  - First Aid Kit
  - Organic Vapor Meter
  - Other: OVA (OVM backup)

## INTRODUCTION

This Site Health and Safety Plan, developed in accordance with Occupational Safety and Health Administrative (OSHA) standards for hazardous waste operations (29 CFR 1910.120), establishes general health and safety protocol for Zaccor Companies, Inc., ("ZCI") personnel at the facility of Port of Oakland, 7th St. Expansion, West of Ferry St., Oakland, CA

For informational purposes only, this plan may be provided to subcontractors of ZCI involved in activities at the facility located at Port of Oakland, 7th St. Expansion, West of Ferry St., Oakland.

However, entities and personnel other than ZCI staff shall be solely responsible for their own health and safety and shall independently assess onsite conditions and develop their own health and safety protocol. Other entities or personnel that anticipate using health and safety measures which are less stringent than ZCI's measures should immediately contact ZCI's Site Safety Officer.

Zaccor Companies, Inc. has developed a Corporate Health and Safety plan. The Corporate Plan complies with current health and safety regulations, including OSHA 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response. Many of the protocols of the corporate plan are conducted on a routine basis (general training, respirator fit testing, general medical record keeping, etc.) and are not repeated herein. The Corporate Plan was developed for ZCI employees. Questions regarding the ZCI Corporate Plan are referred to the ZCI Corporate Safety Supervisor, Scot Zaccor.

A copy of the Zaccor Companies, Inc. Field Investigations Site Health and Safety Plan along with any addenda, if issued, containing activity specific health and safety information will be kept in a conspicuous location on-site at all times while work is being conducted.

### 1.0 SITE HISTORY

This site was a location for numerous activities. The Port of Oakland rented this site out to many different companies over the years. ZCI will be removing one 1,000 gallon underground distillate holding tank and backfilling the excavation.

### 2.0 KEY HEALTH AND SAFETY PERSONNEL

The ZCI Site Safety Officer (SSO) is Scot Zaccor. In the absence of the SSO during field activities, a member of the field investigation team will be designated as the ZCI field Site Safety Officer (FSSO). The SSO or FSSO are responsible for the following:



- Observing field activities for compliance with this Site Health and Safety Plan, applicable addenda, ZCI's Corporate Health and Safety Plan.
- Modifying health and safety protocols or terminating field work when unsafe work conditions exist.
- Familiarizing ZCI personnel with health and safety protocols.
- Ensuring that ZCI field personnel wear appropriate personal protective equipment.
- Recording data from direct reading instruments and evaluating potential hazards to ZCI personnel.
- Monitoring decontamination procedures.
- Recording the occurrence of any site injury or illness.

### 3.0 PROPOSED FIELD ACTIVITIES

The proposed field activities include:

- 1) Excavation and removal of one (1) 1000 gallon steel tank.
- 2) Assist in the collection of soil for soil sampling.
- 3) Stockpiling of excavated material
- 4) Backfill with stockpiled material, if clean, import clean fill material.

### 5.0 HAZARD ANALYSIS

Excavations 5 feet or deeper must be protected by sloping or benching the sides of the excavation, support the sides of the excavation or place a shield between the side of the excavation and the work area. Provide adequate means of access.

#### 5.1 POTENTIAL PHYSICAL HAZARDS

Field personnel shall be cognizant of potential physical hazards associated with use of heavy equipment, steam cleaning equipment, and electrical equipment during field operations. Equipment shall be operated by OSHA trained personnel. Appropriate protective equipment includes the following:

- Hardhats, safety glasses, and steel-toe boots will be worn.
- Gloves will be worn when handling equipment or moving drums.
- Hearing protection (ear plugs or ear muffs) will be worn when noise becomes discomforting.
- A first aid kit will be available at the jobsite.

Adverse climate conditions, primarily heat are important considerations in planning and conducting site operations. Heat stress is an associated concern, particularly when protective clothing is worn. Preventative measures include the following:

- Frequent rest periods in the shade when heat and/or humidity is high.
- Provide water and/or commercial electrolyte solutions. Drinking of these fluids will be encouraged. Drinking of these liquids will not take place in the exclusion zone or the contamination reduction zone.
- Suitable acclimation periods will be provided for workers to gradually establish their resistance to heat stress.

Personnel exhibiting symptoms of heat stress (nausea, cramps, dizziness, clammy skin) will be removed from the work area, cooled, fluids will be administered, and the personnel will be observed. Personnel exhibiting symptoms of heat stroke (hot dry skin, mental confusion, unconsciousness) will be immediately cooled and taken to the hospital. (See enclosed map for directions)

ZCI FIELD PERSONNEL SHOULD NOT ENTER ANY EXCAVATION. ZCI personnel should be aware of the potential hazards associated with unshored excavations, and should not stand on unsupported ground within 5 feet of any unshored or unsloped walls of the excavation.

#### 5.2 POTENTIAL CHEMICAL HAZARDS

Total Petroleum Hydrocarbons as Gasoline, Total Petroleum Hydrocarbons as Diesel, Total Oil and Grease, Benzene, Toluene, Xylenes, Ethylbenzene, Metals, PNA's and PCB's are the chemicals of concern.

Field personnel will minimize potential chemical hazards by 1) standing upwind of the work area when possible, 2) avoiding direct contact with soil and groundwater, 3) avoiding generation of dust (visual monitoring), and 4) wearing appropriate personal protective equipment as outlined in Section 6.1. As a general precaution to detect organic vapors, air monitoring to measure organic vapor concentrations in the breathing zone will be performed.

Ingestion of soil and particulate matter containing chemicals is another general exposure route. However, the potential for this type of exposure is minimal during site investigation of the type planned. Safe work practices, including prohibition of eating, drinking, or smoking in the work zones will be enforced at the worksite.

Field personnel will wear coveralls at the site (if required) to minimize contact of clothing with mud and soil potentially containing contaminants. Used and soiled coveralls will be removed and disposed in onsite, before leaving the area. Shoes, tools, and hands will be cleaned before leaving the site.

### 5.3 COMMUNITY HAZARD ANALYSIS

Vapor emissions generated during the proposed field activities are expected to be insignificant. Potential exposure to the surrounding community is unlikely. If significant vapor emissions do occur, the work will be stopped and corrective actions implemented to reduce vapor emissions.

### 6.0 PROTECTIVE ACTIONS

Field personnel will perform air monitoring continuously with a direct reading organic vapor meter (OVM) in the breathing zone at the work location. If OVM readings for a particular work area consistently exceed 5 parts per million (ppm) above background, personnel will withdraw upwind from the work area, if possible, or upgrade to modified Level C protection as outlined in Section 6.1. If OVM readings consistently exceed 10 ppm in the breathing zone while workers are in modified Level C protection, the work will cease and the source of the emission will be identified and controlled before work continues.

### 6.1 PERSONAL PROTECTIVE EQUIPMENT

Field personnel will wear equipment to protect against the potential physical and chemical hazards which have been identified herein and those that become apparent in the field. Level D protection will be required at a minimum for field activities at the site. Level D personal protective equipment to be used will include:

- Hard Hat
- Chemical resistant disposable gloves
- Boots, steel toe and shank
- Safety glasses and earplugs

Modified Level C protective will be required during collection or handling of soil samples and whenever VOCs are found in the workspace, based on OVM readings. In addition to the Level D protection above, modified Level C protection includes:

~Tyvek coverall

~Respiratory protection consisting of a half-mask purifying respirator with organic and particulate filter cartridges.

The level of protection employed for general site activities by ZCI personnel may be upgraded as deemed necessary by the Site Safety Officer. If significant dust generation occurs or organic vapors are detected. (see Monitoring below), the Site Safety Officer may require modified Level C protection, i.e., donning of respirator.

## 6.2 SITE CONTROL

Unauthorized and unprotected individuals will be requested to remain out of the area where work is being performed. Specific work zones will not be established for Level D activities at the facility. Work zones, including designation of an exclusion zone, a contamination reduction zone, and a support zone will be established for field activities.

Barricade and secure with caution tape the open excavation. Stockpiled soil will be placed on 10 mil visqueen and covered with 10 mil visqueen membrane.

## 6.3 MONITORING

Field personnel will perform air monitoring continuously with a direct reading organic vapor meter (OVM) in the breathing zone at the work location. If OVM readings for a particular work area consistently exceed 5 parts per million (ppm) above background, personnel will withdraw upwind from the work area, if possible, or upgrade to modified Level C protection as outlined in Section 6.1. If OVM readings consistently exceed 10 ppm in the breathing zone while workers are in modified Level C protection, the work will cease and the source of the emission will be identified and controlled before work continues.

## 7.0 DECONTAMINATION

Minimum decontamination procedures associated with modified Level C protection will be followed and established within the decontamination reduction zone. At the conclusion of each day, disposable gloves and coveralls will be removed and disposed of on-site designated containers. In addition, work boots will be removed and cleaned in a decontamination solution, or, by using a pressurized spray washer prior to leaving the site.

Decontamination procedures for modified Level C protection will be as follows:

Station 1: Equipment Drop - Deposit equipment (tools, sampling devices and containers, monitoring instruments, radios, clipboards, etc.) in a designated area.

Station 2: Boot and Outer Glove Wash and Rinse - Scrub boots and outer gloves with TSP solution. Rinse off using copious amounts of water.

Station 3: Outer Glove Removal - The Buddy system for removal shall be followed. The outer gloves shall be removed by a "Buddy" and deposit in designated receptacle. Use of the Buddy System will help reduce the spreading of any contaminated material.

Station 4: Outer Garment and Boot Removal - The Buddy System for removal shall be followed. The "Buddy" will pull the Tyvek from the shoulders and carefully remove his "buddies" arms, and continue to roll the garment down the body in a matter which will keep the garment inside-out. The tyvek will be rolled down to the boots, the "Buddy" will then help his "buddy" to step out of the Boots. The tyvek will be deposited in designated containers.

Station 5: Safety Glasses and Face Piece Removal - Remove facepiece and safety glasses. Avoid excessively touching facepiece with fingers. Dispose of canisters in designated receptacle and wash facepiece in soapy water. Thoroughly dry the facepiece, wipe facepiece with Isopropyl alcohol and put in air tight storage bag.

Station 6: Remove inner Gloves and Field Wash - Remove inner Gloves and deposit in designated containers. Thoroughly wash hands and face. Shower as soon as possible.

## 8.0 TRAINING

ZCI personnel participating in field activities will have completed the Hazardous Waste Operations and Emergency Response 40-hour Health and Safety training course (29 CFR 1910.120). Training requirements are discussed in ZCI Corporate Health and Safety Program. Prior to each work day, a meeting will be held at the site to familiarize personnel with health and safety issues, protective equipment, emergency information and supplies, and to discuss special topics.

## 9.0 MEDICAL MONITORING

ZCI personnel participating in field activities are included in a medical monitoring program. The program includes a baseline physical examination, pulmonary function test, blood and urine tests, and drug screening. Annual follow-up examinations are included. Details of the medical program are included in ZCI's Corporate Health and Safety Program.

## 10.0 SITE FACILITIES

Drinking water will be available.

## 11.0 EMERGENCY RESPONSE PLAN

The nature of work at the jobsite makes emergencies a continual possibility. The ZCI Site Safety Officer (SSO) will be familiar with emergency procedures and evacuation routes.

If an injury occurs due to an accident, the SSO will be immediately notified so appropriate first aid can begin and medical attention arranged, if necessary. The SSO will investigate the nature and cause of the accident so that work procedures can be modified to minimize the likelihood of the incident's recurrence.

A first aid kit and emergency wash water will be readily available.

Routine and emergency communication will be provided by the mobile telephone. Emergency telephone numbers are given in Table 1. For emergencies not requiring an ambulance, injured personnel will be transported to the Hospital (see attached map).

### Signatures

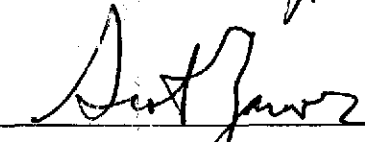
Site Safety Officer



Date

July 23, 92

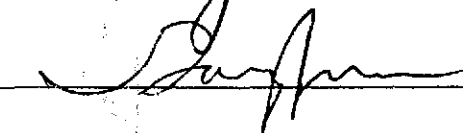
Corporate Safety  
Supervisor



Date

July 23, 92

Project Manager



Date

July 23, 92

Excavated/Stockpiled Soil	
Stockpiled Soil Volume (Estimated)	Sampling Plan <i>analysis</i> One <del>sample</del> for every 50 cubic yards minimum. (4 samples comp. into one)

Stockpiled soil must be placed on bermed plastic and must be completely covered by plastic sheeting.

16. Chemical methods and associated detection limits to be used for analyzing samples

The Tri-Regional Board recommended minimum verification analyses and practical quantitation reporting limits should be followed. See attached Table 2.

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Method Number	Method Detection Limit
1 Soil Sample:  TPHg TPHd TOG BTEX C1HC * Metals PNA, PCB	EPA 5030 EPA 3550 SM 5520 E & F EPA 5030 EPA 5030 AA	GCFID GCFID Gravimetric 8020 8010 6010 8270, 8080	1 ppm 1 ppm 50 ppm 0.005 ppm
1 Soil Sample:  TPHg TPHd TOG BTEX	EPA 5030 EPA 3550 SM 5520 E & F EPA 5030  Analyses per Paul Smith (7/21/92)	GCFID GCFID Gravimetric 8020	1 ppm 1 ppm 50 ppm 0.005 ppm

17. Submit Site Health and Safety Plan (See Instructions)

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. GARY ZACCOR  
ZACCOR CORP.  
791 HAMILTON AVE.  
MENLO PARK, CA 94025

Workorder # : 9102316  
Date Received : 02/28/91  
Project ID : 2240 SANTA CLARA  
Purchase Order: N/A  
Department : GC  
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

Cheryl Balmer 3/11/91  
Department Supervisor Date

Ci Fan 3/11/91  
Chemist Date



STATE OF CALIFORNIA  
R-417 AND CONSUMER SERVICES AGENCY CONTRACTORS STATE LICENSE BOARD

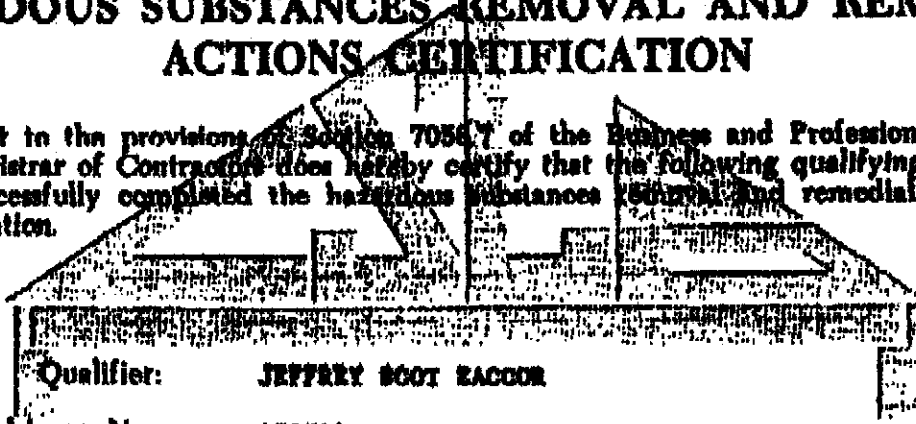


*Building Quality*



# HAZARDOUS SUBSTANCES REMOVAL AND REMEDIAL ACTIONS CERTIFICATION

Pursuant to the provisions of Section 70567 of the Business and Professions Code, the Registrar of Contractors does hereby certify that the following qualifying person has successfully completed the hazardous substances removal and remedial actions examination.



Qualifier: JEFFREY BOOT ZACCOR

License No.: 478799

Namestyle: ZACCOR COMPANIES, INC.

WITNESS my hand and official seal this  
17TH day of JULY, 1990  
*David R. Kelly*  
Registrar of Contractors

181-06 (7/88)

This certification is the property of the Registrar of Contractors, is not transferable, and shall be returned to the Registrar upon demand when suspended, revoked, or invalidated for any reason.

A3520



FORM 'A':  
SITE

UNDERGROUND STORAGE TANK PROGRAM  
FACILITY/SITE, INFORMATION and/or PERMIT APPLICATION

COMPLETE THIS FORM FOR EACH FACILITY/SITE

NO 11688

MARK ONLY ONE ITEM	<input type="checkbox"/> 1 NEW PERMIT	<input type="checkbox"/> 3 GENERAL PERMIT	<input type="checkbox"/> 5 CHANGE OF INFORMATION	<input checked="" type="checkbox"/> 7 PERMANENTLY CLOSED SITE
	<input type="checkbox"/> 2 INTERIM PERMIT	<input type="checkbox"/> 4 AMENDED PERMIT	<input type="checkbox"/> 6 TEMPORARY SITE CLOSURE	

I. FACILITY/SITE INFORMATION & ADDRESS -- (MUST BE COMPLETED)

FACILITY/SITE NAME <b>Kaiser Yard</b>		DATE OF ADDRESS INFORMATION <b>Port of Oakland</b>		
ADDRESS <b>2801 7th Street</b>		530 Water St. Oakland, CA 94607		
CITY NAME <b>Oakland</b>		NEAREST CROSS STREET <b>Ferry Street</b>	<input checked="" type="checkbox"/> SOLELY INDIVIDUAL	<input type="checkbox"/> PARTNERSHIP LOCAL AGENCY COUNTY AGENCY
TYPE OF BUSINESS <input type="checkbox"/> 1 GAS STATION <input type="checkbox"/> 2 DISTRIBUTOR <input type="checkbox"/> 3 FARM <input checked="" type="checkbox"/> 4 PROCESSOR <input checked="" type="checkbox"/> 5 OTHER		STATE <b>CA</b>	ZIP CODE <b>94607</b>	SITE PHONE # WITH AREA CODE <b>None</b>
EMERGENCY CONTACT PERSON (PRIMARY) DAY: NAME (LAST, FIRST) <b>Ander, Jan</b> PHONE # WITH AREA CODE <b>(510)-272-1184</b>		EMERGENCY CONTACT PERSON (SECONDARY) DAY: NAME (LAST, FIRST) <b>Werner, Neil</b> PHONE # WITH AREA CODE <b>(510)-272-1186</b>		
NIGHT: NAME (LAST, FIRST)		NIGHT: NAME (LAST, FIRST)		

II. PROPERTY OWNER INFORMATION & ADDRESS -- (MUST BE COMPLETED)

NAME <b>Port of Oakland/Environmental Dept</b>		DATE OF ADDRESS INFORMATION <b>Same</b>		
MAILING or STREET ADDRESS <b>530 Water St.</b>		<input checked="" type="checkbox"/> SOLELY INDIVIDUAL <input type="checkbox"/> PARTNERSHIP LOCAL AGENCY COUNTY AGENCY <input type="checkbox"/> STATE AGENCY FEDERAL AGENCY		
CITY NAME <b>Oakland</b>		STATE <b>CA</b>	ZIP CODE <b>94607</b>	PHONE # WITH AREA CODE <b>(510)-272-1176</b>

III. TANK OWNER INFORMATION & ADDRESS -- (MUST BE COMPLETED)

NAME <b>Port of Oakland</b>		DATE OF ADDRESS INFORMATION		
MAILING or STREET ADDRESS <b>530 Water St.</b>		<input checked="" type="checkbox"/> SOLELY INDIVIDUAL <input type="checkbox"/> PARTNERSHIP LOCAL AGENCY COUNTY AGENCY <input type="checkbox"/> STATE AGENCY FEDERAL AGENCY		
CITY NAME <b>Oakland</b>		STATE <b>CA</b>	ZIP CODE <b>94607</b>	PHONE # WITH AREA CODE <b>(510)-272-1176</b>

IV. LEGAL NOTIFICATION AND BILLING ADDRESS

CHECK ONE (1) BOX INDICATING WHICH ABOVE ADDRESS SHOULD BE USED FOR BOTH LEGAL NOTIFICATION AND BILLING: I.  II.  III.

THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJURY, AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT.

APPLICANT'S NAME (PRINTED & SIGNED) <b>Jan Ander</b>	DATE <b>7/29/92</b>
---	------------------------

LOCAL AGENCY USE ONLY

COUNTY #	JURISDICTION #	AGENCY #	FACILITY ID #	# of TANKS at SITE
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
CURRENT LOCAL AGENCY FACILITY ID #	APPROVED BY NAME		PHONE # WITH AREA CODE	
PERMIT NUMBER	PERMIT APPROVAL DATE	PERMIT EXPIRATION DATE		
LOCATION CODE	GENESIS TRACT #	SUPERVISOR-DISTRICT CODE	BUSINESS PLAN FILED YES <input type="checkbox"/> NO <input type="checkbox"/>	DATE FILED
CHECK #	PERMIT AMOUNT	CHARGE AMOUNT	FEE CODE	RECEIPT #

THIS FORM MUST BE ACCOMPANIED BY AT LEAST (1) OR MORE TANK PERMIT FORM 'B' APPLICATION(S), UNLESS THIS IS A CHANGE OF SITE INFORMATION ONLY.  
FORM A (8-2-89)



FORM 'B': TANK

UNDERGROUND STORAGE TANK PROGRAM TANK PERMIT APPLICATION INFORMATION

COMPLETE A SEPARATE FORM WITH THE FOLLOWING INFORMATION FOR EACH TANK.

NO 22309

MARK ONLY ONE ITEM

<input type="checkbox"/> 1 NEW PERMIT	<input type="checkbox"/> 3 RENEWAL PERMIT	<input type="checkbox"/> 5 CHANGE OF INFORMATION	<input type="checkbox"/> 7 PERMANENTLY CLOSED TANK
<input type="checkbox"/> 2 INTERNAL PERMIT	<input type="checkbox"/> 4 AMENDED PERMIT	<input type="checkbox"/> 6 TEMPORARY TANK CLOSURE	<input checked="" type="checkbox"/> 8 TANK REMOVED

FACILITY/SITE NAME WHERE TANK IS INSTALLED: Kaiser Yard FARM TANK - YES  NO

I. TANK DESCRIPTION COMPLETE ALL ITEMS - IF UNKNOWN -- SO SPECIFY

A. OWNER'S TANK ID # <u>CF-40</u>	B. MANUFACTURED BY: <u>Unknown</u>
C. YEAR INSTALLED <u>Unknown</u>	D. TANK CAPACITY IN GALLONS: <u>approx. 1000 gal.</u>

II. TANK CONTENTS IF (A.1), IS MARKED, COMPLETE ITEM C. IF (A.1), IS NOT MARKED, COMPLETE ITEM D.

A. <input type="checkbox"/> 1 MOTOR VEHICLE FUEL	<input type="checkbox"/> 2 PETROLEUM	B. <input type="checkbox"/> 1 PRODUCT	C. <input type="checkbox"/> 1 UNLEADED	<input type="checkbox"/> 2 LEADED	<input type="checkbox"/> 3 DIESEL
<input type="checkbox"/> 3 CHEMICAL PRODUCT	<input type="checkbox"/> 4 OIL	<input type="checkbox"/> 2 WASTE	<input type="checkbox"/> 4 GASOLINE	<input type="checkbox"/> 5 JET FUEL	<input type="checkbox"/> 6 AVIATION GAS
<input type="checkbox"/> 5 HAZARDOUS	<input type="checkbox"/> 60 EMPTY	<input checked="" type="checkbox"/> 65 UNKNOWN	<input type="checkbox"/> 7 METHANOL	<input type="checkbox"/> 99 OTHER (DESCRIBE IN ITEM D, BELOW)	

D. IF NOT MOTOR VEHICLE FUEL, ENTER NAME OF HAZARDOUS SUBSTANCE STORED & C.A.S. # \_\_\_\_\_ C.A.S. # \_\_\_\_\_

III. TANK CONSTRUCTION MARK ONE ITEM ONLY IN BOX A, B, C, & D

A. TYPE OF SYSTEM	<input type="checkbox"/> 1 DOUBLE WALLED	<input type="checkbox"/> 3 SINGLE WALLED WITH EXTERIOR LINER	<input type="checkbox"/> 5 UNKNOWN
	<input checked="" type="checkbox"/> 2 SINGLE WALLED	<input type="checkbox"/> 4 SECONDARY CONTAINMENT	<input type="checkbox"/> 60 OTHER _____
B. TANK MATERIAL	<input checked="" type="checkbox"/> 1 STEEL/IRON	<input type="checkbox"/> 2 STAINLESS STEEL	<input type="checkbox"/> 3 FIBERGLASS
	<input type="checkbox"/> 5 CONCRETE	<input type="checkbox"/> 6 POLYVINYL CHLORIDE	<input type="checkbox"/> 7 ALUMINUM
	<input type="checkbox"/> 8 BRONZE	<input type="checkbox"/> 9 GALVANIZED STEEL	<input type="checkbox"/> 10 UNKNOWN
C. INTERIOR LINING	<input type="checkbox"/> 1 RUBBER LINED	<input type="checkbox"/> 2 ALLOY LINING	<input type="checkbox"/> 3 EPoxy LINING
	<input type="checkbox"/> 5 GLASS LINING	<input type="checkbox"/> 6 UNLINED	<input checked="" type="checkbox"/> 65 UNKNOWN
	<input type="checkbox"/> 15 LINING MATERIAL COMPATIBLE WITH 100% METHANOL? YES <input type="checkbox"/> NO <input type="checkbox"/>		<input type="checkbox"/> 66 OTHER _____
D. CORROSION PROTECTION	<input type="checkbox"/> 1 POLYETHYLENE WRAP	<input type="checkbox"/> 2 TAR OR ASPHALT	<input type="checkbox"/> 3 VINYL WRAP
	<input type="checkbox"/> 5 CATHODIC PROTECTION	<input type="checkbox"/> 6 NONE	<input checked="" type="checkbox"/> 65 UNKNOWN
			<input type="checkbox"/> 66 OTHER _____

IV. PIPING INFORMATION CIRCLE A IF ABOVE GROUND, U IF UNDERGROUND, BOTH IF APPLICABLE

A. SYSTEM TYPE	A U 1 SUCTION	A U 2 PRESSURE	A U 3 GRAVITY	<input checked="" type="checkbox"/> A U 61 NONE	A U 65 UNKNOWN	A U 66 OTHER
B. CONSTRUCTION	A U 1 SINGLE WALLED	A U 2 DOUBLE WALLED	A U 3 LINED TRENCH	<input checked="" type="checkbox"/> A U 61 NONE	A U 65 UNKNOWN	A U 66 OTHER
C. MATERIAL	A U 1 STEEL/IRON	A U 2 STAINLESS STEEL	A U 3 POLYVINYL CHLORIDE (PVC)	A U 4 FIBERGLASS PIPE	<input checked="" type="checkbox"/> A U 61 NONE	A U 65 UNKNOWN
	A U 5 ALUMINUM	A U 6 CONCRETE	A U 7 STEEL CLAD W/FRP	A U 8 100% METHANOL COMPATIBLE FRP		
	A U 9 GALVANIZED STEEL	A U 10 UNKNOWN	A U 11 OTHER _____			

V. LEAK DETECTION SYSTEM CIRCLE P FOR PRIMARY, OR S FOR SECONDARY, A PRIMARY LEAK DETECTION SYSTEM MUST BE CIRCLED.

P S 1 VISUAL CHECK	P S 2 INVENTORY RECONCILIATION	P S 3 VADORE WELLS	P S 4 ELECTRONIC MONITOR	P S 5 GROUND WATER MONITORING WELLS
P S 6 PRECISION TESTING	P S 7 PRESSURE TESTING	<input checked="" type="checkbox"/> P S 61 NONE	P S 65 UNKNOWN	P S 66 OTHER _____

VI. INFORMATION ON TANK PERMANENTLY CLOSED IN PLACE

1. ESTIMATED DATE LAST USED (MO/YR) <u>NA</u>	2. ESTIMATED QUANTITY OF SUBSTANCE REMAINING IN _____ GALLONS	3. WAS TANK FILLED WITH INERT MATERIAL? YES <input type="checkbox"/> NO <input type="checkbox"/>
--	---	--

THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJURY, AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT.

APPLICANT'S NAME (PRINTED & SIGNATURE) Jon Aurdur DATE 7/29/92

LOCAL AGENCY USE ONLY for the Port of Oakland

COUNTY #	JURISDICTION #	AGENCY #	FACILITY ID #	TANK ID #
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
CURRENT LOCAL AGENCY FACILITY ID #	APPROVED BY NAME	PHONE # WITH AREA CODE		
PERMIT NUMBER	PERMIT APPROVAL DATE	PERMIT EXPIRATION DATE		
CHECK #	PERMIT AMOUNT	RENEWAL AMT.	FEE CODE	RECEIPT #

**Transmittal**

Date 5 August 1992  
To Barney Chan  
Alameda County Dept of Env. Health  
80 Swan Way, Rm 200  
Oakland, California  
Project Number 2026.05 I  
Project Name Kaiser Park Park

Transmitted via

- Messenger  
 U.S. Mail  
 Federal Express  
 Fax  
(510) 569-4757  
Total pages 45

Item	Description
	<u>Addenda to Tank Closure Plan</u>
	<u>2801 Seventh St.</u>
	<u>Oakland CA 94607</u>

**Remarks**  
Enclosed are the materials we discussed. I will  
pick up the approved plan Thursday, 6 August  
around 11:30 am. Please call me if you have  
questions.

Signed Elizabeth K. Wells  
cc: Jon Andrus, Port of Oakland

*Tank Removed 4/15/92 Adjustment already done*



STATE OF CALIFORNIA  
STATE WATER RESOURCES CONTROL BOARD  
**UNDERGROUND STORAGE TANK PERMIT APPLICATION - FORM B**

COMPLETE A SEPARATE FORM FOR EACH TANK SYSTEM.

MARK ONLY ONE ITEM	<input type="checkbox"/> 1 NEW PERMIT	<input type="checkbox"/> 3 RENEWAL PERMIT	<input type="checkbox"/> 5 CHANGE OF INFORMATION	<input type="checkbox"/> 7 PERMANENTLY CLOSED ON SITE
	<input type="checkbox"/> 2 INTERIM PERMIT	<input type="checkbox"/> 4 AMENDED PERMIT	<input type="checkbox"/> 6 TEMPORARY TANK CLOSURE	<input type="checkbox"/> 8 TANK REMOVED

DBA OR FACILITY NAME WHERE TANK IS INSTALLED:

**I. TANK DESCRIPTION** COMPLETE ALL ITEMS - SPECIFY IF UNKNOWN

A. OWNER'S TANK I.D.#	CF-16	B. MANUFACTURED BY:	unknown
C. DATE INSTALLED (MO/DAY/YEAR)	unknown	D. TANK CAPACITY IN GALLONS:	5,000

**II. TANK CONTENTS** IF A-1 IS MARKED, COMPLETE ITEM C.

A.	<input checked="" type="checkbox"/> 1 MOTOR VEHICLE FUEL	<input type="checkbox"/> 4 OIL	B.	<input type="checkbox"/> 1 PRODUCT	C.	<input checked="" type="checkbox"/> 1a REGULAR UNLEADED	<input type="checkbox"/> 3 DIESEL	<input type="checkbox"/> 6 AVIATION GAS
	<input type="checkbox"/> 2 PETROLEUM	<input checked="" type="checkbox"/> 80 EMPTY		<input type="checkbox"/> 2 WASTE		<input type="checkbox"/> 1b PREMIUM UNLEADED	<input type="checkbox"/> 4 GASAHOL	<input type="checkbox"/> 7 METHANOL
	<input type="checkbox"/> 3 CHEMICAL PRODUCT	<input type="checkbox"/> 95 UNKNOWN				<input type="checkbox"/> 2 LEADED	<input type="checkbox"/> 5 JET FUEL	<input type="checkbox"/> 99 OTHER (DESCRIBE IN ITEM D. BELOW)

D. IF (A.1) IS NOT MARKED, ENTER NAME OF SUBSTANCE STORED \_\_\_\_\_ C. A. S. #: \_\_\_\_\_

**III. TANK CONSTRUCTION** MARK ONE ITEM ONLY IN BOXES A, B, AND C, AND ALL THAT APPLIES IN BOX D

A. TYPE OF SYSTEM	<input type="checkbox"/> 1 DOUBLE WALL	<input type="checkbox"/> 3 SINGLE WALL WITH EXTERIOR LINER	<input checked="" type="checkbox"/> 95 UNKNOWN
	<input type="checkbox"/> 2 SINGLE WALL	<input type="checkbox"/> 4 SECONDARY CONTAINMENT (VAULTED TANK)	<input type="checkbox"/> 99 OTHER _____
B. TANK MATERIAL (Primary Tank)	<input type="checkbox"/> 1 BARE STEEL	<input type="checkbox"/> 2 STAINLESS STEEL	<input type="checkbox"/> 3 FIBERGLASS
	<input type="checkbox"/> 5 CONCRETE	<input type="checkbox"/> 6 POLYVINYL CHLORIDE	<input type="checkbox"/> 7 ALUMINUM
	<input type="checkbox"/> 9 BRONZE	<input type="checkbox"/> 10 GALVANIZED STEEL	<input checked="" type="checkbox"/> 95 UNKNOWN
			<input type="checkbox"/> 99 OTHER _____
C. INTERIOR LINING	<input type="checkbox"/> 1 RUBBER LINED	<input type="checkbox"/> 2 ALKYD LINING	<input type="checkbox"/> 3 EPOXY LINING
	<input type="checkbox"/> 5 GLASS LINING	<input type="checkbox"/> 6 UNLINED	<input checked="" type="checkbox"/> 95 UNKNOWN
			<input type="checkbox"/> 4 PHENOLIC LINING
			<input type="checkbox"/> 99 OTHER _____
	IS LINING MATERIAL COMPATIBLE WITH 100% METHANOL? YES ___ NO ___		
D. CORROSION PROTECTION	<input type="checkbox"/> 1 POLYETHYLENE WRAP	<input type="checkbox"/> 2 COATING	<input type="checkbox"/> 3 VINYL WRAP
	<input type="checkbox"/> 5 CATHODIC PROTECTION	<input type="checkbox"/> 91 NONE	<input checked="" type="checkbox"/> 95 UNKNOWN
			<input type="checkbox"/> 4 FIBERGLASS REINFORCED PLASTIC
			<input type="checkbox"/> 99 OTHER _____

**IV. PIPING INFORMATION** CIRCLE A IF ABOVE GROUND OR U IF UNDERGROUND, BOTH IF APPLICABLE

A. SYSTEM TYPE	A(U) 1 SUCTION	A U 2 PRESSURE	A U 3 GRAVITY	A U 99 OTHER
B. CONSTRUCTION	A U 1 SINGLE WALL	A U 2 DOUBLE WALL	A U 3 LINED TRENCH	A(U) 95 UNKNOWN A U 99 OTHER
C. MATERIAL AND CORROSION PROTECTION	A U 1 BARE STEEL	A U 2 STAINLESS STEEL	A U 3 POLYVINYL CHLORIDE (PVC)	A U 4 FIBERGLASS PIPE
	A U 5 ALUMINUM	A U 6 CONCRETE	A U 7 STEEL W/ COATING	A U 8 100% METHANOL COMPATIBLE W/FRP
	A U 9 GALVANIZED STEEL	A U 10 CATHODIC PROTECTION	A(U) 95 UNKNOWN	A U 99 OTHER
D. LEAK DETECTION	<input type="checkbox"/> 1 AUTOMATIC LINE LEAK DETECTOR	<input type="checkbox"/> 2 LINE TIGHTNESS TESTING	<input type="checkbox"/> 3 INTERSTITIAL MONITORING	<input checked="" type="checkbox"/> 99 OTHER <u>none</u>

**V. TANK LEAK DETECTION**

<input type="checkbox"/> 1 VISUAL CHECK	<input type="checkbox"/> 2 INVENTORY RECONCILIATION	<input type="checkbox"/> 3 VAPOR MONITORING	<input type="checkbox"/> 4 AUTOMATIC TANK GAUGING	<input type="checkbox"/> 5 GROUND WATER MONITORING
<input type="checkbox"/> 6 TANK TESTING	<input type="checkbox"/> 7 INTERSTITIAL MONITORING	<input type="checkbox"/> 91 NONE	<input checked="" type="checkbox"/> 95 UNKNOWN	<input type="checkbox"/> 99 OTHER

**VI. TANK CLOSURE INFORMATION**

1. ESTIMATED DATE LAST USED (MO/DAY/YR) unknown	2. ESTIMATED QUANTITY OF SUBSTANCE REMAINING unknown GALLONS	3. WAS TANK FILLED WITH INERT MATERIAL? YES <input type="checkbox"/> NO <input type="checkbox"/> unknown
--	---	---

THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJURY, AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT

APPLICANT'S NAME (PRINTED & SIGNATURE) <i>Don Schoenholz</i>	DATE 03/31/92
---	------------------

**LOCAL AGENCY USE ONLY** THE STATE I.D. NUMBER IS COMPOSED OF THE FOUR NUMBERS BELOW

STATE I.D.#	COUNTY #	JURISDICTION #	FACILITY #	TANK #
PERMIT NUMBER	PERMIT APPROVED BY/DATE	PERMIT EXPIRATION DATE		

TANK REMOVED 4/15/92



STATE OF CALIFORNIA  
STATE WATER RESOURCES CONTROL BOARD  
UNDERGROUND STORAGE TANK PERMIT APPLICATION - FORM B

COMPLETE A SEPARATE FORM FOR EACH TANK SYSTEM.

MARK ONLY ONE ITEM	<input type="checkbox"/> 1 NEW PERMIT	<input type="checkbox"/> 3 RENEWAL PERMIT	<input type="checkbox"/> 5 CHANGE OF INFORMATION	<input type="checkbox"/> 7 PERMANENTLY CLOSED ON SITE
	<input type="checkbox"/> 2 INTERIM PERMIT	<input type="checkbox"/> 4 AMENDED PERMIT	<input type="checkbox"/> 6 TEMPORARY TANK CLOSURE	<input type="checkbox"/> 8 TANK REMOVED

DBA OR FACILITY NAME WHERE TANK IS INSTALLED:

I. TANK DESCRIPTION COMPLETE ALL ITEMS -- SPECIFY IF UNKNOWN

A. OWNER'S TANK I.D.#	CF 15	B. MANUFACTURED BY:	unknown
C. DATE INSTALLED (MO/DAY/YEAR)	unknown	D. TANK CAPACITY IN GALLONS:	3,000

II. TANK CONTENTS IF A-1 IS MARKED, COMPLETE ITEM C.

A. <input checked="" type="checkbox"/> 1 MOTOR VEHICLE FUEL	<input type="checkbox"/> 4 OIL	B. <input type="checkbox"/> 1 PRODUCT	C. <input type="checkbox"/> 1a REGULAR UNLEADED	<input type="checkbox"/> 3 DIESEL	<input type="checkbox"/> 6 AVIATION GAS
<input type="checkbox"/> 2 PETROLEUM	<input type="checkbox"/> 80 EMPTY	<input type="checkbox"/> 2 WASTE	<input type="checkbox"/> 1b PREMIUM UNLEADED	<input type="checkbox"/> 4 GASAHOL	<input type="checkbox"/> 7 METHANOL
<input type="checkbox"/> 3 CHEMICAL PRODUCT	<input type="checkbox"/> 95 UNKNOWN		<input checked="" type="checkbox"/> 2 LEADED	<input type="checkbox"/> 5 JET FUEL	<input type="checkbox"/> 99 OTHER (DESCRIBE IN ITEM D. BELOW)
D. IF (A.1) IS NOT MARKED, ENTER NAME OF SUBSTANCE STORED					C. A. S. #:

III. TANK CONSTRUCTION MARK ONE ITEM ONLY IN BOXES A, B, AND C, AND ALL THAT APPLIES IN BOX D

A. TYPE OF SYSTEM	<input type="checkbox"/> 1 DOUBLE WALL	<input type="checkbox"/> 3 SINGLE WALL WITH EXTERIOR LINER	<input checked="" type="checkbox"/> 95 UNKNOWN
	<input type="checkbox"/> 2 SINGLE WALL	<input type="checkbox"/> 4 SECONDARY CONTAINMENT (VAULTED TANK)	<input type="checkbox"/> 99 OTHER
B. TANK MATERIAL (Primary Tank)	<input type="checkbox"/> 1 BARE STEEL	<input type="checkbox"/> 2 STAINLESS STEEL	<input type="checkbox"/> 3 FIBERGLASS
	<input type="checkbox"/> 5 CONCRETE	<input type="checkbox"/> 6 POLYVINYL CHLORIDE	<input type="checkbox"/> 7 ALUMINUM
	<input type="checkbox"/> 9 BRONZE	<input type="checkbox"/> 10 GALVANIZED STEEL	<input checked="" type="checkbox"/> 95 UNKNOWN
			<input type="checkbox"/> 99 OTHER
C. INTERIOR LINING	<input type="checkbox"/> 1 RUBBER LINED	<input type="checkbox"/> 2 ALKYD LINING	<input type="checkbox"/> 3 EPOXY LINING
	<input type="checkbox"/> 5 GLASS LINING	<input type="checkbox"/> 6 UNLINED	<input checked="" type="checkbox"/> 95 UNKNOWN
			<input type="checkbox"/> 4 PHENOLIC LINING
			<input type="checkbox"/> 99 OTHER
IS LINING MATERIAL COMPATIBLE WITH 100% METHANOL? YES ___ NO ___			
D. CORROSION PROTECTION	<input type="checkbox"/> 1 POLYETHYLENE WRAP	<input type="checkbox"/> 2 COATING	<input type="checkbox"/> 3 VINYL WRAP
	<input type="checkbox"/> 5 CATHODIC PROTECTION	<input type="checkbox"/> 91 NONE	<input checked="" type="checkbox"/> 95 UNKNOWN
			<input type="checkbox"/> 4 FIBERGLASS REINFORCED PLASTIC
			<input type="checkbox"/> 99 OTHER

IV. PIPING INFORMATION CIRCLE A IF ABOVE GROUND OR U IF UNDERGROUND, BOTH IF APPLICABLE

A. SYSTEM TYPE	<input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> U 1 SUCTION	<input type="checkbox"/> A <input type="checkbox"/> U 2 PRESSURE	<input type="checkbox"/> A <input type="checkbox"/> U 3 GRAVITY	<input type="checkbox"/> A <input type="checkbox"/> U 99 OTHER
B. CONSTRUCTION	<input type="checkbox"/> A <input type="checkbox"/> U 1 SINGLE WALL	<input type="checkbox"/> A <input type="checkbox"/> U 2 DOUBLE WALL	<input type="checkbox"/> A <input type="checkbox"/> U 3 LINED TRENCH	<input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> U 95 UNKNOWN
				<input type="checkbox"/> A <input type="checkbox"/> U 99 OTHER
C. MATERIAL AND CORROSION PROTECTION	<input type="checkbox"/> A <input type="checkbox"/> U 1 BARE STEEL	<input type="checkbox"/> A <input type="checkbox"/> U 2 STAINLESS STEEL	<input type="checkbox"/> A <input type="checkbox"/> U 3 POLYVINYL CHLORIDE (PVC)	<input type="checkbox"/> A <input type="checkbox"/> U 4 FIBERGLASS PIPE
	<input type="checkbox"/> A <input type="checkbox"/> U 5 ALUMINUM	<input type="checkbox"/> A <input type="checkbox"/> U 6 CONCRETE	<input type="checkbox"/> A <input type="checkbox"/> U 7 STEEL W/ COATING	<input type="checkbox"/> A <input type="checkbox"/> U 8 100% METHANOL COMPATIBLE W/FRP
	<input type="checkbox"/> A <input type="checkbox"/> U 9 GALVANIZED STEEL	<input type="checkbox"/> A <input type="checkbox"/> U 10 CATHODIC PROTECTION	<input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> U 95 UNKNOWN	<input type="checkbox"/> A <input type="checkbox"/> U 99 OTHER
D. LEAK DETECTION	<input type="checkbox"/> 1 AUTOMATIC LINE LEAK DETECTOR	<input type="checkbox"/> 2 LINE TIGHTNESS TESTING	<input type="checkbox"/> 3 INTERSTITIAL MONITORING	<input type="checkbox"/> 99 OTHER
				unknown

V. TANK LEAK DETECTION

<input type="checkbox"/> 1 VISUAL CHECK	<input type="checkbox"/> 2 INVENTORY RECONCILIATION	<input type="checkbox"/> 3 VAPOR MONITORING	<input type="checkbox"/> 4 AUTOMATIC TANK GAUGING	<input type="checkbox"/> 5 GROUND WATER MONITORING
<input type="checkbox"/> 6 TANK TESTING	<input type="checkbox"/> 7 INTERSTITIAL MONITORING	<input type="checkbox"/> 91 NONE	<input type="checkbox"/> 95 UNKNOWN	<input checked="" type="checkbox"/> 99 OTHER
				unknown

VI. TANK CLOSURE INFORMATION

1. ESTIMATED DATE LAST USED (MO/DAY/YR)	2. ESTIMATED QUANTITY OF SUBSTANCE REMAINING	3. WAS TANK FILLED WITH INERT MATERIAL?
unknown	unknown GALLONS	YES <input type="checkbox"/> NO <input type="checkbox"/> unknown

THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJURY, AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT

APPLICANT'S NAME (PRINTED & SIGNATURE) Dan Schoenholz as authorized agent for Port of Oakland DATE 03/31/92

LOCAL AGENCY USE ONLY THE STATE I.D. NUMBER IS COMPOSED OF THE FOUR NUMBERS BELOW

STATE I.D.#	COUNTY #	JURISDICTION #	FACILITY #	TANK #
PERMIT NUMBER	PERMIT APPROVED BY/DATE	PERMIT EXPIRATION DATE		

TANK REMOVED 4/15/92

STATE OF CALIFORNIA

WATER RESOURCES CONTROL BOARD



FORM 'A':  
SITE

UNDERGROUND STORAGE TANK PROGRAM  
FACILITY/SITE, INFORMATION and/or PERMIT APPLICATION

COMPLETE THIS FORM FOR EACH FACILITY/SITE

<b>MARK ONLY ONE ITEM</b>	<input type="checkbox"/> 1 NEW PERMIT	<input type="checkbox"/> 3 RENEWAL PERMIT	<input type="checkbox"/> 5 CHANGE OF INFORMATION	<input type="checkbox"/> 7 PERMANENTLY CLOSED SITE
	<input type="checkbox"/> 2 INTERIM PERMIT	<input type="checkbox"/> 4 AMENDED PERMIT	<input type="checkbox"/> 6 TEMPORARY SITE CLOSURE	

I. FACILITY/SITE INFORMATION & ADDRESS — (MUST BE COMPLETED)

FACILITY/SITE NAME Kaiser Steel Corporation Yard		CARE OF ADDRESS INFORMATION		
ADDRESS 2801 7th St.		NEAREST CROSS STREET Ferry St.	<input checked="" type="checkbox"/> Box to indicate CORPORATION <input type="checkbox"/> INDIVIDUAL	<input type="checkbox"/> PARTNERSHIP <input type="checkbox"/> LOCAL-AGENCY <input type="checkbox"/> COUNTY-AGENCY
CITY NAME Oakland		STATE CA	ZIP CODE 94607	SITE PHONE #, WITH AREA CODE n/a
TYPE OF BUSINESS: <input type="checkbox"/> 1 GAS STATION <input type="checkbox"/> 2 DISTRIBUTOR <input type="checkbox"/> 3 FARM <input type="checkbox"/> 4 PROCESSOR <input checked="" type="checkbox"/> 5 OTHER		<input checked="" type="checkbox"/> Box if INDIAN RESERVATION or TRUST LANDS <input type="checkbox"/>		EPA ID # CAC 000707408
<b>EMERGENCY CONTACT PERSON (PRIMARY)</b>		<b>EMERGENCY CONTACT PERSON (SECONDARY)</b>		
DAYS: NAME (LAST, FIRST) Clark-Clough, Andrew		PHONE # WITH AREA CODE (510) 272-1178		DAYS: NAME (LAST, FIRST) Werner, Neil
NIGHTS: NAME (LAST, FIRST) (pager)		PHONE # WITH AREA CODE (510) 678-5664		PHONE # WITH AREA CODE (510) 272-1176
				NIGHTS: NAME (LAST, FIRST) (510) 522-4022

II. PROPERTY OWNER INFORMATION & ADDRESS — (MUST BE COMPLETED)

NAME Port of Oakland		CARE OF ADDRESS INFORMATION		
MAILING or STREET ADDRESS 530 Water St.		<input checked="" type="checkbox"/> Box to indicate CORPORATION <input type="checkbox"/> INDIVIDUAL	<input type="checkbox"/> PARTNERSHIP <input checked="" type="checkbox"/> LOCAL-AGENCY <input type="checkbox"/> COUNTY-AGENCY	<input type="checkbox"/> STATE-AGENCY <input type="checkbox"/> FEDERAL-AGENCY
CITY NAME Oakland		STATE CA	ZIP CODE 94607	PHONE #, WITH AREA CODE (510) 272-1178

III. TANK OWNER INFORMATION & ADDRESS — (MUST BE COMPLETED)

NAME same as II above		CARE OF ADDRESS INFORMATION		
MAILING or STREET ADDRESS		<input checked="" type="checkbox"/> Box to indicate CORPORATION <input type="checkbox"/> INDIVIDUAL	<input type="checkbox"/> PARTNERSHIP <input type="checkbox"/> LOCAL-AGENCY <input type="checkbox"/> COUNTY-AGENCY	<input type="checkbox"/> STATE-AGENCY <input type="checkbox"/> FEDERAL-AGENCY
CITY NAME		STATE	ZIP CODE	PHONE #, WITH AREA CODE

IV. LEGAL NOTIFICATION AND BILLING ADDRESS

CHECK ONE (1) BOX INDICATING WHICH ABOVE ADDRESS SHOULD BE USED FOR BOTH LEGAL NOTIFICATION AND BILLING: I.  II.  III.

THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJURY, AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT.

APPLICANT'S NAME (PRINTED & SIGNATURE) Dan Schoenholz as authorized agent for Port of Oakland	DATE 03/31/92
--	------------------

LOCAL AGENCY USE ONLY

COUNTY #	JURISDICTION #	AGENCY #	FACILITY ID #	# of TANKS at SITE
CURRENT LOCAL AGENCY FACILITY ID #		APPROVED BY NAME		PHONE # WITH AREA CODE
PERMIT NUMBER	PERMIT APPROVAL DATE	PERMIT EXPIRATION DATE		
LOCATION CODE	CENSUS TRACT #	SUPERVISOR-DISTRICT CODE	BUSINESS PLAN FILED YES <input type="checkbox"/> NO <input type="checkbox"/>	DATE FILED
CHECK #	PERMIT AMOUNT	SURCHARGE AMOUNT	FEE CODE	RECEIPT # BY:

THIS FORM MUST BE ACCOMPANIED BY AT LEAST (1) OR MORE TANK PERMIT FORM 'B' APPLICATION(S), UNLESS THIS IS A CHANGE OF SITE INFORMATION ONLY.  
FORM A (3-2-88)

1 DATA PROCESSING COPY 2 LOCAL AGENCY COPY 3 FILE COPY

TANK REMOVED 4/15/92



STATE OF CALIFORNIA  
STATE WATER RESOURCES CONTROL BOARD  
UNDERGROUND STORAGE TANK PERMIT APPLICATION - FORM B

COMPLETE A SEPARATE FORM FOR EACH TANK SYSTEM.

MARK ONLY ONE ITEM	<input type="checkbox"/> 1 NEW PERMIT	<input type="checkbox"/> 3 RENEWAL PERMIT	<input type="checkbox"/> 5 CHANGE OF INFORMATION	<input type="checkbox"/> 7 PERMANENTLY CLOSED ON SITE
	<input type="checkbox"/> 2 INTERIM PERMIT	<input type="checkbox"/> 4 AMENDED PERMIT	<input type="checkbox"/> 6 TEMPORARY TANK CLOSURE	<input type="checkbox"/> 8 TANK REMOVED

DBA OR FACILITY NAME WHERE TANK IS INSTALLED:

I. TANK DESCRIPTION COMPLETE ALL ITEMS -- SPECIFY IF UNKNOWN

A. OWNER'S TANK I.D.#	CF-14	B. MANUFACTURED BY:	unknown
C. DATE INSTALLED (MO/DAY/YEAR)	unknown	D. TANK CAPACITY IN GALLONS:	5,000

II. TANK CONTENTS IF A-1 IS MARKED, COMPLETE ITEM C.

A. <input checked="" type="checkbox"/> 1 MOTOR VEHICLE FUEL	<input type="checkbox"/> 4 OIL	B. <input type="checkbox"/> 1 PRODUCT	C. <input type="checkbox"/> 1a REGULAR UNLEADED	<input checked="" type="checkbox"/> 3 DIESEL	<input type="checkbox"/> 6 AVIATION GAS
<input type="checkbox"/> 2 PETROLEUM	<input type="checkbox"/> 80 EMPTY	<input type="checkbox"/> 2 WASTE	<input type="checkbox"/> 1b PREMIUM UNLEADED	<input type="checkbox"/> 4 GASAHOL	<input type="checkbox"/> 7 METHANOL
<input type="checkbox"/> 3 CHEMICAL PRODUCT	<input type="checkbox"/> 95 UNKNOWN		<input type="checkbox"/> 2 LEADED	<input type="checkbox"/> 5 JET FUEL	<input type="checkbox"/> 99 OTHER (DESCRIBE IN ITEM D. BELOW)
D. IF (A.1) IS NOT MARKED, ENTER NAME OF SUBSTANCE STORED					C. A. S. #:

III. TANK CONSTRUCTION MARK ONE ITEM ONLY IN BOXES A, B, AND C, AND ALL THAT APPLIES IN BOX D

A. TYPE OF SYSTEM	<input type="checkbox"/> 1 DOUBLE WALL	<input type="checkbox"/> 3 SINGLE WALL WITH EXTERIOR LINER	<input checked="" type="checkbox"/> 95 UNKNOWN
	<input type="checkbox"/> 2 SINGLE WALL	<input type="checkbox"/> 4 SECONDARY CONTAINMENT (VAULTED TANK)	<input type="checkbox"/> 99 OTHER
B. TANK MATERIAL (Primary Tank)	<input type="checkbox"/> 1 BARE STEEL	<input type="checkbox"/> 2 STAINLESS STEEL	<input type="checkbox"/> 3 FIBERGLASS
	<input type="checkbox"/> 5 CONCRETE	<input type="checkbox"/> 6 POLYVINYL CHLORIDE	<input type="checkbox"/> 7 ALUMINUM
	<input type="checkbox"/> 9 BRONZE	<input type="checkbox"/> 10 GALVANIZED STEEL	<input checked="" type="checkbox"/> 95 UNKNOWN
			<input type="checkbox"/> 8 100% METHANOL COMPATIBLE W/FRP
			<input type="checkbox"/> 99 OTHER
C. INTERIOR LINING	<input type="checkbox"/> 1 RUBBER LINED	<input type="checkbox"/> 2 ALKYD LINING	<input type="checkbox"/> 3 EPOXY LINING
	<input type="checkbox"/> 5 GLASS LINING	<input type="checkbox"/> 6 UNLINED	<input checked="" type="checkbox"/> 95 UNKNOWN
			<input type="checkbox"/> 4 PHENOLIC LINING
			<input type="checkbox"/> 99 OTHER
IS LINING MATERIAL COMPATIBLE WITH 100% METHANOL? YES ___ NO ___			
D. CORROSION PROTECTION	<input type="checkbox"/> 1 POLYETHYLENE WRAP	<input type="checkbox"/> 2 COATING	<input type="checkbox"/> 3 VINYL WRAP
	<input type="checkbox"/> 5 CATHODIC PROTECTION	<input type="checkbox"/> 91 NONE	<input checked="" type="checkbox"/> 95 UNKNOWN
			<input type="checkbox"/> 4 FIBERGLASS REINFORCED PLASTIC
			<input type="checkbox"/> 99 OTHER

IV. PIPING INFORMATION CIRCLE A IF ABOVE GROUND OR U IF UNDERGROUND, BOTH IF APPLICABLE

A. SYSTEM TYPE	A <input checked="" type="radio"/> 1 SUCTION	A U <input type="radio"/> 2 PRESSURE	A U <input type="radio"/> 3 GRAVITY	A U <input type="radio"/> 99 OTHER
B. CONSTRUCTION	A U <input type="radio"/> 1 SINGLE WALL	A U <input type="radio"/> 2 DOUBLE WALL	A U <input type="radio"/> 3 LINED TRENCH	A U <input checked="" type="radio"/> 95 UNKNOWN
				A U <input type="radio"/> 99 OTHER
C. MATERIAL AND CORROSION PROTECTION	A U <input type="radio"/> 1 BARE STEEL	A U <input type="radio"/> 2 STAINLESS STEEL	A U <input type="radio"/> 3 POLYVINYL CHLORIDE (PVC)	A U <input type="radio"/> 4 FIBERGLASS PIPE
	A U <input type="radio"/> 5 ALUMINUM	A U <input type="radio"/> 6 CONCRETE	A U <input type="radio"/> 7 STEEL W/ COATING	A U <input type="radio"/> 8 100% METHANOL COMPATIBLE W/FRP
	A U <input type="radio"/> 9 GALVANIZED STEEL	A U <input type="radio"/> 10 CATHODIC PROTECTION	A U <input checked="" type="radio"/> 95 UNKNOWN	A U <input type="radio"/> 99 OTHER
D. LEAK DETECTION	<input type="checkbox"/> 1 AUTOMATIC LINE LEAK DETECTOR	<input type="checkbox"/> 2 LINE TIGHTNESS TESTING	<input type="checkbox"/> 3 INTERSTITIAL MONITORING	<input checked="" type="checkbox"/> 99 OTHER
				unknown

V. TANK LEAK DETECTION

<input type="checkbox"/> 1 VISUAL CHECK	<input type="checkbox"/> 2 INVENTORY RECONCILIATION	<input type="checkbox"/> 3 VAPOR MONITORING	<input type="checkbox"/> 4 AUTOMATIC TANK GAUGING	<input type="checkbox"/> 5 GROUND WATER MONITORING
<input type="checkbox"/> 6 TANK TESTING	<input type="checkbox"/> 7 INTERSTITIAL MONITORING	<input type="checkbox"/> 91 NONE	<input type="checkbox"/> 95 UNKNOWN	<input type="checkbox"/> 99 OTHER

VI. TANK CLOSURE INFORMATION

1. ESTIMATED DATE LAST USED (MO/DAY/YR) unknown	2. ESTIMATED QUANTITY OF SUBSTANCE REMAINING unknown GALLONS	3. WAS TANK FILLED WITH INERT MATERIAL? YES <input type="checkbox"/> NO <input type="checkbox"/> unknown
--	---	---

THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJURY, AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT

APPLICANT'S NAME (PRINTED & SIGNATURE) Dan Schoenholz as authorized agent for Port of Oakland	DATE 03/31/92
--	------------------

LOCAL AGENCY USE ONLY THE STATE I.D. NUMBER IS COMPOSED OF THE FOUR NUMBERS BELOW

STATE I.D.#	COUNTY #	JURISDICTION #	FACILITY #	TANK #
PERMIT NUMBER	PERMIT APPROVED BY/DATE	PERMIT EXPIRATION DATE		



# ***Envirotox Technologies, Inc.***

---

***CERTIFICATE OF TRAINING  
PRESENTED TO***

***Gerald F. Ding***

---

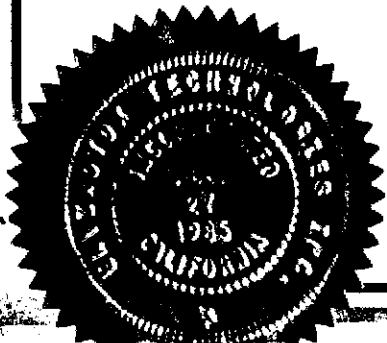
***FOR HAVING SUCCESSFULLY COMPLETED  
A TRAINING COURSE IN***

***40-Hour Hazardous Waste Operations Training Osha Standard 29CFR1910.120***

---

***PRESENTED BY***

***ENVIROTOX TECHNOLOGIES, INC.***



***William L. Puleo***  
E.T. Inc. Coordinating Trainer

***Nov 21, 1991***

Date

***Thomas Sheppard***

# EMPLOYEE RECORD OF TRAINING

Employee Name (print): GERALD F. DING Date: 12/09/91

Dept/Job Title: Field Supervision

Course Title: 40-Hour Hazardous Waste Operations Training

Description: Initial 40 hours of instruction off site.

Presented By: ENVIROTOX TECHNOLOGIES, INCORPORATED

I have received and completed the training described below. This training included the following:

- I. INTRODUCTION
  - A. Course Introduction
  - B. Regulatory Waste Management Overview
- II. OCCUPATIONAL HAZARDS
  - A. Principles of Toxicology
  - B. Chemical Hazards
  - C. Physical Hazards
  - D. Biological Hazards
  - E. Special Hazards
    - 1. Confined Space
    - 2. Trenching/Excavation
    - 3. Tank Cutting and Cleaning
    - 4. Drill Rig Safety Guidelines
- III. HAZARD CONTROL
  - A. Basic Safety and Accident Prevention
  - B. Safe Work Practices
  - C. Hazard Communication
  - D. Health and Safety Program
- IV. PERSONAL PROTECTION
  - A. Protective Clothing and Equipment
  - B. Levels of Protection
  - C. Respirators
- V. FIELD SAFETY AND OPERATION PROCEDURES
  - A. Site Control
  - B. Decontamination
  - C. Fire Safety and Suppression
  - D. Chemical Handling
  - E. Site Emergencies/Contingency Plan
- VI. PRINCIPLES OF AIR MONITORING
  - A. Types of Instrument
  - B. Principles of Sampling
  - C. Data Collection and Interpretation
- VII. HAZARD ASSESSMENT
  - A. Hazard Recognition and Evaluation
  - B. Hazard Assessment
- VIII. EMERGENCY RESPONSE
  - A. Principles of Emergency Response
- IX. FIELD EXERCISE



Instructor Signature

c-manuals/40rec-1r



Employee Signature

# **Envirotox Technologies, Inc.**

**COPY**  
ORIGINAL ON  
FILE 5/10/91

## **CERTIFICATE OF TRAINING PRESENTED TO**

*Thomas J. Sherwood, Jr.*

**FOR HAVING SUCCESSFULLY COMPLETED  
A TRAINING COURSE IN**

**40-Hour Hazardous Waste Operations Training Osha Standard 29CFR1910.120**

**PRESENTED BY**

**ENVIROTOX TECHNOLOGIES, INC.**



*Walter R. Pifer*

E.T. Inc. Coordinating Trainer

*May 10, 1991*

Date

*Thomas J. Sherwood*

# EMPLOYEE RECORD OF TRAINING

Employee Name (print): THOMAS J. SHERWOOD, JR. Date: May 10, 1991

Dept/Job Title: Excavation

Course Title: 40-Hour Hazardous Waste Operations Training

Description: Initial 40 hours of instruction off site.

Presented By: ENVIROTOX TECHNOLOGIES, INCORPORATED

I have received and completed the training described below. This training included the following:

**I. INTRODUCTION**

- A. Course Introduction
- B. Regulatory Waste Management Overview

**II. OCCUPATIONAL HAZARDS**

- A. Principles of Toxicology
- B. Chemical Hazards
- C. Physical Hazards
- D. Biological Hazards
- E. Special Hazards
  - 1. Confined Space
  - 2. Trenching/Excavation
  - 3. Tank Cutting and Cleaning
  - 4. Drill Rig Safety Guidelines

**III. HAZARD CONTROL**

- A. Basic Safety and Accident Prevention
- B. Safe Work Practices
- C. Hazard Communication
- D. Health and Safety Program

**IV. PERSONAL PROTECTION**

- A. Protective Clothing and Equipment
- B. Levels of Protection
- C. Respirators

**V. FIELD SAFETY AND OPERATION PROCEDURES**

- A. Site Control
- B. Decontamination
- C. Fire Safety and Suppression
- D. Chemical Handling
- E. Site Emergencies/Contingency Plan

**VI. PRINCIPLES OF AIR MONITORING**

- A. Types of Instrument
- B. Principles of Sampling
- C. Data Collection and Interpretation


**VII. HAZARD ASSESSMENT**

- A. Hazard Recognition and Evaluation
- B. Hazard Assessment

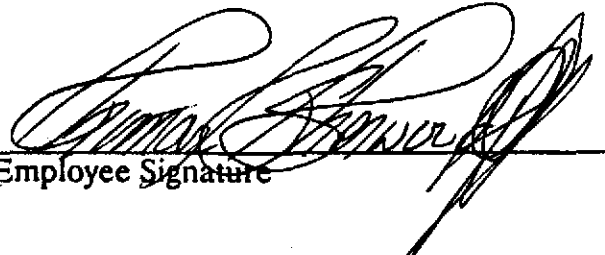
**VIII. EMERGENCY RESPONSE**

- A. Principles of Emergency Response

**IX. FIELD EXERCISE**

  
\_\_\_\_\_  
Instructor Signature

ENVIROTOX/40HCO-17

  
\_\_\_\_\_  
Employee Signature

**NES** SM

**CERTIFICATE OF TRAINING**  
**PRESENTED TO**

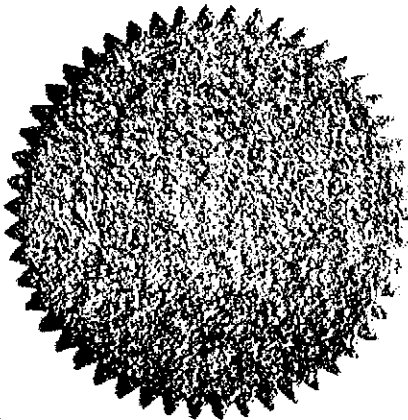
**VERNON L. PEDEN**

**FOR HAVING SUCCESSFULLY COMPLETED**  
**A TRAINING COURSE IN**

**40-Hour Hazardous Waste Operations Training**

**PRESENTED BY**

**NETWORK ENVIRONMENTAL SYSTEMS, SM INC.**



*Bruce Ferguson* CIH  
NES Coordinating Trainer

**April 22-26, 1991**  
Date

*Chad Puller*

EMPLOYEE RECORD OF TRAINING

Employee Name (print): VERNON C. PEDEN Date: 4-26-91

Dept/Job Title: PROJECT MANAGER

Course Title: 40-Hour Hazardous Waste Operations Training

Description: Initial 40 hours of instruction off site.

Presented By: Network Environmental Systems, Inc.

I have received and completed the training described below. This training included the following:

**I. INTRODUCTION**

- A. Course Introduction
- B. Regulatory Waste Management Overview

**II. OCCUPATIONAL HAZARDS**

- A. Principles of Toxicology
- B. Chemical Hazards
- C. Physical Hazards
- D. Biological Hazards
- E. Special Hazards
  - 1. Confined Space
  - 2. Trenching/Excavation
  - 3. Tank Cutting and Cleaning
  - 4. Drill Rig Safety Guidelines

**III. HAZARD CONTROL**

- A. Basic Safety and Accident Prevention
- B. Safe Work Practices
- C. Hazard Communication
- D. Health and Safety Program

**IV. PERSONAL PROTECTION**

- A. Protective Clothing and Equipment
- B. Levels of Protection
- C. Respirators

**V. FIELD SAFETY AND OPERATION PROCEDURES**

- A. Site Control
- B. Decontamination
- C. Fire Safety and Suppression
- D. Chemical Handling
- E. Site Emergencies/Contingency Plan

**VI. PRINCIPLES OF AIR MONITORING**

- A. Types of Instrument
- B. Principles of Sampling
- C. Data Collection and Interpretation

**VII. HAZARD ASSESSMENT**

- A. Hazard Recognition and Evaluation
- B. Hazard Assessment

**VIII. EMERGENCY RESPONSE**

- A. Principles of Emergency Response

**IX. FIELD EXERCISE**

Roger [Signature]  
Instructor Signature

Vernon C. Peden  
Employee Signature



**ENVIROTOX TECHNOLOGIES, INC.**  
 1336 DIXIEANNE AVENUE 916-920-0664  
 SACRAMENTO, CA 95815

9663

90-3750/1211

3-10 1992

PAY  
 TO THE  
 ORDER OF

*Alameda County Health Dept.*

\$ 906.00

*Nine Hundred & Six + 00/100*

DOLLARS



**FIRST  
 COMMERCIAL  
 BANK** 916-444-0554  
 CAPITOL OFFICE  
 2450 VENTURE OAKS WAY  
 SACRAMENTO, CA 95833

FOR

*Pay to Oakland*

*[Handwritten Signature]*

⑈009663⑈ ⑆121137506⑆ 0001913425⑈



**ENVIROTOX TECHNOLOGIES, INC.**  
 1336 DIXIEANNE AVENUE 916-920-0664  
 SACRAMENTO, CA 95815

9663

90-3750/1211

3-10 1992

PAY  
 TO THE  
 ORDER OF

*Alameda County Health Dept.* \$ 906.<sup>00</sup>  
*Nine Hundred & Six / 100* DOLLARS



**FIRST  
 COMMERCIAL  
 BANK** 916-949-0554  
 CAPITOL OFFICE  
 2450 VENTURE OAKS WAY  
 SACRAMENTO, CA 95833

FOR *Pay of Oakland*

*[Signature]*

⑈009663⑈ ⑆121137506⑆ 0001913425⑈



Project Specialist (print) SUSAN L. HULL

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY  
DEPARTMENT OF ENVIRONMENTAL HEALTH  
HAZARDOUS MATERIALS DIVISION  
80 SWAN WAY, ROOM 200  
OAKLAND, CA 94621  
PHONE NO. 415/271-4320  
510

ACCEPTED

DEPARTMENT OF ENVIRONMENTAL HEALTH  
470 - 27th Street, Third Floor  
Oakland, CA 94612  
Telephone: (415) 874-7237

These plans have been reviewed and found to be acceptable and essentially meet the requirements of State and local health laws. Changes to your plans indicated by this Department are to assure compliance with State and local laws. The project proposed herein is now released for issuance of any required building permits for construction.

One copy of these accepted plans must be on the job and available to all contractors and craftsmen involved with the removal.

Any changes or alterations of these plans and specifications must be submitted to this Department and to the Fire and Building Inspection Department to determine if such changes meet the requirements of State and local laws. Notify this Department at least 48 hours prior to the following required inspections:

- Removal of Tank and Piping
- San Piping
- Final Inspection

Issuance of a permit to operate is dependent on compliance with accepted plans and all applicable laws and regulations.

THERE IS A FINANCIAL PENALTY FOR NOT OBTAINING THESE INSPECTIONS.

*Susan L. Hull*  
*Alced 92*

**UNDERGROUND TANK CLOSURE PLAN**

**\* \* \* Complete according to attached instructions \* \* \***

1. Business Name PORT OF OAKLAND  
Business Owner PORT OF OAKLAND
  2. Site Address 2801 Seventh Street  
City OAKLAND zip 94607 Phone (510) 272-1100
  3. Mailing Address 530 WATER STREET  
City OAKLAND zip 94607 Phone (510) 272-1100
  4. Land Owner PORT OF OAKLAND  
Address 530 WATER STREET City, State OAKLAND, CA zip 94607
  5. Generator name under which tank will be manifested PORT OF OAKLAND
- EPA I.D. No. under which tank will be manifested CAC 000707408

6. Contractor ENVIROTOX TECHNOLOGIES INC.  
Address 1334 DIXIEANNE AVE  
City SACRAMENTO Phone 916 9200664  
License Type GEN A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT, BU, BV, BW, BX, BY, BZ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, CK, CL, CM, CN, CO, CP, CQ, CR, CS, CT, CU, CV, CW, CX, CY, CZ, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, DK, DL, DM, DN, DO, DP, DQ, DR, DS, DT, DU, DV, DW, DX, DY, DZ, EA, EB, EC, ED, EE, EF, EG, EH, EI, EJ, EK, EL, EM, EN, EO, EP, EQ, ER, ES, ET, EU, EV, EW, EX, EY, EZ, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, FK, FL, FM, FN, FO, FP, FQ, FR, FS, FT, FU, FV, FW, FX, FY, FZ, GA, GB, GC, GD, GE, GF, GG, GH, GI, GJ, GK, GL, GM, GN, GO, GP, GQ, GR, GS, GT, GU, GV, GW, GX, GY, GZ, HA, HB, HC, HD, HE, HF, HG, HH, HI, HJ, HK, HL, HM, HN, HO, HP, HQ, HR, HS, HT, HU, HV, HW, HX, HY, HZ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, IK, IL, IM, IN, IO, IP, IQ, IR, IS, IT, IU, IV, IW, IX, IY, IZ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, JK, JL, JM, JN, JO, JP, JQ, JR, JS, JT, JU, JV, JW, JX, JY, JZ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ, KK, KL, KM, KN, KO, KP, KQ, KR, KS, KT, KU, KV, KW, KX, KY, KZ, LA, LB, LC, LD, LE, LF, LG, LH, LI, LJ, LK, LL, LM, LN, LO, LP, LQ, LR, LS, LT, LU, LV, LW, LX, LY, LZ, MA, MB, MC, MD, ME, MF, MG, MH, MI, MJ, MK, ML, MM, MN, MO, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NB, NC, ND, NE, NF, NG, NH, NI, NJ, NK, NL, NM, NN, NO, NP, NQ, NR, NS, NT, NU, NV, NW, NX, NY, NZ, OA, OB, OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, OM, ON, OO, OP, OQ, OR, OS, OT, OU, OV, OW, OX, OY, OZ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, PK, PL, PM, PN, PO, PP, PQ, PR, PS, PT, PU, PV, PW, PX, PY, PZ, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT, QU, QV, QW, QX, QY, QZ, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, RK, RL, RM, RN, RO, RP, RQ, RR, RS, RT, RU, RV, RW, RX, RY, RZ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SP, SQ, SR, SS, ST, SU, SV, SW, SX, SY, SZ, TA, TB, TC, TD, TE, TF, TG, TH, TI, TJ, TK, TL, TM, TN, TO, TP, TQ, TR, TS, TT, TU, TV, TW, TX, TY, TZ, UA, UB, UC, UD, UE, UF, UG, UH, UI, UJ, UK, UL, UM, UN, UO, UP, UQ, UR, US, UT, UY, UZ, VA, VB, VC, VD, VE, VF, VG, VH, VI, VJ, VK, VL, VM, VN, VO, VP, VQ, VR, VS, VT, VU, VV, VW, VX, VY, VZ, WA, WB, WC, WD, WE, WF, WG, WH, WI, WJ, WK, WL, WM, WN, WO, WP, WQ, WR, WS, WT, WU, WV, WW, WX, WY, WZ, XA, XB, XC, XD, XE, XF, XG, XH, XI, XJ, XK, XL, XM, XN, XO, XP, XQ, XR, XS, XT, XU, XV, XW, XX, XY, XZ, YA, YB, YC, YD, YE, YF, YG, YH, YI, YJ, YK, YL, YM, YN, YO, YP, YQ, YR, YS, YT, YU, YV, YW, YX, YY, YZ, ZA, ZB, ZC, ZD, ZE, ZF, ZG, ZH, ZI, ZJ, ZK, ZL, ZM, ZN, ZO, ZP, ZQ, ZR, ZS, ZT, ZU, ZV, ZW, ZX, ZY, ZZ ID# SEE ATTACHED 480447

\*Effective January 1, 1992, Business and Professional Code Section 7058.7 requires prime contractors to also hold Hazardous Waste Certification issued by the State Contractors License Board. Indicate that the certificate has been received, in addition, to holding the appropriate contractors license type.

7. Consultant GEOMATRIX CONSULTANTS  
Address 100 PINE STREET, 10<sup>th</sup> FLOOR  
City SAN FRANCISCO, CA Phone (415) 434-9400  
94111

8. Contact Person for Investigation  
Name JON AMDUR Title ENVIRONMENTAL SCIENTIST  
Phone (510) 272-1184

9. Number of tanks being closed under this plan 3  
Length of piping being removed under this plan 40'  
Total number of tanks at facility 3

10. State Registered Hazardous Waste Transporters/Facilities (see instructions).

\*\* Underground tanks are hazardous waste and must be handled \*\*  
as hazardous waste

a) Product/Residual Sludge/Rinsate Transporter

Name ERICKSON, INC. EPA I.D. No. CAD009446392  
Hauler License No. 0019 License Exp. Date 5/31/92  
Address 255 PARR BLVD.  
City RICHMOND State CA Zip 94801

b) Product/Residual Sludge/Rinsate Disposal Site

Name ERICKSON, INC. EPA I.D. No. CAD009446392  
Address 255 PARR BLVD.  
City RICHMOND State CA Zip 94801

State of California  
Contractors State License Board

Pursuant to Chapter 9 of Division 3 of the Business and Professions Code  
and the Rules and Regulations of the Contractors State License Board,  
the Registrar of Contractors does hereby issue this license to:

**ENVIROTOX TECHNOLOGIES INCORPORATED**



to engage in the business or act in the capacity of a contractor  
in the following classification(s):

C21 - Building Moving, Wrecking, C61/D06 - Concrete Related Services, C61/D40  
- Service Station Equipment & Maintenance, A - General Engineering Contractor,  
HAZ - Hazardous Substances Removal, B - General Building Contractor



Witness my hand and seal this day,

June 22, 1989

Issued October 7, 1985  
Replacement

*Daniel R. Phillips*  
Registrar of Contractors

*Joseph L. Howard*  
Signature of Licensee  
*Thomas Howard*  
Signature of License Qualifier

480497  
License Number

This license is the property of the Registrar of Contractors, is not  
transferable, and shall be returned to the Registrar upon demand  
when suspended, revoked, or invalidated for any reason. It becomes  
void if not renewed.

c) Tank and Piping Transporter

Name ERICKSON, INC. EPA I.D. No. CAD009466392  
Hauler License No. 0019 License Exp. Date 5-31-92  
Address 255 PARR BLVD.  
city RICHMOND state CA zip 94801

d) Tank and Piping Disposal Site

Name ERICKSON, INC. EPA I.D. No. \_\_\_\_\_  
Address 255 PARR BLVD.  
city RICHMOND state CA zip 94801

11. Experienced Sample Collector

Name ELIZABETH WELLS  
Company GEOMATRIX CONSULTANTS  
Address 100 PINE STREET, 10<sup>th</sup> FLOOR  
city SAN FRANCISCO state CA zip 94111 Phone (415) 434-9400

12. Laboratory

Name CLAYTON  
Address 1252 QUARRY LANE, PO BOX 9019  
city PLEASANTON state CA zip 94566  
State Certification No. 1196

13. Have tanks or pipes leaked in the past? Yes [ ] No [x]

If yes, describe. Not detected  
\_\_\_\_\_  
\_\_\_\_\_

14. Describe methods to be used for rendering tank inert

20 LBS. OF DRY ICE PER 1000 GALS

Before tanks are pumped out and inerted, all associated piping must be flushed out into the tanks. All accessible associated piping must then be removed. Inaccessible piping must be plugged.

The Bay Area Air Quality Management District (771-6000), along with local Fire and Building Departments, must also be contacted for tank removal permits. Fire departments typically require the use of explosion proof combustible gas meters to verify tank inertness. It is the contractor's responsibility to bring a working combustible gas meter on site to verify tank inertness.

15. Tank History and Sampling Information

Tank		Material to be sampled (tank contents, soil, groundwater, etc.)	Location and Depth of Samples
Capacity (Gallons)	Use History (see instructions)		
3,000	Gasoline	Soil	From the wall of the pit at each end of the tank. Collected at the soil/water interface, or not greater than 2 ft. into native soil
5,000	Gasoline	Groundwater, if present	
5,000	Diesel  (installation dates unknown)		

One soil sample must be collected for every 20 feet of piping that is removed. A ground water sample must be collected should any ground water be present in the excavation.

Excavated/Stockpiled Soil	
Stockpiled Soil Volume (Estimated) 260-300 CUBIC YARDS	Sampling Plan ONE SAMPLE EVERY 20 Y <sup>3</sup> MAXIMUM OR ONE SAMPLE EVERY 50 Y <sup>3</sup> MINIMUM. ANALYZE FOR TPH-6, TPH-7, BTEX, AND TOTAL LEAD.

Stockpiled soil must be placed on bermed plastic and must be completely covered by plastic sheeting.

16. Chemical methods and associated detection limits to be used for analyzing samples

The Tri-Regional Board recommended minimum verification analyses and practical quantitation reporting limits should be followed. See attached Table 2.

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Method Number	Method Detection Limit
GASOLINE TPH	5030	GCFID	SOIL 1 ppm WATER 50 ppb
DIESEL TPH	3550 / 3510	GCFID	SOIL 1 ppm WATER 50 ppb
BTEX	5030	8020 or 8240	SOIL 5 ppb WATER .5 ppb
TOTAL LEAD	AA		3 ppm

17. Submit Site Health and Safety Plan (See Instructions)

18. Submit Worker's Compensation Certificate copy (Forth coming)

Name of Insurer TRANSAMERICA / Policy No. 80482858 / 1/1/92 to 1/1/93

19. Submit Plot Plan (See Instructions)

20. Enclose Deposit (See Instructions)

21. Report any leaks or contamination to this office within 5 days of discovery. The report shall be made on an Underground Storage Tank Unauthorized Leak/Contamination Site Report form. (see Instructions)

22. Submit a closure report to this office within 60 days of the tank removal. This report must contain all the information listed in item 22 of the instructions.

I declare that to the best of my knowledge and belief the statements and information provided above are correct and true.

I understand that information in addition to that provided above may be needed in order to obtain an approval from the Department of Environmental Health and that no work is to begin on this project until this plan is approved.

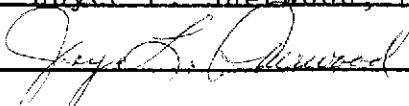
I understand that any changes in design, materials or equipment will void this plan if prior approval is not obtained.

I understand that all work performed during this project will be done in compliance with all applicable OSHA (Occupational Safety and Health Administration) requirements concerning personnel health and safety. I understand that site and worker safety are solely the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda.

Once I have received my stamped, accepted closure plan, I will contact the project Hazardous Materials Specialist at least three working days in advance of site work to schedule the required inspections.

Signature of Contractor ENVIROTOX TECHNOLOGIES, INCORPORATED

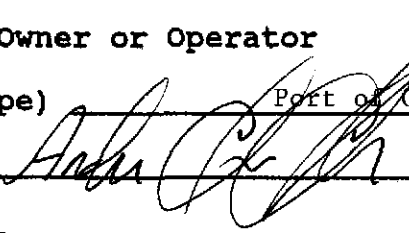
Name (please type) Joyce L. Sherwood, President

Signature 

Date March 5, 1992

Signature of Site Owner or Operator

Name (please type) Port of Oakland Andrew Clark-Clough

Signature  authorized agent for Port of Oakland

Date 3/11/92

## INSTRUCTIONS

### General Instructions

- \* Three (3) copies of this plan plus attachments and deposit must be submitted to this Department.
- \* Any cutting into tanks requires local fire department approval.
- \* One complete copy of your approved plan must be at the construction site at all times; a copy of your approved plan must also be sent to the landowner.

### Item Specific Instructions

2. SITE ADDRESS  
Address at which closure is taking place.
5. EPA I.D. NO. under which the tanks will be manifested  
EPA I.D. numbers may be obtained from the State Department of Health Services, 916/324-1781.
6. CONTRACTOR  
Prime contractor for the project.
10. STATE REGISTERED HAZARDOUS WASTE TRANSPORTERS/FACILITIES
  - a) All residual liquids and sludges are to be removed from tanks before tanks are inerted.
  - c) Tanks must be hauled as hazardous waste.
  - d) This is the place where tanks will be taken for cleaning.
15. TANK HISTORY AND SAMPLING INFORMATION  
Use History - This information is essential and must be accurate. Include tank installation date, products stored in the tank, and the date when the tank was last used.  
  
Material to be sampled - e.g. water, oil, sludge, soil, etc.  
  
Location and depth of samples - e.g. beneath the tank a maximum of two feet below the native soil/backfill interface, side wall at the high water mark, etc.



17. SITE HEALTH AND SAFETY PLAN

A site specific Health and Safety plan must be submitted. We advocate the site health and safety plan include the following items, at a minimum:

- a) The name and responsibilities of the site health and safety officer;
- b) Identification of health and safety hazards of each work task. Include potential fire, explosion, physical, and chemical hazards;
- c) An outline of briefings to be held before work each day to appraise employees of site health and safety hazards;
- d) Frequency and types of air and personnel monitoring to be used - along with the environmental sampling techniques and instrumentation. Include instrumentation maintenance and calibration methods and frequencies;
- e) Specific personal protective equipment and procedures to be used by workers to protect themselves from the identified hazards. Also state the contaminant concentrations in air - or other conditions - which will trigger changes in work or work habits to ensure workers are not exposed to high levels of hazardous chemicals or to other unsafe conditions;
- f) Confined space entry procedures (if applicable);
- g) Decontamination procedures;
- h) Measures to be taken to secure the site, excavation and stockpiled soil during and after work hours (e.g. barricades, caution tape, fencing, trench plates, security guards, etc.);
- i) Spill containment and emergency/contingency plan. Be sure to include emergency phone numbers, the location of the phone nearest the site, and directions to the hospital nearest the site;
- j) Documentation that all site workers have received the appropriate OSHA approved trainings and participate in appropriate medical surveillance per 29 CFR 1910.120; and
- k) Page for employees to sign indicating they have read and will comply with the site health and safety plan.

The safety plan must be distributed to all employees and contractors working in hazardous waste operations on site. A complete copy of the site health and safety plan along with any standard operating procedures shall be on site and accessible at all times.

NOTE: These requirements are excerpts from 29 CFR Part 1910.120, Hazardous Waste Operations and Emergency Response; Final Rule, March 6, 1989. Safety plans of certain underground tank sites may need to meet the complete requirements of this Rule.

19. PLOT PLAN

The plan should consist of a scaled view of the facility at which the tank(s) are located and should include the following information:

- a) Scale;
- b) North Arrow;
- c) Property Lines;
- d) Location of all Structures;
- e) Location of all relevant existing equipment including tanks and piping to be removed and dispensers;
- f) Streets;
- g) Underground conduits, sewers, water lines, utilities;
- h) Existing wells (drinking, monitoring, etc.);
- i) Depth to ground water; and
- j) All existing tanks and piping in addition to the ones being pulled.

20. DEPOSIT

A deposit, payable to Alameda County for the amount indicated on the Alameda County Underground Storage Tank Fee Schedule, must accompany the plans.

21. Blank Unauthorized Leak/Contamination Site Report forms may be obtained in limited quantities from our office and from the San Francisco Bay Regional Water Quality Control Board (415/464-1255). Larger quantities may be obtained directly from the State Water Resources Control Board at (916) 739-2421.

22. TANK CLOSURE REPORT

The tank closure report should contain the following information:

- a) General description of the closure activities;
- b) Description of tank, fittings and piping conditions. Indicate tank size and former contents; note any corrosion, pitting, holes, etc.;

- c) Description of the excavation itself. Include the tank and excavation depth, a log of the stratigraphic units encountered within the excavation, a description of root holes or other potential contaminant pathways, the depth to any observed ground water, descriptions and locations of stained or odor-bearing soil, and descriptions of any observed free product or sheen;
- d) Description of sampling methods;
- e) Description of any remedial measures conducted at the time of tank removal;
- f) To-scale figures showing the excavation size and depth, nearby buildings, sample locations and depths, and tank and piping locations. Include a copy of the plot plan prepared for the Tank Closure Plan under item 19;
- g) Chain of custody records;
- h) Copies of signed laboratory reports;
- i) Copies of "TSDF to Generator" Manifests for all hazardous wastes hauled offsite (sludge, rinsate, tanks and piping, contaminated soil, etc.); and
- j) Tabulation of the volume and final destination of all non-manifested contaminated soil hauled offsite.

**TABLE #2**  
**RECOMMENDED MINIMUM VERIFICATION ANALYSES FOR**  
**UNDERGROUND TANK LEAKS**

<u>HYDROCARBON LEAK</u>	<u>SOIL ANALYSIS</u>	<u>WATER ANALYSIS</u>
Unknown Fuel	TPH G GCFID(5030) TPH D GCFID(3550) BTX&E 8020 or 8240 TPH AND BTX&E 8260	TPH G GCFID(5030) TPH D GCFID(3510) BTX&E 602, 624 or 8260
Leaded Gas	TPH G GCFID(5030) BTX&E 8020 OR 8240 TPH AND BTX&E 8260 TOTAL LEAD AA -----Optional----- TEL DHS-LUFT EDB DHS-AB1803	TPH G GCFID(5030) BTX&E 602 or 624 TOTAL LEAD AA TEL DHS-LUFT EDB DHS-AB1803
Unleaded Gas	TPH G GCFID(5030) BTX&E 8020 or 8240 TPH AND BTX&E 8260	TPH G GCFID(5030) BTX&E 602, 624 or 8260
Diesel, Jet Fuel and Kerosene	TPH D GCFID(3550) BTX&E 8020 or 8240 TPH AND BTX&E 8260	TPH D GCFID(3510) BTX&E 602, 624 or 8260
Fuel/Heating Oil	TPH D GCFID(3550) BTX&E 8020 or 8240 TPH AND BTX&E 8260	TPH D GCFID(3510) BTX&E 602, 624 or 8260
Chlorinated Solvents	CL HC 8010 or 8240 BTX&E 8020 or 8240 CL HC AND BTX&E 8260	CL HC 601 or 624 BTX&E 602 or 624 CL HC AND BTX&E 8260
Non-chlorinated Solvents	TPH D GCFID(3550) BTX&E 8020 or 8240 TPH AND BTX&E 8260	TPH D GCFID(3510) BTX&E 602 or 624 TPH and BTX&E 8260
Waste and Used Oil or Unknown (All analyses must be completed and submitted)	TPH G GCFID(5030) TPH D GCFID(3550) TPH AND BTX&E 8260 O & G 5520 D & F BTX&E 8020 or 8240 CL HC 8010 or 8240	TPH G GCFID(5030) TPH D GCFID(3510) O & G 5520 C & F BTX&E 602, 624 or 8260 CL HC 601 or 624
ICAP or AA TO DETECT METALS: Cd, Cr, Pb, Zn, Ni METHOD 8270 FOR SOIL OR WATER TO DETECT: PCB* PCB PCP* PCP PNA PNA CREOSOTE CREOSOTE.		

\* If found, analyze for dibenzofurans (PCBs) or dioxins (PCP)

Reference: Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites, 10 August 1990

## EXPLANATION FOR TABLE #2: MINIMUM VERIFICATION ANALYSIS

1. OTHER METHODOLOGIES are continually being developed and as methods are accepted by EPA or DHS, they also can be used.
2. For DRINKING WATER SOURCES, EPA recommends that the 500 series for volatile organics be used in preference to the 600 series because the detection limits are lower and the QA/QC is better.
3. APPROPRIATE STANDARDS for the materials stored in the tank are to be used for all analyses on Table #2. For instance, seasonally, there may be five different jet fuel mixtures to be considered.
4. To AVOID FALSE POSITIVE detection of benzene, benzene-free solvents are to be used.
5. TOTAL PETROLEUM HYDROCARBONS (TPH) as gasoline (G) and diesel (D) ranges (volatile and extractable, respectively) are to be analyzed and characterized by GCFID with a fused capillary column and prepared by EPA method 5030 (purge and trap) for volatile hydrocarbons, or extracted by sonication using 3550 methodology for extractable hydrocarbons. Fused capillary columns are preferred to packed columns; a packed column may be used as a "first cut" with "dirty" samples or once the hydrocarbons have been characterized and proper QA/QC is followed.
6. TETRAETHYL LEAD (TEL) analysis may be required if total lead is detected unless the determination is made that the total lead concentration is geogenic (naturally occurring).
7. CHLORINATED HYDROCARBONS (CL HC) AND BENZENE, TOLUENE, XYLENE AND ETHYLBENZENE (BTX&E) are analyzed in soil by EPA methods 8010 and 8020 respectively, (or 8240) and in water, 601 and 602, respectively (or 624).
8. OIL AND GREASE (O & G) may be used when heavy, straight chain hydrocarbons may be present. Infrared analysis by method 418.1 may also be acceptable for O & G if proper standards are used. Standard Methods" 17th Edition, 1989, has changed the 503 series to 5520.
9. PRACTICAL QUANTITATION REPORTING LIMITS are influenced by matrix problems and laboratory QA/QC procedures. Following are the Practical Quantitation Reporting Limits:

	SOIL PPM	WATER PPF
TPH G	1.0	50.0
TPH D	1.0	50.0
BTX&E	0.005	0.5
O & G	50.0	5,000.0

## EXPLANATION FOR TABLE #2: MINIMUM VERIFICATION ANALYSIS

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2. For DRINKING WATER SOURCES, EPA recommends that the 500 series for volatile organics be used in preference to the 600 series because the detection limits are lower and the QA/QC is better.
3. APPROPRIATE STANDARDS for the materials stored in the tank are to be used for all analyses on Table #2. For instance, seasonally, there may be five different jet fuel mixtures to be considered.
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5. TOTAL PETRÓLEUM HYDROCARBONS (TPH) as gasoline (G) and diesel (D) ranges (volatile and extractible, respectively) are to be analyzed and characterized by GCFID with a fused capillary column and prepared by EPA method 5030 (purge and trap) for volatile hydrocarbons, or extracted by sonication using 3550 methodology for extractable hydrocarbons. Fused capillary columns are preferred to packed columns; a packed column may be used as a "first cut" with "dirty" samples or once the hydrocarbons have been characterized and proper QA/QC is followed.
6. TETRAETHYL LEAD (TEL) analysis may be required if total lead is detected unless the determination is made that the total lead concentration is geogenic (naturally occurring).
7. CHLORINATED HYDROCARBONS (CL HC) AND BENZENE, TOLUENE, XYLENE AND ETHYLBENZENE (BTX&E) are analyzed in soil by EPA methods 8010 and 8020 respectively, (or 8240) and in water, 601 and 602, respectively (or 624).
8. OIL AND GREASE (O & G) may be used when heavy, straight chain hydrocarbons may be present. Infrared analysis by method 418.1 may also be acceptable for O & G if proper standards are used. "Standard Methods" 17th Edition, 1989, has changed the 503 series to 5520.
9. PRACTICAL QUANTITATION REPORTING LIMITS are influenced by matrix problems and laboratory QA/QC procedures. Following are the Practical Quantitation Reporting Limits:

	<u>SOIL PPM</u>	<u>WATER PPB</u>
TPH G	1.0	50.0
TPH D	1.0	50.0
BTX&E	0.005	0.5
O & G	50.0	5,000.0

Based upon a Regional Board survey of Department of Health Services Certified Laboratories, the Practical Quantitation Reporting Limits are attainable by a majority of laboratories with the exception of diesel fuel in soils. The Diesel Practical Quantitation Reporting Limits, shown by the survey, are:

ROUTINE	MODIFIED PROTOCOL
≤ 10 ppm (42%)	≤ 10 ppm (10%)
≤ 5 ppm (19%)	≤ 5 ppm (21%)
≤ 1 ppm (35%)	≤ 1 ppm (60%)

When the Practical Quantitation Reporting Limits are not achievable, an explanation of the problem is to be submitted on the laboratory data sheets.

- LABORATORY DATA SHEETS are to be signed and submitted and include the laboratory's assessment of the condition of the samples on receipt including temperature, suitable container type, air bubbles present/absent in VOA bottles, proper preservation, etc. The sheets are to include the dates sampled, submitted, prepared for analysis, and analyzed.
- IF PEAKS ARE FOUND, when running samples, that do not conform to the standard, laboratories are to report the peaks, including any unknown complex mixtures that elute at times varying from the standards. Recognizing that these mixtures may be contrary to the standard, they may not be readily identified; however, they are to be reported. At the discretion of the LIA or Regional Board the following information is to be contained in the laboratory report:

The relative retention time for the unknown peak(s) relative to the reference peak in the standard, copies of the chromatogram(s), the type of column used, initial temperature, temperature program is C/minute, and the final temperature.

- REPORTING LIMITS FOR TPH are: gasoline standard ≤ 20 carbon atoms, diesel and jet fuel (kerosene) standard ≤ 50 carbon atoms. It is not necessary to continue the chromatography beyond the limit, standard, or EPA/DHS method protocol (whichever time is greater).

#### EPILOGUE

ADDITIVES: Major oil companies are being encouraged or required by the federal government to reformulate gasoline as cleaner burning fuels to reduce air emissions. MTBE (Methyl-tertiary butyl ether), ETHANOL (ethyl alcohol), and other chemicals may be added to reformulate gasolines to increase the oxygen content in the fuel and thereby decrease undesirable emissions (about four percent with MTBE). MTBE and ethanol are, for practical purposes, soluble in water. The removal

Regional Board Staff Recommendations  
Preliminary Site Investigation

10 August 1990

from the water column will be difficult. Other compounds are being added by the oil companies for various purposes. The refinements for detection and analysis for all of these additives are still being worked out. If you have any questions about the methodology, please call your Regional Board representative.



ALAMEDA COUNTY HAZARDOUS MATERIALS DIVISION  
Acknowledgement of Refund Recipient for Site Account

DEPOSITOR FILLS OUT PER SITE

-- REQUIRED --

The depositor will use this form to acknowledge that the property owner or his or her designee will receive any refund due at the completion of all deposit/refund projects at the site listed below.

SITE NUMBER/ADDRESS:

REFUND RECIPIENT-PROPERTY OWNER

Site Number

Port of Oakland

Company Name

52801 Seventh St.

Street Address

Oakland

City

94607

Zip Code

Port of Oakland

Owner's Name

530 Water St.

Owner's Address

Oakland

Owner's City

CA

State

94607

Zip

I have read the description of the project Deposit/Refund Procedure, and have had an opportunity to ask questions about it. I understand that regardless of who deposits money into the site account, any deposit money remaining at the completion of all projects being conducted at this site will be refunded solely to the property owner or his or her designee.

Signature of Depositor



Date

3/11/92

Depositor Name

Andrew Clark-Clough

Company Name

Port of Oakland

Street Address

530 Water St.

City / Zip

Oakland, CA

94607

**SITE SAFETY PLAN**  
**Underground Storage Tank Removal**  
**at**  
**PORT OF OAKLAND**  
**Oakland CA**

## **INTRODUCTION**

This Site Safety Plan describes basic safety requirements for the underground storage tank removal project at Port of Oakland, Oakland CA.

The provisions set forth in this Plan apply to the employees of **ENVIROTOX TECHNOLOGIES, INCORPORATED (Envirotox)** and its subcontractors working on this project. The subcontractors may elect to modify these provisions, but only to upgrade or increase the safety requirements, and only with the concurrence of Envirotox, as designated and accepted in writing.

This Site Safety Plan will address the expected potential hazards that may be encountered on the worksite for this project. Work is scheduled to begin at the site on \_\_\_\_\_ with the duration estimated at \_\_\_\_\_. If changes in site or working conditions occur as activities progress, addenda to this plan will be provided by Envirotox.

## **AUTHORITY FOR SITE SAFETY**

The Envirotox personnel responsible for project safety are the Project Manager and the field superintendent. The Health and Safety Coordinator is responsible for the overall Envirotox Health and Safety Program and may choose to audit the site for compliance and take appropriate action to correct deficiencies. The Project Manager is responsible for implementing the provisions of this Plan, for providing a copy of this Plan to field personnel and subcontractors, and for advising the field superintendent on health and safety matters. The Project Manager and field superintendent have the authority to audit site activities for compliance with the provisions of this Plan. They may suspend or modify work practices or dismiss subcontractors whose conduct does not meet the requirements specified in this Plan.

The field superintendent is responsible for communicating the information contained in this Plan to the Envirotox personnel assigned to the project and to the responsible representative of each subcontractor working for Envirotox on the project.

***Envirotox Technologies, Inc.*****Port of Oakland Site Safety Plan****March 3, 1992**

The field superintendent will also act as the Site Safety Officer. As such, the field superintendent is responsible for addressing the following items:

- **Implementing the Site Safety Plan, Company policy, and procedures**
- **Requiring and maintaining adequate safety supplies and equipment inventory onsite**
- **Conducting daily safety meeting and advising workers regarding hazards**
- **Site control, decontamination, and contamination-reduction procedures**
- **Reporting accidents or incidents**

The field superintendent has the authority to suspend work any time he or she finds that the provisions of the Plan are inadequate for worker safety. The field superintendent will inform the Project Manager and the Health and Safety Coordinator promptly of deficiencies within the Plan or individuals or subcontractors whose conduct is not consistent with the requirements of this Plan.

**MEDICAL SURVEILLANCE**

Envirotox personnel and subcontractors engaged in project activities must participate in a medical surveillance program and must be cleared by the examining physicians(s) to wear respiratory protection devices and protective clothing for working with hazardous materials. The applicable requirements of Title 8, Section 5216, of the California Administrative Code will be observed. The applicable requirements under 29CFR 1910.120 of the Federal Administrative Code will also be observed.

**SAFETY AND ORIENTATION MEETING**

Field personnel from Envirotox and its subcontractors will attend a project-specific training meeting for safety issues and review the project tasks before beginning work. The meeting will be led by the field superintendent. In addition, fit-testing of respiratory protective devices will be conducted as part of the safety orientation meeting when the use of a respirator may be required. We do not anticipate that respiratory devices will be required on this job.

*Envirotech Technologies, Inc.*

## Port of Oakland Site Safety Plan

March 3, 1992

**HAZARD ASSESSMENT**

The major contaminants expected to be encountered on the project are gasoline and its hydrocarbon constituents, diesel fuel and gasoline. The anticipated contaminants and their exposure standards are listed in Table 1. It is not anticipated that the potential levels of exposure will reach the permissible exposure limits (PEL) or threshold limit values (TLV). Inhalation and dermal contact are the potential exposure pathways. Protective clothing will be mandatory for field personnel specified in this Plan. In addition, respiratory protective devices are required to be worn by each person onsite or to be within easy reach should irritating odors be detected or irritation of the respiratory tract occur.

**TABLE 1  
EXPOSURE LIMITS OF ANTICIPATED CHEMICAL  
CONTAMINANTS**

(PAGE 1 OF 2)

Contaminant	PEL	EL	ED	CL	TWA	STEL
Benzene	1*	---	-----	---	10*	5*
Ethylbenzene	100*	---	-----	---	100*	125*
Gasoline	300*	---	-----	---	300*	500*
Toluene (Skin)	100*		10 min per 8 hrs		100*	150*
Xylene (o,m, & p isomers) (skin)	100*	200*	30 min per 8 hrs	500*	100*	150*
See notes on page 2. of 2.						

*Evirotex Technologies, Inc.*

## Port of Oakland Site Safety Plan

March 3, 1992

**TABLE 2**  
**EXPOSURE LIMITS OF ANTICIPATED CHEMICAL**  
**CONTAMINANTS**

-----  
(PAGE 1 OF 2)  
-----

Contaminant	PEL	EL	ED	CL	TWA	STEL
PEL	-	Permissible exposure limit: 8 hour, time-weighted average, California Occupational Safety and Health Administration Standard (CAL-OSHA)				
EL	-	Excursion limit: maximum concentration of an airborne contaminant to which an employee may be exposed without regard to duration provided the 8 hour time-weighted average for PEL is not exceeded (CAL-OSHA)				
ED	-	Excursion duration: maximum time period permitted for an exposure above the excursion limit but not exceeding the ceiling limit (CAL-OSHA)				
CL	-	Ceiling limit: maximum concentration of airborne contaminant which employees may be exposed permitted (CAL-OSHA)				
TWA	-	Time-weighted average: 8 hour, [(same as threshold limit value (TLV)], American Conference of Governmental Industrial Hygienists (ACGIH)				
STEL	-	Short-term exposure limit: 15 minute time-weighted average (ACGIH)				
#	-	Milligrams of substance per cubic meter of air				
*	-	Parts of gas or vapor per million parts air				
(CARC)	-	Substance identified as a suspected or confirmed carcinogen				
(SKIN)	-	Substance may be absorbed into the bloodstream through the skin, mucous membranes, or eyes				
1	-	Federal OSHA benzene limits given for PEL and STEL; STEL has a 50 minute duration limit				
2	-	Federal OSHA gasoline limit given for PEL; STEL is the same for FED-OSHA and ACGIH				

A brief description of the physical characteristics, incompatibilities, toxic effects, routes of entry, and target organs has been summarized from the NIOSH Pocket Guide to Chemical Hazards for the contaminants anticipated to be encountered. This information is used in onsite safety meeting to alert personnel to the hazards associated with the expected contaminants.

***Evirotax Technologies, Inc.*****Port of Oakland Site Safety Plan****March 3, 1992****Benzene**

Benzene is a colorless, aromatic liquid. Benzene may create any explosion hazard. Benzene is incompatible with strong oxidizers, chlorine, and bromine with iron. Benzene is irritating to the eyes, nose, and respiratory system. Prolonged exposure may result in giddiness, headache, nausea, staggering gait, fatigue, bone marrow depression, or abdominal pain. Routes of entry include inhalation, absorption, ingestion, and skin or eye contact. The target organs are blood, the central nervous system (CNS), skin, bone marrow, eyes and respiratory system. Benzene is carcinogenic.

**Ethylbenzene**

Ethylbenzene is a colorless, aromatic liquid. Ethylbenzene may create an explosion hazard. Ethylbenzene is incompatible with strong oxidizers. Ethylbenzene is irritating to the eyes and mucous membranes. Prolonged exposure may result in headache, dermatitis, narcosis, or coma. Routes of entry include inhalation, ingestion, and skin or eye contact. The target organs are the eyes, upper respiratory system, skin, and the CNS.

**Toluene**

Toluene is a colorless, aromatic liquid. Toluene may create an explosion hazard. Toluene is incompatible with strong oxidizers. Prolonged exposure may result in fatigue, confusion, euphoria, dizziness, headache, dilation of pupils, lacrimation, insomnia, dermatitis, photophobia. Routes of entry are inhalation, absorption, ingestion, and skin or eye contact. The target organs are the CNS, liver, kidneys, and skin.

**Xylene Isomers**

Xylene is a colorless, aromatic liquid. Xylene may create an explosion hazard. Xylene is incompatible with strong oxidizers. Xylene is irritating to the eyes, nose, and throat. Prolonged exposure may result in dizziness, excitement, drowsiness, staggering gait, corneal vacuolization, vomiting, abdominal pain, or dermatitis. Routes of entry are inhalation, absorption, ingestion, and skin or eye contact. The target organs are the CNS eyes, gastrointestinal tract, blood, liver, kidneys, and skin.

*Envirotox Technologies, Inc.***Port of Oakland Site Safety Plan  
GENERAL PROJECT SAFETY REQUIREMENTS**

March 3, 1992

Project activities will be conducted in accordance with the following minimum safety requirements and procedures specified in EM 385-1-1, US Army Corp of Engineers Safety and Health Requirements Manual.

- Eating, drinking, and smoking will be restricted to a designated area.
- Gross decontamination and removal of all personal protective equipment will be performed before leaving the site. Contaminated clothing will be removed and collected in a drum for disposal.
- Shaking or blowing dust or other materials off potentially contaminated clothing or equipment to remove dust or other materials is not permitted.
- The field superintendent will be responsible for taking steps to protect employees from physical hazards including:
  - \* Falling objects, such as tools or equipment
  - \* Fall from elevations
  - \* Tripping over hoses, pipes, tools, or equipment
  - \* Slipping on wet or oily surfaces
  - \* Insufficient or faulty protective equipment
  - \* Insufficient or faulty equipment or tools
- All personnel will be required to wash hands and faces before eating, drinking, or smoking in the aforementioned designated areas.
- Field personnel will be cautioned to inform each other of the non-visual effects of the presence of toxics, such as;
  - \* Headaches
  - \* Dizziness
  - \* Nausea
  - \* Blurred vision
  - \* Cramps
  - \* Irritation of eyes, skin, or respiratory tract
  - \* Changes in complexion or skin discoloration
  - \* Changes in apparent motor coordination
  - \* Changes in personality or demeanor
  - \* Excessive salivation or changes in pupillary response
  - \* Changes in speech ability or pattern

*Envirotox Technologies, Inc.*

Port of Oakland Site Safety Plan

March 3, 1992

**PROTECTIVE EQUIPMENT REQUIREMENTS**

Field personnel and visitors are required to wear the following protective clothing and equipment, as a minimum, while in the work area at: Port of Oakland, CA

- Hard hat
- Safety Glasses
- Steel-toed boots

Field personnel engaged in work are required to wear the following equipment:

- Hard hat
- Safety glasses
- Steel-toed chemical resistant boots (rubber, neoprene, or polyvinyl chloride [PVC] )
- Gloves (rubber, neoprene, PVC, or nitrile)
- Orange or red safety vest (if equipment or motor vehicles are operating onsite or nearby)
- Standard Tyvek coveralls (when required by field superintendent)
- Respirator with organic vapor and acid gas cartridge (if lowest PEL or TLV is exceeded in the breathing zone or field superintendent decides respirators should be worn)

**RESPIRATORY PROTECTION PROGRAM**

This section summarizes Envirotox's Respiratory Protection Program. Envirotox's subcontractors must have company medical surveillance and respiratory protection programs including adequate training of their employees. Subcontractors must provide personal protective equipment as required in this Site Safety Plan for their employees. Envirotox will attempt to verify worker training but does not assume the responsibility of the employer in any way. The following sections outline the Envirotox Respiratory Protection Program.

Respirators are not issued to employees until the Company physician conducts a complete physical and decides the employee can 1) wear personal protective equipment and 2) wear a respirator. After the physician has issued written approval to Envirotox, the Health and Safety Coordinator conducts the required training including these basic topics:

- Applicable OSHA regulation 1910.134 and 1910.120



*Envirotox Technologies, Inc.*

Port of Oakland Site Safety Plan

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**RESPIRATORY PROTECTION PROGRAM (Continued)**

- Nature of respiratory hazards to be encountered in the work environment and how to select proper respiratory equipment
- Use of respirators and proper fitting
- Functions and limitations of respirators
- Cleaning disinfection, inspection, maintenance, and storage of respirators

**Functions and Limitations of Respirators**

Respirators are not intended for and may not be used in atmospheres which are, or may become immediately dangerous to life or health (IDLH) or in atmospheres where the identity or concentration of the contaminant(s) is unknown. Respirators may not be used in atmospheres containing less than 19.5 percent oxygen.

Cartridges or canisters for respirators are selected and supplied to employees by the Health and Safety Coordinator. The failure to choose or use a respirator equipped with cartridges or filters suitable for the contaminant(s) in the atmosphere or likely to be released in the atmosphere may result in the respirator providing little or no protection against the contaminated atmosphere. The Site Safety Plan specifies the contaminant(s) to be encountered and type of cartridge or canister appropriate for personal protection.

Assuming that the respirator is properly fitted in good condition, free from leaks, and has the proper cartridges for the contaminant(s) present, the length of time the respirator will provide protection also depends on the conditions of use.

The conditions of use include but are not limited to the following:

- The concentration of contaminant(s) in the atmosphere
- The temperature and humidity of the ambient atmosphere
- Any previous use of the cartridges and filters
- The elapsed time since the removal of the cartridges or filters from their protective packaging
- The emotional state of the wearer
- The level of physical activity of the wearer

***Envirotox Technologies, Inc.*****Port of Oakland Site Safety Plan****March 3, 1992**

Cartridges designed and specified to protect the wearer against airborne particles are not appropriate for protection against gases and vapors. Cartridges designed and specified for protections against specific gases and vapors are not appropriate for protection against airborne particles or other gases or vapors beyond the scope of that type of cartridge. Every cartridge is labeled with specific instructions defining the use and limitations of that particular type of cartridge. If the label is missing or the type of cartridge is inappropriate then it may not be used under any circumstances; it will provide little or not protection to the wearer.

**Danger Signals Indicating Possible Respirator Failure**

If any of the danger signals in the following list are experienced while wearing a respirator, immediately return to a fresh air environment. The cartridges or filters may be inappropriate or used up or abnormal conditions may be creating vapor concentrations which are beyond the limits of the cartridges or filters. Danger is indicated when the individual subject to exposure:

- Smells or tastes chemicals, or if eyes, nose, or throat become irritated;
- Has difficulty breathing;
- Notices that the breathing air becomes uncomfortably warm;
- Experiences headaches, dizziness, cramps, nausea, or blurred vision;
- Experiences changes in complexion or skin discoloration;
- Experiences changes in motor coordination, personality, or demeanor;
- Experiences changes in speech ability or pattern;
- Experiences excessive salivation or changes in pupillary response.

**Qualitative Respirator Fit Test**

Qualitative fit testing of each respirator must be conducted before the respirator may be used to check that a good fit is still obtained. The following steps should be taken in qualitative fit test of the respirator.

1. Don the face piece with cartridge or filters in place. Pull straps together and equally to avoid distorting the mask.
2. Adjust the face piece. Do not over tighten it.
3. Negative Pressure Leak Check: Close off the inlet connections with palms of hands, inhale slowly, and hold breath momentarily. No leakage should be detected and the face piece should be drawn slightly to the face.

*Envirotox Technologies, Inc.***Port of Oakland Site Safety Plan  
Qualitative Respirator Fit Test (Continued)**

March 3, 1992

4. **Positive Pressure Leak Check:** Close opening in the exhalation valve guard by placing palm of one hand over face of guard; exhale slowly maintaining slight positive pressure. No leakage should be detected between the face seal and the face.
5. **Should any leakage be noted:**
  - a) Adjust the headstraps and face piece slightly; recheck for leakage.
  - b) Check condition of exhalation valve and seat. Check that both inlet gaskets are present and in proper condition.
  - c) In the event the face piece cannot be adjusted so there is no leakage, **DO NOT ENTER THE AREA REQUIRING PROTECTION.** Due to your particular facial features, a different style or size face piece may be required to obtain a proper facial fit.

**NOTE:** Failure to perform a qualitative fit test of the respirator each time the respirator is donned may result in little or no respiratory protection.

**Inspection Cleaning and Storage**

The respirator should be inspected, cleaned, and properly stored after use each day. The following steps are the basic elements of each procedure:

**A. Inspection**

1. Examine face seal for rips, tears, holes, deformation, or stiffness.
2. Examine face piece plastic center shell for cracks, missing components, or damaged threads.
3. Examine harness for breaks, cuts, frays, tears, and missing or damaged hardware.
4. Examine inhalation and exhalation valves and valve seats for cuts, cracks, or foreign matter which may not allow the valve to close completely. Check that valves are properly installed and are not distorted.
5. Examine cartridges for signs of abuse or damage. discard damaged items.

*Envirotox Technologies, Inc.***Port of Oakland Site Safety Plan  
Inspection Cleaning and Storage (Continued)**

March 3, 1992

6. Any respirator malfunction or deficiencies noted must be reported to the Health and Safety coordinator who will issue a new respirator or correct the deficiencies using only approved spare parts from the manufacturer of the specific model in need of repair. Spare parts from any other manufacturer may not be used under any conditions. Instructions in the manual provided by the manufacturer should be followed when the respirator needs repairing or replacing.

**B. Cleaning**

1. Unthread cartridges or filters.
2. Wash the face piece after use, with warm water and a mild detergent.
3. Disinfect the face piece if it was used by another person. The mask should routinely (once per month) be disinfected even if respirator is used solely by one individual. A hypochlorite solution may be used (i.e., 2 tablespoons chlorine bleach per gallon of water for an acceptable solution).
4. After cleaning and air-drying, check that the face piece is not damaged and that components removed prior to cleaning have been installed properly.

**C. Storage**

1. Place the respirator in its storage box in a heat-sealed or resealable plastic bag. Store flat, with the face piece and exhalation valve in an approximately normal position, to prevent the face seal from taking a permanent "set."
2. Replacement components should be stored in sealed packages in a cool, clean, low-humidity location until ready for use.

The Health and Safety Coordinator will explain Envirotox's Repertoire Protection Program to each new employee who must wear a respirator. The employee will be asked whether or not he or she understands the information provided. If the Company physician has cleared the employee for respirator use and the Health and Safety Coordinator or Branch Safety Officer has checked the fit of the respirator then the employee will be issued a respirator. A written record is signed and dated by the employee and Health and Safety Coordinator and kept in the new employee's Safety Record.

*Envirotox Technologies, Inc.*

Port of Oakland Site Safety Plan

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**WORK ZONES AND SECURITY MEASURES**

The Envirotox Technologies, Inc. project Manager will call Underground Services Alert (USA) for locating underground utilities. These will be marked before any excavation is conducted on site and the excavations will be done at safe as possible distances from utilities. When moving equipment under or near energized lines, a designated person shall assure that required clearance is maintained.

Each of the areas where the tanks are to be removed will be designated as Exclusion Zones. Only essential personnel will be allowed into an Exclusion Zone. When it is practical and local topography allows, approximately 25 to 75 feet of space surrounding those Exclusion Zones will be designed as Contamination Reduction Zones.

Cones, wooden barricades, or a suitable alternative will be used to deny public access to these Contamination Reduction Zones. The general public will not be allowed close to the work area under any conditions. If for any reason the safety of the public (e.g., motorist or pedestrian) may be endangered, work will cease until the situation is remedied. Cones and warning signs will be used when necessary to redirect motorists or pedestrians.

Envirotox shall use explosive proof devices in accordance with 29 CRF Part 1910, Subpart 5, when pumping out tank contents to avoid fire hazards from possible generation of static electricity.

Buried Tanks, receiving tankers, nozzles, pumps, and other equipment amenable to accumulating static electricity shall be temporarily grounded during the transfer operation.

Envirotox shall have portable fire extinguishing control equipment sufficient in quantities and types as are needed for extinguishing fire when handling flammable or combustible liquids.

*Envirotox Technologies, Inc.*

Port of Oakland Site Safety Plan

March 3,1992

**WORK ZONES AND SECURITY MEASURES (Continued)**

Envirotox shall render all tanks inert to prepare them for disposal using the following method: Purge tanks of all combustible vapors by adding solid carbon dioxide (CO<sub>2</sub>, dry ice) in the amount of 20 pounds per 1,000 gallons of tank capacity. The dry ice shall be crushed and distributed evenly over the greatest possible area to secure rapid evaporation. Incorporate a ground strap while purging. Avoid skin contact with dry ice because it may produce burns. As the dry ice vaporizes, flammable vapors will flow out of the tank and may surround the area. Hence, observe all normal safety precautions regarding flammable vapors. Repeat process as required to purge flammable vapors to levels that would preclude an explosion. All confined space and purging operations are to be conducted in accordance with NAVSEA S6470-AA-SAF-010 and Bay Area Quality Management District Regulation 8, 40.

When vapors cease to be forcibly emitted from the openings, such openings are to be plugged using either an approved pressure vacuum relief device or wadded paper or rags. Leave at least the equivalent of a 1/8 inch opening to allow pressure equalization between the tank and the atmosphere.

**SHORING**

It will not be necessary to employ SHORING and SHEETING (H-PILE, BRIDGE BEAMS, TRENCH BOX, HYDRAULIC SHORING, Etc.) for any of the Tank sites within the scope of this Contract, per the plans and specifications provided by the Port of Oakland, and subsequent site examination performed by ENVIROTOX TECHNOLOGIES, INC.'s Project Management.

Should site conditions change due to unknown discoveries, (ie. Discovery of Hazardous Contamination, unknown underground obstacles/equipment, Archaeological objects of historical significance, etc.) the specific circumstances will dictate the type and amount of shoring necessary. ✓

This will constitute an additional consideration, (as spelled out in #6. - page 1-28 "Changes in character of work"). Since the contract does not specifically call for and Envirotox does not foresee any shoring requirement, such discovery would be subject to negotiation and/or a "change order" or Port of Oakland may decide to furnish all or portions of labor, material, and equipment.

*Envirotox Technologies, Inc.***Port of Oakland Site Safety Plan****March 3,1992****RIGGING AND HOISTING**

All Rigging and Hoisting equipment and their operations shall comply with CAL/OSHA regulations.

**EXPOSURE MONITORING PLAN**

It is not anticipated that project personnel exposure will exceed the TLVs or PELs of the materials; however, proper personal protective equipment will be worn while working at the site. In addition, the work area will be monitored using a direct-reading combustible gas analyzer or a photoionization detector to detect the concentration of the volatile hydrocarbons in the ambient atmosphere.

If the lowest TLV or PEL is consistently being exceeded in the breathing zone, then a respirator must be worn. If the concentration exceeds 1,000 parts per million (ppm), the use of a respirator is inappropriate and personnel must withdraw from the site.

**POSSIBLE EXPLOSIVE ATMOSPHERES**

Smoking shall be prohibited in all areas where flammable, combustible, or similar hazardous materials are stored, except in those locations specifically provided for such purpose and approved by the designated authority. NO SMOKING or OPEN FLAME signs will be posted in all prohibited areas.

All Flammable/Combustible liquids, sources of ignition, tools and electric and/or battery operated equipment, lighting sources, drums, barrels, storage tanks, and other storage containers and structures, dispensers, trucks/vehicles will follow the safety procedures set forth in US ARMY CORP of ENGINEERS, Safety and Health Requirements Manual - EM 385-1-1, Rev Oct 1987 (REF 12.D.01 Thru 12.D.40) and shall be directed by qualified persons.

A safe clearance procedure shall be maintained for all sites regarding; Electrical lines and equipment, pressure systems, mechanical equipment, movement of equipment, dangerous or hazardous materials, rotating equipment, switches, gears and agitators. This includes procedures regarding authorization qualified personnel only to oversee, operate and maintain these safety procedures in compliance with US ARMY CORP of ENGINEERS, Safety and Health Requirements Manual - EM 385-1-1, Rev Oct 1987 (REF 28.A.1 thru 28.A.5)

*Envirotox Technologies, Inc.*

Port of Oakland Site Safety Plan

March 3, 1992

**POSSIBLE EXPLOSIVE ATMOSPHERES (Continued)**

Gasoline has a flammable range from approximately 1.4 to 7.6 percent in air. One percent in air is equivalent to 10,000 ppm; thus the lower explosive limit (LEL) is 14,000 ppm. Normally explosive levels may be reached in tanks, pits, or other confined spaces. Any area suspected of containing potentially explosive levels of gasoline will be evaluated with an intrinsically safe or explosion-proof combustible gas indicator (CGI). Personal response will be based on the following action levels from CGI readings:

-	Less than 10 percent of LEL*	then	Continue activities and monitoring
-	10 to 25 percent of LEL	then	Continue monitoring with extreme caution as higher levels are found
-	Greater than 25 percent of LEL	then	Explosion hazard, Cease activities and vacate area immediately

\* CGI readings in percent of lower explosive limit

If an explosion potential is present onsite beyond 25 percent of the LEL then all Envirotox' personnel and subcontractors must immediately withdraw from the site. The hazard potential will be evaluated by Envirotox's management and a plan of action will be assessed.

**DECONTAMINATION PROCEDURES**

Equipment and personal protective equipment will undergo gross decontamination onsite. This gross decontamination will include washing contaminated equipment with Alconox or trisodium phosphate (TSP) solution. Steam-cleaning is an acceptable alternative.

**EMERGENCY RESPONSE PROCEDURES**

In the event of a fire, explosion, or property damage, the Envirotox office will be immediately notified. If necessary, local fire or response agencies will be called.



*Envirotox Technologies, Inc.*

Port of Oakland Site Safety Plan

March 3, 1992

**EMERGENCY RESPONSE PROCEDURES (Continued)**

In the event of an accident resulting in physical injury, first aid will be administered and the injured worker will be transported to the nearest hospital or emergency medical clinic for emergency treatment. A physician's attention is required regardless of the severity of the injury.

**Overt Personnel Exposure**

If overt personnel exposure occurs during the project, typical responses should include the following:

**Skin or Eye Wash** and rinse affected area thoroughly with copious amounts of soap and water, then provide appropriate medical attention. Eyes and skin should be rinsed for a minimum of 15 minutes upon chemical contamination.

**Inhalation:** Move to fresh air and, if necessary, decontaminate and transport to emergency hospital

**Ingestion:** Decontaminate and transport to emergency hospital

**Puncture Wound** Decontaminate and transport to emergency hospital

**SITE AND PERSONNEL INFORMATION**

**Site Address:** 2801 -7th Street, Oakland, CA 94607 (Port of Oakland, Outer Harbour Terminal at Berth 30)

**ETI Responsible Site Personnel:**

Vern L. Peden, Project Superintendent

Wk. Tel.# (916) 920-0664

Hm. Tel.# (916) 721-3261

Mbl. Tel.# (916) 531-9472

Thomas Sherwood, Equip. Operator

Wk. Tel.# (916) 920-0664

Hm. Tel.# (916) 721-4780

Ron Titus, Supervisor

Wk. Tel.# (916) 920-0664

Hm. Tel.# (916) 344-6906

**Port of Oakland contact:**

John Stewart, R.E.

Wk. Tel#(510) 272-1585

**Oakland Fire Department:**

Steven Hallert, Inspector

Wk. Tel.#(510) 444-3322

**Alameda County Health Department:**

Paul Smith, Inspector (Haz Mat)

Wk. Tel.# (510) 271-4320

*SUZAN HULL*

*271-9530*

*Envirotox Technologies, Inc.*

Port of Oakland Site Safety Plan

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**EMERGENCY TELEPHONE NUMBERS**

**Fire and Police..... 911**

**Ambulance..... 911**

**Hospital:**

**SUMMIT MEDICAL CENTER..... 510/655-4000**  
**350 Hawthorne**  
**Oakland, CA 94609**

**Directions to Hospital:** From Port of Oakland, take 7 th Street to a left on Martin Luther, to Grove Shafter Feeway US980, to Hiwy 680 & 980 interchange first off ramp on US 680 will be 34th Street /Merrit, take Webster one block to Hawthorne.

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**Additional Contingency Telephone Numbers**

**Poison Control Center..... (800) 523-2222**

**Envirotox..... (916) 920-0664**

**CHEMTREC..... (800) 424-9300**

**Note; Only call CHEMTREC in an emergency. CHEMTREC stands for Chemical Transportation Emergency Center, a public service of the Chemical Manufacturer's Association. CHEMTREC can usually provide hazard information warnings, and guidance when given the identification number or the name of the product and the nature of the problem, CHEMTREC can also contact the appropriate experts.**

**This Site Safety Plan has been reviewed by the following persons:**

**Field Superintendant: Vern L. Peden**

**Health and Safety Coordinator: Leroy M. Gordon**

Excavated/Stockpiled Soil	
Stockpiled Soil Volume (Estimated)	Sampling Plan One sample for every 50 cubic yards minimum.

Stockpiled soil must be placed on bermed plastic and must be completely covered by plastic sheeting.

16. Chemical methods and associated detection limits to be used for analyzing samples

The Tri-Regional Board recommended minimum verification analyses and practical quantitation reporting limits should be followed. See attached Table 2.

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Method Number	Method Detection Limit
1 Soil Sample:			
TPHg	EPA 5030	GCFID	1 ppm
TPHd	EPA 3550	GCFID	1 ppm
TOG	SM 5520 E & F	Gravimetric	50 ppm
BTEX	EPA 5030	8020	0.005 ppm
CIHC	EPA 5030	8010	
* Metals	AA	6010	
PNA, PCB		8270 - 8080	
1 Soil Sample:	*Metals are Cd, Cr, Ni, Pd, and Zn.		
TPHg	EPA 5030	GCFID	1 ppm
TPHd	EPA 3550	GCFID	1 ppm
TOG	SM 5520 E & F	Gravimetric	50 ppm
BTEX	EPA 5030	8020	0.005 ppm
	Analyses per Paul Smith (7/21/92)		

17. Submit Site Health and Safety Plan (See Instructions)

Excavated/Stockpiled Soil	
Stockpiled Soil Volume (Estimated)	Sampling Plan One sample for every 50 cubic yards minimum.

stockpiled soil must be placed on bermed plastic and must be completely covered by plastic sheeting.

16. Chemical methods and associated detection limits to be used for analyzing samples

The Tri-Regional Board recommended minimum verification analyses and practical quantitation reporting limits should be followed. See attached Table 2.

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Method Number	Method Detection Limit
1 Soil Sample:			
TPHg	EPA 5030	GCFID	1 ppm
TPHd	EPA 3550	GCFID	1 ppm
TOG	SM 5520 E & F	Gravimetric	50 ppm
BTEX	EPA 5030	8020	0.005 ppm
ClHC	EPA 5030	8010	
* Metals	AA	6010	
PNA, PCB		8270 - 8080	
1 Soil Sample:	*Metals are Cd, Cr, Ni, Pd, and Zn.		
TPHg	EPA 5030	GCFID	1 ppm
TPHd	EPA 3550	GCFID	1 ppm
TOG	SM 5520 E & F	Gravimetric	50 ppm
BTEX	EPA 5030	8020	0.005 ppm
	Analyses per Paul Smith (7/21/92)		

17. Submit Site Health and Safety Plan (See Instructions)

Excavated/Stockpiled Soil	
Stockpiled Soil Volume (Estimated)	Sampling Plan One sample for every 50 cubic yards minimum.

Stockpiled soil must be placed on bermed plastic and must be completely covered by plastic sheeting.

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CIHC	EPA 5030	8010	
* Metals	AA	6010	
PNA, PCB		8270 - 8080	
1 Soil Sample:	*Metals are Cd, Cr, Ni, Pd, and Zn.		
TPHg	EPA 5030	GCFID	1 ppm
TPHd	EPA 3550	GCFID	1 ppm
TOG	SM 5520 E & F	Gravimetric	50 ppm
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C1HC	EPA 5030	8010	
* Metals	AA	6010	
PNA, PCB		8270 - 8080	
1 Soil Sample:	*Metals are Cd, Cr, Ni, Pd, and Zn.		
TPHg	EPA 5030	GCFID	1 ppm
TPHd	EPA 3550	GCFID	1 ppm
TOG	SM 5520 E & F	Gravimetric	50 ppm
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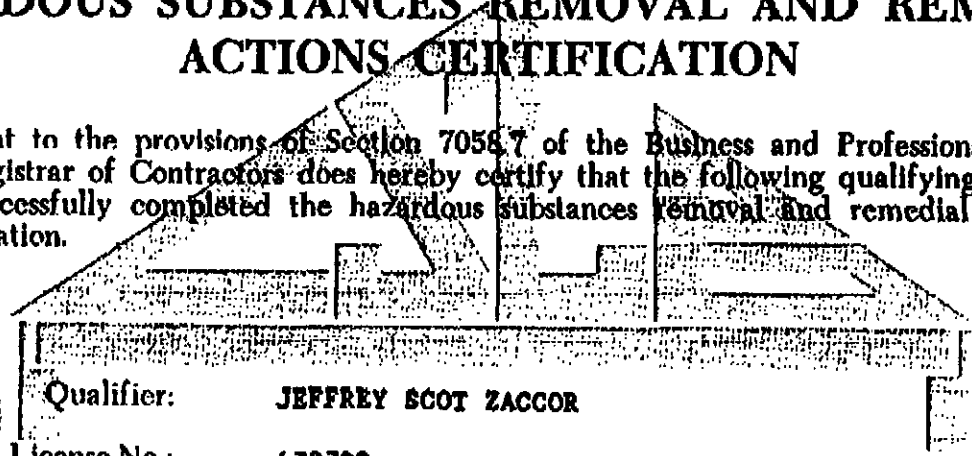


*Building Quality*



# HAZARDOUS SUBSTANCES REMOVAL AND REMEDIAL ACTIONS CERTIFICATION

Pursuant to the provisions of Section 7058.7 of the Business and Professions Code, the Registrar of Contractors does hereby certify that the following qualifying person has successfully completed the hazardous substances removal and remedial actions examination.



Qualifier: **JEFFREY SCOT ZACCOR**  
License No.: **478799**  
Namestyle: **ZACCOR COMPANIES, INC.**

WITNESS my hand and official seal this  
17TH day of JULY, 1990  
*David R. R. Ellis*  
Registrar of Contractors

This certification is the property of the Registrar of Contractors, is not transferable, and shall be returned to the Registrar upon demand when suspended, revoked, or invalidated for any reason.

181-36 (7/88)

A3520

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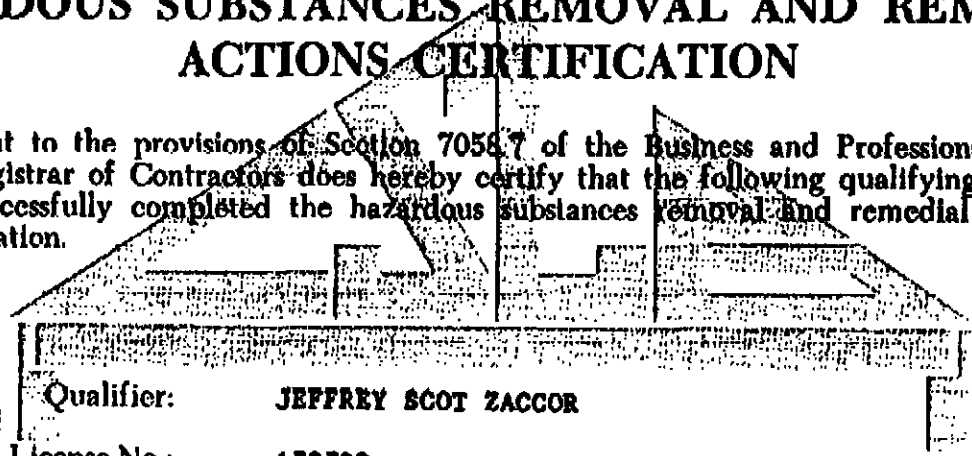


*Building Quality*



# HAZARDOUS SUBSTANCES REMOVAL AND REMEDIAL ACTIONS CERTIFICATION

Pursuant to the provisions of Section 70587 of the Business and Professions Code, the Registrar of Contractors does hereby certify that the following qualifying person has successfully completed the hazardous substances removal and remedial actions examination.



Qualifier: **JEFFREY SCOT ZACCOR**  
License No.: **478799**  
Namestyle: **ZACCOR COMPANIES, INC.**

WITNESS my hand and official seal this  
17TH day of JULY, 1990  
*David R. Peltier*  
Registrar of Contractors

181-36 (7/88)

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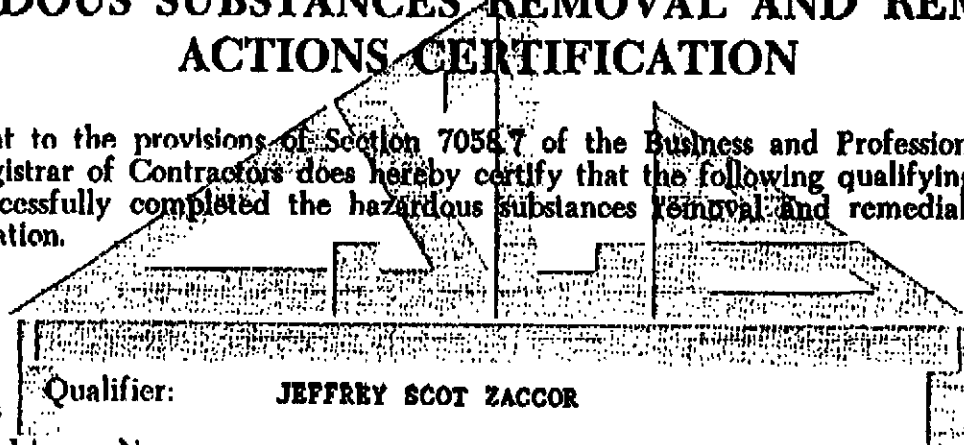


*Building Quality*



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License No.: **478799**  
Namestyle: **ZACCOR COMPANIES, INC.**

WITNESS my hand and official seal this  
17TH day of JULY, 1990  
*David R. Peltier*  
Registrar of Contractors

191-36 (7/86)

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STATE AND CONSUMER SERVICES AGENCY CONTRACTORS STATE LICENSE BOARD

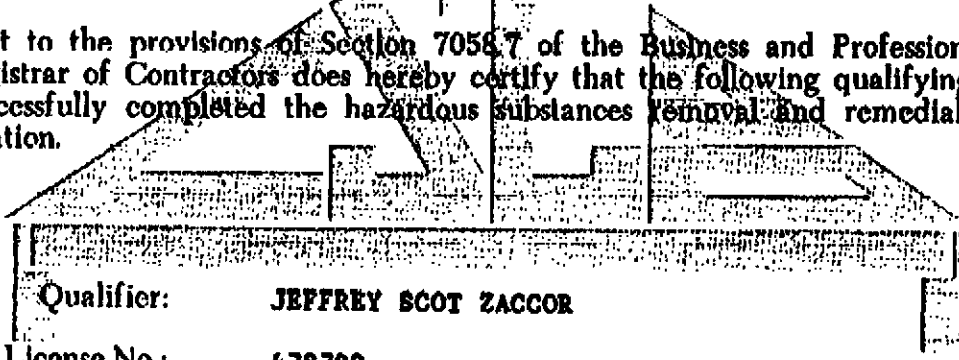


*Building Quality*



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