

Chan, Barney, Env. Health

From: Dale Klettke [dklettke@portoakland.com]
Sent: Thursday, January 11, 2007 11:27 AM
To: Chan, Barney, Env. Health
Subject: Toxic Leak Case RO0000414, MOIA United Airlines, 1100 Airport Drive, Oakland, CA 94621

Mr. Chan,

I would like to obtain your position (and the RWQCB's concurrence) for what would be required to receive case closure on this site, but without placing a deed restriction on the property.

I propose the following:

Prepare a remedial action plan (RAP) to perform "hot spot" excavation in areas where soil contamination exceeds the commercial ESL's, using the most restrictive ESL's (for the direct exposure, vapor intrusion into buildings, and soil leaching exposure pathways) where groundwater IS NOT a current or potential source of drinking water.

The RAP will include the collection and analysis of confirmation sidewall soil samples at a minimum of one per 20 linear feet, and if the excavation does not extend into the underlying Bay Mud layer, one bottom sample from each excavation. In addition, once the excavations are completed, a soil amendment will be incorporated (either ORC or HRC, or similar type of amendment) in the backfill material to remediate any residual soil and/or groundwater contamination resulting from the prior releases.

In addition, the Port will also propose to perform post-RAP groundwater monitoring in the areas where "hot-spot" excavation was conducted for a period of four (4) quarters.

Let me know if this approach is acceptable to both you and the RWQCB.

Sincerely,

Dale Klettke, CHMM
Associate Environmental Scientist
Port of Oakland
530 Water Street
Oakland, CA 94607
510-627-1118

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



October 26, 2006

Mr. Dale Klettke
Port of Oakland
530 Water St.
Oakland, CA 94604-2064

Mr. Dan Tisoncik
United Airlines
1200 E. Algonquin Rd.
Elk Grove Township, IL 60007

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

Dear Messrs. Klettke and Tisoncik:

Subject: Toxics Leak Case [REDACTED] MOIA United Airlines, 1100 Airport Drive,
Oakland, CA 94621

Alameda County Environmental Health (ACEH) staff has received the August 2006 Groundwater Sampling and Analysis Report Former United Airlines Hanger prepared by SCA Environmental, Inc. The recommendations of this report are two-fold, no further routine sampling of the site and possible additional assessment if trenching or other underground excavation takes place in former hangar and Economy Parking areas. We previously requested property maps and parcel numbers for the site. Are we correct to assume this information is not available or does not exist? The referenced report refers to the Oakland Maintenance Center (OMC), 1100 Airport Drive, as a 39.09 acre facility and this area is within the bold boundary in the figures presented. The area of the former USTs MF25 and MF26 is outside this bolded area. Since no parcel map or addresses exist for the entire area, our office previously stated it would be "easier" to include this former UST area with that described as the OMC. Future site use will be similar and any administrative controls or restrictions, should they be required, will also apply to both areas. If you would like to separate the two areas, we will need parcel maps, addresses and will assign another site number in addition to the current one.

In an effort to determine if additional investigation is needed to progress the site to closure we request you address the following technical comments and provide the technical reports requested below.

TECHNICAL COMMENTS

1. Presentation of Data- The site had previously been investigated in multiple phases according to the USTs removed at the site, MF23 and 24, MF25 and 26 and MF35 and 36. Weiss Associates identified 18 areas of concern (AOC) among which only one, AOC18 corresponds to the former USTs, where MF25 and 26 were located. This AOC is named as "Offsite Solvent USTs". To best present analytical data for closure consideration, we request that you provide tables representing the original and post-remediation soil and groundwater concentrations for the COCs in each of the former UST areas and those AOCs where contaminants were detected. In each

table, please include appropriate ESLs for risk evaluation. The ESLs should include all potential exposure pathways. We also request that you provide cumulative monitoring result tables for the UST and AOC areas. Please provide this technical information as requested below.

2. Deed Restriction and Administrative Controls- Based upon residual soil and groundwater concentrations at the site, a deed restriction and administrative controls such as construction worker health and safety plan and soil and groundwater management plan, will be required. Your deed restriction should follow the Alameda County Model. An electronic copy of the model will be sent to you shortly. Please send a draft copy of your deed restriction for County concurrence as requested below.

TECHNICAL REPORT REQUEST

Please the following technical reports according to the schedule below:

- November 27, 2006- Tables of soil and groundwater data and monitoring result table
- December 26, 2006- Draft deed restriction

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.

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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.

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

Sincerely,



Barney M. Chan
Hazardous Materials Specialist

cc: files, D. Drogos

10_25_08 1100 Airport Dr

THE LAW OFFICES OF
VICTOR E. BROWN
580 GRAND AVENUE
OAKLAND, CALIFORNIA 94610
(510) 465-3112
Fax: (510) 267-0676

June 14, 2006

Jon N. Robbins, Esq.
Senior Counsel
Chevron Products Company
6001 Bollinger Canyon Road
San Ramon, CA 94583-2398

Mr. J. Mark Inglis
Project Manager
Chevron Environmental Management Company
6001 Bollinger Canyon Road
San Ramon, CA 94583-2398

Ms. Deanna L. Harding
Project Coordinator
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, CA 94568

Mr. John Ortega
Senior Staff Scientist
Cambria Environmental Technology, Inc.
5900 Hollis Street, Suite A
Emeryville, CA 94608

Mr. Barney M. Chan
Hazardous Material Specialist
Alameda County Environmental Health Services (ACEHS)
1131 Harbor Bay Parkway
Alameda, CA 94502

Re: **800 Center Street, Oakland, CA - Former Signal Service Station**
Claim No. 12265 UST Cleanup Fund
Withdrawal as attorney for Hollis Rodgers

Dear Messrs Robbins, Inglis, Ortega, Chan, and Ms. Harding:

This letter is to officially notify you that, effective June 14, 2006, I have withdrawn as attorney for Mr. Hollis Rodgers in connection with the above-referenced matter.

R0414

SKADDEN, ARPS, SLATE, MEAGHER & FLOM LLP

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- LONDON
- MOSCOW
- PARIS
- SINGAPORE
- SYDNEY
- TOKYO
- TORONTO

June 13, 2006

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

RE: Toxics Leak Case RO0000414
MOIA United Airlines
1100 Airport Drive, Oakland, CA 94621

Dear Mr. Chan:

I represent United Airlines (United) with regard to certain environmental matters and am responding to your letter of May 26, 2006. In that letter you refer to United's April 19, 2006 letter and its discussion of technical matters relating to site investigation results at United's Oakland Maintenance Center (OMC). United's letter, however, also pointed out that United filed for bankruptcy in 2002 and that under protection of bankruptcy, United rejected its lease for the OMC, ceased operations there, and transferred responsibility for the leasehold to the Port of Oakland.

Therefore, consistent with United's legal rights and obligations under the Bankruptcy Code, United has no further obligations or responsibilities related to the OMC and will not take any additional actions at that site. As United suggested in its April 19, 2006 letter, if you have any issues relating to the OMC, you should pursue them with the Port of Oakland directly.

Barney M. Chan
June 13, 2006
Page 2

If you have any questions, please feel free to call me at 202-371-7350.

Sincerely,

A handwritten signature in cursive script that reads "Ken Berlin".

Kenneth Berlin

cc: Daniel Tisoncik

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



7

May 26, 2006

Mr. Dale Klettke
Port of Oakland
530 Water St.
Oakland, CA 94604-2064

Mr. Dan Tisoncik
United Airlines
1200 E. Algonquin Rd.
Elk Grove Township, IL 60007

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

Dear Messrs. Klettke and Tisoncik:

Subject: Toxics Leak Case [REDACTED] MOIA United Airlines, 1100 Airport Drive,
Oakland, CA 94621

Alameda County Environmental Health (ACEH) staff has received the April 19, 2006 response letter from United, which provides an evaluation of indoor air exposure risk for chemicals of concern at the Oakland Maintenance Center (OMC). It appears that this letter attempts to respond to technical comment 2 in the County's March 29, 2006 letter. It does so, but only partially, therefore, we still request that the rest of our technical comments be addressed. We understand the Port of Oakland will be providing property maps and parcel numbers. Technical comment 2 also requested additional sampling of specific wells for specific contaminants to obtain current data. Since it appears that no further work is being recommended for the OMC, we also require a discussion of residual contaminant concentrations and site administrative controls ie deed restriction, etc.

Please provide the site boundary clarification, address, and APN information and groundwater sampling report to our office by **July 15, 2006**.

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).

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

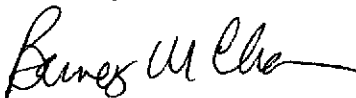
All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or 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.

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

Sincerely,



Barney M. Chan
Hazardous Materials Specialist

cc: files, D. Drogos

5_26_08 1100 Airport Dr



Ro 414

PORT OF OAKLAND

May 2, 2006

Mr. Barney Chan
Alameda County Health Care Services Agency
Environmental Protection Division
1131 Harbor Bay Parkway, #250
Alameda, CA 94502-6577

Alameda County
MAY 04 2006
Environmental Health

06 MAY -3 PM 12:36

**SUBJECT: Toxic Leak Case RO0000414, MOIA United Airlines
1100 Airport Drive, Oakland, CA 94621**

Dear Mr. Chan:

The Port of Oakland is requesting a 30-day extension to your letter dated March 29, 2006 requesting the following information:

- May 15, 2006 – Site boundary clarification, address, and APN information
- May 15, 2006 – Groundwater sampling report and evaluation and indoor air risk evaluation

The Port of Oakland is awaiting a response from United Airlines to determine who will prepare the groundwater sampling report and evaluation and indoor air risk evaluation. The Port of Oakland will obtain the site boundary clarification, address (if any), and APN information.

Therefore, the Port of Oakland requests an extension until June 14, 2006 for the submittal of the technical report information requested in your March 29, 2006 letter. Should you have any questions or need additional information, please contact me directly at 627-1118. Thank you for your on-going assistance and support on this project.

Sincerely,

Dale H. Klettke, CHMM
Associate Environmental Scientist
Environment & Safety Department

Mr. Jim Warner, ERM, 1777 Botelho Drive, Suite 260, Walnut Creek, CA 94596
c:\UAL-OMC extension to ALCO letter dated March 29, 2006



A STAR ALLIANCE MEMBER 

Alameda County
MAY 15, 2006
Environmental Health

April 19, 2006

Mr. Barney M. Chan
Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

RE: *Toxics Leak Case RO0000414, MOIA United Airlines, 1100 Airport Drive, Oakland, CA 94621*

Dear Mr. Chan:

This letter is in response to your letter dated March 29, 2006 regarding the former United Oakland Maintenance Center and the associated site investigation results. You have requested clarification as to the need to separate the sites that are included under the 1100 Airport Drive address and have requested additional ground water sampling and an assessment of indoor air vapor intrusion.

As you note in your letter, the former MF-25 and MF-26 USTs are outside of United's former leasehold at the site and are therefore the responsibility of the Port of Oakland (Port). United filed Chapter 11 bankruptcy on December 9, 2002 and under bankruptcy protection rejected the lease for the maintenance center on May 31, 2003. United ceased site operations at that time and transferred responsibility for this leasehold to the Port. In addition, the Bar Date for governmental claims passed as of June 9, 2003.

Given the above, we would expect the County to work with the Port on both areas, rather than separate the sites.

With respect to the indoor air vapor intrusion concern, it is United's opinion that the risks assessed in the ERM report were sufficiently protective of the indoor air exposure pathway, based on Table E-1a (Groundwater Screening Levels for Evaluation of Potential Vapor Intrusion Concerns) of the February 2005 *Screening for Environmental Concerns at Sites with Contaminated Soil and Ground Water, Volume 2:*

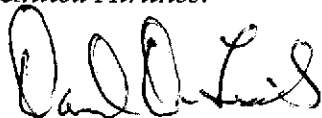
Background Documentation for the Development of Tier 1 Environmental Screening Levels. To develop the ESLs, the Regional Board looked for the lowest screening level based on different potential pathways including drinking water protection, aquatic habitat protection, indoor air impacts, and taste and odor thresholds. The following table compares the concentrations detected at the OMC to both commercial and residential land use values, which would be protective of any future land use at the site.

Compound	Residential - High Permeability Soil	Residential - Low Permeability Soil	Commercial - High Permeability Soil	Commercial - Low Permeability Soil	Highest Detection OMC Site
1,1-DCA	1,000 µg/L	3,500 µg/L	3,400 µg/L	12,000 µg/L	54 µg/L
1,2-DCA	200 µg/L	490 µg/L	690 µg/L	1,700 µg/L	5.2 µg/L
1,1-DCE	6,300 µg/L	26,000 µg/L	18,000 µg/L	74,000 µg/L	59 µg/L
TCE	530 µg/L	2,000 µg/L	1,800 µg/L	6,900 µg/L	56 µg/L
cis-1,2-DCE	6,200 µg/L	19,000 µg/L	17,000 µg/L	54,000 µg/L	46 µg/L
VC	3.8 µg/L	17 µg/L	13 µg/L	58 µg/L	0.89 µg/L
MTBE	24,000 µg/L	45,000 µg/L	80,000 µg/L	150,000 µg/L	200 µg/L

In summary, the indoor air pathway has been sufficiently characterized with respect to the risk from detected concentrations of volatile constituents and does not pose an unacceptable risk. In addition, the rejection of the maintenance center lease by United under bankruptcy protection has resulted in all areas represented by the address 1100 Airport Drive being the responsibility of the Port.

Please contact the Port for any further activities regarding this site. If you have any questions regarding the bankruptcy issues discussed in this letter, please contact Ken Berlin of Skadden, Arps at (202) 371.7350.

Sincerely,
United Airlines.



Daniel D. Tisoncik
Director of Environmental Safety

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



March 29, 2006

Mr. Dale Klettke
Port of Oakland
530 Water St.
Oakland, CA 94604-2064

Mr. Dan Tisoncik
United Airlines
1200 E. Algonquin Rd.
Elk Grove Township, IL 60007

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

Dear Messrs. Klettke and Tisoncik:

Subject: Toxics Leak Case [REDACTED] MOIA United Airlines, 1100 Airport Drive,
Oakland, CA 94621

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the subject site including the May 27, 2003 Weiss Associates Phase II Site Investigation and the June 2004 Former United Airlines Oakland Maintenance Center Site Investigation and Risk Assessment Report by Environmental Resources Management (ERM). As you are aware, the Port and United Airlines used these respective consultants who worked co-operatively to investigate the identified Areas of Concern (AOC) located at this site as part of United Airlines' exit environmental investigation. The approach was to identify all known areas of potential environmental impacts, sample soil and groundwater, compare results with environmental screening levels and install monitoring wells as appropriate to confirm grab groundwater sample results. The County has previously provided oversight of three former locations of underground storage tanks at this site, those of former USTs MF-23 and 24, MF-25 and 26 and MF-35 and 36. Because of this additional investigation of other identified AOCs, the County has included our oversight of all the environmental concerns, UST and non-UST. The ERM report includes a risk assessment evaluation of the site data, Tier 1,2 and 3 as necessary. In general, it appears that most areas have been adequately characterized and would not pose a risk for future commercial/industrial use, however, we request that you address the following technical comments and submit the technical report requested below.

TECHNICAL COMMENTS

1. It appears that the area leased formerly to United Airlines does not include the area of the former USTs, MF-25 and 26. Our office has always included these USTs under the same address, which include all other AOCs and the other UST areas. Please clarify if we should separate the area of the former USTs MF-25 and 26. If possible, it would be "easier" to keep the area within the 1100 Airport Drive site. Either way, please provide a copy of boundary of the site in question and any parcel number(s) within this area. Please provide this information as requested below.

2. The presence of halogenated volatile organics (HVOCs) in groundwater is of potential concern. There is uncertainty as to the source(s), migration and current concentrations of the HVOCs in groundwater. Closure of solvent sites requires a greater understanding of the release, residual concentration, fate of contaminant and evaluation of risk. The need for administrative control should also be considered. We request that current data be provided for the areas identified as AOC 19 (former USTs MF-25 and 26, and AOC 7, former hazardous waste accumulation area. AOC 19 wells should be analyzed for TEPH, TPPH in addition to VOCs, while the AOC 7 well should be analyzed for VOCs only. Please provide an evaluation of potential risk to indoor air exposure to residual contaminants as this was not provided in the prior risk assessment. In respect to the former UST area, it is of interest to see what affect the series of ORC injections has had to groundwater concentrations. Please provide this information as requested below.

TECHNICAL REPORT REQUEST

- May 15, 2006- Site boundary clarification, address, and APN information
- May 15, 2006- Groundwater sampling report and evaluation and indoor air risk evaluation.

ELECTRONIC SUBMITTAL OF REPORTS

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PERJURY STATEMENT

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PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

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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

Mr. Jim Warner, ERM, 1777 Botelho Drive, Suite 260, Walnut Creek, CA 94596

3_29_06 1100 Airport Dr

Chan, Barney, Env. Health

From: Jim.Warner@erm.com
Sent: Friday, February 24, 2006 12:44 PM
To: Chan, Barney, Env. Health
Cc: dklettke@portoakland.com; Dan.tisoncik@ual.com; Angela.Foster-Rice@ual.com
Subject: Former UAL Oakland Maintenance Center

1041A

Barney,

I am a consultant to United Airlines and was contacted by Dale Klettke of the Port of Oakland. Based on my conversation with Dale, I understand that Alameda County is evaluating SLIC sites at Oakland International Airport and is interested in the status of work at the former United Airlines Maintenance Center. United Airlines vacated the facility on 31 May 2003 and addressed all required operational closure activities such as removing waste materials and closing permits. In addition, ERM submitted a 28 June 2004 report to the RWQCB (Betty Graham), Alameda County (yourself), and the Port of Oakland (Dale Klettke) documenting the results of extensive soil/ground water investigation and risk assessment, including integrating the results of a parallel investigation by Weiss Associates on behalf of the Port. In this report, we concluded that no further action is required at the site. I wanted to confirm that you received this report and can provide another copy if not. To update you on the status, United Airlines believes it has completed all necessary work related to its prior operations at the facility and is not planning to conduct additional work.

Jim Warner, R.G.
ERM
1777 Botelho Drive, Suite 260
Walnut Creek, CA 94596
(925) 946-0455
(925) 946-9968 (fax)
(925) 279-3270 (direct)
(925) 286-9102 (cell)
jim.warner@erm.com
www.erm.com

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ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



BC

November 29, 2005

Mr. Dale Klettke
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. Klettke:

Subject: Fuel and SLIC Case at MOIA, UNITED AIRLINES, RO0000414, 1100
Airport Drive, Oakland, CA 94621

Alameda County Environmental Health (ACEH) staff has received and reviewed the files for the referenced site including the May 30, 2003 ERM *Soil and Groundwater Investigation Results United Airlines Oakland Maintenance Center Oakland International Airport, Oakland, California* and the May 27, 2003 *United Maintenance Hangar Area, Metropolitan Oakland International Airport* by Weiss Associates. These reports detail the results of soil and groundwater samples taken at 19 areas of potential concern (AOCs), including and beyond the previously known UST areas of former USTs, MF23, MF24, MF25, MF26, MF35 and MF36. Halogenated volatile organics, TEPH, TPHg, MTBE and metals were reported in these samples exceeding environmental threshold limits ie EPA PRGs and RWQCB RBSLs. Based upon this data, additional investigation will be required.

ACEH has decided that in order to provide oversight for the UST and SLIC releases for the site, the entire site shall be overseen as a SLIC site. In order for ACEH to continue our review reports for your site, we require an oversight account for the above-referenced site. To set up your account, please send a check in the amount of \$6000.00 payable to Alameda County Environmental Health. Please send your check to the attention of our Finance Department.

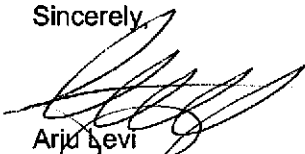
This initial deposit may or may not be sufficient to provide all necessary regulatory oversight. ACEH will deduct actual costs incurred based upon the hourly rate specified below. If these funds are insufficient, additional deposit will be requested. Otherwise, any unused monies will be refunded to you or your designee.

The deposit is authorized in Section 6.92.040L of the Alameda County Ordinance Code. Work on this project is being debited at the Ordinance specified rate, currently \$166.00 per hour.

Please write "SLIC" (the type of project), the site address and the AR# 0315143 on your check.

If you have any questions, please contact me at (510) 567-6862.

Sincerely



Arju Levi
Division Chief

cc: D. Drogos, J. Jacobs, B. Chan

UAL SLIC letter 10-12-05

Chan, Barney, Env. Health

To: dklettke@portoakland.com
Cc: Levi, Ariu, Env. Health; Drogos, Donna, Env. Health
Subject: Port of Oakland Priority sites

Mr. Klettke:

This message is to inform you that we have received your May 19, 2005 letter requesting oversight for the Port's priority site. We would like to assure you that we will following up on these sites and would like to inform you of their current status:

1. UAL, 1100 Airport Drive, RO414. As you are aware, three former UST locations existed at the same address, though each is distinctly located from each other. Your proposal to close the UST portion of the site, although practical, is not possible. First the common address does not allow for a distinction of the three UST locations, so to close the USTs, all releases from the USTs must be closeable. This is a problem for former USTs MF25/26, since the HVOCs appear commingled with the TPH releases from the USTs. The source(s) of the HVOCs is not known and could even be from solvent releases from the USTs. So, I suggest that instead of closing the UST portion of the investigation, we should transfer the entire site to a SLIC site and eventual site closure would include the releases from the USTs plus the apparent widespread HVOC release. I will be sending a request for a deposit to set up this account.
2. USTs MF8/9/10, 0 Taxiway, RO87. I understand that the Port intends to perform additional "hot spot" removal, confirmation soil and grab groundwater sampling as early as this week. This work was proposed to remediate elevated residual concentrations in the former tank pits. Upon performing this work and obtaining confirming data, you may submit a request for site closure.
3. Tracon Facility, 7200 Grumman St., RO0002593. The County has sent out a letter dated 5/16/05 requesting technical information upon review of the submitted tank removal report. Please let us know if you have not received the letter.
4. Rolls Royce Test Cell Facility(formerly National Airmotive), 6701 Earhart Rd., RO0002606. Apparently there has been confusion in the status of the site as Rolls Royce has requested closure in the past. Because I will need to review the file to determine the status, and because the site is currently arrears in its balance, I will need to send out a request and receive additional funds before resuming work on this site.
5. Praxair/Liquid Carbonic, 901 Embarcadero, RO0002462. The County has received the Summary Subsurface Investigation Report, 4/2004 and will proceed with our review in determining site/closure status.

Please call me if you have any questions.

Barney Chan
Hazardous Materials Specialist
510-567-6765

Barney M. Chan
Hazardous Materials Specialist
Alameda County Environmental Health
510-567-6765

5/31/2005

Chan, Barney, Env. Health

10/11/04

To: matt.brandy@erm.com
Cc: Dale Klettke (E-mail)
Subject: UAL work plan

Mr. Brandy:

Thank you for your e mail response to my comments regarding the ERM November 14, 2003 workplan. I think I errored in one of my comments. The HVOCs found in the area of MF25 & 26 were always of uncertain origin. One theory was that the HVOCs were once stored in these USTs while another believed that this area was being impacted by an upgradient source. My comment should have stated is it possible that the HVOCs found in the area of AOC1 could be the source of contamination being found in the area of MF25 & 26. MW-8 in this area has reported higher HVOC concentrations than those within the former UST area. Your comment indicates you believe the HVOCs were once stored within these tanks and there has been a HVOC and a petroleum release.

In addition, I believe you need to (if you haven't already) resume monitoring for TPH and VOCs in the area of former USTs MF25/26, to determine if the plumes are stable or declining. I realize that closure was requested of these tanks (for the TPH release), however, the effectiveness of the ORC injections has been questionable at best, while the HVOC concentrations remain elevated.

I don't object to collecting parameters to evaluate intrinsic bioremediation of TPH and HVOCs, however, as mentioned in your proposal the proof of this remediation must meet specific requirements ie site characterization, site conceptual model, adequate monitoring (usually long term) and verification of being able to meet appropriate cleanup standards. (Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water EPA, September 1998).

Sincerely

Barney M. Chan
Hazardous Materials Specialist
Alameda County Environmental Health
510-567-6765

12/8/2003

Chan, Barney, Env. Health

10411

From: matt.brandy@erm.com
Sent: Friday, December 05, 2003 4:48 PM
To: barney.chan@acgov.org
Cc: Dale Klettke; Jim.Warner@erm.com
Subject: Re: Fwd: Additional Investigation Workplan for UAL

Barney,

Dale forwarded your comments on our OMC workplan. Thanks for the prompt response. In regard to your questions, please see below.

- 7 We will forward you copies of the well construction logs for the wells we previously installed at the site.
7 We have resampled MW-9 and MW-10 as you suggested. The results will be included in our investigation report.
7 We are planning to install a well in AOC 7 near W-B-17 to address VOCs in this area. The results will be used to assess the source of VOCs in this area. We believe former tanks MF25 and 26 in the economy parking lot are more likely to be the source than former tanks MF23 and MF24; however, the results of the additional investigation will assist in this analysis.
7 We have already resampled MW-6 and plan to continue to monitor MW-6, which is adjacent to former tanks MF23 and 24. The results of the resampling will be included in our investigation report.
7 No further investigation activities are planned at this time to address the presence of TPH-mo at W-B-23 and W-B-33. The rationale for this will be addressed in the investigation report.

? S/B 35/36 ?

Please let me know if you have any questions.

Matthew L. Brandy
Environmental Resources Management
1777 Botelho Drive, Suite 260
Walnut Creek, CA 94596
(925) 946-0455
(925) 946-9968 fax

"Dale Klettke"
<dklettke@portoakland.com>

To: <matt.brandy@erm.com>
cc:
Subject: Fwd: Additional Investigation

Workplan for UAL

12/05/2003 01:50 PM

Matt, I finally got Alameda County to comment on your latest work plan for UAL -OMC. Here are their comments. Dale
----- Message from "Chan, Barney, Env. Health" <barney.chan@acgov.org> on Fri, 5 Dec 2003 13:24:30 -0800 -----

To: "Dale Klettke (E-mail)"
<dklettke@portoakland.com>

Subject: Additional Investigation Workplan for UAL

Dale: I have the following comments to the ERM November 14, 2003
Additional Investigation Workplan, Former UAL Oakland Maintenance Center
Please have your consultant respond.

Please have ERM provide the well construction logs for the new wells they have installed. Their proposal for installing additional wells assumes soil type and depth to water similar to these, so I want to verify this info.

I think they should also resample ERMW-09 (for TEPH, TPPH, VOCs and metals) and ERM MW-10 (TEPH and metals). I know they analyzed these wells for these analytes before, however, the residual soil concentrations and the seasonal variation of contaminants warrant additional sampling.

No additional investigation was proposed for AOC 7 and 18 where W-B-17 and W-B-19 detected HVOCs. Why not? It is possible that the HVOC release in the areas of AOC1 might be the source of the HVOCs found in area of former tanks MF23 & 24?

You should continue to monitor wells in this area (MF23 & 24) for TPH and HVOCs.

Any plans to address the elevated TPHmo in W-B-23 and W-B-33?

Thanks

Barney M. Chan
Hazardous Materials Specialist
Alameda County Environmental Health
510-567-6765

0414

Chan, Barney, Env. Health

From: Chan, Barney, Env. Health
Sent: Friday, December 05, 2003 1:25 PM
To: Dale Klettke (E-mail)
Subject: Additional Investigation Workplan for UAL

Dale: I have the following comments to the ERM November 14, 2003 Additional Investigation Workplan, Former UAL Oakland Maintenance Center
Please have your consultant respond.

- Please have ERM provide the well construction logs for the new wells they have installed. Their proposal for installing additional wells assumes soil type and depth to water similar to these, so I want to verify this info.
- I think they should also resample ERMMW-09(for TEPH, TPPH, VOCs and metals) and ERM MW-10 (TEPH and metals). I know they analyzed these wells for these analytes before, however, the residual soil concentrations and the seasonal variation of contaminants warrant additional sampling.
- No additional investigation was proposed for AOC 7 and 18 where W-B-17 and W-B-19 detected HVOCs. Why not? It is possible that the HVOC release in the areas of AOC1 might be the source of the HVOCs found in area of former tanks MF23 & 24? *SB 25/26*
- You should continue to monitor wells in this area (MF23 & 24) for TPH and HVOCs.
- Any plans to address the elevated TPHmo in W-B-23 and W-B-33?

Thanks

Barney M. Chan
Hazardous Materials Specialist
Alameda County Environmental Health
510-567-6765

20414
Alameda County

NOV 04 2003

Environmental Health

31 October 2003

Ms. Betty Graham
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612



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

Subject: Soil and Ground Water Investigation Status
Former United Airlines Oakland Maintenance Center
Oakland International Airport, Oakland, California

Dear Ms. Graham and Mr. Chan:

The purpose of this letter is to update the San Francisco Bay Regional Water Quality Control Board (RWQCB) and Alameda County Health Care Services (ACHCS) of the status of a soil and ground water investigation that was recently performed at the former United Airlines (UAL) Oakland Maintenance Center (OMC), located at 1100 Airport Drive in Oakland, California. Environmental Resources Management (ERM) conducted this investigation on UAL's behalf in connection with UAL's exit from the OMC and cessation of operations on 31 May 2003.

All existing investigation results were previously submitted to the RWQCB and ACHCS in a letter from ERM dated 30 May 2003. The same information was also provided to the Port of Oakland under separate cover. To briefly recap, nineteen areas of concern were identified and investigated as part of this study. The analytical results from the investigation indicate that chemicals of concern are not present in soil or ground water at concentrations which constitute a threat to human health or the environment.



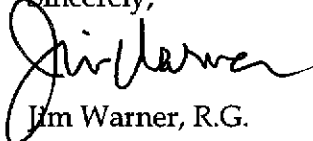
Ms. Betty Graham and Mr. Barney Chan
31 October 2003
Page 2

Environmental
Resources
Management

We intend to refine the existing data set with additional minor investigation to support a final comprehensive site investigation report, which will include a human health and ecological risk assessment conducted under protocols previously approved by the RWQCB. This report will present the investigation results and evaluate the need for additional work, if any, in light of the risk assessment. We anticipate submitting the investigation report to the RWQCB and ACHCS by 31 December 2003.

If you have any questions or comments, please contact me at (925) 946-0455.

Sincerely,



Jim Warner, R.G.
Principal

JBW/jal/5310.10

cc: Mr. Dan Tisoncik, United Airlines
Mr. Dale Klettke, Port of Oakland

Chan, Barney, Env. Health

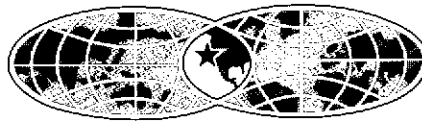
From: Betty Graham [BG@rb2.swrcb.ca.gov]
Sent: Tuesday, June 17, 2003 9:47 AM
To: BChan@co.alameda.ca.us
Subject: Re: United Airlines Site, 1100 Airport Drive (Oakland Airport) *PO44*

Our preference is for the County to oversee the LOP and SLIC aspects of the site.

>>> "Chan, Barney, Env. Health" <BChan@co.alameda.ca.us> 06/16/03 02:07PM >>>

Dale: I spoke with Donna Drogos, my supervisor. She wasn't aware that the City of Oakland didn't have the authority to refer SLIC sites to the County, in fact Leroy Griffin has referred some in the past. She recommended I confer with Betty Graham of the Water Board to see if they had any interest in overseeing the SLIC portion of the site, even though the County is overseeing the LOP portion. If not, then it appears that you could request for our oversight and cc the City of Oakland.

Barney M. Chan
Hazardous Materials Specialist
Alameda County Environmental Health
510-567-6765



PORT OF OAKLAND

Alameda County
Environmental Health
JUN 04 2003

June 2, 2003

Mr. Barney Chan
Alameda County Health Care Services Agency
Environmental Protection Division
1131 Harbor Bay Parkway, #250
Alameda, CA 94502-6577

Ms. Betty Graham
Regional Water Quality Control Board
San Francisco Bay Region
1505 Clay Street, Suite 1400
Oakland, CA 94612

**SUBJECT: UNITED AIRLINES MAINTENANCE HANGAR
1100 AIRPORT DRIVE, OAKLAND, CALIFORNIA 94621**

Dear Mr. Chan and Ms. Graham:

Enclosed is a copy of the May 27, 2003 site investigation report entitled "United Maintenance Hangar Area, Metropolitan Oakland International Airport", located at 1100 Airport Drive, Oakland, California. This phase II site investigation report was prepared by Weiss Associates (Weiss), an as-needed environmental consultant retained by the Port of Oakland (Port).

This site investigation was performed by both Weiss and Environmental Resources Management (ERM, on behalf of United Airlines), to document site conditions for the termination of United Airlines lease at the Oakland Maintenance Center facility. United Airlines closed its Oakland maintenance facility on May 31, 2003, as part of its corporate restructuring following United Airlines filing for bankruptcy protection.

ERM recently prepared a supplemental letter report on behalf of United Airlines. This letter report was sent to your attention under separate cover on May 30, 2003. It is my understanding that ERM will be submitting a final site investigation report sometime in July 2003.

Should you have any questions or need additional information, please contact me directly at 627-1118. Thank you for your on-going assistance and support on this project.

Sincerely,

Dale Klettke, CHMM
Associate Environmental Scientist
Environmental Health & Safety Compliance

enclosure

c: w/enc. Michele Heffes – Port Attorney’s Office
Jim Warner, ERM, 1777 Botelho Drive, Suite 260, Walnut Creek, CA 94596

c: w/o enc. Jeff Jones - EH & SC Files
c:\msoffice\winword\UAL.Weissreport.62003.notifyALCORWQCB

20414
CHAN



State Water Resources Control Board



Winston H. Hickox
Secretary for Environmental Protection

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

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.

Alameda County

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

JAN 22 2003

Environmental Health

UNDERGROUND STORAGE TANK CLEANUP FUND (FUND), CLAIM NUMBER 012950; FOR SITE ADDRESS: 1100 AIRPORT DR, OAKLAND

On February 17, 1998, the Port of Oakland (Port) submitted a claim application to the Fund for the subject site. Included with the application, as a request for the State Water Resources Control Board (SWRCB) to grant a Permit Waiver. On December 22, 1998, the SWRCB granted the Permit Waiver and the claim was accepted and placed on the Priority List in Priority Class D.

In 2002, the Port submitted several claim applications to the Fund. In addition, the Port requested the SWRCB grant a Permit Waiver for the newly submitted applications in order to access the Fund. One condition of the Permit Waiver is that the claimant was unaware of the permit requirement to January 1, 1990. During the Fund's review process, it was discovered that the Port had knowledge of the permit requirement. Therefore, the SWRCB denied the Permit Waiver on the newly submitted claim applications. Since the Port was aware of the requirement to obtain permits, the Fund is not allowing this claim access to the Fund under the Permit Waiver.

The Port must provide evidence that they were in compliance with the permit requirement of the Petroleum Underground Storage Tank Cleanup Fund Regulations, Section 28811(a)(2). Please provide a copy of the permit to own or operate the UST from the local implementing agency dated between January 1, 1984 and January 1, 1990 (pursuant to Chapter 6.7 of the Health and Safety Code). If the Port is unable to provide the documentation, the Fund will begin the process of removing this claim from the Priority List.

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

Lustis Case #: 01-2020

Port Of Oakland

-2-

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



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

April 23, 2001
StID # 1049

Mr. Dennis Moulton
United Airlines
1100 Airport Drive
Oakland CA 94621

**Re: Underground Tank Investigation for UAL Building M-110, 1100 Airport Drive,
Oakland, CA 94621**

Dear Mr. Moulton:

This letter serves to notify you that no further work will be required from our office at this time regarding the underground tank investigation of the former 10,000 gallon gasoline and 10,000 gallon diesel tanks removed at the above site on January 1999. These tanks have been designated tanks MF35 and MF36 by the Port of Oakland. However, because this address, 1100 Airport Drive, has been used for two additional underground tank site investigations and one of these sites is still under County oversight, a formal "No Further Action" letter cannot be issued. In addition, our office cannot recommend monitoring well closure at this site since this is requested at the time of site closure.

We do not anticipate any additional work other than well closure for tanks MF35 and MF36, but we recommend waiting for site closure before well decommissioning.

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

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files

Mr. A. Klein, ENSR, 10324 Placer Lane, Suite 200, Sacramento, CA 95827

Mr. D. Klettke, Port of Oakland, 530 Water St., P.O. Box 2064, Oakland 94604-2064

Status1100Airport



#1049



Facsimile Cover Sheet

TO:	Barney M Chan	Environmental Health Services	510-337-9335
	Name	Firm/Location	Fax Number
CC:			
	Name	Firm/Location	Fax Number
FROM:	Orion Denley	ENSR	(510) 748-6700
	Name	Division/Dept.	Telephone Number
DATE:	November 14, 2000	2:32 PM	
	Date	Time	
RE:	Sensitive Receptors / Utilities		

Attached is a Well Driller's Reports Inspection Request and Agreement form to get information on water wells in the area of the United Maintenance Center at Oakland Int'l Airport for a utility/sensitive receptor survey.

Please fill out the Government Agency section and fax back.

Thanks,
Orion Denley

Cover Page + 1 Pages

Accounting No: _____

Call (510) 748-6700 regarding problems with this transmission.

1420 Harbor Bay Parkway, Suite 120
Alameda, CA 94502
FAX (510) 748-6799

THE INFORMATION CONTAINED IN THIS FAX IS INTENDED FOR THE EXCLUSIVE USE OF THE ADDRESSEE AND MAY CONTAIN CONFIDENTIAL AND/OR PRIVILEGED INFORMATION. IF YOU ARE NOT THE INTENDED RECIPIENT, YOU ARE HEREBY NOTIFIED THAT ANY FORM OF DISSEMINATION OF THIS COMMUNICATION IS STRICTLY PROHIBITED. IF THIS FAX WAS SENT TO YOU IN ERROR, PLEASE IMMEDIATELY NOTIFY US AT THE TELEPHONE NUMBER LISTED. THANK YOU FOR YOUR COOPERATION.

WOR Log: 914-227-7600
Attn: Anne Roth

State of California
Department of Water Resources
Central District
3251 S Street
Sacramento, CA 95816-7017

WELL DRILLER'S REPORTS
INSPECTION REQUEST AND AGREEMENT

Project: Oakland Int'l Airport - United Airlines Hangar
1100 Airport Drive
Location: 2 S/3W - 32A Oakland Int'l Airport
County: Alameda Contract Number: _____

Request is made pursuant to Section 13751 of the California Water Code for permission to inspect or copy Water Well Driller's Reports which are on file in your office.

In accordance with the requirements of Section 13752 of the Water Code, it is stipulated and agreed that such reports, or any copy or copies made thereof, will not be made available for inspection by the public but will be used solely by this governmental agency for making studies. If copies are made or taken, each copy will be stamped "CONFIDENTIAL" or "FOR OFFICIAL USE ONLY" and will be kept in a restricted file, access to which is limited to the staff of this governmental agency or to its contracted agents. Any copies furnished to contracted agents must be returned to the Department of Water Resources, Central District upon completion of work by the contracted agent.

No information contained in these reports can be disseminated or published without the written permission of the owner of the well.

<u>ENSR</u> Contracted Agent	_____ Governmental Agency
<u>1420 Harbor Bay Pkwy, Ste 120</u> Address	_____ Address
<u>Alameda, CA 94502</u> City, State, & Zip Code	_____ City, State, & Zip Code
By <u>Lita Freeman</u> Officer	By _____ Officer
<u>Project Manager</u> Title	_____ Title
<u>(510) 743-6700</u> Telephone	() Telephone
<u>11-14-00</u> Date	_____ Date

(For Departmental Information: _____ copies sent)

Post-It Fax Note	7671	Date	11/14/00	# of pages	1
To	_____	From	_____		
Co./Dept	ENSR	Co.	_____		
Phone #	_____	Phone #	227-7632		
Fax #	_____	Fax #	227-7607		

TOTAL P.02



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION

399 ELMHURST STR. HAYWARD, CA 94544
PHONE (510) 670-5554 FAX (510) 782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT UNITED AIRLINES
1100 AIRPORT DRIVE
OAKLAND CALIFORNIA

California Coordinates Source _____ ft. Accuracy ± _____ ft.
CCN _____ ft. CCE _____ ft.
APN _____

CLIENT
Name PORT OF OAKLAND
Address 570 WATER ST Phone (510) 627-1118
City OAKLAND Zip 94607

APPLICANT
Name KLEINFELDER INC.
(STEVE WALKER) Fax 925 484 5818
Address 7133 KOLL CTR DR Phone 925 487-1280
City PLEASANTON Zip 94566

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input type="checkbox"/>	Well Destruction	<input checked="" type="checkbox"/>

PRE-SUMP GROUT

PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other _____	<input type="checkbox"/>

DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input type="checkbox"/>		

DRILLER'S LICENSE NO. 67534
C57-485165

WELL PROJECTS

Drill Hole Diameter	_____ in.	Maximum Depth	<u>13</u> ft.
Casing Diameter	<u>2</u> in.	Number	<u>1</u>
Surface Seal Depth	<u>3</u> ft.		

GEOTECHNICAL PROJECTS

Number of Borings	_____	Maximum Depth	_____ ft.
Hole Diameter	_____ in.		

ESTIMATED STARTING DATE 11/3/00
ESTIMATED COMPLETION DATE 10/3/00

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Steve Walker DATE 10/27/00

FOR OFFICE USE

PERMIT NUMBER W00-763
WELL NUMBER _____
APN _____

PERMIT CONDITIONS

Circled Permit Requirements Apply

A. GENERAL

1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted work the original Department of Water Resources - WELL

COMPLETION REPORT -

3. Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL

Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

E. CATHODIC

Fill hole above anode zone with concrete placed by tremie.

F. WELL DESTRUCTION

See attached.

G. SPECIAL CONDITIONS

APPROVED [Signature] DATE 10-31-00

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

October 31, 2000
StID # 1049

Mr. Dennis Moulton
United Airlines
1100 Airport Drive
Oakland CA 94621

**Re: Underground Tank Investigation at UAL Building M-110, 1100 Airport Drive,
Oakland CA 94621**

Dear Mr. Moulton:

In order to insure completeness of the on-going environmental investigation of the above referenced site, our office requests the additional information/action:

- As previously requested, please perform a utility and sensitive receptor survey. Part of this information may have been provided when clearing the utilities for the monitoring well installations. This information is required for understanding and closing MTBE impacted sites.
- Our office has been informed that an additional monitoring well has been located at this site ~~at~~ that its location is down-gradient of the former underground fuel tanks. Because of the uncertain gradient and the need for better site characterization, please determine the viability of sampling and testing this well for the same analytes as the existing three wells. If this well is viable, please survey this well and include its groundwater elevation in your next gradient map.

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

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

cc B. Chan, files

Mr. A. Klein, ENSR, 10324 Placer Lane, Suite 200, Sacramento, CA 95827
Mr. D. Klettke, Port of Oakland, 530 Water St., P.O. Box 2064, Oakland 94604-2064

Addrq1100Airport

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES

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

October 26, 1999
StID # 1049

Mr. Dennis Moulton
United Airlines
1100 Airport Drive
Oakland CA 94621

**Re: Underground Tank Investigation for UAL Building M-110, 1100 Airport Drive,
Oakland CA 94621**

Dear Mr. Moulton:

Our office has received and reviewed the October 1999 Results Report Installation of Groundwater Monitoring Wells for the above site as prepared by ENSR, your consultant. This report details the installation of three monitoring wells to determine the extent of impact to groundwater from the release from the former diesel and gasoline fuel tanks. The most significant result of this investigation is presence of MTBE in monitoring wells MW-2 and MW-3. Although ENSR recommends the closure of this site, our office cannot concur. Please be aware that MTBE impacted sites require additional investigation per guidance from the Water Board. As you may be aware, MTBE poses a larger threat to groundwater than previously believed when it was initially added to gasoline to reduce air pollution. It possesses very unique characteristics, which cause it to persist in the environment and migrate quickly from its source of release. In addition, its toxicity as a potential carcinogen continues to be investigated. Because of these factors, the Regional Water Quality Control Board (Water Board) has requested a thorough understanding of MTBE affected sites before closure is granted.

The Water Board requires that all sites have a site conceptual model (SCM) which allows an understanding of what is happening in the subsurface and gives enough information to make a defensible judgment. The elements of the SCM include:

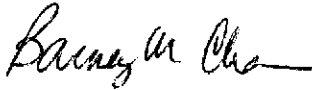
- Local and regional plan view maps with location of sources, extent of contamination, direction and rate of groundwater flow and location of receptors
- Geologic cross-section maps with subsurface geologic features and man made conduits
- Plots of chemical concentration vs. time
- Plots of chemical concentration vs. distance from source
- Summary tables of chemical concentrations in different media
- Well logs, boring logs and well survey map
- Prioritizing site

At this time, given the above requirements for all MTBE sites, our office requests additional quarterly groundwater monitoring. In addition, the above items should be provided in a quarterly report when all the points have been addressed.

Mr. Dennis Moulton
1100 Airport Drive, Oakland CA 94621
StID # 1049
October 26, 1999
Page 2.

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

Sincerely,



Barney M. Chan
Hazardous Materials Specialist

✓ C: B. Chan, files

Mr. A. Klein, ENSR, 10324 Placer Lane, Suite 200, Sacramento, CA 95827

Mr. D. Klettke, Port of Oakland Environmental Compliance, 530 Water St., P.O. Box 2064,
Oakland CA 94604-2064

1100Airport MTBE

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES

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

July 16, 1999
StID # 1049

Mr. Dennis Moulton
United Airlines
1100 Airport Drive
Oakland CA 94621

Re: Work Plan for United Airlines Building M-110, 1100 Airport Dr., Oakland CA 94621

Dear Mr. Moulton:

Our office has received the revised site map indicating the new locations of the groundwater monitoring wells proposed at the above site from ENSR, your consultant. Their locations are acceptable and you may proceed with their installation. I understand their installation are scheduled for July 21, 1999.

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

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files

Mr. A. Klein, ENSR, 10324 Placer Lane, Suite 200, Sacramento, CA 95827
Mr. D. Klettke, Port of Oakland, 530 Water St., Oakland CA 94607
Well-1100Airport

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES

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

July 9, 1999
StID # 1049

Mr. Dennis Moulton
United Airlines
1100 Airport Drive
Oakland CA 94621

Re: Work Plan for United Airlines Building M-110, 1100 Airport Drive, Oakland CA 94621

Dear Mr. Moulton:

Our office has received and reviewed the July 2, 1999 Work Plan for additional investigation for the above referenced site as prepared by ENSR, your consultant. I have also discussed the contents of the work plan with Mr. Alan Klein of ENSR and Mr. Dale Klettke of the Port of Oakland. With the exception of the following modifications, the work plan is acceptable and work may proceed as soon as possible:

- The location of the monitoring wells should be moved slightly. I recommend that monitoring well MW-2 be moved near the former dispenser island, within the former excavated area. This data point is necessary to reflect the anticipated highest concentrations of petroleum contaminants. It is also of concern since it appears that a building expansion is proposed in this area. The other wells may also be moved slightly to maintain a triangular array for groundwater gradient determination. Please submit a modified Figure 2 map indicating the proposed new well locations.
- In regards to the water quality analytes proposed, both pH and dissolved oxygen should be run in the field as opposed to being sent to the laboratory since these measurements are sensitive to changes in temperature and handling.
- In regards to the geotechnical parameters proposed, please clarify how each of the specified test methods will be used in a potential Tier 2 risk-based corrective action (RBCA).

Please provide the above requested items **within 30 days or by August 10, 1999** and inform our office prior to this field work. You may reach me at (510) 567-6765.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files

Mr. A. Klein, ENSR, 10324 Placer Lane, Suite 200, Sacramento, CA 95827

Mr. D. Klettke, Port of Oakland, 530 Water St., Oakland CA 94607

Wpmod1100Airport

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES

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

July 1, 1999
StID # 1049

Mr. Dennis Moulton
United Airlines
1100 Airport Drive
Oakland CA 94621

NOTICE OF VIOLATION

**Re: Request for Work Plan for Soil and Groundwater Investigation at United Airlines
Maintenance Facility, 1100 Airport Drive, Oakland CA 94621**

Dear Mr. Moulton:

After my onsite visit on April 7, 1999, I discussed the County's concern with you and Mr. Dale Klettke of the Port of Oakland. It was determined that because of the residual soil and groundwater concentrations detected, additional subsurface investigation would be required. This was particularly necessary due to the presence of the compound, MTBE and its uncertain health and regulatory status. We had discussed several options, which included the sampling of soil and groundwater and the installation of monitoring wells.

My April 8, 1999 letter requested that you submit a work plan for additional subsurface investigation by May 21, 1999. To date, our office has not received the requested work plan. Please submit your work plan to our office **within 30 days or by July 30, 1999.**

This is a formal request for technical reports pursuant to the Water Code and Title 23, California Code of Regulations. The failure to submit the requested report may result in civil liability.

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

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

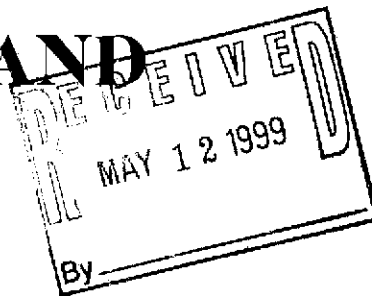
C: B. Chan, files

Mr. A. Klein, ENSR, 10324 Placer Lane, Suite 200, Sacramento, CA 95827
Mr. D. Klettke, Port of Oakland, 530 Water St., Oakland CA 94607

NOV1100Airport



PORT OF OAKLAND



May 11, 1999

Mr. Barney Chan
Alameda County Health Care Services Agency
Environmental Protection Division
1131 Harbor Bay Parkway, #250
Alameda, CA 94502-6577

SUBJECT: QUARTERLY GROUNDWATER MONITORING REPORT - FORMER TANK NUMBERS MF-25 AND MF-26, METROPOLITAN OAKLAND INTERNATIONAL AIRPORT, UNITED AIRLINES HANGAR AREA - ECONOMY PARKING LOT SITE, 1100 AIRPORT DRIVE, OAKLAND, CALIFORNIA

Dear Mr. Chan:

Enclosed is a copy of the April 28, 1998 *Quarterly Groundwater Monitoring Report, January 1, through March 31, 1999, United Airlines Hangar - Economy Parking Lot Site, Metropolitan Oakland International Airport (MOIA), 1100 Airport Drive, Oakland, California.* Monitoring activities were performed by Harding Lawson Associates, (HLA), one of the as-needed consultants retained by the Port of Oakland (Port).

Should you have any questions or need additional information, please contact me at 272-1118. Thank you for your on-going assistance and support on this project.

Sincerely,

Dale Klettke, CHMM
Associate Environmental Scientist
Environmental Health & Safety Compliance

enclosure

c: Neil Werner - EH & SC (w/o enc)
Files - EH & SC (w/o enc)
Michael Sides - HLA (w/o enc)

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ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



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

April 8, 1999
StID # 1049

Mr. Dennis Moulton
United Airlines
1100 Airport Drive
Oakland CA 94621

Re: Underground Tank Removals at United Airlines Maintenance Facility, 1100 Airport Drive, Oakland CA 94621

Dear Mr. Moulton:

Thank you for the onsite visit on April 7, 1999 which allowed me to see the location of the recently removed underground storage tanks and the other United Airlines underground tank site. I have received and reviewed the **March 1999 ENSR Underground Storage Tanks Closure Report**. The report includes the details of the removal of the 10k diesel and 10k unleaded gasoline tanks, in addition to the closure-in-place of the two 8,500 gallon fire suppression tanks. Also included is the Burns & McDonnell October 22 and 23, 1997 report of soil and groundwater samples taken around both of these tank areas. Based on the absence of the detection of ethylene glycol in the soil and groundwater samples next to the fire suppression tanks, no further action is necessary for these tanks.

However, our office does not agree with the ENSR report, which recommends no further action for the former diesel and gasoline tanks. We agree that no further soil excavation is practical but the impact to groundwater will need further investigation. As you may be aware, the Regional Water Quality Control Board (RWQCB) has requirements for the closure of low risk soil and groundwater cases. Those requirements, which may be questioned for closure of this site are:

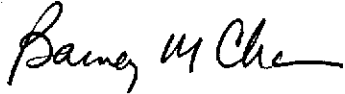
- The adequacy of site characterization
- Whether the contaminant plume is migrating and
- Whether water wells, surface water or other sensitive receptors are likely to be impacted

In addition, special concern is given in the presence of the chemical, MTBE, which has unique chemical properties, making it very difficult to remediate. Looking at the requirements in question, it is clear that residual soil and groundwater contamination exists and it likely extends beneath the existing building. Samples collected adjacent to the building indicate the presence of TPH and MTBE in soil and/or groundwater. Since the existing building limited the original investigation, the extent of the contamination was not fully delineated.

Because of the chemical properties of MTBE and the evolving Water Board policy, case closure of residual MTBE cases have additional requirements than that of petroleum. The site must not have any conduits, which could allow lateral or vertical migration. All potential receptors must be protective. Please submit a work plan for additional site characterization. Please submit your work plan **within 45 days or by May 21, 1999**. I recommend that you have your consultant contact me to discuss their recommendations.

Mr. D. Moulton
United Airlines, 1100 Airport Drive, Oakland 94621
Std # 1049
April 8, 1999
Page 2.

Sincerely,



Barney M. Chan
Hazardous Materials Specialist

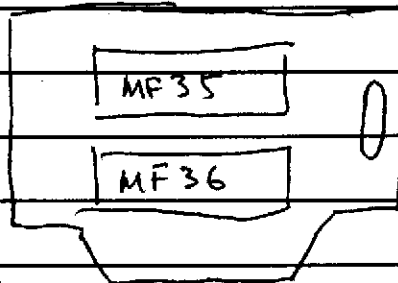
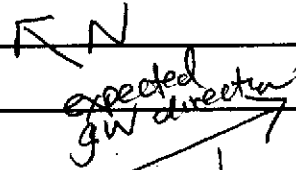
C: **B. Chan, files**

Mr. D. Klettke, Port of Oakland, 530 Water St., Oakland CA 94607
Mr. A. Klein, ENSR, 10324 Placer Lane, Suite 200, Sacramento, CA 95827
Wprq1100Airport

HAZARDOUS WASTE GENERATOR INSPECTION REPORT

STID #: 1049 FACILITY NAME: UAC Maintenance Facility, MF35+36 PG. ___ OF ___
 SUPPLEMENTAL FORM

Meeting @ site w/ Dennis Moulton & D. Klettke



Bld 2
 Bld 1
 although could not confirm location of P14 it is located v. close ~5' to building.
 Bld 1 is a maintenance bld w/ roll up door
 Bld 2 is a hangar for

approximately

Former Port Tanks
 MF 23 +24

airplane maintenance ~60' high

Potential problems: B T E X

SW-1-6'	16,100 d / 530g	1.9, 0.71, 0.74, 1.9	
P1-1	ppb 5300 / 16000	280, 1700, 330, 3200	110 ppb MTBE
P17-SB1 (4.5-5)	7200 / 2800	4.9 / ND, 8.7, ND, ND, ND	
P14-SB1 (6.5.7)	1600 / 1.4	ND, 5.4, ND, ND, ND	560 ppb MTBE

PRINT NAME: _____ INSPECTED BY: B Chan
 SIGNATURE: _____ DATE: 4/4/99

CITY OF OAKLAND



ADMINISTRATIVE OFFICES • 505 FOURTEENTH STREET • SUITE 510 • OAKLAND, CALIFORNIA 94612

Fire Services Agency

(510) 238-3856
FAX (510) 238-2284
TDD (510) 839-6451

January 26, 1999

Mr. Barney Chan, Hazardous Materials Specialist
Alameda County Health Agency.
1131 Harbor Bay Parkway
Alameda, CA 94502

Subject: Transfer of Eligible Local Oversight Cases

Dear Mr. Chan:

As per our phone conversation of the past week, I am sending the available information for several sites which meet the requirements of eligibility for transferring to the Local Oversight Program (LOP). The sites are:

1. Sierra Academy @ 9465 Earhart Rd. Port of Oak. prop.
 2. United Airlines (U. A.) @ 1100 Airport Dr. Port of Oak. prop.
 3. Union 76 @ 5725 Thornhill Dr.
 4. Cal Trans East Bay Paint Yard @ S.F. Oak. Bridge Toll Area, End of Burma Rd 94623
-
1. Two tanks were removed (12K each). The contents were jet fuel. First sets of analytical (12/22/98), were for soil and water samples. More water samples were taken on January 4, 1999 and composite results of the stock pile taken later on January 8, 1999.
 2. Two tanks were removed, diesel and gasoline (10K each). Site has history of contamination. I am sending the paperwork that I have up to this point. The contact person at U. A. is Mr. Dennis C. Moulton tel. 382-8020. No analytical results have been submitted yet.
 3. One used oil tank removed (1K). There are at least three monitoring wells at the site. New owner of the site took samples from two of the monitoring wells. No other records were found of previous sampling of the wells.
 4. Two tanks were removed (4K diesel and 2K gasoline). A copy of the report is attached.

Let me know who will be the assign person for the sites not belonging to the Port. If you have any questions concerning this matter, please contact me at (510) 238-7253.

Sincerely,

A handwritten signature in cursive script that reads "Hernán E. Gómez".

Hernán E. Gómez
Hazardous Materials Inspector

OAKLAND FIRE SERVICES AGENCY
Transfer of Eligible Local Oversight Case

United Maintenance Fa

STID 1049 Date of input/By: _____

Date: 1/25/99 From: Hernán Gomez

Site Name: 1100 Airport Dr. United Airlines - (MF35+MF36)

Address: 1100 Airport Drive City: Oak. Zip: 94621

To be eligible for LOP, case must meet 3 qualifications:

1. N Tanks Removed? # removed? 2 Date removed: 1/15/99
2. Y N Samples received? Contamination level: 200 ppm
Type of test _____

Contamination should be over 100 ppm TPH to qualify for LOP

3. N Petroleum? Circle Type (s):

Avgas leaded fuel oil jet

diesel waste oil kerosene solvents

UAL Contact: Dennis Moulton (510) 382-8020
1100 Airport Dr: 94621

Leslie,
Pls add to existing
STID, its another
LOP site w/ same
address. Thanks Be



State Water Resources Control Board

John P. Caffrey, Chairman



Pete Wilson
Governor

Peter M. Rooney
Secretary for
Environmental
Protection

Division of Clean Water Programs

2014 T Street, Suite 130 • Sacramento, California 95814 • (916) 227-4539 FAX (916) 227-4530
Mailing Address: P.O. Box 944212 • Sacramento, California • 94244-2120
Internet Address: <http://www.swrcb.ca.gov/~cwphome/ustcf/fundhome.htm>

December 22, 1998

ST 10# 1049
BC

Douglas Hornum 82 030 86
Port Of Oakland
530 Water Street
Oakland, CA 94607

UNDERGROUND STORAGE TANK CLEANUP FUND PROGRAM, NOTICE OF PERMIT WAIVER AND ELIGIBILITY DETERMINATION: CLAIM NUMBER 12950 ; FOR SITE 1100 AIRPORT DR, OAKLAND

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

Permit Waiver: Under the amended provisions of Section 25299.57 of the Health and Safety Code (H&SC), the State Board has granted your request for a waiver for the permit requirement as a condition for eligibility to the Fund. It is important to note that when a claimant failed to apply for or obtain the permits required pursuant to Chapter 6.7, Division 20, of the H&SC, by January 1, 1990, and the State Board grants a waiver pursuant to Section 2811(a)(2)(B) of the Underground Storage Tank Cleanup Fund Regulations, the claimant's level of financial responsibility (deductible) is twice the amount otherwise required. In this case, you will be responsible for the first \$20,000 of eligible corrective action costs before the Fund coverage begins.

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. After the compliance review, your claim may be rejected if Division staff determine that you have not complied with regulations governing site cleanup, you have not supplied necessary information or documentation, or your claim application contains a material error. In such event, you will be issued a Notice of Intended Removal from the Priority List, informed of the basis for the proposed removal of your claim and provided an opportunity to correct the condition that is the basis for the proposed removal. Your claim will be barred from further participation in the Fund, however, if the claim application contains a material error resulting from fraud or intentional or negligent misrepresentation.

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;
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.***

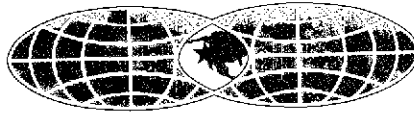
If you have any questions, please contact me at (916) 227-4539.

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



PORT OF OAKLAND

HAND DELIVERED

December 21, 1998

Mr. Barney Chan
Alameda County Health Care Services Agency
Environmental Protection Division
1131 Harbor Bay Parkway, #250
Alameda, CA 94502-6577

**SUBJECT: WORK PLAN FOR INSTALLATION OF OXYGEN-RELEASING COMPOUND (ORC)
UNITED AIRLINES HANGAR AREA - ECONOMY PARKING LOT SITE
METROPOLITAN OAKLAND INTERNATIONAL AIRPORT
OAKLAND, CALIFORNIA**

Dear Mr. Chan:

Enclosed is a copy of the December 18, 1998 *Work Plan for Installation of Oxygen-Releasing Compound (ORC), United Airlines Hangar Area - Economy Parking Lot Site, Metropolitan Oakland International Airport (MOIA), Oakland, California*. Site investigation activities will be performed by Harding Lawson Associates (HLA), one of the "as-needed" consultants retained by the Port of Oakland (Port).

As per our telephone conversation, the Port requests a verbal approval of the work plan, since field activities are scheduled to be performed this week. Should you have any questions or need additional information, please contact me at 272-1118. Thank you for your on-going assistance and support on this project.

Sincerely,

Dale Klettke, CHMM
Associate Environmental Scientist
Environmental Health & Safety Compliance

enclosure

c: Neil Werner - EH & SC (w/o enc)
Mike Sides - HLA (w/o enc)

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ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



November 10, 1998
StID # 1049 / R0414

Mr. Dale Klettke
Port of Oakland
530 Water St.
P.O. Box 2064
Oakland CA 94604-2064

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

**Re: Results of Additional Site Investigation, United Airlines Hangar Area-Economy
Parking Lot MOIA, South Field, 1100 Airport Drive, Oakland CA**

Dear Mr. Klettke:

Our office has received and reviewed the October 21, 1998 report referenced above prepared by your consultant, ITSI. This report summarizes the results of field activities which occurred during the period of March through May 1998. This work included the installation of four additional monitoring wells to determine the extent of soil and groundwater contamination and the installation of a remediation well within the former tank backfill.

The results of this investigation indicate that the extent of soil and groundwater contamination appears limited to a confined area around the former underground storage tanks. ITSI estimates the affected area as being approximately 80' x 80' x 8'. In addition, soil contamination appears to be confined to the former excavation area. I agree that the source of volatile chlorinated solvents may be separate from the former fuel tanks.

Based on the limited extent of petroleum contamination and the intended use of this site, your consultant recommends the addition of oxygen to the groundwater to enhance natural bio-remediation. Our office agrees with this approach. Using the software from Regensis, an estimate for the amount of ORC necessary to treat the affected groundwater plume was derived. Approximately, 3100 pounds of ORC is calculated be necessary to treat the estimated residual mass of hydrocarbons, 12.9 pounds. This translates to 64 borings spaced on 10' centers each with 48 pounds of ORC slurry injected. This amount is very conservative. Our office has the following observations:

- The area extent of groundwater contamination is likely less than the estimated 80'x80'. Although we know that 80' down-gradient of the former tank pit TPH concentrations are ND, we do not know how quickly groundwater concentration attenuates.
- The estimated groundwater concentration is estimated as the sum of the TPH concentrations in the highest impacted well, MW-2. This concentration is likely an overestimation.
- The compliance point was entered as 35' with a hydrocarbon concentration of 0.633 ppm at this location. Because the site is limited in its future use and groundwater is not potable, these assumed compliance point values are not realistic. Site closure will be based upon stabilized trends in TPH concentration rather, ^{than} exact concentration.

Mr. Dale Klettke
1100 Airport Ave.
StID #1049
November 10, 1998
Page 2.

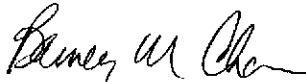
I agree that the most efficient method to realize the results of the addition of oxygen releasing compound would be to add it in the form of slurry injection into borings. I do believe, however, that the area extent of contamination is not nearly as large as estimated and the average TPH concentration is also not as high as assumed. Therefore, the amount of ORC needed to react with the residual amount of hydrocarbon is less than the original estimate. As a realistic estimate, I recommend that the area of the former tank pit be used for the treatment area. Even if all other estimates remain the same, this would mean 32 borings with the addition of 1500 pounds of ORC slurry. With the porous shallow soils found at the site, the spacing of the borings may not need to be as close, which could further reduce the number of borings.

Because of the groundwater at this site is not potable, the remediation requirement for both the petroleum and halogenated hydrocarbons do not require cleanup to MCLs. In addition, because the HVOCs are the less halogenated type, their bioremediation may occur under aerobic conditions which are proposed to be stimulated.

You may want to add ORC socks to MW-4 as an initial step to increase oxygen content within the tank pit. Please run dissolved oxygen on the monitoring wells prior to purging them. The reported DO results were post-purge and are likely high due to the introduction of air from the purging. Please submit a proposal for the introduction of ORC in the form of slurry injection.

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

Sincerely,



Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
J. Hess, ITSI, 1330 Broadway, Suite 1625, Oakland CA 94612
ORC-1100 Airport

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



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

December 29, 1997
StID # 1049

Mr. Dale Klettke
Port of Oakland
530 Water St.
Oakland CA 94607

**Re: Workplan for Additional Site Assessment for Former USTs MF25
and MF26 at MOIA, South Field, Oakland CA 94621**

Dear Mr. Klettke:

Our office has received and reviewed the December 16, 1997 ITSI workplan for additional site assessment for the above referenced site. This work plan is in response to the County's request for further site characterization due to the presence of free product in monitoring wells MW2 and MW3 over an extended period of time. The work plan includes the installation of four additional monitoring wells and the installation of a larger diameter extraction well within the former underground tank pit. As discussed, the existing wells may be used in the future as locations for the addition of ORC. It is anticipated that with the removal of free product and the stabilization of groundwater contaminant levels, this site may be eligible for closure as a "low risk groundwater" case.

Our office approves of this work plan with the following comments and conditions:

* As mentioned in Task 4 of the workplan, an additional soil sample at the apparent fill/native soil interface may be taken. Because this sample is likely well below groundwater level, this sample should not be chemically analyzed.

* The soil samples which will be analyzed for TEPH should be analyzed for both TPHd and TPHmo based upon past chemical results.

* The groundwater samples will be analyzed for dissolved oxygen and other bioattenuation parameters. Included in these parameters should be oxidation-reduction potential, nitrate, sulfate and ferrous iron.

* Task 8 states that your consultant will develop an ORC methodology and initiate placement into groundwater. Our office assumes this will be done using the software program provided by the ORC suppliers. Please describe your methodology if different from this.

Mr. Dale Klettke
StID # 1049
Former USTs MF25 and MF26
December 29, 1997
Page 2.

Please inform our office prior to your field work. You may
contact me at (510) 567-6765.

Sincerely,



Barney M. Chan
Hazardous Materials Specialist

c: **B. Chan, files**

Mr. J. Hess, ITSI, 1330 Broadway, Suite 1625, Oakland CA 94612
wpapMF25

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



June 18, 1997
StID # 1049

Mr. Jeffrey Rubin
Port of Oakland
P.O. Box 2064
Oakland CA 94604-2064

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

**Re: Comment on Recommendations for Investigation/Remediation for
Tank Numbers MF25 and MF26 at OIA, 1100 Airport Drive, 94621**

Dear Mr. Rubin:

I have received and reviewed the recent February 28, 1997 monitoring report for the above referenced site plus ITSI's April 25, 1997 **Findings and Recommendations** report. This report proposes the following actions if the free product remains consistent or increases in monitoring wells MW-2 and MW-3:

- * Redevelop wells
- * Collect a sample of the free product for analysis
- * Select a free product removal system
- * Prepare a work plan for additional site investigation

The above approach is acceptable. Please keep in mind that the proposed additional site investigation should occur independent of the status of free product in the monitoring wells. To verify the conditions of a "low risk" groundwater site, you are required to determine the extent of contamination. I look forward to receiving a work plan for the additional site assessment.

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

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

c: B. Chan, files
J. Hess, ITSI, 1330 Broadway, Suite 1625, Oakland CA 94612
wp1000



ENVIRONMENTAL
PROTECTION

PORT OF OAKLAND

98 JUN -8 PM 3: 18

June 3, 1997

Mr. Barney Chan
Alameda County Health Care Services Agency
Environmental Protection Division
1131 Harbor Bay Parkway, #250
Alameda, CA 94502-6577

FLM

SUBJECT: QUARTERLY GROUNDWATER MONITORING REPORTS - FORMER TANK NUMBERS MF-25 AND MF-26, METROPOLITAN OAKLAND INTERNATIONAL AIRPORT, UNITED AIRLINES HANGAR AREA - ECONOMY PARKING LOT SITE, 1100 AIRPORT DRIVE, OAKLAND, CALIFORNIA

Dear Mr. Chan:

Enclosed are copies of the May 12, 1998 and May 28, 1998 *Groundwater Monitoring and Sampling Report - Tanks MF-25 and MF-26, United Airlines Hangar - Economy Parking Lot Site, Metropolitan Oakland International Airport (MOIA), 1100 Airport Drive, Oakland, California*. Monitoring activities were performed by Innovative Technical Solutions, Inc. (ITSI), one of the as-needed consultants retained by the Port of Oakland (Port).

Should you have any questions or need additional information, please contact me at 272-1118. Thank you for your on-going assistance and support on this project.

Sincerely,

Dale Klettke, CHMM
Associate Environmental Scientist
Environmental Health & Safety Compliance

enclosure

c: Neil Werner - EH & SC (w/o enc)
Files - EH & SC (w/o enc)
Jeff Hess - ITSI (w/o enc)

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ENVIRONMENTAL
PROTECTION

PORT OF OAKLAND

30 DEC 17 11 41 AM '96

December 16, 1996

PC414

Mr. Barney Chan
Alameda County Health Care Services Agency
Environmental Protection Division
1131 Harbor Bay Parkway, #250
Alameda, CA 94502-6577

SUBJECT: QUARTERLY GROUNDWATER MONITORING REPORT - FORMER TANK NUMBERS MF-25 AND MF-26, METROPOLITAN OAKLAND INTERNATIONAL AIRPORT, UNITED AIRLINES HANGAR AREA -ECONOMY PARKING LOT SITE, 1100 AIRPORT DRIVE, OAKLAND, CALIFORNIA

Dear Mr. Chan:

Enclosed is a copy of the December 12, 1996 Groundwater Monitoring and Sampling Report - Tanks MF-25 and MF-26, United Airlines Hangar - Economy Parking Lot Site, Metropolitan Oakland International Airport, 1100 Airport Drive, Oakland, California. Monitoring activities were performed by Innovative Technical Solutions, Inc. (ITSI), one of the as-needed consultants retained by the Port of Oakland (Port).

Separate phase hydrocarbons were observed and thickness measured in two monitoring wells, MW-2 and MW-3. Groundwater samples were not collected from these two wells. The Port is currently considering an approach to address the observed hydrocarbon product. Reported data are for the groundwater sample collected from MW-1.

Should you have any questions or need additional information, please contact me at 272-1118. Thank you for your on-going assistance and support on this project.

Sincerely,

Jeffrey L. Rubin, REA, CPSS
Associate Environmental Scientist
Environmental Health & Safety Compliance

Enclosure

cc: Rich Hiatt, Regional Water Quality Control Board, San Francisco Bay Region (w enc)
Neil Werner - EH & SC (w/o enc)
Mark O'Brien - EH & SC (w/o enc)
Jeff Hess - ITSI (w/o enc)

wp51\files\jeff\1996\Chan.8

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



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

October 24, 1996
StID #1049

Mr. Jeffrey Rubin
Port of Oakland
530 Water St.
P.O. Box 2064
Oakland CA 94604-2064

**Re: Tanks MF-23 and MF-24 at 1100 Airport Drive, Oakland
International Airport**

Dear Mr. Rubin:

Pursuant to our recent conversation regarding the above referenced tanks at the Oakland Airport site, this letter confirms that no further work will be required by our office in regards to the petroleum release from these two tanks. You should schedule the closure of the three monitoring wells at this site at your earliest convenience.

As you recall, since the above address also includes the site of former underground tanks MF-25 & MF-26, which have an on-going subsurface investigation, site closure and the Remedial Action Completion Certificate (RACC) will be withheld until the tank investigation for these tanks is complete.

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

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

c: B. Chan, files
Mr. N. Werner, Port of Oakland, P.O. Box 2064, Oakland CA,
94604-2064

MF23&24



PORT OF OAKLAND

September 25, 1996

Mr. Barney Chan
Alameda County Health Care Services Agency
Environmental Protection Division
1131 Harbor Bay Parkway, #250
Alameda, CA 94502-6577

**SUBJECT: REPORT OF REMOVAL OF INACTIVE TANKS MF-25 AND MF-26 -
1100 AIRPORT DRIVE, OAKLAND: APPENDIX A - UNAUTHORIZED
RELEASE REPORT FORM - UNITED AIRLINES ECONOMY PARKING LOT
SITE, METROPOLITAN OAKLAND INTERNATIONAL AIRPORT (StID
#1049)**

Dear Mr. Chan:

As per your request during our meeting on Wednesday, 18 September 1996, we are providing the enclosed Unauthorized Release Report Form that was missing from the *Report of Removal of Inactive Tanks MF-25 and MF-26, 1100 Airport Drive, Oakland*, dated May 1992. This Form should be incorporated in Appendix A: Agency Notifications, following the BAAQMD Notification Form.

During a phone conversation following our meeting, we discussed separating the taxiway site and economy parking lot sites to facilitate independent closures of each site. Several alternatives were discussed to deal with the single State identification number (StID #1049). Please let me know if any of these alternatives are viable.

If you have any questions or need additional information, please call me at 272-1118. Thank you for your on-going assistance and support on this project.

Sincerely,

Jeffrey L. Rubin, REA, CPSS
Associate Environmental Scientist
Environmental Health & Safety
Compliance

Enclosure

cc:

Neil Werner - EH & SC (w/o encl)
Mark O'Brien - EH & SC (w/o encl)
Jeff Hess - ITSI (encl)

wp51\files\jeff\1996\Chan.6

451-5916

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 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 0 _w 6 _m 2 _d 8 _d 9 _y 1 _y		CASE #		SIGNED <u>Barney Chan</u> DATE 3/4/98	
REPORTED BY	NAME OF INDIVIDUAL FILING REPORT <u>G. Randall</u>		PHONE <u>(707) 762-5233</u>		SIGNATURE <u>G. Randall</u>
	REPRESENTING <input type="checkbox"/> OWNER/OPERATOR <input type="checkbox"/> REGIONAL BOARD <input type="checkbox"/> LOCAL AGENCY <input checked="" type="checkbox"/> OTHER <u>Consultant</u>		COMPANY OR AGENCY NAME <u>BASELINE Environmental Consulting</u>		
	ADDRESS <u>101 H Street, Suite L, Petaluma, CA 94952</u>				
RESPONSIBLE PARTY	NAME <u>Port of Oakland</u>		CONTACT PERSON <u>Andrew Clark-Clough</u>		PHONE <u>(415) 272-1178</u>
	ADDRESS <u>530 Water Street, Oakland, CA 94607</u>				
SITE LOCATION	FACILITY NAME (IF APPLICABLE) <u>George A. Miller Aviation Hangar (United)</u>		OPERATOR ()		PHONE ()
	ADDRESS <u>1100 Airport Drive, Oakland Airport, Oakland, Alameda</u>				
	CROSS STREET <u>John Glenn Drive</u>		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 <u>Airplane Maint</u>
IMPLEMENTING AGENCIES	LOCAL AGENCY <u>Alameda Co. Health Agency</u>		CONTACT PERSON <u>Dennis Byrne</u>		PHONE <u>(415) 271-4320</u>
	REGIONAL BOARD <u>San Francisco</u>		PHONE ()		
SUBSTANCES INVOLVED	(1) NAME <u>Jet Fuel</u>		QUANTITY LOST (GALLONS) <input checked="" type="checkbox"/> UNKNOWN		
	(2)		<input type="checkbox"/> UNKNOWN		
DISCOVERY/ABATEMENT	DATE DISCOVERED 0 _w 6 _m 1 _d 0 _d 9 _y 1 _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 checked="" 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 <u>0_w 6_m 0_d 6_d 9_y 1_y</u>				
SOURCE/CAUSE	SOURCE OF DISCHARGE <input checked="" type="checkbox"/> TANK LEAK <input type="checkbox"/> UNKNOWN <input type="checkbox"/> PIPING LEAK <input type="checkbox"/> OTHER		TANKS ONLY/CAPACITY <u>10,000</u> GAL AGE <u>>12</u> YRS <input type="checkbox"/> UNKNOWN		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 type="checkbox"/> UNDETERMINED <input type="checkbox"/> SOIL ONLY <input checked="" type="checkbox"/> GROUNDWATER <input type="checkbox"/> DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)				
CURRENT STATUS	CHECK ONE ONLY <input checked="" type="checkbox"/> SITE INVESTIGATION IN PROGRESS (DEFINING EXTENT OF PROBLEM) <input 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 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	(Empty space for additional notes)				

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 REPORTED THIS INFORMATION TO LOCAL OFFICIALS PURSUANT TO SECTION 251 OF THE HEALTH AND SAFETY CODE. SIGNED: <i>Michelle Pfeiffer</i> DATE: <i>3/4/98</i>
REPORT DATE <i>1/03/1998</i>	CASE #	

REPORTED BY	NAME OF INDIVIDUAL FILING REPORT <i>Michele Pfeiffer</i>	PHONE <i>(415) 839-2634</i>	SIGNATURE <i>Michele Pfeiffer</i>	
	REPRESENTING <input type="checkbox"/> LOCAL AGENCY <input checked="" type="checkbox"/> OWNER/OPERATOR <input type="checkbox"/> REGIONAL BOARD <input type="checkbox"/> OTHER	COMPANY OR AGENCY NAME <i>Port of Oakland</i>		
	ADDRESS <i>66 Jack London Square, Oakland, CA 94612</i>			

RESPONSIBLE PARTY	NAME <i>Port of Oakland</i>	CONTACT PERSON <i>Neil Weiner</i>	PHONE <i>(415) 839-2634</i>
	ADDRESS <i>66 Jack London Square, Oakland, CA 94612</i>		

SITE LOCATION	FACILITY NAME (IF APPLICABLE) <i>Vicinity of Bldg M-110</i>	OPERATOR <i>World Airways</i>	PHONE ()	
	ADDRESS <i>1100 Airport Drive, Oakland, CA 94612</i>			
	CROSS STREET <i>John Glenn Drive</i>			

IMPLEMENTING AGENCIES	LOCAL AGENCY <i>Alameda County Health Services</i>	AGENCY NAME	CONTACT PERSON	PHONE ()
	REGIONAL BOARD <i>ST RWISDP</i>			

SUBSTANCES INVOLVED	(1) <i>Jet Fuel</i>	QUANTITY LOST (GALLONS) ()
	(2) <i>Waste Oil / Solvents</i>	

DISCOVERY/ABATEMENT	DATE DISCOVERED <i>1/03/1998</i>	HOW DISCOVERED <input type="checkbox"/> INVENTORY CONTROL <input type="checkbox"/> SUBSURFACE MONITORING <input type="checkbox"/> MISUSE CONDIT. <input type="checkbox"/> TANK TEST <input type="checkbox"/> TANK REMOVAL <input checked="" type="checkbox"/> OTHER <i>Soil Sampling</i>	DATE DISCHARGE BEGAN () () () () () () <input checked="" type="checkbox"/> UNKNOWN
	HAS DISCHARGE BEEN STOPPED? <input type="checkbox"/> YES <input type="checkbox"/> NO IF YES, DATE () () () () () ()		
	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 PROCED. <input checked="" type="checkbox"/> OTHER <i>Soil Sampling</i>		

SOURCE/CAUSE	SOURCE OF DISCHARGE <input type="checkbox"/> TANK LEAK <input checked="" type="checkbox"/> UNKNOWN	TANKS ONLY: CAPACITY <i>312,000 GAL</i>	MATERIAL <input type="checkbox"/> FIBERGLASS <input type="checkbox"/> STEEL <input checked="" type="checkbox"/> OTHER	CAUSE(S) <input type="checkbox"/> OVERFILL <input type="checkbox"/> RUPTURE/FALL <input type="checkbox"/> CORROSION <input type="checkbox"/> UNKNOWN <input type="checkbox"/> SPILL <input type="checkbox"/> OTHER
	AGE: <i>12</i> YRS			

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)
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CURRENT STATUS	CHECK ONE ONLY <input checked="" type="checkbox"/> SITE INVESTIGATION IN PROGRESS (DEFINING EXTENT OF PROBLEM) <input 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 ALTERNATIVE
----------------	---

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

COMMENTS
Remedial action required for Jet Fuel and Waste Oil/Solvents. See below for details.

DATE: 6/25/92

TO : Local Oversight Program

FROM: B.C.

SUBJ: Transfer of Eligible Oversight Case

Site name: Port of Oakland - Tanks MF-25 & MF-26

Address: 1100 Airport Dr. city Oak zip 94621

Closure plan attached? Y N DepRef remaining \$ _____

DepRef Project # 604802 STID #(if any) 1049

Number of Tanks: 2 removed? Y N Date of removal 3/19/92

Samples received? Y N Contamination: Gasoline, diesel, oil + grease, Solvent ^{Chlorinated}

Petroleum Y N Types: Avgas Jet loaded unleaded Diesel
fuel oil waste oil kerosene solvents

Monitoring wells on site 0 Monitoring schedule? Y N

LUFT category 1 2 3 * H S C A R W G O

Briefly describe the following:

Preliminary Assessment _____

Remedial Action _____

Post Remedial Action Monitoring _____

Enforcement Action _____

Removed 2 tanks used for cleaning parts by ^{United Airlines} ~~World Airlines~~
new World Airlines. Found considerable soil contamination w/
TPH g, d, TOG & chlorinated solvents TCA, 1,1-DCA,
methylene & TCE. Over excavated to near W.D. but
did not run all the over excavation spels for all the parameters
(TOG, TPH g + d, Chlorinated Solvents, (semivolatiles))



RW 414

PORT OF OAKLAND

June 8, 1992

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

**SUBJECT: UNDERGROUND TANK REMOVALS AT 1100 AIRPORT DRIVE
(MF25 AND MF26), OAKLAND, CALIFORNIA**

Dear Mr. Chan:

Enclosed please find the report on underground tank removal activities at 1100 Airport Drive in Oakland, California. A copy of the report has also been forwarded to the Regional Water Quality Control Board, San Francisco Bay Region.

If you have any questions or require additional information, please contact me at 272-1178.

Sincerely,


Andrew Clark Clough
Environmental Scientist

cc: Rich Hiett - RWQCB

wp\tanks\covmf25.ltr

02 JUN 1992 10 00 12 AM



PORT OF OAKLAND

copy

April 25, 1996

Mr. Barney Chan
Alameda County Health Care Agency
Environmental Protection Division
1131 Harbor Bay Pkwy., #250
Alameda, CA 94502-6577

SUBJECT: SUBSURFACE INVESTIGATION REPORT FOR THE FORMER UNDERGROUND TANKS MF 23 AND MF 24, UNITED AIRLINES HANGER AREA- TAXIWAY SITE, 1100 AIRPORT DRIVE, OAKLAND, CALIFORNIA

Dear Mr. Chan:

Enclosed please find the Groundwater Sampling Report for the January 1996 sampling event at the United Airlines Hanger Area, Taxiway Site (Former underground tanks MF 23 and MF 24) at Metropolitan Oakland International Airport, Oakland, California. The Port is requesting reductions in the sampling analyses performed on samples at several monitoring wells based on atleast three quarters of non detect or nearly non detect sampling results. The reductions are requested for BETX at MW-1: TPH-G, TPH-JF, and BETX at MW-2: and TPH-G, TPH-JF, and BETX at MW-3.

If you have any questions or need additional information, please call me at (510) 272-1118.

Sincerely,


Susa Gates

cc: Jeff Hess, ITSI

Enclosure

ENVIRONMENTAL
PROTECTION
96 APR 26 AM 10:58

FILE OR ENVELOPE
 PER NO. **B.C.** No. of
 OWNER **Part of Oakland**
 Address **1100 Airport Dr.**
OAKLAND 94621 Phone
 Contractor **T.P.F. 2**
 Address **2821 Whipple Rd.**
Union City 94587 Phone
 OTHER (Specify)
 Address
 Phone
 CONTACT FOR INVESTIGATION

PLAN EW By Date
 \$ **642.⁰⁰** Rec'd. **TS 1/28/92**
 No. **604802** Plans Rec'd.
 Plans Approved
 Layout Made
 Rejected
 Applicant Notified
 Plans Returned
 Permit Issued
 CONSTRUCTION PROGRESS ACCEPTANCE
 Pre-Plaster/drywall
 Pre-Final
 Final

By Date
 Pre-Concrete/Gunite
 Pre-Plaster
 Final
 Septic Tank
 Absorption Field
 Absorption Bed
 House Sewer
 Septic Tank
 Absorption Field
 Absorption Bed
 OTHER

By Date
 Pre-Covering
 Final

XR

Date	By	REMARKS
2/10/92	BC	R Plan review & approval 0.75 hr
3/19/92	BC	1-1000 gal chlorinated + 1-3k chlorinated solvent tank plus motor oil ~ 4343 gal of oil/water (chlorinated) solvent pumped out under manifest. 89887269 by Erickson Tank Parted Eng contractor: M. Zomoradi, Kyle Francis 16L 7% O ₂ 1% 1000 K 16L 6% O ₂ 4% 3000 K Steve Hallert OFD present Andrew Clark Newark - Port

Date	By	REMARKS
		of Oakland present Consultant soil spler: John Borrego of Write & Associates. Tanks were steam cleaned which may account for only liquid in tank pct. Because of the former contents, soil spler will be run for unknown solvents/substance: ① TPH g, d, oil + grease 8270, 8240, Metals Cd, Cr Pb, Ni, Zn 3000 gal tank - asphalt-wrapped steel - no apperathole

LOCATION

LOP 1049

Project # **604802**
 Fee Paid **642.⁰⁰**
 Date **1/28/92**

United Hangar
 11 Phys. Ant
 Airport

15' 20'

1100 Airport Dr.
 Oakland, CA 94621
 UNITED AIRLINES
 S&ID
 1049

**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**

Project Specialist (print) Barney Chen
2/10/92 OK BE

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 the Department are to assure compliance with State and local laws. The project proposed herein is now reviewed 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 change or alterations of these plans and specifications must be submitted to this Department and to the Building Inspector. Department to determine if 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
- _____ 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 FINANCIAL PENALTY FOR NOT OBTAINING THESE INSPECTIONS.

UNDERGROUND TANK CLOSURE PLAN

* * * Complete according to attached instructions * * *

1. Business Name Port of Oakland
Business Owner Board of Port Commissioners of the City of Oakland
2. Site Address 1100 Airport Drive (MF25 and MF26)
City Oakland, CA Zip 94621 Phone _____
3. Mailing Address 530 Water Street, Environmental Department
City Oakland, CA Zip 94607 Phone (510) 272-1178
4. Land Owner Port of Oakland
Address 530 Water St 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 CAC000664576

6. Contractor Tank Protect Engineering of Northern California
Address 2821 Whipple Road
City Union City, CA 94587-1233 Phone (510) 429-8088
License Type A, H ID# 575837

7. Consultant Uribe & Associates
Address 2930 Lakeshore Avenue, Suite 200
City Oakland, CA 94610 Phone (510) 832-2233

8. Contact Person for Investigation
Name Jill Brown Title Resident Engineer
Phone (510) 577-4162

9. Number of tanks being closed under this plan 2
Length of piping being removed under this plan 20 feet
Total number of tanks at facility 2

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 Excel Trans. EPA I.D. No. CAD981982663
Hauler License No. 2283 License Exp. Date 12/31/92
Address 290 West Channel Road
City Benicia, State CA Zip 94510

b) Product/Residual Sludge/Rinsate Disposal Site

Name Enviro. Safe Services EPA I.D. No. IDD073114654
Address P.O. Box 417
City Boise State Idaho Zip 83701-0417

c) Tank and Piping Transporter

Name Erickson, Inc. EPA I.D. No. CAD009466392
Hauler License No. 0019 License Exp. Date 5/92
Address 255 Parr Blvd.
City Richmond, State CA Zip 94801

d) Tank and Piping Disposal Site

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

11. Experienced Sample Collector

Name John Borrego
Company Uribe & Associates
Address 2930 Lakeshore Avenue, Suite 200
City Oakland, State CA Zip 94610 Phone (510) 832-2233

12. Laboratory

Name B. C. Analytical
Address 1255 Powell Street
City Emeryville, State CA Zip 94608
State Certification No. 1353

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 15lbs. of dry ice per each 1,000 gallon capacity for each tank.

Verify with on-site LEL meter.

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 gallon	Solvent <i>What solvent?</i>	Soil	One sample at each end of the tank pit, max. of 2 ft. below the tank pit.
500 gallon	Waste Oil	Soil	One sample at fill or pump end of the tank.
	Piping	Soil	One sample every 20 lineal ft., at <i>and</i> under swing joint dispenser. <i>at discretion of inspector</i>
	Groundwater to be sampled if encountered.		

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) 300 cubic yards	Sampling Plan One sample for every 20 cubic yards maximum or 1 sample 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
Waste Oil: TPHG TPHD BTEX O & G CL HC METALS PCB,PCP, PNA, Creosote	EPA 5030 EPA 3550 EPA 5030 EPA SM 5520 E & F (Gravimetric) EPA 5030 Cd, Cr, Ni, Zn, Pb	GCFID GCFID 8020/8240 8010/8240 AA/ICAP 8270	1ppm 1ppm .005ppm
Solvent: CL HC BTEX CL HC and BTEX	EPA 8010 or 8240 EPA 8020 or 8240 8260		
If groundwater encountered:	TPHG 5030/GCFID BTEX 5030/602 or 624 TPHD 3550/GCFID O & G		

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

18. Submit Worker's Compensation Certificate copy

Name of Insurer State Compensation Insurance Fund

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) Jafar Farhoomand

Signature *Jafar Farhoomand*

Date Jan. 13, 1992

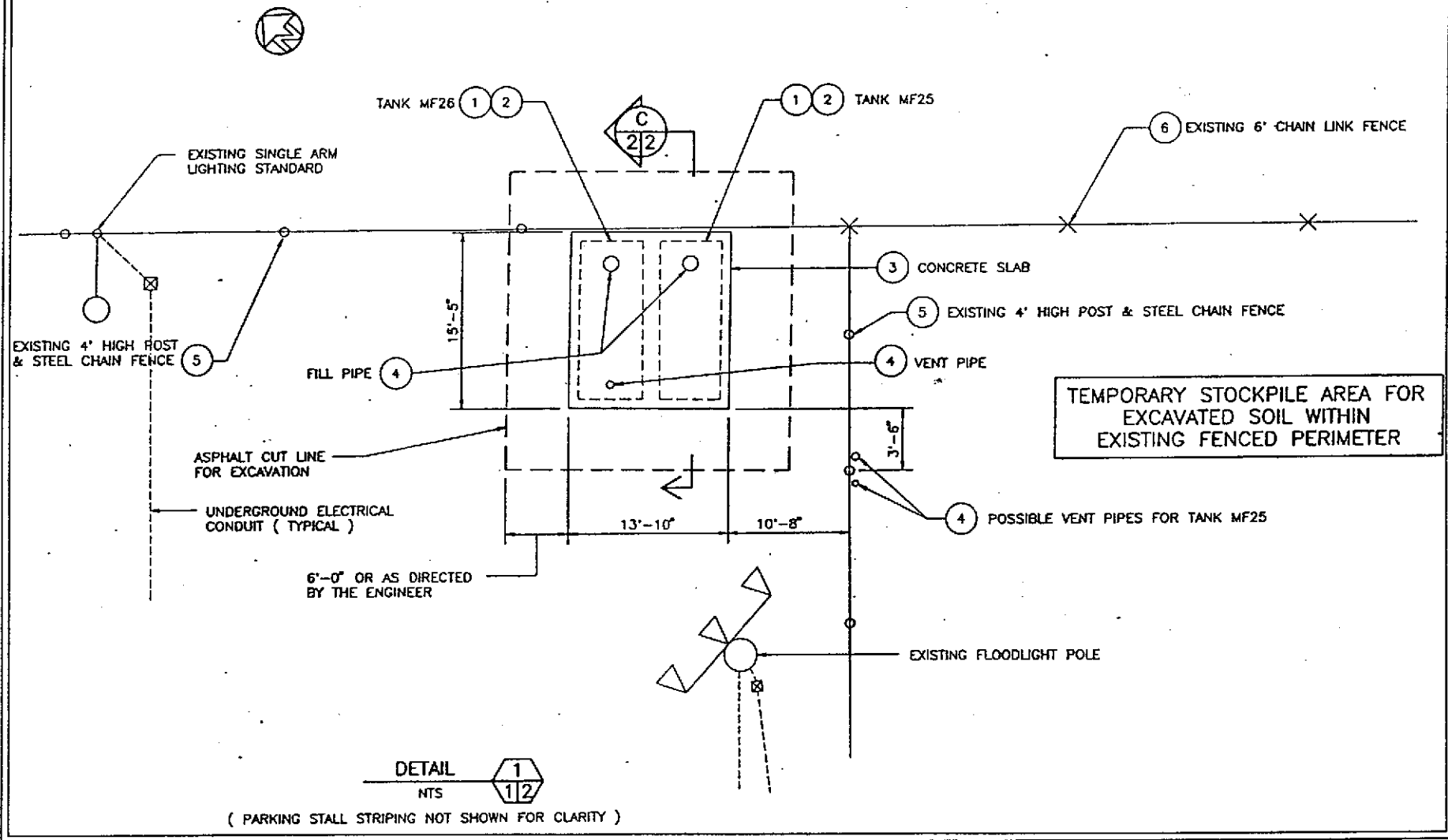
Signature of Site Owner or Operator

Name (please type) Andrew Clark-Clough

Signature *Andrew Clark-Clough*

Date Jan. 28, 1992

AIRPORT EMPLOYEE PARKING



SITE PLAN
PORT OF OAKLAND
1100 AIRPORT DRIVE
OAKLAND, CA 94621

**STATE
COMPENSATION
INSURANCE
FUND**

P.O. BOX 807, SAN FRANCISCO, CA 94101-0807

CERTIFICATE OF WORKERS' COMPENSATION INSURANCE

SEPT. 26, 1991


POLICY NUMBER: 1145921-91
CERTIFICATE EXPIRES: 9-1-92ALAMEDA COUNTY
HEALTH CARE SERVICES AGENCY
80 SWAN WAY, RM. #200
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

TANK PROTECT ENGINEERING CO. NO CALIFORNIA, INC.
2821 WHIPPLE RD.
UNION CITY, CA. 94587

TPE SITE SAFETY PLAN

**TANK PROTECT ENGINEERING OF NORTHERN CALIFORNIA, INC.
SITE SAFETY PLAN**

**Site: Port of Oakland
1100 Airport Drive
Oakland, CA**

Project Number:

**Original Site Safety Plan: Yes (X) No ()
Plan Prepared by Tank Protect Engineering
Plan Approved by Ahmad Shah**

**Revision Number:
Date: 01-21-92
Date: 01-21-92**

Please respond to each item as completely as possible. Where an item is not applicable, please mark "N/A".

1. KEY PERSONNEL AND RESPONSIBILITIES

(Include name, telephone number and health and safety responsibilities; i.e., project manager - Joe Smith - responsible for supervision of all site activities.)

**Project Manager: Lyle Travis, (510) 429-8088
Site Safety Manager: Ahmad Shah, (510) 429-8088
Alternate Site Safety Manager: Lyle Travis
Field Team Members: Lyle Travis
Ahmad Shah
Allen Kafai**

Agency Reps: [Please specify by one of the following symbols: Federal: (F), State: (S), Local: (L), Contractor(s): (C)]

**(L) Oakland Fire Department Rep.: Steve Hallert (510) 273-3851
(L) Alameda County Health Care Services Agency Rep.: Barney Chan
(415) 271-4320**

TPE SITE SAFETY PLAN

2. JOB HAZARD ANALYSIS

2.1 OVERALL HAZARD EVALUATION

Hazard Level: High () Moderate (X) Low () Unknown ()
Hazard Type: Liquid () Solid () Sludge () Vapor/Gas (X)

Known or suspected hazardous materials present on site

See below: 1 - Solvent; 2 - Waste oil

Characteristics of hazardous materials included above (complete for each chemical presents):

MATERIAL #1

Corrosive () Ignitable (X) Toxic (X) Reactive ()
Volatile (X) Radioactive () Biological Agent ()
Exposure Routes: Inhalation (X) Ingestion () Contact (X)
Skin & Mucous Membrane

MATERIAL #2

Corrosive () Ignitable (X) Toxic (X) Reactive ()
Semi-Volatile () Radioactive () Biological Agent ()
Exposure Routes: Inhalation () Ingestion () Contact (X)

MATERIAL #3

Corrosive () Ignitable () Toxic () Reactive ()
Volatile () Radioactive () Biological Agent ()
Exposure Routes: Inhalation () Ingestion () Contact ()

MATERIAL #4

Corrosive () Ignitable () Toxic () Reactive ()
Volatile () Radioactive () Biological Agent ()
Exposure Routes: Inhalation () Ingestion () Contact ()

TPE SITE SAFETY PLAN

2.2 JOB-SPECIFIC HAZARDS

For each labor category specify the possible hazards based on information available (i.e., Task-driller, Hazards-trauma from drill rig accidents, etc.) For each hazard, indicate steps to be taken to minimize the hazard.

Task - Tank Removal; Hazard - Gasoline Vapor Explosion To minimize - use 15 lb of dry ice per each 1,000 gallon capacity to inert vapor present in tank.

The following additional hazards are expected on site (i.e., snake infested area, extreme heat, etc.): N/A

Measures to minimize the effects of the additional hazards are:
N/A

3. MONITORING PLAN

The project manager or a designated field technician (either a Geologist/Civil Engineer) will conduct air monitoring using direct reading sampling equipment. At a minimum the following monitoring will be performed.

A. Combustible Gases and Vapors

Potentially explosive concentrations of gases and vapors within the tanks(s) will be monitored by inserting the probe of the Gastechtor (model 1314) Hydrocarbon Super surveyor inside the tank(s) to monitor the oxygen (% oxygen) vapor concentration (ppm) and lower explosive limit (LEL). Once the indicators of the instrument show levels below that required by the HMD (i.e. 20% LEL, 5% O₂), the tank(s) will be considered inerted and safe for removal.

B. Total Organic Vapors

. A portable Trace-techtor meter will be used to monitor work zone concentrations of organic vapors in the work area. Measurements will be

taken at least once every 15 minutes while on site. The meter will be calibrated with hexane.

- Breathing zone concentrations in excess of 500 ppm will stop the on-site work until the work zone concentrations are reduced to below 500 ppm.

C. Respiratory Protection

- Personnel inerting the tank(s) with dry ice will use NIOSH approved half-face air purifying respirators with dual organic vapor cartridges.
 - If the total organic vapors exceed 300 ppm in the workers breathing zone, personnel will be required to use NIOSH approved respirator.
3. MONITORING PLAN

3.1 Personnel Monitoring

(Include hierarchy of responsibilities decision making on the site)

Safety officer advises field manager who delegates responsibilities to individual team workers.

3.2 Sampling Monitoring

- (a) Techniques used for sampling

Insert a probe inside the tank to determine LEL and oxygen levels.

- (b) Equipments used for sampling

Gastech Model 1314

1 - Hydrocarbon Super Surveyor

2 - Brass Sleeve and Sampler With Hammer

- (c) Maintenance and calibration of equipments

Use hexane for calibration. Equipment will be calibrated prior to operation.

TPE SITE SAFETY PLAN

4. PERSONAL PROTECTIVE EQUIPMENT

A minimum of US EPA level D protection will be required within the work zone for any workers engaged in sample collection or other activities on this site. Level D protection will include:

- . Disposable Tyvek coverall (T 104)
- . Steel toe boots
- . Splash goggles or safety glasses
- . Chemical resistant disposable gloves (when in contact with contaminated material)

Level C protection will be required if trace-techtor measurements exceed 300 ppm in the workers breathing zone. Level C protection will consist of:

- . Disposable Tyvek coverall (T 204)
- . Steel toe boots
- . Chemical resistant boot covers
- . Splash goggles
- . Chemical resistant disposable gloves (inner and outer)
- . NIOSH approved half-face air purifying respirator with dual organic vapor cartridge.

Additional protective equipment on work site(s) will consist of:

- . Hard hat
- . Protective gloves
- . Hearing protection (ear plugs)
- . Back support lifting belts (when attempting to lift heavy loads)

5. SITE CONTROL AND SECURITY MEASURES

The following general work zone security guidelines will be implemented on each site:

TPE SITE SAFETY PLAN

- . Access during all on-site activities will be restricted to authorized personnel. All personnel and authorized visitors must contact the safety manager/project manager prior to entering and exiting site.
- . No one will be allowed to enter any confined space operations with out proper safety measures, specifically in an excavated tank pit, no one should enter at any time.
- . Work zones shall be barricaded and caution tape used (using cones and/or "A" frame type barricades) when sampling activities are not actually taking place or at the end of the work day.
- . Smoking or open flame is prohibited in areas where flammable materials are used or stored. All employees will comply with posted "NO SMOKING" areas.
- . All containers will be labelled as to their contents and properly stored in an adequately safe area.
- . Controls concerning public protection and vehicular operations will be implemented at each site. Use of a machine or piece of equipment will be restricted to personnel with adequate experience or training.
- . Good house keeping practices will be exercised at each work site.
- . All excavated soil material will be stockpiled adjacent to the excavation. Spoil shall be placed or minimum of two (2) feet from the edge of the excavation(s). Clean and suspected soil will be segregated and placed on and covered with an impermeable liner.
- . Open excavation will be covered with and impermeable liner and sand bags placed around excavation (if rain is anticipated).

TPE SITE SAFETY PLAN

6. FIELD EQUIPMENT CALIBRATION AND MAINTENANCE

The following equipment may be used during the remedial investigation. Equipment calibration procedures and frequency are listed for each piece.

1. Name: Gastechtor Hydrocarbon Super Surveyor (model 1314)

Calibration: Factory calibrated, field calibrated with hexane monthly (by a Registered Geologist) and prior to each operation according to manufacturers instructions by designated field personnel (Geologist/Civil Engineer). Zeroed daily.

2. Name: Trace-Tehtor Portable Hydrocarbon Vapor Tester

Calibration: Factory calibrated, field calibrated monthly (by a Registered Geologist) zeroed daily according to manufacturers instructions. Calibrated with hexane gas prior to each operation by field personnel (Geologist/Civil Engineer).

- * Hexane is the recommended calibration gas for the Gastech (model 1314) and Trace-Tehtor, since it provides a conservative response representative of the total petroleum hydrocarbon vapors present.

7. DECONTAMINATION

During all field operations, care will be taken to minimize contact with contaminated soils and groundwater (not anticipated). Waste materials (rinse water) generated on site(s) will be collected and stored in drums and will be stored on-site for proper disposal. This will minimize contact and dispensing of potentially contaminated materials.

7.1 Decontamination Procedures Protocol

- Loose debris will be removed from protective clothing by brushing or rinsing with trisodium phosphate (TSP).

TPE SITE SAFETY PLAN

- Equipment will be adequately cleaned of contaminated material or loose debris by scrapping, shovelling, tracking (back in front on work site) or by decontamination equipment using a 5% solution of trisodium phosphate (TSP) with water. Equipment will be placed on impermeable liner and steam cleaned (if necessary).
- Rinse water generated on site will be collected and stored in drums. Drums will be labelled to show material, known or suggested contaminant, date stored, expected removal date, company name, contact and telephone number.

8. WASTE HANDLING

- Waste materials generated during site characterization activities will be stored in appropriately labelled containers (55 gal. drum) and handled as hazardous waste.
- Drums will be labelled to show material stored, known or suggested contaminant, date store, expected removal date, company name, contact and telephone number.

9. CONFINED SPACE ENTRY

No one is allowed to enter any confined space operations with out proper safety measures. Specifically in case of an excavated tank pit, on one should enter at any time.

10. EMPLOYEE TRAINING AND INFORMATION (see Appendix)

Prior to mobilization at the job site employees will attend a safety briefing. The briefing will include the nature of the wastes and the site, donning personal protection equipment, decontamination procedures and emergency procedures.

TPE will conduct training for all site personnel with the following objectives:

TPE SITE SAFETY PLAN

- . Ensure that workers are aware of potential hazards they may encounter.
- . Provide the knowledge and skills necessary to perform the work with minimal risk to workers health and safety.
- . Familiarization with the site safety plan and site-specific requirements.

The training plan for this site will include:

- . A 40 hour Hazardous Waste Operation and Emergency Response Course
- . Emergency response
- . Entry, exit and decontamination procedures
- . Protective clothing, use and maintenance
- . Respiratory protection, rational use, maintenance and fit testing
- . Potential physical and chemical health hazards.

11. MEDICAL SURVEILLANCE REQUIREMENTS

If any task requires a very high personnel protection level, personnel shall provide assurances that they have received a physical examination and they are fit to do the task. Also personnel will be instructed to look for any symptom of heat stress, heat stroke, heat exhaustion or any other unusual symptom. If there is any report of that kind it will be immediately followed through, and appropriate action will be taken.

12. STANDARD OPERATION PROCEDURES

Tank Protect Engineering of Northern California, Inc. (TPE) is responsible for the safety of all TPE employees on site. Each contractor shall provide all the equipment necessary to meet safe operation practices and procedures for their personnel on site and be responsible for the safety of their workers.

A "Three Warning" system is utilized to enforce compliance with Health and Safety procedures practices which will be implemented at the site for worker safety:

TPE SITE SAFETY PLAN

- * Eating, drinking, chewing gum or tobacco, and smoking will be allowed only in designated areas.
- * Wash facilities will be utilized by workers in the work areas before eating, drinking, or use of the toilet facilities.
- * Containers will be labeled identifying them as waste, debris or contaminated clothing.
- * All Excavation/drilling work will comply with all applicable regulatory agencies requirements.
- * All site personnel will be required to wear hard hats and advised to take adequate measures for self protection.
- * Any other action which is determined to be unsafe by the site safety officer.

13. Emergency Response Plan

Fire extinguisher(s) will be on site prior to excavation. Relevant phone numbers:

Person	Title	Phone No.
<u>Lyle Travis</u>	Project Manager	(510) 429-8088
_____	Fire	911 or _____
_____	Police	911 or _____
_____	Ambulance	911 or _____
_____	Poison Control Center	(800) 523-2222
_____	Site Phone	(510)
_____	Nearest off-site no.	_____
<u>Dr. Kenneth Zelinger</u>	Medical Advisor	(510) 357-6500
<u>Jill Brown</u>	Client Contact	(510) 577-4162


TPE SITE SAFETY PLAN

U.S EPA - ERT _____ (201) 321-6660
Chemtrec _____ (800) 424-9300
Centers for Disease Control _____ Day (404) 329-3311
Night (404) 329-2888
National Response Center _____ (800) 424-8802
Superfund/RCRA Hotline _____ (800) 424-8802
TSCA Hotline _____ (800) 424-9065
National Pesticide Information Services _____ (800) 845-7633
Bureau of Alcohol, Tobacco, and Firearms _____ (800) 424-9555

HEALTH AND SAFETY COMPLIANCE STATEMENT

I, Ahmad Shah, have received and read a copy of the project Health and Safety Plan.

I understand that I am required to have read the aforementioned document and have received proper training under the occupational Safety and Health Act (29 CFR, Part 1910.120) prior to conducting site activities at the site.


Signature

01-21-92
Date

Nearest Hospital: **Humana Hospital**
13855 E. 14th Street
San Leandro, CA (510) 357-6500

Directions From Site:

Go 880 N. exit on Marina East go straight until you see San Leandro Blvd. make a right onto San Leandro Blvd. go straight until you see Rose Drive make a right onto Rose Drive it will lead you into the emergency room.

TPE SITE SAFETY PLAN

14. SHORING AND RIGGING

- A. Shoring is not required for this project.
- B. A backhoe will be used to lift the 1,000-gallon and 500-gallon tanks. All rigging and hoisting equipment and their operations shall comply with CAL/OSHA regulations.

white -env.health
 yellow -facility
 pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

80 Swan Way, #200
 Oakland, CA 94621
 (415) 271-4320

Hazardous Materials Division Inspection Form

Site ID# _____ Site Name Port of Oakland Today's Date 6/6/91
 Site Address Bldg M110 EPA ID# _____
 City Oakland Zip 94621 Phone _____

MAX Amt. Stored > 500lbs/55g/200cf? Y N
 Hazardous Waste generated per month? _____

Inspection Categories:

- I. Haz. Mat/Waste GENERATOR/TRANSPORTER
- II. Business Plans, Acute Hazardous Materials
- III. Underground Tanks

The marked items represent violations of the Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

IA GENERATOR (Title 22)

- | | | |
|-------------------|--|--|
| | <input type="checkbox"/> 1. Waste ID | * 66471 |
| | <input type="checkbox"/> 2. EPA ID | 66472 |
| | <input type="checkbox"/> 3. > 90 days | 66508 |
| | <input type="checkbox"/> 4. Label dates | 66508 |
| | <input type="checkbox"/> 5. Biennial | 66493 |
| Manifest | <input type="checkbox"/> 6. Records | 66492 |
| | <input type="checkbox"/> 7. Correct | 66484 |
| | <input type="checkbox"/> 8. Copy sent | 66492 |
| | <input type="checkbox"/> 9. Exception | 66484 |
| | <input type="checkbox"/> 10. Copies Rec'd | 66492 |
| Misc. | <input type="checkbox"/> 11. Treatment | 66371 |
| | <input type="checkbox"/> 12. On-site Disp. (H.S.&C.) | 26189.5 |
| | <input type="checkbox"/> 13. Ex Haz. Waste | 66570 |
| Prevention | <input type="checkbox"/> 14. Communications | 67121 |
| | <input type="checkbox"/> 15. Aisle Space | 67124 |
| | <input type="checkbox"/> 16. Local Authority | 67126 |
| | <input type="checkbox"/> 17. Maintenance | 67120 |
| | <input type="checkbox"/> 18. Training | 67105 |
| Cont'n. gency | <input type="checkbox"/> 19. Prepared | 67140 |
| | <input type="checkbox"/> 20. Name List | 67141 |
| | <input type="checkbox"/> 21. Copies | 67141 |
| | <input type="checkbox"/> 22. Emg. Coord. Tmp. | 67144 |
| Containers, Tanks | <input type="checkbox"/> 23. Condition | 67241 |
| | <input type="checkbox"/> 24. Compatibility | 67242 |
| | <input type="checkbox"/> 25. Maintenance | 67243 |
| | <input type="checkbox"/> 26. Inspection | 67244 |
| | <input type="checkbox"/> 27. Buffer Zone | 67246 |
| | <input type="checkbox"/> 28. Tank Inspection | 67259 |
| | <input type="checkbox"/> 29. Containment | 67245 |
| | <input type="checkbox"/> 30. Safe Storage | 67261 |
| | <input type="checkbox"/> 31. Freeboard | 67257 |
| | | <input type="checkbox"/> 32. Applic./Insurance |
| | <input type="checkbox"/> 33. Comp. Cert./CHP Insp. | 66448 |
| | <input type="checkbox"/> 34. Containers | 66465 |
| Manifest | <input type="checkbox"/> 35. Vehicles | 66465 |
| | <input type="checkbox"/> 36. EPA ID #s | 66531 |
| | <input type="checkbox"/> 37. Correct | 66541 |
| | <input type="checkbox"/> 38. HW Delivery | 66543 |
| | <input type="checkbox"/> 39. Records | 66544 |
| Cont'n | <input type="checkbox"/> 40. Name/ Covers | 66545 |
| | <input type="checkbox"/> 41. Recyclables | 66800 |

Comments:

Two 26 T's removed, both 10,000 gallon jet fuel tanks.

No obvious holes observed during removal.

Two soil samples collected from the south end of each tank at a depth of ~ 6'

One soil sample collected from east + west sidewall.

water was at 7' with considerable tar wrap floating in water. Pit to be pumped on 6/7 and a water sample will be collected from the recharge.

Rev 6/88

Contact: _____

Title: _____

Signature: _____

Inspector: _____

Signature: [Signature]

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

Project Specialist (print) Dennis Byrne

ACCEPTED *of R*
 5/13/91

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

Plans have been reviewed and found to be acceptable and essentially meet the requirements of State and local laws. Changes to your plans indicated by the Department are to assure compliance with State and local laws. The project proposed herein is now referred for issuance of any required building permits for construction. Copy of these accepted plans must be on file with the Department to all contractors and craftsmen involved with the project. Any alterations of these plans and specifications must be submitted to this Department and to the City and County Inspection Department to determine if such alterations meet the requirements of State and local laws. The Department will require at least 48 hours prior to the start of any required inspections:
 _____ Removal of Tank and Piping
 _____ Sampling
 _____ Final Inspection

UNDERGROUND TANK CLOSURE PLAN

* * * Complete according to attached instructions * * *

- Business Name Port Of Oakland
 Business Owner The Board Of Port Commissioners Of The City Of Oakland
- Site Address Number 1 - Airport Drive, Building M-110, South Field
 City Oakland Zip 94621 Phone _____
- Mailing Address 530 Water Street, environmental dept.
 City Oakland, Ca Zip 94607 Phone 415/272-1178
- Land Owner Port Of Oakland
 Address 530 Water St. City, State Oakland, Ca Zip 94604-2064
- Generator name under which tank will be manifested _____
Port Of Oakland - 530 Water Street, Oakland, Ca 94604-2064
 EPA I.D. No. under which tank will be manifested CAC000594312

6. Contractor RAMCO
Address 1401 Halyard Drive, Suite 130
City West Sacramento, Ca 95691 Phone 916/372-7535
License Type A/Haz ID# 94-2721041

7. Consultant Baseline Environmental Consulting
Address 5900 Hollis Street, Suite D
City Emeryville, Ca Phone 420-8686

8. Contact Person for Investigation
Name Andrew Clarke-Clough Title Assoc. Env.
Phone 415/272-1178

9. Number of tanks being closed under this plan 2
Length of piping being removed under this plan 10'
Total number of tanks at facility 2

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 Refinery Services EPA I.D. No. CAD083166728
Hauler License No. 1500 License Exp. Date 6/30/91
Address P.O. Box 1167
City Patterson State Ca Zip 95363

b) Product/Residual Sludge/Rinsate Disposal Site

Name Refinery Services EPA I.D. No. CAD083166728
Address P.O. Box 1167
City Patterson State Ca Zip 95363

c) Tank and Piping Transporter

Name H&H Environmental Service EPA I.D. No. CAD004771168
Hauler License No. 0334 License Exp. Date 1/31/92
Address 220 China Basin
City San Francisco State Ca Zip 94107

d) Tank and Piping Disposal Site

Name H&H Environmental Service EPA I.D. No. CAD004771168
Address 220 China Basin
City San Francisco State ca Zip 94107

11. Experienced Sample Collector

Name Irene Kahn
Company Baseline Environmental Consulting
Address 5900 Hollis Street, Suite D
City Emeryville State Ca Zip 94607 Phone 420-8686

12. Laboratory

Name Curtis & Thompkins, Ltd.
Address 2323 Fifth Street
City Berkely State Ca Zip 94710
State Certification No. 159

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

If yes, describe. Soil sampling conducted as part of a phase 1 investigation,
10/31/88. Tanks have been tested tight.

14. Describe methods to be used for rendering tank inert

30Lbs of dry ice per each 1,000 gallon tank capacity

to purge vapors

Verify with on site LEL 02 meter

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)		
10,000 g.	Jet Fuel (MF23)	Soil	14 locations ranging from 12 to 45 feet from jet fuel tanks.
10,000 g.	Jet Fuel (MF24)	Soil	

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

<p>Stockpiled Soil Volume (Estimated)</p> <p style="text-align: center;">200 yards³</p>	<p style="text-align: center;">Sampling Plan</p> <p>One sample every 20 cubic yards maximum or 1 sample every 50 cubic yards minimum. Analyze for TPH, Diesel and BTEX.</p>
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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
Jet fuel	3550 - 8020 or 8240 8260	TPH, DIESEL BTEX	1.0 PPM 0.005 PPM
Water	3510 - 602 - 624 or 8260	TPH, DIESEL BTEX	50 PPB .5 PPB

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

18. Submit Worker's Compensation Certificate copy

Name of Insurer State Compensation Insurance Fund

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) MICHAEL S. RAMOS DBA RAMCON

Signature *Michael Ramos*

Date 5/8/91

Signature of Site Owner or Operator

Name (please type) ANDREW CLARK CLOUGH

Signature *Andrew Clark Clough*

Date 5/8/91