

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY

DAVID J. KEARS, Agency Director

February 28, 2007

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

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

Dear Mr. Prall:

Subject: Fuel Leak Case RO0000019 and Geotracker Global ID T0600101102, Port of Oakland, 801 Maritime St., Oakland, CA 94607

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the subject site including the February 27, 2007 R&M Work Plan for Additional Site Investigation. The work plan proposes the advancement of ten borings and the installation of two monitoring wells to further characterize the petroleum release from the former underground storage tanks at this site. We approve the work plan and request that you address the following technical comments when performing this work and submit the requested technical reports.

TECHNICAL COMMENTS

1. Location of Borings- Since the intent of the borings is to determine the limits of residual soil contamination (B-2 and C-2) and delineate the plume, we recommend that borings RM-7 and RM-10 be moved approximately 20' to the northeast to verify the limits of the residual soil contamination. We also suggest boring RM-3 be moved to a location approximately 20' northeast of RM-9 along the transect of RM-8 and RM-9. See attached revised figure 3.
2. Chemical Analysis of Samples- We concur with the recommended analyses, TPHg, TPHd, BTEX and MTBE. Since MTBE has not been reported in past analyses, EPA Method 8020 (replaced by EPA Method 8021) is acceptable. In the event MTBE is reported above detection limits, its presence should be confirmed by EPA Method 8260. The other oxygenates and EDB and EDC should also be analyzed. The work plan states that water samples will be collected for VOA analysis from the temporary piezometers. We note the proposed analyses includes TPHd which is not usually considered a VOA analyte.
3. Vertical Extent of Contamination- In the event that soil samples detect contamination in the deeper boring, we recommend advancing the boring deeper in five foot increments and sampling soil to determine the vertical extent of contamination. Field screening methods should be used to expedite the investigation.
4. Location of Monitoring Wells- The installation of two monitoring wells based upon the results of this investigation and the location of MW-1 is approved. Please confirm their locations with our office prior to installation.

TECHNICAL REPORT REQUEST

Please submit the following documents according to the following schedule:

- May 1, 2007- Soil and Water Investigation Report
- June 1, 2007-Well Construction and Groundwater Monitoring Report
- September 3, 2007- Third Quarter 2007 Monitoring Report

ELECTRONIC SUBMITTAL OF REPORTS

Effective **January 31, 2006**, the Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities. Please do not submit reports as attachments to electronic mail.

Submission of reports to the Alameda County ftp site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. Submission of reports to the Geotracker website does not fulfill the requirement to submit documents to the Alameda County ftp site. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitor wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all necessary reports was required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements ([http://www.swrcb.ca.gov/ust/cleanup/electronic reporting](http://www.swrcb.ca.gov/ust/cleanup/electronic%20reporting)).

In order to facilitate electronic correspondence, we request that you provide up to date electronic mail addresses for all responsible and interested parties. Please provide current electronic mail addresses and notify us of future changes to electronic mail addresses by sending an electronic mail message to me at barney.chan@acgov.org.

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6765.

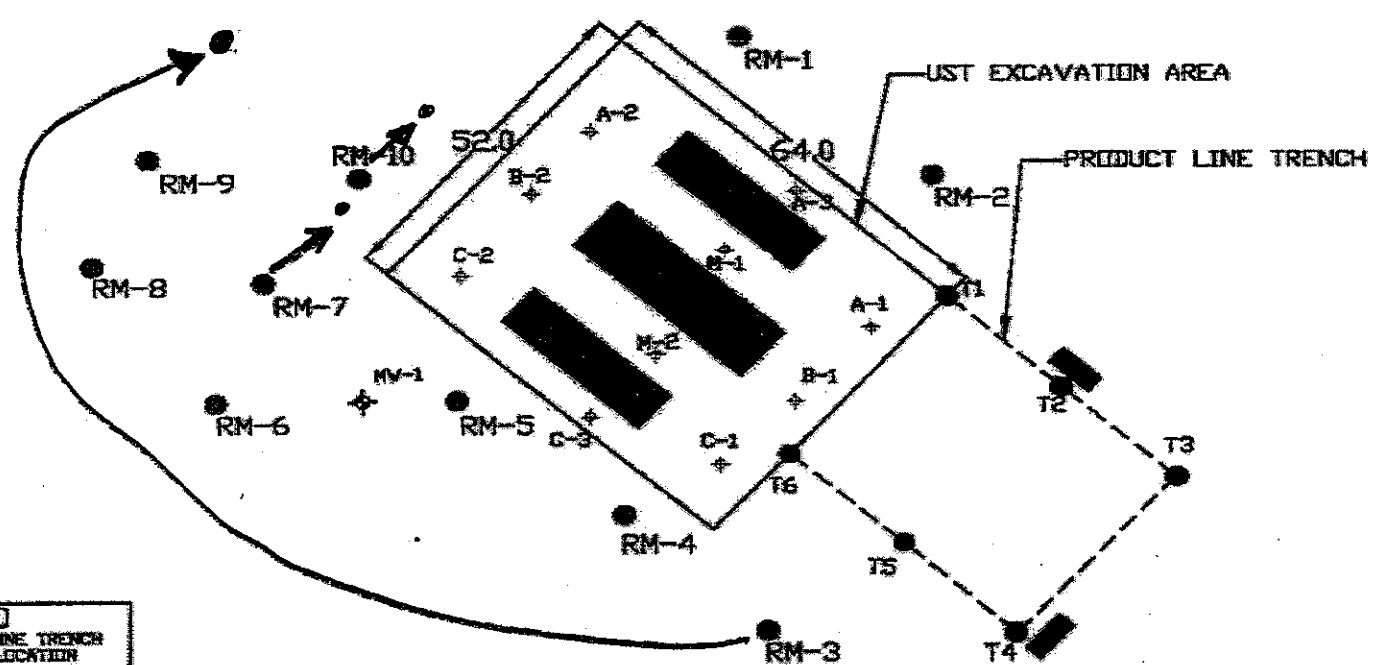
Sincerely,



Barney M. Chan
Hazardous Materials Specialist

Enclosure: revised Figure 3

cc: files, D. Drogos
Mr. Jim Gribi, R&M Environmental and Infrastructure Engineering, Inc.,
7996 Capwell Drive, Oakland, CA 94621



LEGEND

- - 1989 PRODUCT LINE TRENCH SOIL SAMPLING LOCATION
- ⊕ - 1989 TANK EXCAVATION AREA SOIL SAMPLING LOCATION
- ⊕ - GW MONITORING WELL
- - PROPOSED BORING LOCATION
- - FORMER UST LOCATIONS
- - FORMER FUEL ISLAND AND PUMP

Rev. Fig 3

APPROVED:	DATE:	PROJECT/LOCATION:	DATE:	ENR/PCS
DESIGNED:	SCALE:	PROJECT:		
DRAWN:		PREPARED BY:		
		CHECKED BY:		



ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



7

March 27, 2006

Mr. John Prall
Port of Oakland
530 Water St.
Oakland, CA 94604-2064

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

Dear Mr. Prall:

Subject: Fuel Leak Case RQ0000019, Port of Oakland, 801 Maritime Street,
Oakland, CA 94607

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the referenced site and has determined that additional information is needed to progress this site to closure. We request that you address the following technical comments and submit the technical reports requested below. We feel fortunate that you were involved in the investigation as the consultant for this site prior to your current position with the Port of Oakland.

TECHNICAL COMMENTS

1. Please clarify the address and APN (Assessor Parcel Number) for this site. Please provide a copy of the Assessor map indicating both the parcel number and address of this site as requested below.
2. It appears that only one monitoring well was required for this investigation. This was based upon the abundance of wells and information at the neighboring Berth 24 (Mobil/Ashland) site. Please provide a gradient rose diagram for this site, a site map showing well locations and a summary of the groundwater data for this site as requested below. We are aware that the SFRWQCB is now the lead on this site.
3. We understand that approximately 1500 cy of spoils was generated during the tank removal activities. The soil was bio-remediated and approximately 400 cy reused as fill at this site. Was the remaining remediated soil reused elsewhere on Port properties? We understand that groundwater from the tank pit was removed by H&H Ship Services. How much groundwater was disposed?
4. The limits of soil contamination were unable to be determined during the tank removal. Soil boring contamination in B-2 reported 3600 ppm and C-2 reported 1600 ppm TPHd. Is there additional data, which defines the limit of TPHd in these areas? If not, is it possible to take additional soil and groundwater data in these areas?

TECHNICAL REPORT REQUEST

We feel this additional information will enable our office to close this site. Please submit the requested information/reports according to the following schedule:

- April 25, 2006- Parcel map and address clarification, gradient rose diagram, map with well locations and analytical data, soil and groundwater disposition and contaminant plume delineation response.

ELECTRONIC SUBMITTAL OF REPORTS

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Submission of reports to the Alameda County ftp site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. Submission of reports to the Geotracker website does not fulfill the requirement to submit documents to the Alameda County ftp site. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitor wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all necessary reports was required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements ([http://www.swrcb.ca.gov/ust/cleanup/electronic reporting](http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting)).

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PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification.

Mr. John Prall
March 27, 2006
Page 3 of 3

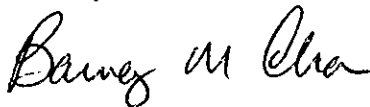
Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

If you have any questions, please call me at (510) 567-6765.

Sincerely,



Barney M. Chan
Hazardous Materials Specialist


Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: files, D. Drogos

3_24_06 801 Maritime

20019

Chan, Barney, Env. Health

From: John Prall [jprall@portoakland.com]
Sent: Wednesday, September 25, 2002 3:25 PM
To:  BChan@co.alameda.ca.us
Subject: Re: 801 Maritime St. site, Oakland 94607

Barney-

I am aware of two water supply wells that are in the "vicinity" of the Port's Marine Terminals 801 Maritime Street UST site.. Both wells are greater than 2,000 feet from the UST site. The Red Star Yeast Company well is located approximately 6,000 feet east of the site. This well is used for industrial supply needs and draws water from the Alameda Formation. The other well is located in the former Alameda Naval Air Station and is/was used for landscape irrigation. The NAS well also draws water from the Alameda Formation and this well is located approximately 12,000 feet south of the site. The reference for this information is: Subsurface Consultants Inc. & Todd Engineers, February 12, 1999, Hydrogeologic Investigation, Oakland Harbor Navigation Improvement (-50 Foot) Project, Port of Oakland, Oakland and Alameda Counties, California.

John

>>> "Chan, Barney, Env. Health" <BChan@co.alameda.ca.us> 09/20/02 01:26PM >>>

John:

Could you tell me if there are or more likely were any production wells in the vicinity (within 2000') of the 3 former USTs at this site? It's a question in our closure form that needs a response.

Thanks,
Barney Chan
ACEH
510-567-6765

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

March 29, 2001
StID # 3780

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

Re: Request for Monitoring Report for 801 Maritime St., Oakland CA 94607

Dear Mr. Prall:

Your July 26, 2000 letter to Mr. Larry Seto of this office stated that the single well at the referenced site would be sampled and reported to our office during the second quarter 2000. This work was requested as a requirement for consideration of site closure. To date, our office has not received a monitoring well sampling report. You are aware that sampling for the analyte, MTBE, is required by the SWRCB prior to closing sites such as this. Note any MTBE detected, must be confirmed using EPA Method 8260.

In regards to the need to determine site specific gradient, our office acknowledges that considerable gradient information exists on the adjacent Berth 24 property. **Please submit your monitoring well report to our office within 30 days or no later than April 30, 2001.**

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

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

✓ C: B. Chan, files

Monrq801Maritime

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



April 27, 2000

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

Mr. John Prall
Port of Oakland
PO Box 2064
Oakland, CA 94604
STID 3780

RE: Port of Oakland, 801 Maritime Street, Oakland, CA 94607

Dear Mr. Prall:

I have reviewed the Groundwater Monitoring and Sampling Report dated November 7, 1997, the most recent report in the site file for the above address. The file identify one monitoring well (MW-1) at the site which was last sampled in September 1997. The groundwater gradient for the site has not been determined.

Quarterly groundwater sampling of this well must be reinstated immediately. The sample must be tested for TPH(gas), TPH(diesel), BTEX and MTBE.

As a reminder, before site closure can be obtained, groundwater direction at this site must be determined.

If you have any questions, please contact me at (510) 567-6774.

Sincerely,



Larry Seto
Sr. Hazardous Materials Specialist

Cc: Files



Ca/EPA

**State Water
Resources
Control Board**

**Division of
Clean Water
Programs**

Mailing Address:
P.O. Box 944212
Sacramento, CA
94244-2120

2014 T Street,
Suite 130
Sacramento, CA
95814
(916) 227-4539
FAX (916) 227-4530

World Wide Web
<http://www.swrcb.ca.gov/~cwphome/fundhome.htm>

February 24, 1998

Douglas Herman
Port Of Oakland
530 Water St
Oakland, CA 94607

UNDERGROUND STORAGE TANK CLEANUP FUND PROGRAM, NOTICE OF CLAIM
ACCEPTANCE: CLAIM NUMBER 12951; FOR SITE ADDRESS: 801 MARITIME ST,
OAKLAND 94607

Your claim has been accepted for placement on the Priority List in Priority Class "D".

Compliance Review: After adoption of the Priority List, staff will review, verify, and process applications based on their priority and rank within a priority class. During this Compliance Review, staff may request additional information needed to verify eligibility. Once review of the application is complete and the claim is determined to be valid, a Letter of Commitment will be issued obligating funds toward the cleanup. If, during the compliance review, it is determined that the claim application contained fraudulent information or misrepresentation making the claim unacceptable or ineligible, your claim may be rejected. In such event, you will be issued a Notice of Intended Removal from the Priority List, informed of the grounds for the proposed removal of the claim, and provided an opportunity to correct any deficiencies which are the basis for the proposed removal.

Record keeping: During your cleanup project you should keep complete and well organized records of all corrective action activity and payment transactions. If you are eventually issued a Letter of Commitment, you will be required to submit: (1) copies of detailed invoices for all corrective action activity performed (including subcontractor invoices), (2) copies of canceled checks used to pay for work shown on the invoices, (3) copies of technical documents (bids, narrative work description, reports), and (4) evidence that the claimant paid for the work performed (not paid by another party). These documents are necessary for reimbursement and failure to submit them could impact the amount of reimbursement made by the Fund. *It is not necessary to submit these documents at this time; however, they will definitely be required prior to reimbursement.*

Compliance with Corrective Action Requirements: In order to be reimbursed for your eligible costs of cleanup incurred after December 2, 1991, you must have complied with corrective action requirements of Article 11, Chapter 16, Division 3, Title 23, California Code of Regulations. Article 11 categorized the corrective action process into *phases*. In addition, Article 11 requires the responsible party to submit an *investigative workplan/Corrective Action Plan* (CAP) before performing any work. This phasing process and the workplan/CAP requirements were intended to:

1. help the responsible party undertake the necessary corrective action in a cost-effective, efficient and timely manner;



Pete Wilson
Governor

RECEIVED
98 FEB 25 AM 10:09

#3780
LS



Recycled Paper

Our mission is to preserve and enhance the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations.

2. enable the regulatory agency to review and approve the proposed cost-effective corrective action alternative before any corrective action work was performed; and
3. ensure the Fund will only reimburse the most cost-effective corrective action alternative required by the regulatory agency to achieve the minimum cleanup necessary to protect human health, safety and the environment.

In some limited situations *interim cleanup* will be necessary to mitigate a demonstrated immediate hazard to public health, or the environment. Program regulations allow the responsible party to undertake interim remedial action after: (1) notifying the regulatory agency of the proposed action, and; (2) complying with any requirements that the regulatory agency may set. Interim remedial action should only be proposed when necessary to mitigate an immediate demonstrated hazard. *Implementing interim remedial action does not eliminate the requirement for a CAP and an evaluation of the most cost-effective corrective action alternative.*

Three bids and Cost Preapproval: Only corrective action costs required by the regulatory agency to protect human health, safety and the environment can be claimed for reimbursement. You must comply with all regulatory agency time schedules and requirements and you must obtain three bids for any required corrective action. Unless waived in writing, you are required to obtain preapproval of costs for all future corrective action work. *If you do not obtain three bids and cost preapproval, reimbursement is not assured and costs may be rejected as ineligible.*

If you have any questions, please contact me at (916) 227-4539.

Sincerely,



Cheryl Gordon
Claim Review Unit
Underground Storage Tank Cleanup Fund

cc: Mr. Thomas Peacock
Alameda County EHD
1131 Harbor Bay Pkway, 2nd Fl.
Alameda, CA 94502-6577



ENV. UPDATES 5/12/01

Press [ESC] for the menu

UNDERGROUND STORAGE TANK CLEANUP SITE

-LOP:A-TRemov:--SLIC:-

SITE ID: 3780	SOURCE OF FUNDS: F	SUBSTANCE :12034
SITE NAME: Port of Oakland		DATE REPORTED :02/07/1989
SITE ADDRESS: 801 -0 Maritime St		DATE CONFIRMED:02/16/1989
CITY: Oakland	ZIP CODE: 94607	MULTIPLE RPs : N
CASE TYPE: 0	CONTRACT STAT: 4	PRIORITY: 2A4
		DATE ER:-0-
RP SEARCH : S		DATE END: 03/23/1992
PRELIM ASSESSMENT : -	DATE BEGIN: -0-	DATE END: -0-
REMEDIAL INVEST : -	DATE BEGIN: -0-	DATE END: -0-
REMEDIAL ACTION : -	DATE BEGIN: -0-	DATE END: -0-
POST REMED MONITOR: -	DATE BEGIN: -0-	DATE END: -0-
ENFORCEMENT TYPE: 1		DATE ENFORCEMENT ACTION TAKEN: 03/23/1992
LUFT CATEGORY: 3SCA	CASE CLOSED: -	DATE CASE CLOSED: -0-
DT EXC START : 02/16/1989		REMEDIAL ACTIONS TAKEN: ET,IT

PgDn for Screen #2

[ESC] Done [F2] Clear field [Shift-F2] Clear to end [Shift-F10] More
 Form: SITE Table: SITE Field: Source Page: 1

STID: 3780

UNDERGROUND STORAGE TANK CLEANUP SITE - SCREEN #2

IN-HOUSE MANAGEMENT:

RISK ASSESSMENT : -0-	LOC-CleanUp Fund? -0-
DATE LAST CORSP : 10/29/1997	INSPECTOR INIT: BC

CONTACT/RESPONSIBLE PARTY INFORMATION:

RP #1: CONTACT: Neil Werner	RP COST: \$0.00
RP COMPANY NAME: Port of Oakland	Ph: -0-
ADDRESS: 530 Water Street	
CITY/ST/ZIP: Oakland, Ca 94607	
COMMENT: Groundwater samples at this site has not been tested for MTBE. The USTs formerly contained diesel, but there is evidence that the tanks may have contained gas. A groundwater sample collec	

PgUp For Screen #1;PgDn For More RP'S

[ESC] Done [F2] Clear field [Shift-F2] Clear to end [Shift-F10] More
 Form: SITE Table: SITE Field: FlagDate Page: 2

LO - RECORD CHANGE REQUEST FORM

printed:
10/30/97

Mark Out What Needs Changing and Hand to LOP Data Entry
(Name/Address changes go to Annual Programs Data Entry)

Insp: LS

AGENCY # : 10000 SOURCE OF FUNDS: F SUBSTANCE: 12034
 StID : 3780 LOC:
 SITE NAME: Port of Oakland DATE REPORTED : 08/07/89
 ADDRESS : 801 Maritime St DATE CONFIRMED: 02/16/89
 CITY/ZIP : Oakland 94607 MULTIPLE RPs : N

SITE STATUS

 CASE TYPE: O CONTRACT STATUS: 4 PRIOR CODE:2A4 EMERGENCY RESP:
 RP SEARCH: S DATE COMPLETED: 03/23/92
 PRELIMINARY ASMNT: DATE UNDERWAY: DATE COMPLETED:
 REM INVESTIGATION: DATE UNDERWAY: DATE COMPLETED:
 REMEDIAL ACTION: DATE UNDERWAY: DATE COMPLETED:
 POST REMED ACT MON: DATE UNDERWAY: DATE COMPLETED:

ENFORCEMENT ACTION TYPE: 1 DATE ENFORCEMENT ACTION TAKEN: 03/23/92
 LUFT FIELD MANUAL CONSID: 3SCA
 CASE CLOSED: DATE CASE CLOSED:
 DATE EXCAVATION STARTED : 02/16/89 REMEDIAL ACTIONS TAKEN: ET,IT

RESPONSIBLE PARTY INFORMATION

 RP#1-CONTACT NAME: Neil Werner
 COMPANY NAME: Port of Oakland
 ADDRESS: 530 Water Street
 CITY/STATE: Oakland, Ca 94607

INSPECTOR VERIFICATION:

NAME _____ SIGNATURE _____ DATE _____

DATA ENTRY INPUT:

Name/Address Changes Only Case Progress Changes

ANPNPGMS _____ LOP _____ DATE _____ || LOP _____ DATE _____

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



October 29, 1997
STID 3780

re: 801 Maritime St., Oakland, CA 94607

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

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

Dear John Prall:

This office has received and reviewed two Groundwater Monitoring Reports, dated May 21 and July 23, 1997, by Hageman-Aguiar, Inc., for the above site. The following are comments concerning these reports.

1. There should be at least one more round of sampling. It certainly appears that the site is under tidal influence. However, contaminant levels do not appear to have stabilized.
2. If a stable or declining trend is established this site will be eligible for closure.

This case will be overseen by Larry Seto, who you may call with any questions at (510) 567-6774.

Sincerely,

Thomas F. Peacock, Manager
Division of Environmental Protection

c: Jim Schollard, Innovative Technical Solutions, Inc., 1330
Broadway, Suite 1625, Oakland, CA 94612
LeRoy Griffin, Oakland Hazardous Materials
Gordon Coleman, Chief - files

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



October 17, 1996
STID 3780

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

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

RE: Port of Oakland Maersk Terminal site, Port tanks CF-35, CF-06, and CF-07,
801 Maritime St., Oakland CA 94607

Dear Mr. Prall,

Thank you for the "Site Investigation Report," prepared by Alisto, dated 8/7/96. As you know, this report documents the installation of one groundwater monitoring well in the presumed downgradient direction from three former USTs. **In lieu of further investigation, you are requested to initiate a quarterly sampling plan for this well.** After four consecutive quarters of sampling data, we will evaluate the need for further sampling and/or closure.

If you have any questions, please contact me at 510-567-6700, or directly at 567-6761. Our fax number is 510-337-9335.

Sincerely,

Jennifer Eberle
Hazardous Materials Specialist

cc: Jennifer Eberle/file

je.3780-C

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



Alameda County
Environmental Protection Division
1131 Harbor Bay Parkway, Room 250
Alameda CA 94502-6577
CC4580

May 13, 1996
STID 3780

Attn: John Prall
Port of Oakland
530 Water St.
Oakland CA 94607

RE: Port of Oakland Maersk Terminal site, 801 Maritime St., Oakland CA 94607

Dear Mr. Prall,

In my last letter to the Port (Attn: Jon Amdur), dated 7/18/94, the 5/3/94 ERM workplan to install one well was given conditional acceptance. That workplan specified that field activities would start on or around 5/16/94. To date, the well has not been installed, as per our telephone conversation today. You indicated that approximately 40 containers would need be moved in order to create a space to install the well.

However, it has been nearly two years since the workplan was accepted. Therefore, the well should be installed within 45 days, as per the 5/3/94 ERM workplan and 7/18/94 County conditional acceptance letter. Soil from the capillary fringe and groundwater should be analyzed for TPHg, TPHd, and BTEX. The estuary lies to the northwest of this site. Therefore, the well should be installed within 10' of the former UST site, in a northwest direction from the UST site.

Please contact me at 510-567-6761 at least 3 business days in advance of well installation.

Sincerely,

Jennifer Eberle
Hazardous Materials Specialist

cc: Acting Chief/file

je. 3780-B

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

July 18, 1994
STID 3780

Jon Amdur
Port of Oakland
530 Water St.
Oakland CA 94607

RE: 801 Maritime St.
Oakland CA 94607

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

Dear Mr. Amdur,

We are in receipt of your letter dated 6/9/94, with the attached letter from ERM, dated 6/7/94. The ERM letter responds to comments from my letter dated 5/12/94. These letters are in response to the 5/3/94 ERM Workplan. As you know, this workplan involves the installation of one groundwater monitoring well.

As a result of my conversation with John Prall of ERM on 7/18/94, the 5/3/94 ERM Workplan is acceptable on the condition that a minimum of 72 hours should lapse between well installation and development, as per 23CCR Div. 3, Chapter 16, Section 2649(d)(8).

Sincerely,

Jennifer Eberle
Hazardous Materials Specialist

cc: John Prall, ERM-West, Inc., 1777 Botelho Dr.,
Suite 260, Walnut Creek CA 94596
Ed Howell/file

je 3780-B

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY



DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

May 12, 1994
STID 3780

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

Jon Amdur
Port of Oakland
530 Water St.
Oakland CA 94607

RE: 801 Maritime St.
Oakland CA 94607

Dear Mr. Amdur,

We are in receipt of the 5/3/94 Workplan, prepared by ERM-West, Inc. As you know, this workplan involves the installation of one groundwater monitoring well. A number of issues arose upon review of this workplan:

- 1) Preliminary Remediation Goals (PRGs) are designed for Superfund sites, and are therefore not appropriate for this site (page 2).
- 2) Since you propose one well based on groundwater flow direction from the nearby Mobil Oil site, please submit a map showing the location of the Mobil Oil site (and its wells) in relation to the 801 Maritime St. site (page 3).
- 3) Please specify what the groundwater direction at the Mobil site is, in terms of N, S, E, and W. The past two quarterly reports indicate a variable flow direction (Alisto, April and January 1994) (page 3).
- 4) A minimum of 72 hours should lapse between well installation and development, as per 23CCR Div. 3, Chapter 16, Section 2649(d)(8) (page 4).
- 5) Soil and groundwater samples should be analyzed for TPH-g, TPH-d, and BTEX (page 4).
- 6) Soil cuttings and purge/development water should be properly characterized and disposed; not left on site indefinitely.

Please respond to these items within 30 days, or by June 12, 1994.

Sincerely,

Jennifer Eberle
Hazardous Materials Specialist

cc: John Prall, ERM-West, Inc., 1777 Botelho Dr., Suite 260,
Walnut Creek CA 94596

Ed Howell/file

je 3780-A

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

March 14, 1994
STID 3780

Neil Werner
Port of Oakland
530 Water St.
Oakland CA 94607

RE: 801 Maritime St.
Oakland CA 94607

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

Dear Mr. Werner,

We are in receipt of the April 1989 Report on Tank Removal and Remediation Activities, prepared by Baseline Environmental Consulting. This report documents the removal of three diesel USTs, two of which were 10,000-gallons, and one of which was 20,000-gallons in size, in February 1989.

Up to 3,600 ppm TPH-diesel was detected in the tank pit soils (fill end of Tank B). Water in the tank pit contained 21,000 ppb TPH-diesel, 480 ppb TPH-gasoline, and 19 ppb benzene.

Based on these results, a subsurface investigation is warranted to determine the extent of soil and groundwater contamination. **Please submit a workplan for this investigation within 45 days, or by April 29, 1994.**

All work should adhere to a) the Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites, dated 8/10/90; and b) Article 11 of Title 23, California Code of Regulations. Reports and proposals must be submitted **under seal** of a California-Registered Geologist, - Certified Engineering Geologist, or -Registered Civil Engineer.

Please note that with the exception of closure reports, routine reports and documents no longer need to be copied to the Regional Water Quality Control Board. Kindly submit a cover letter with your consultant's reports. If you have any questions, please contact me at 510-271-4530.

Please notify me at least 2 business days in advance of field activities so that I may arrange to be onsite.

Sincerely,

A handwritten signature in cursive script, appearing to read "J. Eberle".

Jennifer Eberle
Hazardous Materials Specialist

cc: Ed Howell/file

FACSIMILE TRANSMITTAL

TO	ALCO DEPARTMENT OF ENVIRONMENTAL PROTECTION
ATTENTION	LARRY SETO
FROM	D. KLETKE
DATE & TIME	1/22/98
FAX NUMBER	(510) 337-9335
NO. OF PAGES	2

COMMENTS: HERE'S THE LETTER FROM TOM I WAS
TELLING YOU ABOUT.



PORT OF OAKLAND

Environmental Health &
 Safety Compliance
 530 Water Street, 2nd Floor
 Oakland, CA 94607

FAX: (510) 451-5916
 PHONE: (510) 272-1529

*File in
- Miller*

**ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY**



DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

WE OCT 12 AID : 17

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

October 8, 1992
STID# 3780

RECEIVED

REGIONAL BOARD REFERRAL

Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster St., 4th Floor
Oakland, CA 94612

CF 06-07

SUBJECT: Port of Oakland, 801 Maritime, Oakland, CA 94607

This office has reviewed site investigation and remedial action for contamination from the underground storage tanks at the above site. With the provision that the information provided to this agency was accurate and representative of existing conditions, it is the position of this office that no further action is required at this time.

This office requests that the Regional Water Quality Control Board reviews this site and gives final site closure and/or remedial action completion. This agency also requests notification of final site closure.

If you have any questions regarding this matter, please contact this office.

Sincerely,

Thomas F. Peacock, Supervising HMS
Hazardous Material Division

cc: Neil Werner, Port of Oakland, 530 Water St., Oakland, CA
94607
Edgar Howell, Chief - Files

PORT OF OAKLAND



BOARD OF PORT COMMISSIONERS CITY OF OAKLAND

DOUGLAS J HIGGINS	<i>President</i>
R ZACHARY WASSERMAN	<i>1st Vice President</i>
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PATRICIA PINEDA	<i>Commissioner</i>
THOMAS J SWEENEY	<i>Commissioner</i>
WALTER A ABERNATHY	<i>Executive Director</i>

April 18, 1989

Mr. Rafat A. Shahid
Chief, Hazardous Materials Division
Alameda County Health Care Services Agency
80 Swan Way, Room 200
Oakland, CA 94621

Dear Mr. Shahid:

**SUBJECT: UNDERGROUND TANK CLOSURE AND REMEDIAL ACTIVITIES AT
801 MARITIME STREET, OAKLAND**

Pursuant to your letter dated March 13, 1989, the Port of Oakland retained Baseline Environmental Consulting and they have produced the attached report.

As outlined in the attached report, the following is a list of further actions to be taken at the site:

- Installation of a groundwater monitoring well within 10 feet of the former tank area to identify any adverse impacts to groundwater at the site;
- Further remedial actions will be determined based upon the results of the preliminary groundwater investigations; and
- Investigation of alternative treatment methods for the excavated soils containing petroleum hydrocarbons, which are currently being stored on-site.

ALAMEDA COUNTY
DEPT. OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS

66 Jack London Square • P.O. Box 2064 • Oakland, California 94604-2064 • Phone (415)444-3188
Cable Address PORTOFOAK, Oakland - Telex 336-334

MEMBER OF THE AMERICAN ASSOCIATION OF PORT AUTHORITIES, INC., THE AIRPORT OPERATORS COUNCIL INTERNATIONAL, INC.
and THE INTERNATIONAL ASSOCIATION OF PORTS AND HARBORS

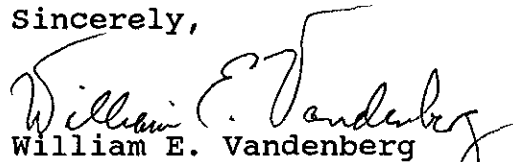
Mr. Rafat A. Shahid, Chief
Hazardous Materials Division

-2-

April 18, 1989

If you have any questions regarding this report please contact Michele J. Heffes of my staff at 839-2656.

Sincerely,



William E. Vandenberg
Manager, Environmental Division

WEV/MH/jb

Attachment

cc: Lisa McCann, Regional Water Quality Control Board, w/report
Yane B. Nordhav, Baseline Environmental Consulting
Irene Kan, Baseline Environmental Consulting

pc/ust801mrt

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



Department of Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, CA 94621

~~4705 27th Street, Third Floor~~
~~Oakland, California 94612~~
(415) 271-4320

March 13, 1989

Port of Oakland
66 Jack London Square, Suite L
Oakland, CA 94621
Attn: Michele Heffes

RE: Underground tank closure, Port of Oakland, 801 Maritime
Street, Oakland, CA

Dear Ms Heffes:

We have received the report of analytical results from the soil and ground water sampling that was performed at your facility, Port of Oakland, 801 Maritime St., Oakland, CA, during the removal of the tanks; 2-10,000 gallon, and 1-20,000 gallon diesel, on February 16, 1989. The samples were analyzed for total petroleum hydrocarbons as diesel (TPH-D), and Benzene, Toluene, Xylenes, and Ethylbenzene (BTXE), and were found to contain up to 3600 parts per million (ppm) TPH (C6-C20 boiling range), 25 ppm TPH-volatile, and 0.025, 0.260, 0.400, and 0.080 ppm BTXE respectively in the soil samples. Additionally there was TPH levels up to 21 ppm, and BTXE levels of 0.019, 0.026, 0.078, and 0.017 ppm found in the tank pit water sample.

Our office will be the lead agency overseeing the remediation of this site. We will be working with the Regional Water Quality Control Board (RWQCB) to ensure that their remediation requirements are met. We require that you submit a work plan which, at a minimum, addresses the items listed below. All work must be performed according to the Regional Board Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks, 2 June 1988.

You will need to immediately submit an Unauthorized Release Form, one of which is enclosed, both to our office and to the RWQCB.

A. You will need to obtain professional services from a reputable engineering/consulting firm.

The responsibility of your consultant will be to establish the extent of contamination and provide professional judgment/recommendations, based on scientific data, of the necessary remedial actions needed. A plan and time schedule for investigation should be submitted to this agency within thirty (30) days.

The following is a summary of the steps your consultant should take to evaluate the problem.

Preliminary Assessment

1. Determination of the extent and magnitude of soil contamination.
 - results of initial work done
 - proposal for the delineation of the site's contamination
 - site history

Site Investigation

2. Definition of the horizontal and vertical extent of the ground water plume/contamination, both on- and off-site.
 - site geology and hydrogeology
 - definition of lateral and vertical extent of contamination including soil and groundwater
 - ground water monitoring wells are required to define the horizontal and vertical extent of groundwater contamination.
 - construction of monitoring and extraction wells should be consistent with Guideline of the RWQCB.
 - monitoring wells should be sampled for free product, dissolved constituents and water levels. In no case should the monitoring be less frequent than quarterly.
 - definition of groundwater contamination should be presented in plume maps of each constituent.
3. Interpretation of Hydrogeologic Data
 - water levels should be monitored on all wells quarterly. Water level records, contour maps and gradient determinations should be submitted with other sampling results.
 - the geologic characteristics of the aquifer must be adequately described.
4. Determination of the Potential Short- and Long-Term Impacts of the Pollution Plume on the Beneficial Uses of Ground and Surface Water.
 - beneficial uses include municipal water supply, ground water recharge, fresh water habitat, wildlife habitat, contact and noncontact recreation, and fish migration.

Port of Oakland
March 13, 1989
Page 3 of 3

Remediation Action

5. Development of Final Remediation Plan

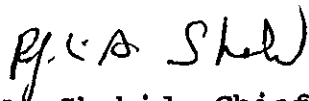
In addition to the above investigative work, a remediation plan for the site should be developed. The plan must include a time schedule and address the following items:

- plans for the removal of soil contaminants and recovery of fuel product and removal of dissolved constituents from the groundwater, if necessary.
- all free product must be removed by an appropriate remediation system.
- evaluation of mitigation alternatives
- the design of remedial action systems should be based on appropriate review of hydrogeologic and water quality data.
- the overall effectiveness of the remedial program should be verified by an appropriate monitoring program.

B. The information requested must be submitted to this office within thirty (30) days, on or before April 15, 1989.

Should you have any questions concerning this matter, please contact Ms. Mary Jo Meyers-Barnes, Hazardous Materials Specialist at 271-4320.

Sincerely,



Rafat A. Shahid, Chief
Hazardous Materials Division

RAS:MJM-B

Enclosure

cc: Irene Kan, Baseline Environmental Consulting
Aqua Science Engineers
Gil Jensen, District Attorney, Alameda County Consumer and
Environmental Protection
RWQCB
Howard Hatayama, DOHS
Mary Jo Meyers-Barnes, HazMat
Files

UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT

EMERGENCY <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	FOR LOCAL AGENCY USE ONLY I HEREBY CERTIFY THAT I AM A DESIGNATED GOVERNMENT EMPLOYEE AND THAT I HAVE REPORTED THIS INFORMATION TO LOCAL OFFICIALS PURSUANT TO SECTION 25180.7 OF THE HEALTH AND SAFETY CODE.
--	--	--

REPORT DATE 01 21 1 d 7 d 8 y 9 y	CASE #	SIGNED _____ DATE _____
--------------------------------------	--------	-------------------------

REPORTED BY	NAME OF INDIVIDUAL FILING REPORT Yane Nordhav	PHONE (415) 763-7037	SIGNATURE <i>Yane Nordhav</i>	
	REPRESENTING <input checked="" type="checkbox"/> OWNER/OPERATOR <input type="checkbox"/> REGIONAL BOARD <input type="checkbox"/> LOCAL AGENCY <input type="checkbox"/> OTHER	COMPANY OR AGENCY NAME BASELINE ENVIRONMENTAL CONSULTING		
	ADDRESS 315 Washington Street			

OAKLAND CITY	CA STATE	94607 ZIP
--------------	----------	-----------

NAME Port of Oakland	CONTACT PERSON Michele Heffes	PHONE (415) 839-2282
--------------------------------	---	--------------------------------

ADDRESS 66 Jack London Square	OAKLAND CITY	CA STATE	94607 ZIP
---	--------------	----------	-----------

FACILITY NAME (IF APPLICABLE) fomer Parker Warehouse	OPERATOR Port of Oakland	PHONE ()
--	------------------------------------	---------------------

ADDRESS 801 Maritime	OAKLAND CITY	ALAMEDA COUNTY	94607 ZIP
--------------------------------	--------------	----------------	-----------

CROSS STREET Petroleum	TYPE OF AREA <input type="checkbox"/> COMMERCIAL <input checked="" type="checkbox"/> INDUSTRIAL <input type="checkbox"/> RURAL <input type="checkbox"/> RESIDENTIAL <input type="checkbox"/> OTHER	TYPE OF BUSINESS <input type="checkbox"/> FARM <input checked="" type="checkbox"/> OTHER warehouse
----------------------------------	--	--

LOCAL AGENCY Alameda County	AGENCY NAME	CONTACT PERSON Mary Jo Meyers
---------------------------------------	-------------	---

REGIONAL BOARD San Francisco Bay	PHONE (415) 271-4320	PHONE (415) 464-1255
--	--------------------------------	--------------------------------

SUBSTANCES INVOLVED	(1) Gasoline NAME	QUANTITY LOST (GALLONS) <input checked="" type="checkbox"/> UNKNOWN
---------------------	--------------------------	--

SUBSTANCES INVOLVED	(2) Diesel NAME	QUANTITY LOST (GALLONS) <input checked="" type="checkbox"/> UNKNOWN
---------------------	------------------------	--

DISCOVERY/ABATEMENT	DATE DISCOVERED 01 21 1 d 6 d 8 y 9 y	HOW DISCOVERED <input type="checkbox"/> INVENTORY CONTROL <input type="checkbox"/> SUBSURFACE MONITORING <input type="checkbox"/> NUISANCE CONDITIONS <input type="checkbox"/> TANK TEST <input checked="" type="checkbox"/> TANK REMOVAL <input type="checkbox"/> OTHER
---------------------	--	--

DATE DISCHARGE BEGAN <input checked="" type="checkbox"/> UNKNOWN	METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY) <input type="checkbox"/> REMOVE CONTENTS <input type="checkbox"/> REPLACE TANK <input checked="" type="checkbox"/> CLOSE TANK <input type="checkbox"/> REPAIR TANK <input type="checkbox"/> REPAIR PIPING <input type="checkbox"/> CHANGE PROCEDURE <input type="checkbox"/> OTHER
---	--

HAS DISCHARGE BEEN STOPPED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, DATE 01 21 1 d 6 d 8 y 9 y	TANKS ONLY/CAPACITY 1-20,000 1-8,000 GAL. AGE 30 YRS <input type="checkbox"/> UNKNOWN
---	--

SOURCE OF DISCHARGE <input type="checkbox"/> TANK LEAK <input checked="" type="checkbox"/> UNKNOWN <input type="checkbox"/> PIPING LEAK <input type="checkbox"/> OTHER	MATERIAL <input type="checkbox"/> FIBERGLASS <input checked="" type="checkbox"/> STEEL <input type="checkbox"/> OTHER	CAUSE(S) <input type="checkbox"/> OVERFILL <input type="checkbox"/> RUPTURE/FAILURE <input type="checkbox"/> CORROSION <input checked="" type="checkbox"/> UNKNOWN <input type="checkbox"/> SPILL <input type="checkbox"/> OTHER
---	--	---

CASE TYPE	CHECK ONE ONLY <input checked="" type="checkbox"/> UNDETERMINED <input type="checkbox"/> SOIL ONLY <input type="checkbox"/> GROUNDWATER <input type="checkbox"/> DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)
-----------	--

CURRENT STATUS	CHECK ONE ONLY <input type="checkbox"/> SITE INVESTIGATION IN PROGRESS (DEFINING EXTENT OF PROBLEM) <input checked="" type="checkbox"/> CLEANUP IN PROGRESS <input type="checkbox"/> SIGNED OFF (CLEANUP COMPLETED OR UNNECESSARY) <input type="checkbox"/> NO ACTION TAKEN <input type="checkbox"/> POST CLEANUP MONITORING IN PROGRESS <input type="checkbox"/> NO FUNDS AVAILABLE TO PROCEED <input type="checkbox"/> EVALUATING CLEANUP ALTERNATIVES
----------------	--

REMEDIAL ACTION	CHECK APPROPRIATE ACTION(S) (SEE BACK FOR DETAILS) <input type="checkbox"/> CAP SITE (CD) <input checked="" type="checkbox"/> EXCAVATE & DISPOSE (ED) <input type="checkbox"/> REMOVE FREE PRODUCT (FP) <input type="checkbox"/> ENHANCED BIO DEGRADATION (IT) <input type="checkbox"/> CONTAINMENT BARRIER (CB) <input checked="" type="checkbox"/> EXCAVATE & TREAT (ET) <input type="checkbox"/> PUMP & TREAT GROUNDWATER (GT) <input type="checkbox"/> REPLACE SUPPLY (RS) <input type="checkbox"/> TREATMENT AT HOOKUP (HU) <input type="checkbox"/> NO ACTION REQUIRED (NA) <input type="checkbox"/> OTHER (OT)
-----------------	--

COMMENTS	
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**ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS DIVISION
470 - 27TH ST., RM. 322
OAKLAND, CA 94612
PHONE NO. 415/874-7237**

mgms 1-4-88

ACCEPTED

DEPARTMENT OF ENVIRONMENTAL HEALTH
470 - 27th Street 13th 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 available to all contractors and craftsmen involved with the removal.

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

- Removal of Tank and Piping
- Sampling
- Final Inspection

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

THERE IS A FEE ASSOCIATED WITH THIS PERMIT. OBTAIN THIS FEE BEFORE YOU START.

UNDERGROUND TANK CLOSURE/MODIFICATION PLANS

1. Business Name Port of Oakland
Business Owner Port of Oakland
2. Site Address 801 Maritime
City Oakland Zip 94607 Phone 444-3188
3. Mailing Address 66 Jack London Square
City Oakland Zip 94607 Phone 272-9548
444-3188
4. Land Owner Port of Oakland
Address 66 Jack London Square City, State Oakland zip 94607
5. EPA I.D. No. CAC000140285
6. Contractor EVANS BROTHERS
Address 5990 N. Front Road
City Livermore, Ca 94550 Phone 443-0225
License Type A ID# 443018
7. Other (Specify) AQUA SCIENCE ENG (TANK REMOVAL)
Address 2500 OLD CROW CANYON RD #121
City SAN RAMON CA Phone 415-820-9391

8. Contact Person for Investigation

Name Greg Burg Title Project Engineer
Phone (915) 820-9391

9. Total No. of Tanks at facility 3

10. Have permit applications for all tanks been submitted to this office? Yes No

11. State Registered Hazardous Waste Transporters/Facilities

a) Product/Waste Transporter

Name Refinery Services ^{11/11/Seur} EPA I.D. No. CAD083166728
Address 13331 North Highway 33
City Patterson State Ca Zip 95363

b) Rinsate Transporter

Name Refinery Services ^{11/11/Seur} EPA I.D. No. CAD083166728
Address 13331 North Highway 33
City Patterson State Ca Zip 95363

c) Tank Transporter

Name N/A ^{11/11/transport} EPA I.D. No. _____
Address _____
City _____ State _____ Zip _____

d) Contaminated Soil Transporter

Name Jim Chism EPA I.D. No. CAD980584817
Address Box 755
City Riverdale State CA Zip 93656

12. Sample Collector

Name Gregory P. Burg
Company AQUA SCIENCE ENGINEERS
Address 2500 OLD CROW CANYON RD #121
City SAN RAMON State Ca Zip 94583 Phone 820-9391

13. Sampling Information for each tank or area

Tank or Area		Material sampled	Location & Depth
Capacity	Historic Contents (past 5 years)		
10,000	DIESEL	SOIL & GROUND WATER	SEE SITE PLAN ESTIMATED @ 10'- below grade
10,000	DIESEL	" present	1'- above water level
10,000	DIESEL	"	1-2' below full & opposite end of tank

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

If yes, describe. UNKNOWN

15. NFPA methods used for rendering tank inert? Yes [X] No []

If yes, describe. TANKS WILL BE BERGED WITH 2.5^{lbs} OF DRY ICE PER 1000 GALLONS OF VOLUME TO REDUCE LEL BELOW 10%. TANKS WILL BE LIT CLEANED ON SITE PRIOR TO REMOVAL. CERTIFIED LAB RESULT OF RINSATE RR DIR TO REMOVAL prior to tank pull

16. Laboratories

Name PACE LABORATORIES

Address 11 DIGITAL DRIVE

City NOVATO, State CA zip 94949

State Certification No. 148

* explosion proof, combustible gas meter required on-site to verify tank inertness.

17. Chemical Methods to be used for Analyzing Samples

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Number
TPH - DIESEL BTXE TPH - gasoline	(5030)	8015 8020

18. Site Safety Plan submitted? Yes No []

19. Workman's Compensation: Yes No []

Copy of Certificate enclosed? Yes No []

Name of Insurer GLENHANSEN INSURANCE

20. Plot Plan submitted? Yes No []

21. Deposit enclosed? Yes No []

22. Please forward to this office the following information within 60 days after receipt of sample results.

- a) Chain of Custody Sheets
- b) Original Signed Laboratory Reports
- c) TSD to Generator copies of wastes shipped and received
- d) Attachment A summarizing laboratory results

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 will notify the Department of Environmental Health at least two (2) working days (48 hours) in advance to schedule any required inspections. 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.

Signature of Contractor

Name (please type) Gregory P. Burg

Signature Gregory P. Burg

Date 12-29-88

Signature of Site Owner or Operator

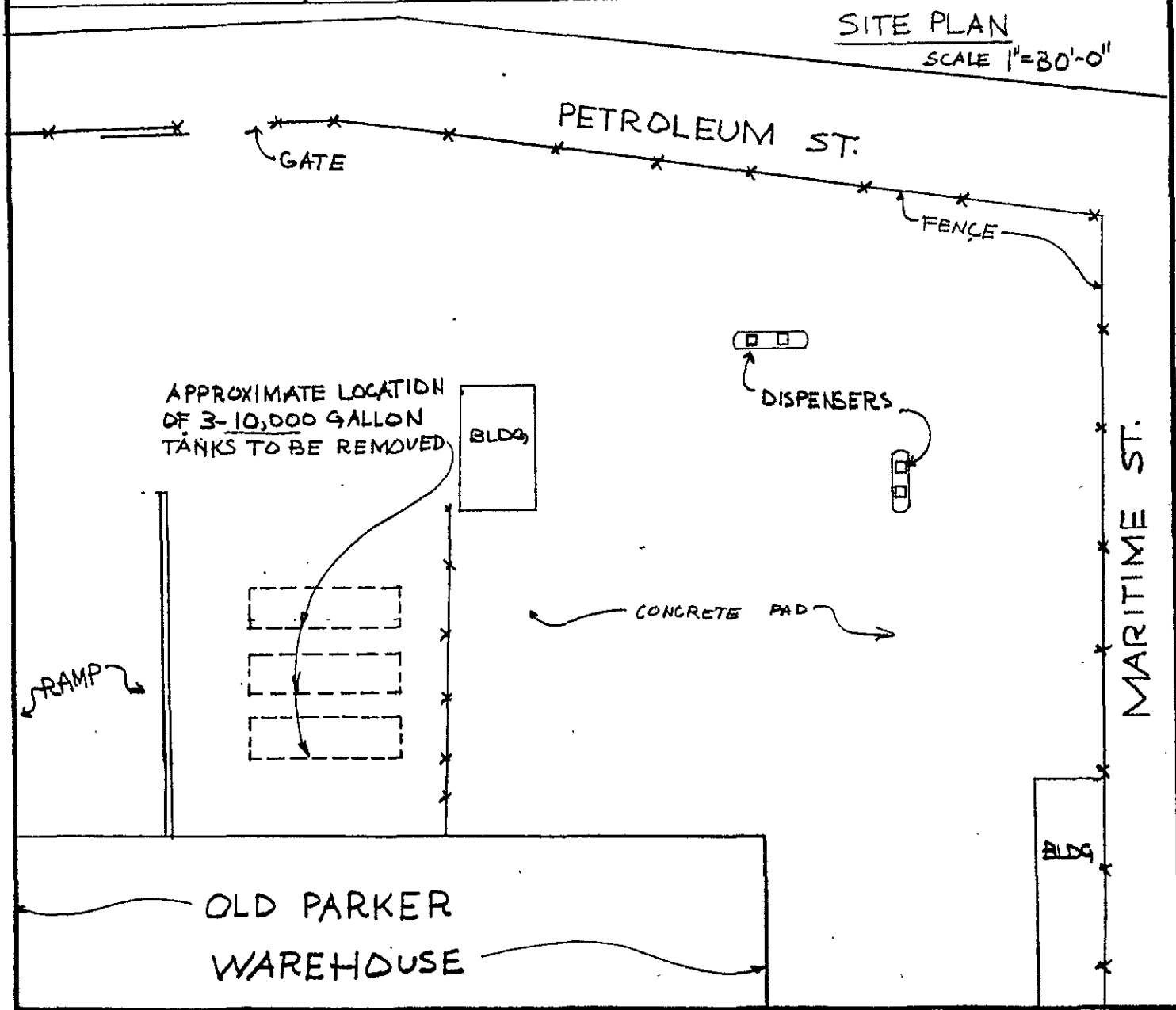
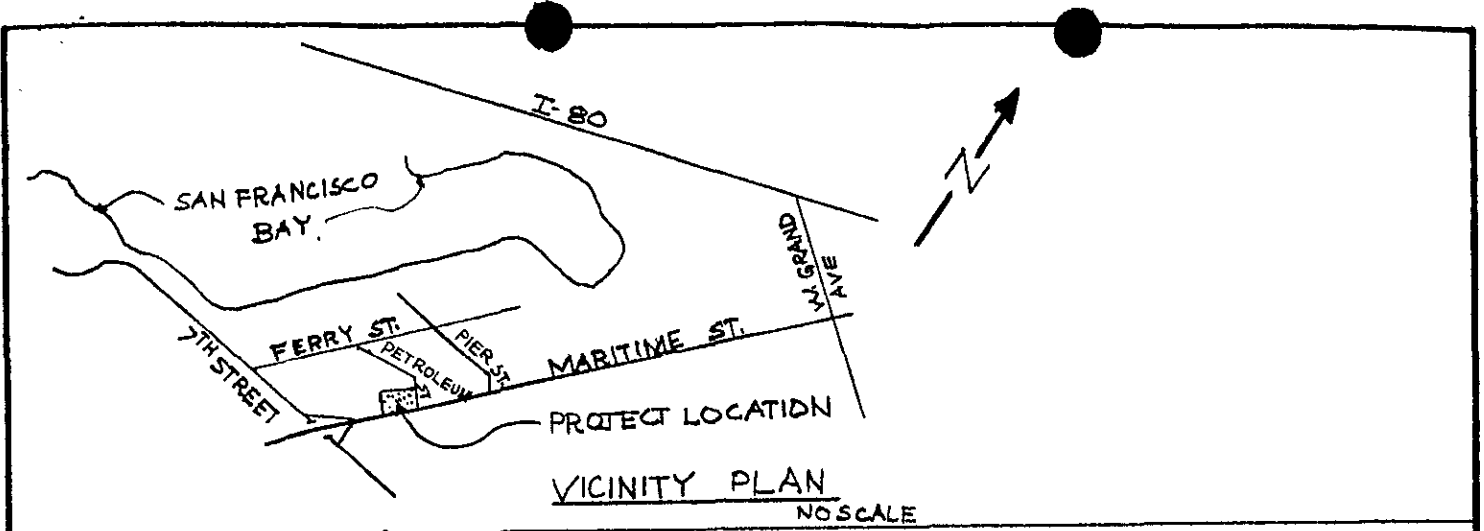
Name (please type) Tom Stewart For Port of Oakland

Signature [Signature]

Date 1/4/89

NOTES:

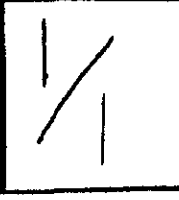
1. Any changes in this document must be approved by this Department.
2. Any leaks discovered must be submitted to this office on an underground storage tank unauthorized leak/contamination site report form within 5 days of its discovery.
3. Three (3) copies of this plan must be submitted to this Department. One copy must be at the construction site at all times.
4. A copy of your approved plan must be sent to the landowner.



aqua science
W&S engineers Inc.

TANK REMOVAL AT
 PORT OF OAKLAND
 801 MARITIME ST
 OAKLAND, CA 94607

ATTACHMENT A: SITE PLAN



Personal Protection:
Level of Protection: A X B X C X D

Modifications: NONE

Surveillance Equipment and Materials:
Instrument: GAS-TECH Action Level: 20% LEL

Site Entry Procedures: BY OWNER

Decontamination Procedures:

Personal: N/A

Equipment: N/A

First Aid: KIT AVAILABLE ON TRUCK

Work Limitations (time of day, weather, heat/cold stress): WORK TO PROCEED
BETWEEN 7 AM AND 3:30 PM.

Investigation-Derived Material Disposal:

E. EMERGENCY INFORMATION

Local Resources:

Ambulance: 911

Hospital Emergency Room: 428-3000

Poison Control Center: 911

Police: 911

Fire Department: 911

Explosives Unit: 652-4575

Agency Contact: ALAMEDA COUNTY HEALTH CARE SERVICES - DEPT.
ENVIRONMENTAL HEALTH - 271-4320

Site Resources:

Water Supply: Across street

Telephone: 444-3188

Radio: TERRY CARTER - 820-9391

Other: N/A

Emergency Contacts: ASE
Name: WILLIAM RUSK

Phone: 820-9391

Emergency Routes: Seventh street, left on Market street, right on 52nd street

Hospital: EAST BAY CHILDRENS HOSPITAL
747 52nd Street

AQUA SCIENCE ENGINEERS SITE SAFETY PLAN

A. GENERAL INFORMATION

Site:

Location: SEE SITE MAP ENCLOSED

Plan Prepared By: AQUA SCIENCE ENG.

Date: 10-24-88

Plan Approved By:

Date:

Objectives: TANK REMOVAL, DISPOSAL AND SOIL SAMPLE COLLECTION

Proposed Date of Investigation: November 22, 1988

Background Review: Complete: Preliminary:

Documentation/Summary: Overall Hazard: Serious: Moderate:
Low: X Unknown:

B. SITE/WASTE CHARACTERISTICS

Waste Type(s): Liquid: Solid: Sludge: Gas:

Characteristic(s): N/A

Facility Description:

Status: Active: Inactive: X Unknown:

History: (agency action, complaints, injuries, etc.)

N/A

C. HAZARD EVALUATION

Parameter: N/A

Special Precautions and Comments:

1. USE SAFETY EQUIPMENT, MASK RESPIRATOR EQUIPED WITH NIOSH APPROVED C-21 CARTRIDGE FOR ORGANIC VAPORS, AS NECESSARY.
2. USE NIOSH APPROVED RUBBER GLOVES FOR SOIL SAMPLING.
3. HAVE DRY CHEMICAL MODEL PA-200 ABC FIRE EXTINGUISHER.
4. HAVE 100 LBS. SOLID-SORB AVAILABLE FOR POTENTIAL SPILLAGE.

D. SITE SAFETY WORK PLAN

Perimeter Establishment: N/A Map/Sketch Attached: YES

Site Secured: FENCED YARD AND BARRICADES

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS DIVISION
470 - 27TH ST., RM. 322
OAKLAND, CA 94612
PHONE NO. 415/874-7237

UNDERGROUND TANK CLOSURE/MODIFICATION PLANS

1. Business Name Port of Oakland
Business Owner Port of Oakland
2. Site Address 801 Maritime
City Oakland Zip 94607 Phone 444-3188
3. Mailing Address 66 Jack London Square
City Oakland Zip 94607 Phone 272-9548
444-3188
4. Land Owner Port of Oakland
Address 66 Jack London Square City, State Oakland Zip 94607
5. EPA I.D. No. CAC000140285
6. Contractor EVANS BROTHERS
Address 5990 N. Front Road
City Livermore, Ca 94550 Phone 443-0225
License Type A ID# 443018
7. Other (Specify) AQUA SCIENCE ENG (TANK REMOVAL)
SUB
Address 2500 OLD CROW CANYON RD #121
City SAN RAMON CA Phone 415-820-9391

8. Contact Person for Investigation

Name Greg Burg Title Project Engineer
Phone (415) 820-9391

9. Total No. of Tanks at facility 3

10. Have permit applications for all tanks been submitted to this office? Yes No

11. State Registered Hazardous Waste Transporters/Facilities

a) Product/Waste Tranporter

Name Refinery Services EPA I.D. No. CAD083166728
Address 13331 North Highway 33
city Patterson State Ca zip 95363

b) Rinsate Transporter

Name Refinery Services EPA I.D. No. CAD083166728
Address 13331 North Highway 33
city Patterson State Ca zip 95363

c) Tank Transporter

Name N/A EPA I.D. No. _____
Address _____
City _____ State _____ Zip _____

d) Contaminated Soil Transporter

Name Jim Chism EPA I.D. No. CAD980584817
Address Box 755
city Riverdale State CA zip 93656

12. Sample Collector

Name Gregory P. Burg
Company AQUA SCIENCE ENGINEERS
Address 2500 OLD CROW CANYON RD #121
city SAN RAMON State Ca Zip 94583 Phone 820-9391

13. Sampling Information for each tank or area

Tank or Area		Material sampled	Location & Depth
Capacity	Historic Contents (past 5 years)		
10,000	DIESEL	SOIL & GROUND WATER	SEE SITE PLAN
10,000	DIESEL	"	ESTIMATED @ 10' below grade
10,000	DIESEL	"	1' above water level

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

If yes, describe. UNKNOWN

15. NFPA methods used for rendering tank inert? Yes No []

If yes, describe. TANKS WILL BE BERGED WITH 2.5^{lbs} OF DRY ICE PER 1000 GALLONS OF VOLUME TO REDUCE LEL BELOW 10%. TANKS WILL BE CUT CLEANED ON SITE PRIOR TO REMOVAL. CERTIFIED LAB RESULT OF RINSATERROR TO REMOVAL

16. Laboratories

Name PACE LABORATORIES

Address 11 DIGITAL DRIVE

City NOVATO, State CA zip 94949

State Certification No. 148

17. Chemical Methods to be used for Analyzing Samples

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Number
TPH - DIESEL BTXE		8015 8020

18. Site Safety Plan submitted? Yes No []

19. Workman's Compensation: Yes No []

Copy of Certificate enclosed? Yes No []

Name of Insurer GLENHANSEN INSURANCE

20. Plot Plan submitted? Yes No []

21. Deposit enclosed? Yes No []

22. Please forward to this office the following information within 60 days after receipt of sample results.

- a) Chain of Custody Sheets
- b) Original Signed Laboratory Reports
- c) TSD to Generator copies of wastes shipped and received
- d) Attachment A summarizing laboratory results

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 will notify the Department of Environmental Health at least two (2) working days (48 hours) in advance to schedule any required inspections. 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.

Signature of Contractor

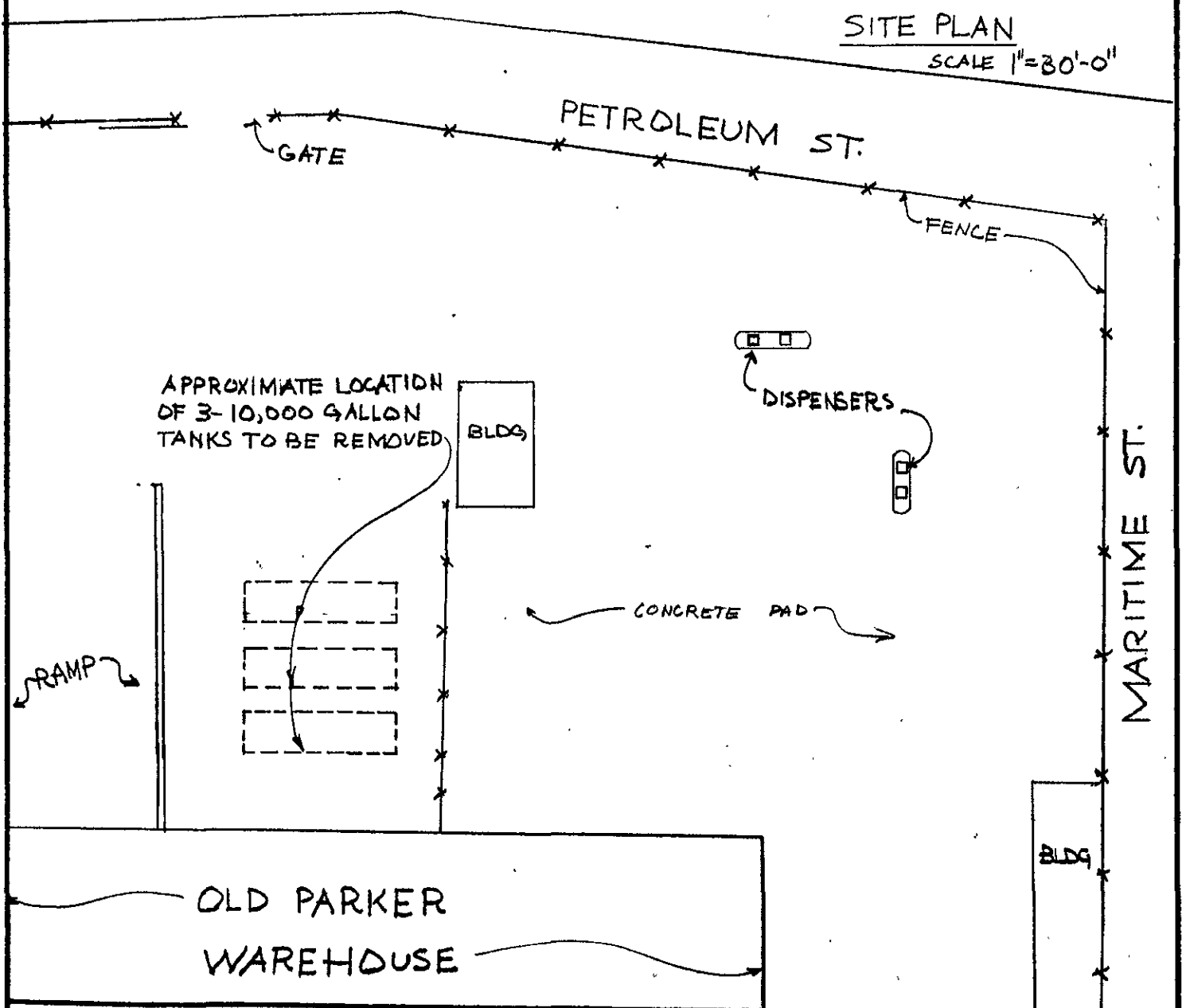
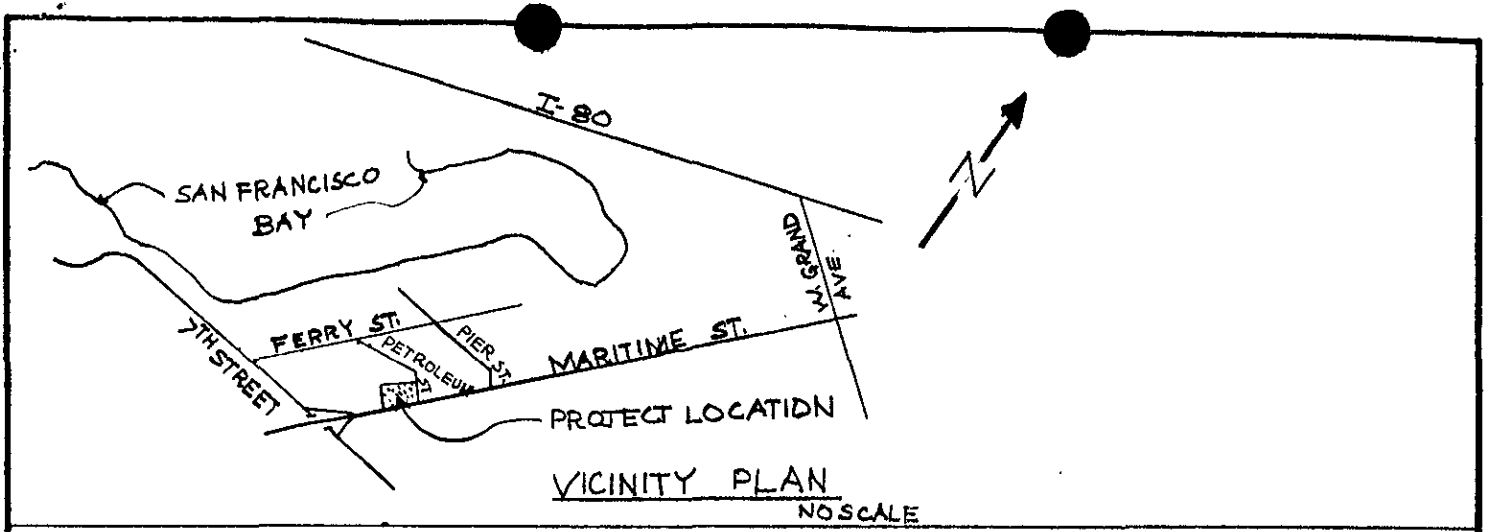
Name (please type) Gregory P. Burg
Signature Gregory P. Burg
Date 12-29-88

Signature of Site Owner or Operator

Name (please type) JOHN STEWART FOR PORT OF OAKLAND
Signature [Signature]
Date 1/4/89

NOTES:

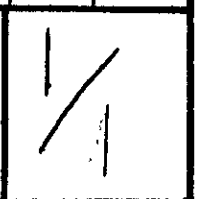
1. Any changes in this document must be approved by this Department.
2. Any leaks discovered must be submitted to this office on an underground storage tank unauthorized leak/contamination site report form within 5 days of its discovery.
3. Three (3) copies of this plan must be submitted to this Department. One copy must be at the construction site at all times.
4. A copy of your approved plan must be sent to the landowner.



aqua science
W&S engineers inc.

ATTACHMENT A: SITE PLAN

TANK REMOVAL AT
PORT OF OAKLAND
801 MARITIME ST
OAKLAND, CA 94607



Personal Protection:

Level of Protection: A X B X C X D

Modifications: NONE

Surveillance Equipment and Materials:

Instrument: GAS-TECH Action Level: 20% LEL

Site Entry Procedures: BY OWNER

Decontamination Procedures:

Personal: N/A

Equipment: N/A

First Aid: KIT AVAILABLE ON TRUCK

Work Limitations (time of day, weather, heat/cold stress): WORK TO PROCEED
BETWEEN 7 AM AND 3:30 PM.

Investigation-Derived Material Disposal:

E. EMERGENCY INFORMATION

Local Resources:

Ambulance: 911

Hospital Emergency Room: 428-3000

Poison Control Center: 911

Police: 911

Fire Department: 911

Explosives Unit: 652-4575

Agency Contact: ALAMEDA COUNTY HEALTH CARE SERVICES - DEPT.
ENVIRONMENTAL HEALTH - 271-4320

Site Resources:

Water Supply: Across street

Telephone: 444-3188

Radio: TERRY CARTER - 820-9391

Other: N/A

Emergency Contacts: ASE

Name: WILLIAM RUSK

Phone: 820-9391

Emergency Routes: Seventh street, left on Market street, right on 52nd street

Hospital: EAST BAY CHILDRENS HOSPITAL
747 52nd Street

AQUA SCIENCE ENGINEERS SITE SAFETY PLAN

A. GENERAL INFORMATION

Site:

Location: SEE SITE MAP ENCLOSED

Plan Prepared By: AQUA SCIENCE ENG. Date: 10-24-88

Plan Approved By: Date:

Objectives: TANK REMOVAL, DISPOSAL AND SOIL SAMPLE COLLECTION

Proposed Date of Investigation: November 22, 1988

Background Review: Complete: Preliminary:

Documentation/Summary: Overall Hazard: Serious: Moderate:
Low: X Unknown:

B. SITE/WASTE CHARACTERISTICS

Waste Type(s): Liquid: Solid: Sludge: Gas:

Characteristic(s): N/A

Facility Description:

Status: Active: Inactive: X Unknown:

History: (agency action, complaints, injuries, etc.)

N/A

C. HAZARD EVALUATION

Parameter: N/A

Special Precautions and Comments:

1. USE SAFETY EQUIPMENT, MASK RESPIRATOR EQUIPED WITH NIOSH APPROVED C-21 CARTRIDGE FOR ORGANIC VAPORS, AS NECESSARY.
2. USE NIOSH APPROVED RUBBER GLOVES FOR SOIL SAMPLING.
3. HAVE DRY CHEMICAL MODEL PA-200 ABC FIRE EXTINGUISHER.
4. HAVE 100 LBS. SOLID-SORB AVAILABLE FOR POTENTIAL SPILLAGE.

D. SITE SAFETY WORK PLAN

Perimeter Establishment: N/A Map/Sketch Attached: YES

Site Secured: FENCED YARD AND BARRICADES

ACORD. CERTIFICATE OF INSURANCE

ISSUE DATE (MM/DD/YY)

11-9-88

PRODUCER

GLEN HANSEN INSURANCE BROKERS, INC.
313 LENNON LANE, SUITE 100
WALNUT CREEK, CALIFORNIA 94598

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW

COMPANIES AFFORDING COVERAGE

CODE SUB-CODE

INSURED

AQUA SCIENCE ENGINEERS
P.O. BOX 535
SAN RAMON, CALIFORNIA 94583

- COMPANY LETTER **A** VALLEY FORGE INSURANCE CO.
- COMPANY LETTER **B** TRANSPORTATION INSURANCE CO.
- COMPANY LETTER **C** CNA CASUALTY OF CALIFORNIA
- COMPANY LETTER **D**
- COMPANY LETTER **E**

RECEIVED
NOV 14 1988
AQUA SCIENCE ENG.

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE 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. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	ALL LIMITS IN THOUSANDS
A	GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS MADE X OCCUR. X OWNER'S & CONTRACTOR'S PROT.	C0900507352	6-1-88	6-1-89	GENERAL AGGREGATE \$ 500 PRODUCTS-COMP/OPS AGGREGATE \$ 500 PERSONAL & ADVERTISING INJURY \$ 500 EACH OCCURRENCE \$ 500 FIRE DAMAGE (Any one fire) \$ 50 MEDICAL EXPENSE (Any one person) \$ 5 COMBINED SINGLE LIMIT \$ 500 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE \$
B	AUTOMOBILE LIABILITY ANY AUTO ALL OWNED AUTOS X SCHEDULED AUTOS X HIRED AUTOS X NON-OWNED AUTOS GARAGE LIABILITY	BUA700507353	6-1-88	6-1-89	BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE \$
A	EXCESS LIABILITY X OTHER THAN UMBRELLA FORM	CUP300507355	6-1-88	6-1-89	EACH OCCURRENCE \$ 2,000 AGGREGATE \$ 2,000
C	WORKER'S COMPENSATION AND EMPLOYERS' LIABILITY	PWC300943199	8-15-88	8-15-89	STATUTORY \$ 2,000 (EACH ACCIDENT) \$ 2,000 (DISEASE-POLICY LIMIT) \$ 2,000 (DISEASE-EACH EMPLOYEE)
B	OTHER X AUTO PHYSICAL DAMAGE	BUA700507353	6-1-88	6-1-89	\$250 DEDUCTIBLE COMP. \$500 DEDUCTIBLE COLLISION

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/RESTRICTIONS/SPECIAL ITEMS
1988 FORD F800 WITH MOBILE DRILLING RIG MODEL B61

CERTIFICATE HOLDER IS LOSS PAYEE AND ADDITIONAL INSURED.

CERTIFICATE HOLDER

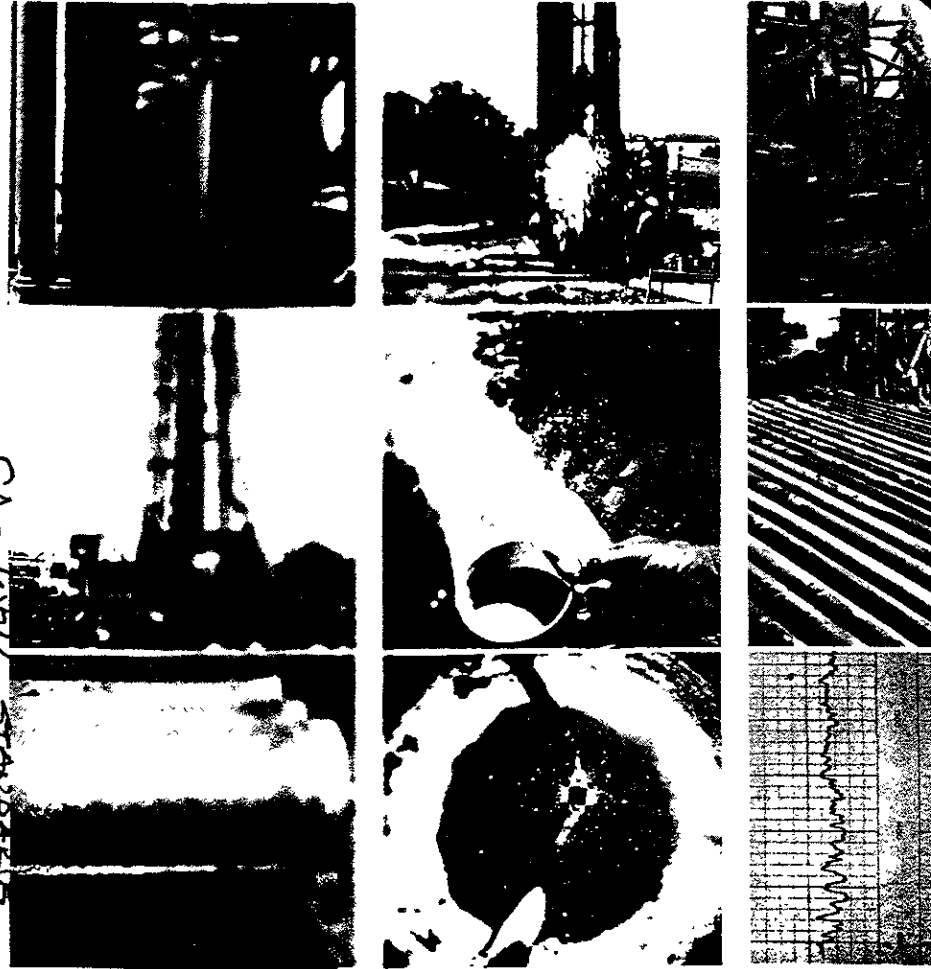
CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 10 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

Richard J. [Signature]

State of California—Resources Agency
Department of Water Resources
P.O. Box 388
Sacramento
95802



State of California
The Resources Agency
Department of
Water Resources



Water Well Standards: State of California

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Copies of this report are available without charge from:

State of California
Department of Water Resources
P. O. Box 388
Sacramento, CA 95802

C. Conductor Casing. For community water supply wells, the minimum thickness of steel conductor casing shall be 1/4 inch (6 millimetres) for single casing or a minimum of No. 10 U. S. Standard Gage for double casing. Steel used for conductor casing shall conform to the specifications for steel casing described in Section 12.

D. Sealing Material. The sealing material shall consist of neat cement grout, sand-cement grout, bentonite clay, or concrete. Cement used for sealing mixtures shall meet the requirements, including the latest revision thereof, of ASTM 1/ C150 "Standard Specification for Portland Cement" types I (common construction cement) III (high early strength) and V (for high sulfate resistance, i.e., corrosive waters).^{2/} Water used for sealing mixtures shall be clean and of a potable quality. Materials used as additives for Portland cement mixtures in the field shall meet the requirements, and latest revision thereof, of ASTM C494 "Standard Specification for Chemical Admixtures for Concrete".

1. Neat cement grout shall be composed of one sack of Portland cement (94 pounds or 43 kilograms) to 4-1/2 to 6-1/2 (depending on cement type and additives used) gallons (17 to 25 litres) of clean water.

2. Sand-cement grout shall be composed of not more than two parts by weight of sand and one part of Portland cement to 4-1/2 to 6-1/2 (depending on cement type and additives used) gallons (17 to 25 litres) of clean water per sack of cement.

3. Concrete^{3/} used shall be "Class A" (6 sacks of Portland cement per cubic yard or 0.76 cubic metre) or "Class B" (5 sacks per cubic yard or 0.76 cubic metre).^{4/} Aggregates shall meet the requirements, including the latest revision thereof, of ASTM C33 "Standard Specification for Concrete Aggregates".

4. Special quick-setting cement, retardents to setting, and other additives, including hydrated lime to make the mix more fluid (up to 10 percent of the volume of cement), and bentonite (up to 5 percent) to make the mix more fluid and to reduce shrinkage, may be used.

^{1/} American Society for Testing and Materials.

^{2/} Corresponding API (American Petroleum Institute) cement classes are: Type I - API Class A, Type III - API Class C.

^{3/} Concrete is useful in sealing large-diameter wells where the volume of annular seals required is likely to be substantial. However, unless care is exercised during placement, the coarse aggregate may become separated from the cement.

^{4/} A popular concrete mix among drillers consists of 8 sacks of Portland cement per cubic yard (0.76 cubic metre) and uniform aggregate of 3/8 inch (9.5 millimetres) diameter.

5. Bentonite clay^{1/} mixtures shall be composed of bentonite clay and clean water thoroughly mixed before placement so that there are no balls, clods, etc.

6. Used drillers' mud or cuttings or chips from drilling the borehole shall not be used as sealing material.

7. The minimum time that must be allowed for materials containing cement to "set" before construction operations on the well may be resumed shall be:

- a. Type I cement - 72 hours
- b. Type III cement - 48 hours
- c. Type V cement - 6 hours

When necessary these times may be reduced by the use of "accelerators", i.e., additives designed specifically to shorten setting time.

8. Where thermoplastic casing is used, caution should be exercised to control the heat generated during the curing of the cement (called "heat of hydration"). This is of special concern where casing of thinner wall thicknesses are to be installed. The addition of bentonite to the cement mixture (up to 8 percent) or circulating water inside the casing will lower the temperature of the cement. Additives which accelerate the curing process also tend to increase the heat generated and should not be used where thermoplastic casing is installed.

E. Thickness of Seal. The thickness of the seal shall be at least a nominal 2 inches,^{2/} and not less than three times the size of the largest coarse aggregate used in the sealing material.

F. Placement of Seal.

1. Before placing the seal all loose cuttings, drilling mud, or other obstructions shall be removed from the annular space by flushing.

^{1/} Clay in the form of a mud-laden fluid is similar to and has the advantages of neat cement and sand-cement grout. There is a disadvantage in that clay may separate from the fluid. Clay should not be used where structural strength or stability of the seal is required, where flowing or moving water might break it down, or where it might dry out. Although there are other types of clay available, none have the sealing properties (particularly the ability to expand dramatically) comparable to bentonite. Therefore, only bentonite clays are recommended.

^{2/} In other words, the borehole shall be nominally 4 inches (100 millimetres) larger in diameter than the nominal casing diameter (thus creating a 2-inch, or-50 millimetre annular space).

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



7

March 27, 2006

Mr. John Prall
Port of Oakland
530 Water St.
Oakland, CA 94604-2064

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

Dear Mr. Prall:

Subject: Fuel Leak Case #00000019, Port of Oakland, 801 Maritime Street,
Oakland, CA 94607

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the referenced site and has determined that additional information is needed to progress this site to closure. We request that you address the following technical comments and submit the technical reports requested below. We feel fortunate that you were involved in the investigation as the consultant for this site prior to your current position with the Port of Oakland.

TECHNICAL COMMENTS

1. Please clarify the address and APN (Assessor Parcel Number) for this site. Please provide a copy of the Assessor map indicating both the parcel number and address of this site as requested below.
2. It appears that only one monitoring well was required for this investigation. This was based upon the abundance of wells and information at the neighboring Berth 24 (Mobil/Ashland) site. Please provide a gradient rose diagram for this site, a site map showing well locations and a summary of the groundwater data for this site as requested below. We are aware that the SFRWQCB is now the lead on this site.
3. We understand that approximately 1500 cy of spoils was generated during the tank removal activities. The soil was bio-remediated and approximately 400 cy reused as fill at this site. Was the remaining remediated soil reused elsewhere on Port properties? We understand that groundwater from the tank pit was removed by H&H Ship Services. How much groundwater was disposed?
4. The limits of soil contamination were unable to be determined during the tank removal. Soil boring contamination in B-2 reported 3600 ppm and C-2 reported 1600 ppm TPHd. Is there additional data, which defines the limit of TPHd in these areas? If not, is it possible to take additional soil and groundwater data in these areas?

TECHNICAL REPORT REQUEST

We feel this additional information will enable our office to close this site. Please submit the requested information/reports according to the following schedule:

- April 25, 2006- Parcel map and address clarification, gradient rose diagram, map with well locations and analytical data, soil and groundwater disposition and contaminant plume delineation response.

ELECTRONIC SUBMITTAL OF REPORTS

Effective **January 31, 2006**, the Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) required submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program ftp site are provided on the attached "Electronic Report Upload (ftp) Instructions." Please do not submit reports as attachments to electronic mail.

Submission of reports to the Alameda County ftp site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. Submission of reports to the Geotracker website does not fulfill the requirement to submit documents to the Alameda County ftp site. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitor wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all necessary reports was required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

In order to facilitate electronic correspondence, we request that you provide up to date electronic mail addresses for all responsible and interested parties. Please provide current electronic mail addresses and notify us of future changes to electronic mail addresses by sending an electronic mail message to me at barney.chan@acgov.org.

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification.

Mr. John Prall
March 27, 2006
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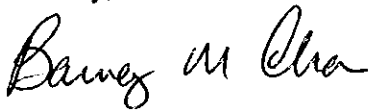
Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

If you have any questions, please call me at (510) 567-6765.

Sincerely,



Barney M. Chan
Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: files, D. Drogos

3_24_06 801 Maritime