



June 12, 1995

Mr. David Kuhre  
The Oliver Rubber Company  
1200 65th Street  
Emeryville, CA 94608

SUBJECT SITE: The Oliver Rubber Company  
1200 65th Street  
Emeryville, California

Dear Mr. Kuhre:

This letter documents the destruction of monitoring wells MW-1 through MW-3 at the above referenced site. The work was completed under Alameda County Flood Control and Water Conservation District (Zone 7) drilling permit #95328 issued to Aqua Science Engineers (ASE) on May 25, 1995. A copy of the drilling permit is attached.

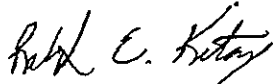
On May 31, 1995, Soils Exploration Services (licence #C-57 582696) of Benicia, California destroyed monitoring wells MW-2 and MW-3 at the subject site under the direction of ASE by removing the wellbox protecting the well and drilling around and removing the well casing. All cement sanitary seals, bentonite layers and sand pack materials were removed to the total depth of the wells. The remaining boreholes were filled with neat cement placed by tremie pipe. Monitoring well MW-1 was destroyed using the same methodology on June 6, 1995. An electric line directly above monitoring well MW-1 required a drill rig with a detachable mast in order to safely destroy the well, thus it was destroyed with a different rig on June 6, 1995. Soil cuttings produced during the drilling were spread in a dirt area on the site, and the well casing and other well materials were removed from the site.

Following the well destruction, ASE filed a California Department of Water Resources (DWR) well completion report with the DWR and Zone 7 as required.

Please feel free to contact us if you have any questions or comments at (510) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.



Robert E. Kitay, R.E.A.  
Project Geologist



cc: Mr. Wyman Hong, Alameda County Flood Control and Water Conservation District (Zone 7), 5997 Parkside Drive, Pleasanton, CA 94566

California Department of Water Resources, 3251 S Street, Sacramento, CA 95816

Ms. Susan Hugo, Alameda County Health Care Services Agency, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577

Mr. Kevin Graves, California Regional Water Quality Control Board - San Francisco Bay Region, 2101 Webster Street, Suite 500, Oakland, CA 94612



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE

PLEASANTON, CALIFORNIA 94588-5127

PHONE (510) 484-2600 FAX (510) 462-3914

25 May 1995

RECEIVED  
MAY 26 1995  
AQUA SCIENCE ENG.

Mr. Robert Kitay  
Aqua Science Engineers  
2411 Old Crow Canyon Road, Suite 4  
San Ramon, CA 94583

Gentlemen:

Enclosed is drilling permit 95328 for the destruction of wells 1S/4W 15C80 to 15C83 at the 1200 - 65th Street in Emeryville for the Oliver Rubber Company.

Please note that permit condition A-2 requires that a well destruction report be submitted after completion of the work. The report should include a description of methods and materials used to destroy the well, location sketch, date of destruction and permit number. Please submit the original of your completion report. We will forward your submittal to the California Department of Water Resources.

If you have any questions, please contact Craig Mayfield at extension 233 or me at extension 235.

Very truly yours,

  
Wyman Hong  
Water Resources Technician II

WH:mm  
Enc.



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94566 (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT The Oliver Rubber Company
1200 - 65th Street
Emeryville, CA

PERMIT NUMBER 95328
LOCATION NUMBER 1S/4W 15C80 to 15C83

CLIENT
Name The Oliver Rubber Company
Address 1200-65th Street Phone (510) 654-7711
City Emeryville, CA Zip 94608

PERMIT CONDITIONS

Circled Permit Requirements Apply

APPLICANT
Name Aqua Science Engineers
2411 Old Crow Canyon Rd #4
Address FAX (510) 837-4853 Phone (510) 820-9391
City San Ramon, CA Zip 94583

A. GENERAL

- 1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER WELLS, INCLUDING PIEZOMETERS

- 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. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

C. 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.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

TYPE OF PROJECT
Well Construction Geotechnical Investigation
Cathodic Protection General
Water Supply Contamination
Monitoring Well Destruction X

PROPOSED WATER SUPPLY WELL USE
Domestic Industrial Other
Municipal Irrigation

DRILLING METHOD:
Mud Rotary Air Rotary Auger X
Cable Other

DRILLER'S LICENSE NO. C-57 582696

WELL PROJECTS
Drill Hole Diameter 8 In. Maximum
Casing Diameter 2 In. Depth 25 ft.
Surface Seal Depth 25 ft. Number 4

GEOTECHNICAL PROJECTS
Number of Borings Maximum
Hole Diameter In. Depth ft.

ESTIMATED STARTING DATE 5-31-95
ESTIMATED COMPLETION DATE 6-30-95

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

APPLICANT'S SIGNATURE Date 5-22-95

Approved Wyman Hong Date 25 May 95

25 May 1995

ZONE 7  
WATER RESOURCES ENGINEERING  
DRILLING ORDINANCE

OLIVER RUBBER COMPANY  
1200 - 65TH STREET  
EMERYVILLE  
WELL 1S/4W 15C80 TO 15C83  
PERMIT 95328

Destruction Requirements:

1. Drill out the well so that the casing, seal, and gravel pack are removed to the bottom of the well.
2. Using a tremie pipe, fill the hole to 2 feet below the lower of finished grade or original ground with neat cement.
3. After the seal has set, backfill the remaining hole with compacted material.

These destruction requirements as proposed by Robert Kitay of Aqua Science Engineers meet or exceed the Zone 7 minimum requirements.

LOP - RECORD CHANGE REQUEST FORM

printed:  
05/31/95

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

Insp: SH

AGENCY # : 10000      SOURCE OF FUNDS: F      SUBSTANCE: 12034  
 StID : 1330      LOC:  
 SITE NAME: Oliver Rubber Co.      DATE REPORTED : 07/01/92  
 ADDRESS : 1200 65th St      DATE CONFIRMED: 06/24/92  
 CITY/ZIP : Emeryville 94608      MULTIPLE RPs : N

SITE STATUS

CASE TYPE: S      CONTRACT STATUS: 4      PRIOR CODE:1C3      EMERGENCY RESP:  
 RP SEARCH: S      DATE COMPLETED: 07/21/92  
 PRELIMINARY ASMNT: C      DATE UNDERWAY: 06/25/92      DATE COMPLETED: 10/01/92  
 REM INVESTIGATION: C      DATE UNDERWAY: 10/01/92      DATE COMPLETED: 07/14/93  
 REMEDIAL ACTION: C      DATE UNDERWAY: 10/01/92      DATE COMPLETED: 07/14/93  
 POST REMED ACT MON:      DATE UNDERWAY:      DATE COMPLETED:

ENFORCEMENT ACTION TYPE: 1      DATE ENFORCEMENT ACTION TAKEN: 07/21/92  
 LUFT FIELD MANUAL CONSID: 2HSCAWG  
 CASE CLOSED: Y      DATE CASE CLOSED: 06/01/95  
 DATE EXCAVATION STARTED : 11/01/91      REMEDIAL ACTIONS TAKEN: ED

RESPONSIBLE PARTY INFORMATION

RP#1-CONTACT NAME: David Kuhre  
 COMPANY NAME: Oliver Tire & Rubber Company  
 ADDRESS: 1200 65th Street  
 CITY/STATE: Emeryville, California 94608

INSPECTOR VERIFICATION:

NAME SUSAN HUGO      SIGNATURE Susan L. Hugo      DATE 6/1/95

DATA ENTRY INPUT:

Name/Address Changes Only			Case Progress Changes	
ANNPCGMS _____	LOP _____	DATE _____	LOP _____	DATE _____

LOP - RECORD CHANGE REQUEST FORM

printed:  
05/30/95

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

Insp: SH

AGENCY # : 10000      SOURCE OF FUNDS: F      SUBSTANCE: 12034  
 StID : 1330      LOC:  
 SITE NAME: Oliver Rubber Co.      DATE REPORTED : 07/01/92  
 ADDRESS : 1200 65th St      DATE CONFIRMED: 06/24/92  
 CITY/ZIP : Emeryville 94608      MULTIPLE RPs : N

SITE STATUS

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 RP SEARCH: S      DATE COMPLETED: 07/21/92  
 PRELIMINARY ASMNT: C      DATE UNDERWAY:      DATE COMPLETED:  
 REM INVESTIGATION:      DATE UNDERWAY:      DATE COMPLETED:  
 REMEDIAL ACTION:      DATE UNDERWAY:      DATE COMPLETED:  
 POST REMED ACT MON:      DATE UNDERWAY:      DATE COMPLETED:

ENFORCEMENT ACTION TYPE: 1      DATE ENFORCEMENT ACTION TAKEN: 07/21/92  
 LUFT FIELD MANUAL CONSID: HSCAWG  
 CASE CLOSED:      DATE CASE CLOSED:  
 DATE EXCAVATION STARTED :      REMEDIAL ACTIONS TAKEN: ED

RESPONSIBLE PARTY INFORMATION

-----  
 RP#1-CONTACT NAME: Ron Kessler  
 COMPANY NAME: Oliver Tire & Rubber Company  
 ADDRESS: 1200 65th Street  
 CITY/STATE: Emeryville, California 94608

INSPECTOR VERIFICATION:

NAME _____	SIGNATURE _____	DATE _____
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DATA ENTRY INPUT:

Name/Address Changes Only	Case Progress Changes
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ANNPGMS _____	LOP _____	DATE _____	LOP _____	DATE _____
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*Susan - Fay said R.P. is admin  
 about done - letter -  
 4/26/93      Swing?  
 Tom*

## California Laboratory Services

**Analysis Report: CAM Metals, STLC, EPA Method 6010/7000  
CA Waste Extraction Test (WET)**

**Client: TKS Consulting**  
P.O. Box 1618  
Sutter Creek, CA 95685

**Project No.:**  
**Contact: Tim Smith**  
**Phone: (209)267-0903**

**Project: GSA**

**CLS Contact: George Hampton**  
**Job No.: 793760**  
**COC Log No.: 17354**  
**CLS ID No.: M3760A-6A**  
**Batch No.: M940228A**  
**Matrix: SOIL**

**Date Sampled: 01/27/94**  
**Date Received: 01/28/94**  
**Date Leached: 02/23/94**  
**Date Analyzed: 03/01/94**  
**Date Reported: 03/07/94**  
**Client ID No.: GSASP-2-1**

**Sample: GSASP-2-1**

Analyte	CAS No.	Results (mg/L)	Rep. Limit (mg/L)	Method
Ag (Silver)	7440-22-4	ND	0.50	6010
As (Arsenic)	7440-38-2	0.22	0.050	7060
Ba (Barium)	7440-39-3	1.9	0.50	6010
Be (Beryllium)	7440-41-7	ND	0.10	6010
Cd (Cadmium)	7440-43-9	ND	0.10	6010
Co (Cobalt)	7440-48-4	ND	0.50	6010
Cr (Chromium)	7440-47-3	ND	0.50	6010
Cu (Copper)	7440-50-8	ND	0.50	6010
Hg (Mercury)	7439-97-6	ND	0.050	7471
Mo (Molybdenum)	7439-98-7	ND	0.50	6010
Ni (Nickel)	7440-02-0	ND	0.50	6010
Pb (Lead)	7439-92-1	1.4	0.50	6010
Sb (Antimony)	7440-36-0	ND	0.50	6010
Se (Selenium)	7783-00-8	ND	0.050	7740
Tl (Thallium)	7440-28-0	ND	5.0	6010
V (Vanadium)	7440-62-2	ND	0.50	6010
Zn (Zinc)	7440-66-6	1.3	0.50	6010

ND = Not detected at or above indicated Reporting Limit  
Rep. Limit = Reporting Limit





ALCO  
HAZMAT

94 MAR 22 PM 1:30

March 7, 1994

Alameda County Health Care Services Agency  
Attention: Ms. Susan L. Hugo  
80 Swan Way, Room 350  
Oakland CA 94621

Subject: Site Closure Report  
February 28, 1994  
Oliver Rubber Company  
Emeryville, CA 94608

Dear Ms. Hugo:

Enclosed, please find one copy of the subject report prepared by ASE Environmental.

Please accept this report as a formal application for site closure (as indicated on page 1). This report was reviewed by our Oliver staff and our Standard Products Corporate Environmental personnel. We concur with its content, and findings, and look forward to bringing this project to a successful conclusion. Please note our request for site closure on page 7 (under "Recommendations"), we trust that this will be an acceptable resolution to this project.

Respectfully submitted,

OLIVER RUBBER COMPANY

THE STANDARD PRODUCTS COMPANY



Ronald L. Kessler  
Division Manager



Tom O. Palmer  
Director Environmental/Health & Safety

c: Mr. Rich Hiatt - Regional  
Water Quality Control Board  
David Allen - ASE

Kuhre:USTclose.ltr

**Oliver Rubber Company**

General Office: 1200 65th Street, P.O. Box 8447, Oakland, CA 94662 • (510) 654-7711 TWX 990106 (ORCO EMVL)  
FAX (510) 655-6319  
Oakland, CA • Athens, GA • Paris, TX • Asheboro, NC • Dallas, TX • Export, PA



Subsidiary of  
**THE STANDARD PRODUCTS CO.**



ENVIRONMENTAL STRATEGIES CORPORATION

101 Metro Drive • Suite 650 • San Jose, California 95110 • (408) 453-6100 • FAX (408) 453-0496

January 12, 1994

Alameda County Department of Health  
Hazardous Materials Division  
80 Swan Way  
Room 200  
Oakland, California 94621

Dear Ms. Logan:

I am interested in obtaining information on the status of environmental investigations and remediation at several locations in the Oakland/Emeryville area including:

- Myers Drum Company (may be listed as Myers Container Corp.) - 6549 San Pablo Avenue, Oakland, CA, 94608 ✓
- Oliver Rubber Company - 1200 65th Street, Oakland, CA, 94608 ✓ SH
- LSI Liquid Sugars Inc. - 1285 66th Street, Emeryville, CA, 94608 ✓
- 1130 67th Street, Oakland, CA, 94608 N/A
- 1190 67th Street, Oakland, CA, 94608 N/A
- George M. Martin Inc. - 1250 67th Street, Emeryville, CA, 94608 ✓

Specifically, I would like to determine the following for each site: whether there are any potential sources of soil or groundwater contamination, whether any environmental investigations have been performed, the extent of soil and groundwater contamination, and the status of remedial activities being conducted at the site. I am available to review files held by the Department of Health if this will expedite the release of this information.

Thank you for your assistance in setting up the file review. I can be reached at the telephone number listed above if you have any questions or require any clarification. Your a

Sincerely yours,

Jacqueline P. Thiel  
Senior Project Director

JPT:ljw  
978

1. Grave to JB - 1/19/94

10:25 - 10:33 (8 min)

1/20/94 B

2. Files got from JB



January 27, 1993

The Oliver Rubber Company  
Emeryville, CA 94662

ATTENTION: Mr. Ron Kessler

SUBJECT: Former Bunker Oil Tank  
Oliver Rubber  
Emeryville, CA

ASE JOB NO.: 2571


Dear Mr. Kessler:

Aqua Science Engineers, Inc. (ASE) was contracted by the Oliver Rubber Company to perform overexcavation duties in the area of the former Bunker Oil tank on December 18, 1992. The overexcavated material, approximately 54 cubic yards, was stockpiled and covered on site. Samples of the stockpiled material were collected by ASE, and in turn were analyzed at a State of California certified environmental laboratory. The analysis was conducted for purposes of profiling for future disposal at a local landfill licensed to handle contaminated soil.

On January 15, 1993, the stockpiled material was transported, under Non-Hazardous Special Waste Manifest, and disposed of at the BFI, Vasco Road Landfill in Livermore, California. Attached are the original manifests for the client's file.

Further action at the site will consist of the activities associated with the quarterly groundwater monitoring program. ASE appreciates the opportunity to assist the Oliver Rubber Company with its environmental needs. Should questions or comments arise, please feel free to give us a call at (510) 820-9391.

Respectfully submitted,  
AQUA SCIENCE ENGINEERS, INC.

  
David Allen  
Project Manager

Attachments: Non-Hazardous Special Waste Manifests (3)

cc: Ms. Susan Hugo, ACHCSA  
Mr. Rich Hiatt, RWQCB, San Francisco Bay Region

**NON-HAZARDOUS SPECIAL WASTE MANIFEST**

**GENERATOR**

Generator Name Clay Rubber Co Generating Location Union City, CA  
 Address 25065th Energy Ave Address 1200 60th Ave  
CA 94662 CA 94662

Phone No. 510-654-7711 Phone No. 510-654-7711

BFI Waste Code	Description of Waste	Quantity	Units	No.	Type
<u>CA 405 011 72</u>	<u>Soil contaminated with oil &amp; Grease</u>	<u>18</u>	<u>Y</u>	<u>1</u>	<u>7</u>

- Containers Type
- D - Drum
  - C - Carton
  - B - Bag
  - T - Truck
  - P - Pounds
  - Y - Yards
  - O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name Steve Dellore Signature [Signature] Shipment Date 011593

**TRANSPORTER**

Truck No. K057 Phone No. (510) 487-3397  
 Transporter Name D.T.I Driver Name (Print) RAMON MONTES  
 Address P.O. BOX 1622 Vehicle License No./State 2H0610 CA  
UNION CITY CA 94587 Vehicle Certification CA 982505364

I hereby certify that the above named material was picked up at the generator site listed above.

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature [Signature] Shipment Date 011593 Driver Signature [Signature] Delivery Date 011593

**DESTINATION**

Site Name VASCO Road Landfill Phone No. 510-447-0491  
 Address 11051 N VASCO RD Livermore CA 94550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent [Signature] Signature [Signature] Receipt Date 011593

PASS CODE \_\_\_\_\_

**NON-HAZARDOUS SPECIAL WASTE MANIFEST**

**GENERATOR**

Generator Name Oliver Rubber Co. Generating Location Oliver Rubber Co.  
Address 1200 65th St Emeryville Address 1200 65th St Emeryville  
CA. 94662 CA 94662

Phone No. 510-6547711 Phone No. 510-6547711

BFI Waste Code CA 405 011193 40802 Containers

Description of Waste	Quantity	Units	No.	Type
Soil Contaminated with oil + Grease	18	Y	01	T

- Type
- D - Drum
- C - Carton
- B - Bag
- T - Truck
- P - Pounds
- Y - Yards
- O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Steve De Hope  
Generator Authorized Agent Name

[Signature]  
Signature

   
Shipment Date

**TRANSPORTER**

Truck No. 5316 Phone No. 510 437-3577  
Transporter Name DJI Driver Name (Print) Joseph Castillo  
Address P.O. 1622 Union City Vehicle License No./State 3215337 (CAHP# 1591)  
94587 Vehicle Certification CAD 982505364

I hereby certify that the above named material was picked up at the generator site listed above.

I hereby certify that the above named material was delivered without incident to the destination listed below.

[Signature] 011593  
Driver Signature Shipment Date

[Signature] 011593  
Driver Signature Delivery Date

**DESTINATION**

Site Name VASCO ROAD Landfill Phone No. 510-4470491  
Address 4001 N VASCO RD Livermore 94550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[Signature]    
Name of Authorized Agent Signature Receipt Date

PASS CODE

**NON-HAZARDOUS SPECIAL WASTE MANIFEST**

**GENERATOR**

Generator Name Oliver Rubber Co. Generating Location Oliver Rubber Co.  
 Address 1200 65th St Emeryville Address 1200 65th St. Emeryville  
CA 94662 CA 94662  
 Phone No. 510-6547711 Phone No. 510-6547711

BFI Waste Code CA 405 011192 40802 Containers 1 Type T  
 Description of Waste Soil Contaminated with Oil & Grease Quantity 18 Units Y No. I Type T  
 D - Drum  
 C - Carton  
 B - Bag  
 T - Truck  
 P - Pounds  
 Y - Yards  
 O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

STEVE DeHose Generator Authorized Agent Name [Signature] Signature                      Shipment Date

**TRANSPORTER**

Truck No. K357 Phone No.                       
 Transporter Name DTI Driver Name (Print) RAMON MONTES  
 Address                      Vehicle License No./State 2H06210 CA  
                     Vehicle Certification                     

I hereby certify that the above named material was picked up at the generator site listed above. I hereby certify that the above named material was delivered without incident to the destination listed below.

[Signature] Driver Signature 011593 Shipment Date [Signature] Driver Signature 011593 Delivery Date

**DESTINATION**

Site Name VASCO ROAD LANDFILL Phone No. 510-4470471  
 Address 4001 N VASCO RD, LIVERMORE 94550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate

                     Name of Authorized Agent [Signature] Signature 11593 Receipt Date

PASS CODE



00717 1 1 19 83

January 5, 1993

Alameda County Health Care Services Agency  
Attention: Ms. Susan L. Hugo  
80 Swan Way, Room 350  
Oakland CA 94621

Subject: Final Report  
Bunker-Oil Overexcavation Activities  
Oliver Rubber Company  
Emeryville, CA 94608

Dear Ms. Hugo:

Enclosed, please find one copy of the subject report prepared by ASE Environmental.

This report was reviewed by our Oliver staff and our Standard Products Corporate Environmental personnel. We concur with its content, and findings, and look forward to bringing this project to a successful conclusion.

Respectfully submitted,

OLIVER RUBBER COMPANY

THE STANDARD PRODUCTS COMPANY

Ronald L. Kessler  
Division Manager

Tom O. Palmer  
Director Environmental/Health  
and Safety

c: Mr. Rich Hiett - Regional  
Water Quality Control Board  
David Allen - ASE

**Oliver Rubber Company**  
Auhre:ACHCSA.039

General Office: 1200 65th Street, P.O. Box 8447, Oakland, CA 94662 • (510) 654-7711 TWX 990106 (ORCO EMVL)  
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Oakland, CA • Athens, GA • Paris, TX • Asheboro, NC • Dallas, TX • Export, PA



Subsidiary of  
**THE STANDARD PRODUCTS co.**

ALAMEDA COUNTY  
HEALTH CARE SERVICES  
AGENCY

DAVID J. KEARS, Agency Director



*ESB*

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

December 1, 1992  
STID# 1330

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

Mr. Ron Kessler  
Oliver Rubber Company  
1200 65th Street  
Emeryville, California 94608

**RE: Additional Investigation/Remediation at Oliver Rubber  
Company - 1200 65th Street, Emeryville, California 94608**

Dear Mr. Kessler:

The Alameda County Department of Environmental Health, Hazardous Materials Division has completed review of the "Project Update, Phase II Activities for the Oliver Rubber Company", dated October 21, 1992, and submitted by Aqua Science Engineers.

Soil borings SB-1, SB-2 and MW-1 (all borings taken at 10 feet bgs) showed non detect levels for the following target compounds: total petroleum hydrocarbon as diesel (TPHd), benzene, toluene, ethylbenzene, xylenes, and oil & grease. It appears that the extent of soil contamination associated with the former bunker oil tank is limited to the area approximately 5 feet in distance around the tank excavation. The three sidewall samples collected after limited overexcavation during the tank removal activity exhibited significant levels of petroleum hydrocarbon contamination: SW-N (1500 ppm TOG, 490 ppm TPHd); SW-W (670 ppm TOG, 390 ppm TPHd); SW-S ( 1300 ppm TOG, 1300 ppm TPHd).

The levels of contamination that remain in the soil around the tank pit requires further remediation to non detect levels before the site can be recommended for case closure to RWQCB. In addition, groundwater monitoring well samples must exhibit four consecutive quarters of non detect levels of target compounds.

However, if no remediation will be conducted to reduce the levels of soil contamination at the site, the following items must be performed:

- \* Long term monitoring of wells at the site
- \* Risk assessment to determine the impact and/or threat to the public health and the environment
- \* Deed restriction on the property
- \* Feasibility study which must show all alternative methods of remediation applicable to the site and their corresponding cost ( which method is economically feasible for the site)



Mr. Ron Kessler  
RE: 1200 65th Street, Emeryville 94608  
December 1, 1992  
Page 2 of 3

Per my telephone conversation with Steve de Hoppe of Aqua Science Engineers on November 30, 1992, it is my understanding that overexcavation will be performed around the three sidewalls with petroleum hydrocarbon contamination. Verification samples must be collected and analyzed for TPH diesel, benzene, toluene, ethyl benzene, xylene and oil and grease. The excavation pit must be backfilled with only clean fill. Please notify this office at least 48 hours in advance when overexcavation will commence so that a site visit can be arranged during the sampling.

This department has not received the complete report on the groundwater contamination assessment performed on October 1, 1992. The report must be submitted to this office **no later than December 11, 1992.**

Until cleanup is complete, you will need to submit reports to this office and to RWQCB every three months (or at a more frequent interval, if specified at any time by either agency). In addition, the following items must be incorporated in your future reports or workplans:

- a cover letter from the responsible party or tank owner stating the accuracy of the report and whether he/she concurs with the conclusions and recommendations in the report or workplan
- site map delineating contamination contours for soil and groundwater based on recent data should be included and the status of the investigation and cleanup must be identified
- proposed continuing or next phase of investigation / cleanup activities must be included to inform this department or the RWQCB of the responsible party or tank owner's intention
- any changes in the groundwater flow direction and gradient based on the measured data since the last sampling event must be explained
- historical records of groundwater level in each well must be tabulated to indicate the fluctuation in water levels
- tabulate analytical results from all previous sampling events; provide laboratory reports (including quality control/quality assurance) and chain of custody documentation

Mr. Ron Kessler  
RE: 1200 65th Street, Emeryville 94608  
September 24, 1992  
Page 3 of 3

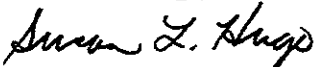
All reports and proposals must be submitted under seal of a California Registered Geologist or Registered Civil Engineer with a statement of qualifications for each lead professionals involved with the project. Copies of reports must also be submitted to :

Rich Hiett  
RWQCB, San Francisco Bay Region  
2101 Webster Street, Fourth Floor  
Oakland, California 94612

Because we are overseeing this site under the designated authority of the Regional Water Quality Control Board, this letter constitutes a formal requests for technical reports pursuant to California Water Code Section 13267 (b). Any extensions of stated deadlines or changes in the workplan must be confirmed in writing and approved by this agency or RWQCB.

Please contact me at (510) 271-4530 if you have any questions concerning this letter.

Sincerely,



Susan L. Hugo  
Senior Hazardous Materials Specialist

cc: Rafat A. Shahid, Asst. Agency Director, Environmental Health  
Rich Hiett, San Francisco Bay RWQCB  
Mark Thomson, Alameda County District Attorney's Office  
Edgar B. Howell, Chief, Hazardous Materials Division - files  
David Allen - Aqua Science Engineers, Inc.  
2411 Old Crow Canyon Road, # 4  
San Ramon, California 94583

ALAMEDA COUNTY  
HEALTH CARE SERVICES  
AGENCY

DAVID J. KEARS, Agency Director



RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

September 24, 1992  
STID# 1330

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

Mr. Ron Kessler  
Oliver Rubber Company  
1200 65th Street  
Emeryville, California 94608

**RE: Oliver Rubber Company  
1200 65th Street, Emeryville, California 94608**

Dear Mr. Kessler:

The Alameda County Department of Environmental Health, Hazardous Materials Division has recently reviewed the files concerning the removal of three underground storage tanks at the referenced site. This office is also in receipt and has completed its review of the "Workplan for Groundwater Contamination Assessment" dated September 10, 1992 submitted by Aqua Science Engineers Inc.

Based on this review, this department concurs with the basic elements of the workplan. However, the following issues must be addressed before the workplan can be implemented:

- \* Soil sample (SW-W) collected after limited overexcavation in June 25, 1992 on the west wall of the former bunker oil underground storage tank excavation still showed considerable levels of contamination. Total petroleum hydrocarbon as diesel (130 ppm), oil & grease (450 ppm), benzene ( 19 ppb), toluene (6.7 ppb), xylene (33 ppb) were detected. The lateral extent of soil contamination in the area west of the former bunker oil tank excavation must be determined.
- \* Stockpiled soil from the former bunker oil tank contained significant levels of semi-volatile organics, specifically 2-Methylnaphthalene ( 0.38 ppm). Analysis of the soil and groundwater samples collected in the area of the former bunker oil tank must include Method 8270 for Semi-Volatile Organics in addition to Total Petroleum Hydrocarbon as diesel (TPH-d), oil & grease (O & G), and benzene, toluene, ethyl benzene, xylene (BTEX).
- \* Please explain how the protocol for one soil sample per hole will be selected for laboratory testing. Soil samples must be collected every five feet as per RWQCB's guidelines. Field instruments are acceptable as a screening tools only. Any evidence of soil contamination such as odor, visual staining or field instrument readings must be verified by analysis from a state certified laboratory.

Mr. Ron Kessler  
RE: 1200 65th Street, Emeryville 94608  
September 24, 1992  
Page 2 of 3

- \* Groundwater elevation readings must be performed every month for twelve consecutive months and reduced to every quarter after the first year. Groundwater monitoring wells must be sampled on a quarterly basis and analyzed for target compounds. MW-1 must be analyzed for TPH-d, BTXE, semivolatile organics (8270), oil & grease. MW-2 and MW-3 must be sampled for TPH-g, BTXE and volatile organic compounds (8240). After four quarters of non detectable levels have been achieved, the frequency of sampling events will be evaluated and/or a recommendation for signoff/case closure by RWQCB will be determined.
- \* Please submit a time schedule for all phases of the investigation and remediation activities and the anticipated time when cleanup will be completed at the site.

A report must be submitted within **30 days** after completion of this investigation. Until cleanup is complete, you will need to submit reports to this office and to RWQCB every three months (or at a more frequent interval, if specified at any time by either agency). In addition, the following items must be incorporated in your future reports or workplans:

- a cover letter from the responsible party or tank owner stating the accuracy of the report and whether he/she concurs with the conclusions and recommendations in the report or workplan
- site map delineating contamination contours for soil and groundwater based on recent data should be included and the status of the investigation and cleanup must be identified
- proposed continuing or next phase of investigation / cleanup activities must be included to inform this department or the RWQCB of the responsible party or tank owner's intention
- any changes in the groundwater flow direction and gradient based on the measured data since the last sampling event must be explained
- historical records of groundwater level in each well must be tabulated to indicate the fluctuation in water levels
- tabulate analytical results from all previous sampling events; provide laboratory reports (including quality control/quality assurance) and chain of custody documentation

Mr. Ron Kessler  
RE: 1200 65th Street, Emeryville 94608  
September 24, 1992  
Page 3 of 3

All reports and proposals must be submitted under seal of a California Registered Geologist or Registered Civil Engineer with a statement of qualifications for each lead professionals involved with the project. Copies of reports must also be submitted to :

Rich Hiatt  
RWQCB, San Francisco Bay Region  
2101 Webster Street, Fourth Floor  
Oakland, California 94612

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Sincerely,



Susan L. Hugo  
Senior Hazardous Materials Specialist

cc: Rafat A. Shahid, Asst. Agency Director, Environmental Health  
Rich Hiatt, San Francisco Bay RWQCB  
Mark Thomson, Alameda County District Attorney's Office  
Edgar B. Howell, Chief, Hazardous Materials Division - files  
David Allen - Aqua Science Engineers, Inc.  
2411 Old Crow Canyon Road, # 4  
San Ramon, California 94583

Project Specialist (print) SUSAN L. HUGBO

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

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

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

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

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

- Removal of Tank and Piping
- 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.

*Please note change made in page 5.*

*Susan A Hugo  
4/17/92*

**UNDERGROUND TANK CLOSURE PLAN**

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

1. Business Name OLIVER RUBBER Co.  
Business Owner STANDARD PRODUCTS Co.
  2. Site Address 1259 65<sup>th</sup> STREET  
City EMERYVILLE Zip 94608 Phone <sup>(510)</sup> 654-7711
  3. Mailing Address P.O. BOX 8447  
City OAKLAND, CA Zip 94608 Phone <sup>(510)</sup> 654-7711
  4. Land Owner OLIVER RUBBER Co.  
Address 1200 65<sup>th</sup> ST City, State EMERYVILLE, CA Zip 94608
  5. Generator name under which tank will be manifested \_\_\_\_\_  
OLIVER RUBBER Co.
- EPA I.D. No. under which tank will be manifested CAC000679616

6. Contractor AQUA SCIENCE ENGINEERS ✓  
Address 1041 SHARY CIRCLE  
City CONCORD, CA Phone (510) 685-6700  
License Type ENG. A ID# 487000

7. Consultant AQUA SCIENCE ENGINEERS  
Address 1041 SHARY CIRCLE  
City CONCORD, CA Phone (510) 685-6700

8. Contact Person for Investigation

Name DAVID PRULL Title PROJECT MANAGER  
Phone (510) 685-6700

9. Number of tanks being closed under this plan ① ✓  
Length of piping being removed under this plan 0 Ft.  
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 WASTE OIL RECO. EPA I.D. No. CAAD000626515  
2015-843  
Hauler License No. CA L-PUC-106399 License Exp. Date 4/52  
Address 6401 LEONA STREET  
City OAKLAND State CA zip 94605

b) Product/Residual Sludge/Rinsate Disposal Site

Name DEMENNO KERDOON EPA I.D. No. CAT080013352  
Address 2000 N. ALAMEDA  
City COMPTON State CA zip 90221

c) Tank and Piping Transporter

Name <sup>DEXANNA</sup> ~~ERICKSON, INC.~~ EPA I.D. No. CAD009466392  
Hauler License No. 0019 License Exp. Date 5-92  
Address 255 PARR BOULEVARD  
City RICHMOND State CA zip 94801

d) Tank and Piping Disposal Site

Name ERICKSON, INC. EPA I.D. No. CAD009466392  
Address 255 PARR BOULEVARD  
City RICHMOND State CA zip 94801

11. Experienced Sample Collector

Name DAVID C. TRULL  
Company AQUA SCIENCE ENGINEERS  
Address 1041 SHARY CIRCLE  
City CONCORD State CA zip 94518 Phone (510) 685-6700

12. Laboratory

Name CHROMALAB, INC.  
Address 2239 OMEGA RD. #1  
City SAN RAMON State CA zip 94583  
State Certification No. E-694

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

If yes, describe. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



14. Describe methods to be used for rendering tank inert

DRY ICE AT A RATE OF 1.5 POUNDS  
PER 100 GALLONS OF TANK VOLUME  
AS A MINIMUM

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

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

15. Tank History and Sampling Information

Tank		Material to be sampled (tank contents, soil, groundwater, etc.)	Location and Depth of Samples
Capacity	Use History (see instructions)		
500 gal.	INSTALLATION DATE UNKNOWN LAST USE DATE UNKNOWN TANK CURRENTLY CONTAINS LOW GRADE "BUNKER OIL"	<u>SOIL</u> @ GROUNDWATER INTERFACE OR 2' BELOW TANK INVERT  <u>GROUNDWATER</u> IF ENCOUNTERED	SOIL ① SAMPLE MIDDLE OF TANK APPROX. 9.0 FE. BELOW GRADE  ① WATER SAMPLE IF GROUNDWATER 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**

<p>Stockpiled Soil Volume (Estimated)</p> <p align="center"><i>10 gal.</i></p>	<p align="center">Sampling Plan</p> <p><i>1 SAMPLE, COLLATED FROM 4 SUB-SAMPLES SELECTED RANDOMLY, ANALYZE FOR TANK CONTENT</i></p> <p><i>Stockpiled soil must be characterized depending on the disposal method.</i></p>
--	---

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

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

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

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Method Number	Method Detection Limit
<i>BUNKER OIL (FUEL OIL)</i>	<i>EPA GC-FID (3550)</i>	<i>3550</i>	<i>1. ppm</i>
<i>TOTAL OIL &amp; GREASE</i>	<i>STANDARD METHOD 5520 E&amp;F</i>	<i>STANDARD METHOD 5520 E&amp;F</i>	<i>50 ppm (soil)</i>
<i>TPH-diesel</i>	<del><i>3550</i></del>	<del><i>GC-FID</i></del>	<del><i>1.0 ppm (soil)</i></del>
<i>BTX &amp; E</i>	<del><i>8020</i></del>	<del><i>8020 or 8240</i></del>	<del><i>.005 ppm (soil)</i></del>

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

18. Submit Worker's Compensation Certificate copy

Name of Insurer OHIO CASUALTY GROUP

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) DAVID C. PRULL

Signature 

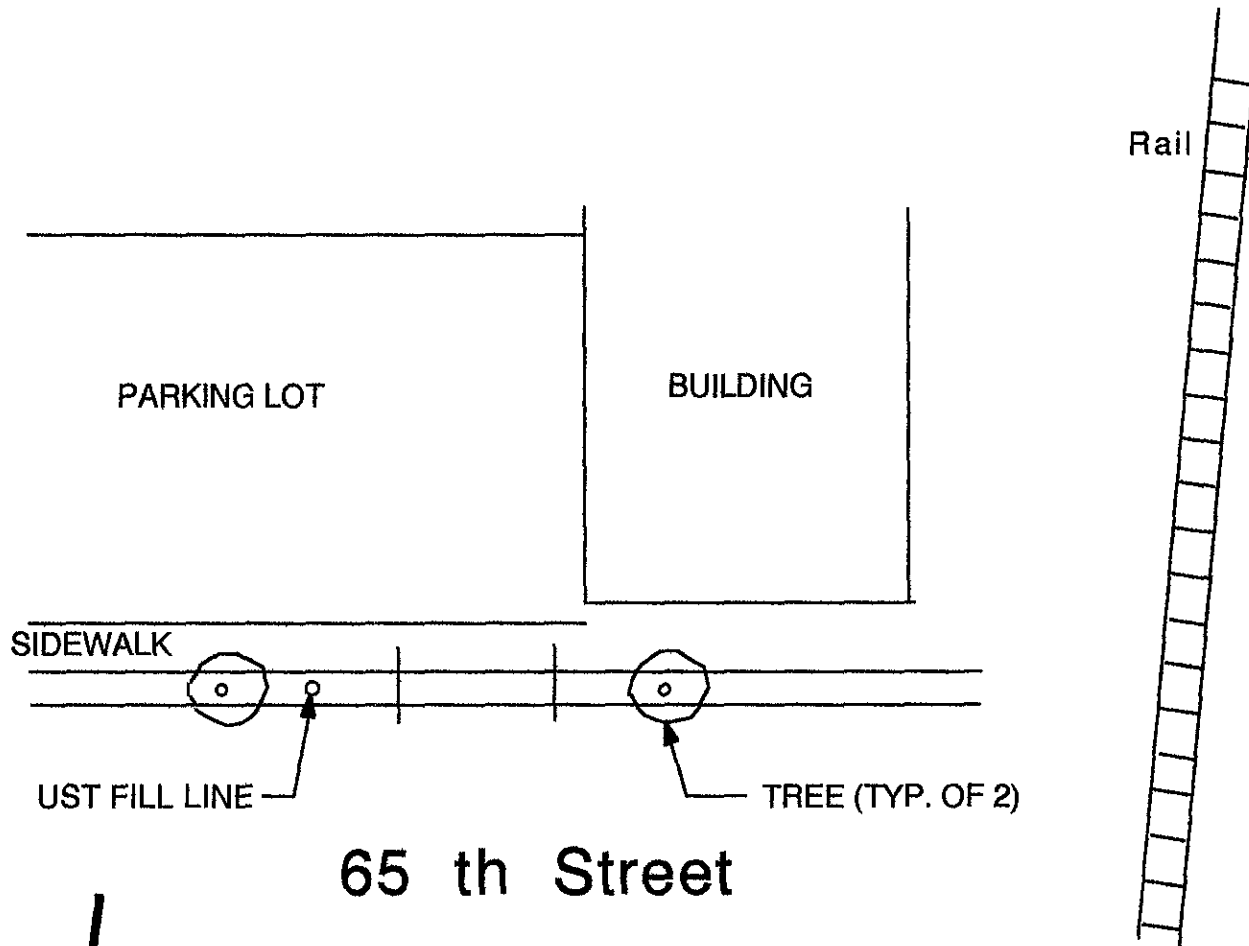
Date 3/23/92

Signature of Site Owner or Operator

Name (please type) Ron Kessler

Signature RON Kessler

Date 3/27/92



SIDEWALK

PARKING LOT

BUILDING

Rail

UST FILL LINE

TREE (TYP. OF 2)

65 th Street

N

0 ft. 20 ft.

SCALE

**AQUA SCIENCE ENGINEERS**

General Site Plan for  
Oliver Rubber  
Emeryville, CA

*figure one*

# HEALTH & SAFETY PLAN

*for the*

**OLIVER RUBBER JOBSITE  
1259 65th STREET  
EMERYVILLE, CA**

*prepared by*

**Aqua Science Engineers, Inc.  
1041 Shary Circle  
Concord, CA 94518  
1 (800) 678-9391**

**AQUA SCIENCE ENGINEERS, INC.**  
**HEALTH & SAFETY PLAN**  
for the  
**OLIVER RUBBER JOBSITE**

**A. GENERAL DESCRIPTION**

*Site:* 1259 65TH STREET, EMERYVILLE CALIFORNIA

- Work Scope:*
1. PROVIDE EXCAVATION SERVICES FOR TANK REMOVAL.
  2. PROVIDE EXTRICATION OF ONE 500 GALLON UNDERGROUND STORAGE TANKS.
  3. SAMPLE SOIL AND WATER UPON SUCCESSFUL COMPLETION OF TANK REMOVAL. EXECUTE BACKFILLING OPERATIONS.
  4. RESURFACE EXCAVATION AREA AND RESTORE TO PREVIOUS USABLE CONDITION.

**NOTE:** UST CURRENTLY CONTAINS "BUNKER OIL," LOW GRADE FUEL OIL.

**SAFETY POLICY:**

This Health and Safety Plan is written specifically for the Oliver Rubber jobsite, located at 1259 65th Street, Emeryville California. This plan does not include specific procedures for tank removal and/or soil offhaul, but addresses hazards associated with these and related activities. All persons on site will follow OSHA safe operating practices as outlined in 29 CFR 1910 and 1926, as well as established guidelines from their respective companies or organizations.

*Plan Prepared by:* David Prull                      *Date:* 3/23/92

*Plan Approved by:* David Prull                      *Date:* 3/23/92

*Proposed Start Date:* April 7, 1992

*Overall Hazard Level:* Serious:                      Low:  
   Moderate: XX                      Unknown:

**Project Organization:**

*Site Manager for A.S.E.:* Steve DeHope

*A.S.E. Safety Officer:* David Prull

*Other A.S.E Personnel:* Craig Hertz

## B. SITE/WASTE CHARACTERISTICS

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

**Characteristics:** PETROLEUM FUEL RESIDUALS, FLAMMABLE, TOXIC

**Site Parameter:** THE EXCAVATION PIT AS WELL AS ANY STOCKPILED MATERIAL ARE IDENTIFIED AS EXCLUSION ZONES. A MINIMUM BOUNDARY OF THREE FEET SURROUNDING BOTH IS TO BE MAINTAINED IN AS MUCH AS IS POSSIBLE. AT NO TIME SHALL ANY PERSONNEL ENTER THE EXCAVATION WITHOUT A SAFETY WATCH PERSON STANDING BY OBSERVING THE ENTRY PERSON'S ACTIVITY.

## C. HAZARD EVALUATION

### CHEMICAL HAZARDS

Potential chemical hazards include skin and eye contact or inhalation exposure to potentially toxic concentrations of hydrocarbon vapors. The potential toxic compounds that may exist at the site are listed below, with descriptions of specific health effects of each. The list includes the primary potential toxic constituents that may be found in gasoline, and the ingredients that are found in the petroleum solvent residue of the second tank. (excerpted from NIOSH Pocket Guide to Chemical Hazards, June 1990).

#### GASOLINE TANK

##### 1. BENZENE

- a. Colorless, clear, highly flammable liquid (class 1B) with characteristic odor.
- b. High exposure levels may cause acute restlessness, convulsions, depression, respiratory failure. *BENZENE IS A SUSPECTED CARCINOGEN.*
- c. Permissible exposure level (PEL) for a time weighted average (TWA) over an eight hour period is 1.0 ppm.

##### 2. TOLUENE

- a. Colorless, flammable liquid (class 1B) with a sweet benzene-like odor.
- b. High exposure levels may cause fatigue, euphoria, confusion, dizziness. *TOLUENE IS LESS TOXIC THEN BENZENE.*
- c. PEL for a ten hour TWA is 100 ppm.

3. XYLENE

- a. Colorless, flammable liquid (class 1B or 1C depending on isomers) with aromatic odors.
- b. high exposure levels may cause dizziness, drowsiness, narcosis.
- c. PEL for a ten hour TWA is 100 ppm.

4. ETHYLBENZENE

- a. Clear, colorless, highly flammable liquid (class 1B) with characteristic odor.
- b. High exposure levels may cause irritation to skin, nose and throat, constriction in chest, loss of consciousness, respiratory failure.
- c. PEL for an eight hour TWA is 100 ppm.

ALL SUBSTANCES AS THEY EXIST ON SITE ARE EXPECTED TO BE STABLE.

Site Status: ACTIVE: XX INACTIVE:

Site History: THE SITE IS CURRENTLY PARKING AREA ASSOCIATED WITH A RUBBER PRODUCT MANUFACTURING PLANT. A FACILITIES BUILDING HISTORICALLY LOCATED AT THE SITE.

**PHYSICAL HAZARDS**

No person will climb on any excavated material piles without a safety person observing that activity. Personnel shall otherwise maintain the maximum distance possible from the pit while performing their activities. On-site hazards include physical injuries due to the proximity of workers to engine-driven heavy equipment and tools. Equipment used during excavation may include a backhoe or other excavator, a crane for lifting the tanks and a mechanical tamper or other equipment as part of the subsequent backfilling operations. Only trained personnel will operate machines, tools and equipment; all equipment will be kept clean and in good repair. MANDATORY SAFETY CLOTHING REQUIRED AROUND HEAVY EQUIPMENT WILL INCLUDE A HARDHAT AND STEEL-TOED BOOTS AT A MINIMUM.

ALL WORK WILL BE PERFORMED IN ACCORDANCE WITH OSHA GUIDELINES.

Daily inspections of the excavation, the adjacent areas, and protective systems are to be made by a qualified person while personnel are on site. Attention will be made to note if any evidence of potential cave-in exists.

HAVE AT LEAST ONE DRY CHEMICAL MODEL PA-200 A-B-C FIRE EXTINGUISHER PRESENT.



## **LEVEL OF PROTECTION**

A contamination Reduction Zone (CRZ) will be maintained and adjusted as work proceeds and moves around the site. The workers on site will wear level 'D' protective clothing. (This protection level may be upgraded after on-site conclusions of data are completed). **THE LEVEL OF PROTECTION FOR PERSONNEL WORKING IN THE AREA WILL BE UPGRADED IF;** the organic vapor levels in the equipment operator's breathing zone exceeds 5 ppm above background levels continuously for more than five minutes. In this event, personnel protective equipment will include full face respirators with double-cartridge filters for organic vapors and particulates, in addition to hardhat, steel-toed boots and coveralls. Excavation will cease, equipment shutdown, and personnel will withdraw from the area if either 1.) the organic concentration in the operator's breathing zone exceeds 200 ppm for 5 minutes or 2.) the organic vapor concentration two feet above the excavation exceeds 2,000 ppm or 25% of the lower explosive limit. If work proceeds in an environment where organic vapor concentrations exceed 200 ppm, a self contained breathing apparatus or airline respirator will be utilized by the personnel.

Levels of Protective Clothing are defined on the following pages as described in the "EPA Standard Operating Safety Guidelines":

### **LEVEL A PROTECTION**

#### *Components:*

- 1.) Pressure-demand, supplied air respirator that is MSHA and NIOSH approved. Respirators may be pressure demand, self contained breathing apparatus (SCBA), or pressure demand, airline respirator with an escape bottle for atmospheres with an extreme IDLH.
- 2.) Fully encapsulating chemical resistant suit.
- 3.) Inner, chemical resistant gloves.
- 4.) Disposable gloves and boot covers, worn over the fully encapsulating suit.
- 5.) 2-way radio communications is highly recommended.

## **LEVEL B PROTECTION**

### *Components:*

- 1.) Pressure-demand, supplied air respirator that is MSHA and NIOSH approved. Respirators may be pressure demand, self contained breathing apparatus (SCBA), or pressure demand, airline respirator with an escape bottle for atmospheres with an extreme IDLH.
- 2.) Chemical resistant clothing which includes overalls and long sleeved jacket or, hooded one or two piece chemical splash suit or disposable chemical resistant one piece suit..
- 3.) Outer chemical resistant gloves.
- 4.) Inner chemical resistant gloves.
- 5.) Chemical resistant, steel toed and shank boots.
- 6.) Disposable chemical resistant boot covers.
- 7.) Hardhat.
- 8.) 2-way radio communications is highly recommended.

## **LEVEL C PROTECTION**

### *Components:*

- 1.) Air purifying respirator, full face, with twin cartridge or cannister equipped filters, that are MSHA and NIOSH approved.
- 2.) Chemical resistant clothing which includes coveralls or, hooded one-piece or two-piece chemical splash suit or chemical resistant hood and apron; disposable chemical resistant coveralls.
- 3.) Outer chemical resistant gloves.
- 4.) Inner chemical resistant gloves.
- 5.) Chemical resistant, steel toed and shank boots.
- 6.) Disposable chemical resistant boot covers.
- 7.) Hardhat.
- 8.) 2-way radio communications is recommended.

## **LEVEL D PROTECTION**

### **Components:**

- 1.) Coveralls.
- 2.) Gloves.
- 3.) Leather boots, shoes or chemical resistant, with steel toe and shank.
- 4.) Safety glasses or chemical splash goggles.
- 5.) Hardhat or face shield.

## **COMBUSTIBLE GAS AND ORGANIC VAPOR MONITORING**

Site personnel will monitor ambient levels of combustible gas vapors using a Thermo Environmental Instruments model 580A or a Gastech model GX-88 OVM. Volatile organic vapor levels greater than 5 ppm above background levels in the hot zone are not anticipated. If the OVM measurements do not decrease below 5 ppm, level 'C' protection will be required. The site Project Manager will be notified if organic vapor levels in the air samples exceed ambient concentrations.

A wetting agent or some form of dust control is recommended to reduce the airborne dust level and subsequent particulate hazard. HEPA respirator cartridges are also recommended as needed.

## **SITE ENTRY PROCEDURES**

Any personnel entering the site will observe all conditions set forth by the owner of the property, including vehicle travel speeds, restricted areas and conduct.

Eating, drinking, smoking and other practices which increase the probability of hand-to-mouth transfer of contamination is prohibited in the work zone. All field personnel will be instructed to thoroughly wash their hands and face upon leaving the work area for breaks or cessation of day's activities. A first aid kit and at least one 20 pound A-B-C fire extinguisher will be available at the site.

## DECONTAMINATION PROCEDURES

If required, equipment and personnel decontamination areas will be designated by the Project Manager at the start of the project. To prevent the transfer of contamination from the work site into clean areas, all tools will be cleaned adequately prior to final removal from the work zone. Protective clothing such as Tyvek coveralls, latex gloves, boot covers, etc. will be changed on a daily basis or at the discretion of the Project Manager on site. All disposable protective clothing will be put into plastic bags and disposed of in a proper manner. All respirator cartridges will be discarded and replaced with fresh units on a daily basis, disposal will be in the same manner as the protective clothing. Excavated soils will be stockpiled in an area designated by the Project Manager, until chemical analysis has been performed on representative samples.

In the event of a medical emergency, the injured party will be taken through decontamination procedures, if possible. However, the procedures may be omitted when it may aggravate or cause further harm to the injured party. Member of the work team will accompany the injured party to the medical facility to advise on matters concerning chemical exposure.

Personnel Protection Level will be Level 'D'. Protective clothing levels may be upgraded in the event that on site conclusions determine a greater than anticipated danger to personnel.

### SPECIAL CONDITIONS

*Site Entry:* NORMAL, NO SPECIAL CONDITIONS

#### Decontamination-

*Personnel and Equipment:* IF REQUIRED, PERSONNEL AND EQUIPMENT WILL BE DECONTAMINATED A PER USEPA STANDARD OPERATING SAFETY GUIDELINES. A SMALLER MODIFIED DECONTAMINATION LINE MAY BE USED DUE TO SPACE RESTRICTIONS.

*Work Limitations (time, weather):*

NONE ARE ANTICIPATED, HOWEVER, PERSONNEL WORKING ON SITE MAY EXPERIENCE ELEVATED TEMPERATURES DURING THE WORK DAY. IN THE EVENT THAT AMBIENT TEMPERATURES REACH OR EXCEED 80 DEGREES FAHRENHEIT, THE FOLLOWING GUIDELINES ARE RECOMMENDED.

1. Periods of work should be reduced to no less than one hour time frames and separated by breaks intended to reduce personnel stress due to reduced natural ventilation from wearing protective clothing.
2. All personnel wearing level C protective clothing or greater, will be subject to medical monitoring of body temperature after work periods, by the following guidelines;
  - a. Heart Rate (HR) should be measured by counting the radial pulse rate for 30 seconds and doubling count for the correct pulse rate. This should be done as early as possible in the resting period. The HR at the beginning of the rest period should not exceed 110 beats per minute. If the HR is higher, the next work period should be shortened by 10 minutes, while the length of the rest period remains the same. If the HR is 100 beats per minute at the beginning of the next rest period, the following work period should be shortened by an additional 10 minutes.
  - b. Body temperatures should be measured orally with a clinical thermometer as soon as possible in each resting period. Oral Temperatures (OT) should not exceed 99 degrees Fahrenheit. If it does, the next work period should be reduced by 10 minutes while the length of the resting period remains the same. If the OT exceeds 99 degrees Fahrenheit at the beginning of the next work period, the following work period should be reduced by an additional 10 minutes. OT should be measured at the end of each rest period to ensure that the body's temperature has dropped below 99 degrees Fahrenheit.

Body Water Loss (BWL) from sweating, could result in dehydration and further complications and stress on personnel working in protective clothing under adverse weather conditions. It is strongly recommended that plenty of stress relief beverages be available on site to replace body fluids. Commercial drink mixes that provide electrolyte balancing solutions or water are adequate for replacing body fluids.

Alternate methods of heat stress reduction can be made available such as,

- Portable showers or hose-down facilities,
- Shelter cover to protect against direct sunlight,
- Rotating teams of personnel wearing protective clothing,
- Performing extremely arduous tasks early in the workday.

## • EMERGENCY INFORMATION

In the event of an injury or suspected chemical exposure, the first responsibility of the Project Manager will be to prevent any further injury. This objective will normally require an immediate stop to work until the situation is remedied. The Project Manager may order the evacuation of the work party. Other primary responsibilities in the event of an accident will be the first aid and decontamination of the injured team member(s). The injured party will be moved to a designated safe area and initial first aid will be rendered.

Employees are asked to make every effort and take personnel responsibility to prevent accidents involving machinery or any other aspect of the job, either by individual action or by notifying the Project Manager immediately of any unsafe condition that may exist.

In the event of an unexpected hazardous material discovery on site, the following actions will be taken by any employee involved;

1. The person having uncovered the unexpected material will notify the Project Manager and other workers of the danger. The site will be cleared of personnel if deemed necessary by the Project Manager. If site evacuation is required, appropriate local agencies such as the Fire Department or Health Department will be notified as well.

2. Immediate action will be taken to contain the hazardous material, provided the workers involved are properly attired with adequate protective clothing to avoid exposure.

3. Proper containment procedures will be determined for the hazardous material encountered prior to cleanup commencing. All personnel involved in the containment effort will be properly protected to prevent exposure. Backup personnel will be similarly protected while monitoring the work being done for any additional dangers.

4. The container(s) will be staged on site, away from the major activity areas and in such a way that if loss of containment occurs, the material will be withheld from further spread by a secondary containment berm or vessel.

5. The owner or agent controller of the property will be notified promptly of the incident and will be apprised as to the options available for proper disposal.

# ACUTE EXPOSURE SYMPTOMS AND FIRST AID

## EXPOSURE ROUTE

## SYMPTOMS

## FIRST AID

### **Skin**

Dermatitis, itching  
redness, swelling

Wash immediately  
with soap and water  
contact ambulance if  
evacuation is needed.

### **Eyes**

Irritation, watering

Flush with water,  
transport directly to  
emergency room, if  
necessary.

### **Inhalation**

Vertigo, tremors  
stupor, dizziness

Move person to fresh  
air, cover source of  
exposure.

### **Ingestion**

Nausea, vomiting

Call Poison Control  
Center, DO NOT  
INDUCE VOMITING,  
transport to medical  
facility.

### *Local Resources:*

### HEALTH AND SAFETY CONTACT FOR ASE:

Michael D. Dirk  
Office: (415) 820-9391

Ambulance  
Police  
Fire

: 911

POISON CONTROL: SF (415) 476-6600

### *Emergency Route to nearest Medical Facility:*

Exit site, Travel WEST on 65th Street  
LEFT on San Pablo Avenue  
RIGHT on Ashby Avenue (Hwy. 13)  
RIGHT on Colby Plaza

HOSPITAL IS NEAR THE CORNER OF ASHBY AY COLBY PLAZA

Hospital:

ALTA BATES HOSPITAL

3001 COLBY PLAZA, BERKELEY

540-0337 ext 6

# **HEALTH & SAFETY PLAN**

*for the*

**OLIVER RUBBER JOBSITE  
1200 65th STREET  
EMERYVILLE, CA**

*prepared by*

**Aqua Science Engineers, Inc.  
1041 Shary Circle  
Concord, CA 94518  
1 (800) 678-9391**



AQUA SCIENCE ENGINEERS, INC.  
HEALTH & SAFETY PLAN  
for the  
OLIVER RUBBER JOBSITE

**A. GENERAL DESCRIPTION**

*Site:* 1200 65TH STREET, EMERYVILLE CALIFORNIA

*Work Scope:*

1. PROVIDE INSTALLATION OF SHORING AT SITE FOR SAFE REMOVAL OF UST.
2. PROVIDE EXCAVATION SERVICES FOR TANK REMOVAL.
3. PROVIDE CRANE LIFTING OPERATIONS TO EXTRICATE TWO 8,000 GALLON UNDERGROUND STORAGE TANKS.
4. REMOVE THE SHORING UPON SUCCESSFUL COMPLETION OF TANK REMOVAL AND BACKFILLING OPERATIONS.
5. RESURFACE EXCAVATION AREA AND RESTORE TO PREVIOUS USABLE CONDITION.

**NOTE:** ONE TANK PREVIOUSLY CONTAINED GASOLINE, THE OTHER A PETROLEUM SOLVENT EQUIVALENT TO PETROLEUM NAPHTHA, WHICH IS KNOWN TO BE EXTREMELY FLAMMABLE.

**SAFETY POLICY:**

This Health and Safety Plan is written specifically for the Oliver Rubber jobsite, located at 1200 65th Street, Emeryville California. This plan does not include specific procedures for tank removal or soil offhaul, but addresses hazards associated with these and related activities. All persons on site will follow OSHA safe operating practices as outlined in 29 CFR 1910 and 1926, as well as established guidelines from their respective companies or organizations.

*Plan Prepared by:* Michael D. Dirk      *Date:* 10/9/91

*Plan Approved by:* David Prull      *Date:* 10/10/91

*Proposed Start Date:* OCTOBER 21, 1991 ✓

*Overall Hazard Level:* Serious:      Low:  
   Moderate: XX      Unknown:

**Project Organization:**

*Site Manager for A.S.E.:* David Prull

*A.S.E. Safety Officer:* Michael Dirk ✓

*Other A.S.E Personnel:* Steve DeHope, Craig Hertz

## B. SITE/WASTE CHARACTERISTICS

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

Characteristics: GASOLINE, SOLVENT RESIDUALS, FLAMMABLE, TOXIC

Site Parameter: THE EXCAVATION PIT AS WELL AS ANY STOCKPILED MATERIAL ARE IDENTIFIED AS EXCLUSION ZONES. A MINIMUM BOUNDARY OF THREE FEET SURROUNDING BOTH IS TO BE MAINTAINED IN AS MUCH AS IS POSSIBLE. AT NO TIME SHALL ANY PERSONNEL ENTER THE EXCAVATION WITHOUT A SAFETY WATCH PERSON STANDING BY OBSERVING THE ENTRY PERSON'S ACTIVITY.

## C. HAZARD EVALUATION

### CHEMICAL HAZARDS

Potential chemical hazards include skin and eye contact or inhalation exposure to potentially toxic concentrations of hydrocarbon vapors. The potential toxic compounds that may exist at the site are listed below, with descriptions of specific health effects of each. The list includes the primary potential toxic constituents that may be found in gasoline, and the ingredients that are found in the petroleum solvent residue of the second tank. (excerpted from NIOSH Pocket Guide to Chemical Hazards, June 1990).

#### GASOLINE TANK

##### 1. BENZENE

- a. Colorless, clear, highly flammable liquid (class 1B) with characteristic odor.
- b. High exposure levels may cause acute restlessness, convulsions, depression, respiratory failure. *BENZENE IS A SUSPECTED CARCINOGEN.*
- c. Permissible exposure level (PEL) for a time weighted average (TWA) over an eight hour period is 1.0 ppm.

##### 2. TOLUENE

- a. Colorless, flammable liquid (class 1B) with a sweet benzene-like odor.
- b. High exposure levels may cause fatigue, euphoria, confusion, dizziness. *TOLUENE IS LESS TOXIC THEN BENZENE.*
- c. PEL for a ten hour TWA is 100 ppm.

3. XYLENE

- a. Colorless, flammable liquid (class 1B or 1C depending on isomers) with aromatic odors.
- b. high exposure levels may cause dizziness, drowsiness, narcosis.
- c. PEL for a ten hour TWA is 100 ppm.

4. ETHYLBENZENE

- a. Clear, colorless, highly flammable liquid (class 1B) with characteristic odor.
- b. High exposure levels may cause irritation to skin, nose and throat, constriction in chest, loss of consciousness, respiratory failure.
- c. PEL for an eight hour TWA is 100 ppm.

5. LEAD

(as Pb)

- a. Odorless, colorless solid with properties that vary depending upon specific compounds. Non-combustible in solid form.
- b. High exposure levels may cause nausea, diarrhea, inflamed mucous membranes, abdominal pains, weakness. *LEAD IS A SUSPECTED CARCINOGEN.*
- c. PEL for an eight hour TWA is .1 milligrams per cubic meter (airborne).

SOLVENT TANK

1. CYCLOHEXANE

- a. Colorless, flammable liquid (class 1A) with a sweet chloroform-like odor.
- b. High exposure levels may cause irritation to the eyes and respiratory system, drowsiness, numbness, unconsciousness.
- c. PEL for a ten hour TWA is 300 ppm, or 1050 milligrams per cubic meter (airborne).

2. n-HEPTANE

- a. Colorless, flammable liquid (class 1B) with gasoline-like odor.
- b. High exposure levels may cause light headedness, stupor, nausea, chemical pneumonia, unconsciousness.
- c. PEL for a ten hour TWA is 85 ppm, or 350 milligrams per cubic meter (airborne).

3. METHYLCYCLOHEXANE

- a. Colorless, flammable liquid (class 1B) with a faint benzene-like odor.
- b. High exposure levels may cause light headedness, drowsiness, nose and throat irritation.
- c. PEL for a ten hour TWA is 400 ppm, or 1600 milligrams per cubic meter (airborne).

4. n-HEXANE

- a. Colorless, flammable liquid (class 1B) with a gasoline-like odor.
- b. High exposure levels may cause light headedness, nausea, numb extremities, muscular weakness, eyes and nose irritation.
- c. PEL for a ten hour TWA is 50 ppm, or 180 milligrams per cubic meter (airborne).

5. TOLUENE

- a. Colorless, flammable liquid (class 1B) with a sweet benzene-like odor.
- b. High exposure levels may cause fatigue, euphoria, confusion, dizziness. *TOLUENE IS LESS TOXIC THEN BENZENE.*
- c. PEL for a ten hour TWA is 100 ppm.

6. PARAFFINS & CYCLOPARAFFINS

NIOSH has published no exposure guidelines for paraffins or cycloparaffins.

ALL SUBSTANCES AS THEY EXIST ON SITE ARE EXPECTED TO BE STABLE.

*Site Status:* ACTIVE: XX INACTIVE:

*Site History:* THE SITE IS CURRENTLY A RUBBER PRODUCT MANUFACTURING PLANT.

**PHYSICAL HAZARDS**

Under no circumstances will anyone enter the excavation pit without a safety watch person standing by observing the entry person's activity. No person will climb on any excavated material piles without a safety person observing that activity. Personnel shall otherwise maintain the maximum distance possible from the pit while performing their activities. On-site hazards include physical injuries due to the proximity of workers to engine-driven heavy equipment and tools. Equipment used during excavation may include a backhoe or other excavator, a crane for lifting the tanks and a mechanical tamper or other equipment as part of the subsequent backfilling operations. Only trained personnel will operate machines, tools and equipment; all equipment will be kept clean and in good repair. MANDATORY SAFETY CLOTHING REQUIRED AROUND HEAVY EQUIPMENT WILL INCLUDE A HARDHAT AND STEEL-TOED BOOTS AT A MINIMUM.

ALL WORK WILL BE PERFORMED IN ACCORDANCE WITH OSHA GUIDELINES.

Daily inspections of the excavation, the adjacent areas, and protective systems are to be made by a qualified person while personnel are on site. Attention will be made to note if any evidence of potential cave-in exists.

HAVE AT LEAST ONE DRY CHEMICAL MODEL PA-200 A-B-C FIRE EXTINGUISHER PRESENT.

## LEVEL OF PROTECTION

A contamination Reduction Zone (CRZ) will be maintained and adjusted as work proceeds and moves around the site. The workers on site will wear level 'D' protective clothing. (This protection level may be upgraded after on-site conclusions of data are completed). THE LEVEL OF PROTECTION FOR PERSONNEL WORKING IN THE AREA WILL BE UPGRADED IF; the organic vapor levels in the equipment operator's breathing zone exceeds 5 ppm above background levels continuously for more than five minutes. In this event, personnel protective equipment will include full face respirators with double-cartridge filters for organic vapors and particulates, in addition to hardhat, steel-toed boots and coveralls. Excavation will cease, equipment shutdown, and personnel will withdraw from the area if either 1.) the organic concentration in the operator's breathing zone exceeds 200 ppm for 5 minutes or 2.) the organic vapor concentration two feet above the excavation exceeds 2,000 ppm or 25% of the lower explosive limit. If work proceeds in an environment where organic vapor concentrations exceed 200 ppm, a self contained breathing apparatus or airline respirator will be utilized by the personnel.

Levels of Protective Clothing are defined on the following pages as described in the "EPA Standard Operating Safety Guidelines":

## LEVEL A PROTECTION

### *Components:*

- 1.) Pressure-demand, supplied air respirator that is MSHA and NIOSH approved. Respirators may be pressure demand, self contained breathing apparatus (SCBA), or pressure demand, airline respirator with an escape bottle for atmospheres with an extreme IDLH.
- 2.) Fully encapsulating chemical resistant suit.
- 3.) Inner, chemical resistant gloves.
- 4.) Disposable gloves and boot covers, worn over the fully encapsulating suit.
- 5.) 2-way radio communications is highly recommended.

## **LEVEL B PROTECTION**

### *Components:*

- 1.) Pressure-demand, supplied air respirator that is MSHA and NIOSH approved. Respirators may be pressure demand, self contained breathing apparatus (SCBA), or pressure demand, airline respirator with an escape bottle for atmospheres with an extreme IDLH.
- 2.) Chemical resistant clothing which includes overalls and long sleeved jacket or, hooded one or two piece chemical splash suit or disposable chemical resistant one piece suit..
- 3.) Outer chemical resistant gloves.
- 4.) Inner chemical resistant gloves.
- 5.) Chemical resistant, steel toed and shank boots.
- 6.) Disposable chemical resistant boot covers.
- 7.) Hardhat.
- 8.) 2-way radio communications is highly recommended.

## **LEVEL C PROTECTION**

### *Components:*

- 1.) Air purifying respirator, full face, with twin cartridge or cannister equipped filters, that are MSHA and NIOSH approved.
- 2.) Chemical resistant clothing which includes coveralls or, hooded one-piece or two-piece chemical splash suit or chemical resistant hood and apron; disposable chemical resistant coveralls.
- 3.) Outer chemical resistant gloves.
- 4.) Inner chemical resistant gloves.
- 5.) Chemical resistant, steel toed and shank boots.
- 6.) Disposable chemical resistant boot covers.
- 7.) Hardhat.
- 8.) 2-way radio communications is recommended.

## **LEVEL D PROTECTION**

### *Components:*

- 1.) Coveralls.
- 2.) Gloves.
- 3.) Leather boots, shoes or chemical resistant, with steel toe and shank.
- 4.) Safety glasses or chemical splash goggles.
- 5.) Hardhat or face shield.

## **COMBUSTIBLE GAS AND ORGANIC VAPOR MONITORING**

Site personnel will monitor ambient levels of combustible gas vapors using a Thermo Environmental Instruments model 580A or a Gastech model GX-88 OVM. Volatile organic vapor levels greater than 5 ppm above background levels in the hot zone are not anticipated. If the OVM measurements do not decrease below 5 ppm, level 'C' protection will be required. The site Project Manager will be notified if organic vapor levels in the air samples exceed ambient concentrations.

A wetting agent or some form of dust control is recommended to reduce the airborne dust level and subsequent particulate hazard. HEPA respirator cartridges are also recommended as needed.

## **SITE ENTRY PROCEDURES**

Any personnel entering the site will observe all conditions set forth by the owner of the property, including vehicle travel speeds, restricted areas and conduct.

Eating, drinking, smoking and other practices which increase the probability of hand-to-mouth transfer of contamination is prohibited in the work zone. All field personnel will be instructed to thoroughly wash their hands and face upon leaving the work area for breaks or cessation of day's activities. A first aid kit and at least one 20 pound A-B-C fire extinguisher will be available at the site.

## DECONTAMINATION PROCEDURES

If required, equipment and personnel decontamination areas will be designated by the Project Manager at the start of the project. To prevent the transfer of contamination from the work site into clean areas, all tools will be cleaned adequately prior to final removal from the work zone. Protective clothing such as Tyvek coveralls, latex gloves, boot covers, etc. will be changed on a daily basis or at the discretion of the Project Manager on site. All disposable protective clothing will be put into plastic bags and disposed of in a proper manner. All respirator cartridges will be discarded and replaced with fresh units on a daily basis, disposal will be in the same manner as the protective clothing. Excavated soils will be stockpiled in an area designated by the Project Manager, until chemical analysis has been performed on representative samples.

In the event of a medical emergency, the injured party will be taken through decontamination procedures, if possible. However, the procedures may be omitted when it may aggravate or cause further harm to the injured party. Member of the work team will accompany the injured party to the medical facility to advise on matters concerning chemical exposure.

Personnel Protection Level will be Level 'D'. Protective clothing levels may be upgraded in the event that on site conclusions determine a greater than anticipated danger to personnel.

## SPECIAL CONDITIONS

*Site Entry:*       NORMAL, NO SPECIAL CONDITIONS

### Decontamination-

*Personnel and Equipment:* IF REQUIRED, PERSONNEL AND EQUIPMENT WILL BE DECONTAMINATED A PER USEPA STANDARD OPERATING SAFETY GUIDELINES. A SMALLER MODIFIED DECONTAMINATION LINE MAY BE USED DUE TO SPACE RESTRICTIONS.



*Work Limitations (time, weather):*

NONE ARE ANTICIPATED, HOWEVER, PERSONNEL WORKING ON SITE MAY EXPERIENCE ELEVATED TEMPERATURES DURING THE WORK DAY. IN THE EVENT THAT AMBIENT TEMPERATURES REACH OR EXCEED 80 DEGREES FAHRENHEIT, THE FOLLOWING GUIDELINES ARE RECOMMENDED.

1. Periods of work should be reduced to no less than one hour time frames and separated by breaks intended to reduce personnel stress due to reduced natural ventilation from wearing protective clothing.

2. All personnel wearing level C protective clothing or greater, will be subject to medical monitoring of body temperature after work periods, by the following guidelines;

a. Heart Rate (HR) should be measured by counting the radial pulse rate for 30 seconds and doubling count for the correct pulse rate. This should be done as early as possible in the resting period. The HR at the beginning of the rest period should not exceed 110 beats per minute.

If the HR is higher, the next work period should be shortened by 10 minutes, while the length of the rest period remains the same. If the HR is 100 beats per minute at the beginning of the next rest period, the following work period should be shortened by an additional 10 minutes.

b. Body temperatures should be measured orally with a clinical thermometer as soon as possible in each resting period. Oral Temperatures (OT) should not exceed 99 degrees Fahrenheit. If it does, the next work period should be reduced by 10 minutes while the length of the resting period remains the same. If the OT exceeds 99 degrees Fahrenheit at the beginning of the next work period, the following work period should be reduced by an additional 10 minutes. OT should be measured at the end of each rest period to ensure that the body's temperature has dropped below 99 degrees Fahrenheit.

Body Water Loss (BWL) from sweating, could result in dehydration and further complications and stress on personnel working in protective clothing under adverse weather conditions. It is strongly recommended that plenty of stress relief beverages be available on site to replace body fluids. Commercial drink mixes that provide electrolyte balancing solutions or water are adequate for replacing body fluids.

Alternate methods of heat stress reduction can be made available such as,

- Portable showers or hose-down facilities,
- Shelter cover to protect against direct sunlight,
- Rotating teams of personnel wearing protective clothing,
- Performing extremely arduous tasks early in the workday.

## EMERGENCY INFORMATION

In the event of an injury or suspected chemical exposure, the first responsibility of the Project Manager will be to prevent any further injury. This objective will normally require an immediate stop to work until the situation is remedied. The Project Manager may order the evacuation of the work party. Other primary responsibilities in the event of an accident will be the first aid and decontamination of the injured team member(s). The injured party will be moved to a designated safe area and initial first aid will be rendered.

Employees are asked to make every effort and take personnel responsibility to prevent accidents involving machinery or any other aspect of the job, either by individual action or by notifying the Project Manager immediately of any unsafe condition that may exist.

In the event of an unexpected hazardous material discovery on site, the following actions will be taken by any employee involved;

1. The person having uncovered the unexpected material will notify the Project Manager and other workers of the danger. The site will be cleared of personnel if deemed necessary by the Project Manager. If site evacuation is required, appropriate local agencies such as the Fire Department or Health Department will be notified as well.
2. Immediate action will be taken to contain the hazardous material, provided the workers involved are properly attired with adequate protective clothing to avoid exposure.
3. Proper containment procedures will be determined for the hazardous material encountered prior to cleanup commencing. All personnel involved in the containment effort will be properly protected to prevent exposure. Backup personnel will be similarly protected while monitoring the work being done for any additional dangers.
4. The container(s) will be staged on site, away from the major activity areas and in such a way that if loss of containment occurs, the material will be withheld from further spread by a secondary containment berm or vessel.
5. The owner or agent controller of the property will be notified promptly of the incident and will be apprised as to the options available for proper disposal.

## ACUTE EXPOSURE SYMPTOMS AND FIRST AID

<u>EXPOSURE ROUTE</u>	<u>SYMPTOMS</u>	<u>FIRST AID</u>
<b>Skin</b>	Dermatitis, itching redness, swelling	Wash immediately with soap and water contact ambulance if evacuation is needed.
<b>Eyes</b>	Irritation, watering	Flush with water, transport directly to emergency room, if necessary.
<b>Inhalation</b>	Vertigo, tremors stupor, dizziness	Move person to fresh air, cover source of exposure.
<b>Ingestion</b>	Nausea, vomiting	Call Poison Control Center, DO NOT <u>INDUCE VOMITING</u> , transport to medical facility.

### *Local Resources:*

### HEALTH AND SAFETY CONTACT FOR ASE:

Ambulance |  
Police | : 911 ✓  
Fire |

Michael D. Dirk  
Office: (415) 820-9391

POISON CONTROL: SF (415) 476-6600 ✓

### *Emergency Route to nearest Medical Facility:*

Exit site, Travel WEST on 65th Street  
LEFT on San Pablo Avenue  
RIGHT on Ashby Avenue (Hwy. 13)  
RIGHT on Colby Plaza

HOSPITAL IS NEAR THE CORNER OF ASHBY AY COLBY PLAZA

*Hospital:* - ALTA BATES HOSPITAL

3001 COLBY PLAZA, BERKELEY 540-0337 ext 6 ✓

## ACUTE EXPOSURE SYMPTOMS AND FIRST AID

<u>EXPOSURE ROUTE</u>	<u>SYMPTOMS</u>	<u>FIRST AID</u>
<b>Skin</b>	Dermatitis, itching redness, swelling	Wash immediately with soap and water contact ambulance if evacuation is needed.
<b>Eyes</b>	Irritation, watering	Flush with water, transport directly to emergency room, if necessary.
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<b>Ingestion</b>	Nausea, vomiting	Call Poison Control Center, DO NOT <u>INDUCE VOMITING</u> , transport to medical facility.

### *Local Resources:*

### HEALTH AND SAFETY CONTACT FOR ASE:

Michael D. Dirk  
Office: (415) 820-9391

Ambulance  
Police  
Fire

: 911

POISON CONTROL: SF (415) 476-6600

### *Emergency Route to nearest Medical Facility:*

Exit site, Travel WEST on 65th Street  
LEFT on San Pablo Avenue  
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RIGHT on Colby Plaza

HOSPITAL IS NEAR THE CORNER OF ASHBY AY COLBY PLAZA

*Hospital:* - ALTA BATES HOSPITAL

3001 COLBY PLAZA, BERKELEY 540-0337 ext 6

ACORD CERTIFICATE OF INSURANCE

ISSUE DATE 09/23/91

PRODUCER  
CAL-BAY INSURANCE SERVICES  
103 Town & Country Drive  
Suite M  
Danville, Calif. 94526

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

COMPANIES AFFORDING COVERAGE

COMPANY  
LETTER A Transatlantic Insurance Co.  
COMPANY  
LETTER B Ohio Casualty Group  
COMPANY  
LETTER C  
COMPANY  
LETTER D  
COMPANY  
LETTER E

INSURED  
Aqua Science Engineers, Inc  
P.O. Box 535  
San Ramon, CA  
94583

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO	LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFF. DATE	POLICY EXP. DATE	LIMITS
A		GENERAL LIABILITY	TCGL 5691 6211	06/01/91	06/01/92	GENERAL AGGREGATE \$ 1,000,000
		<input checked="" type="checkbox"/> Commercial General Liability				PRODUCTS-COMP/OP AGGREGATE \$ 1,000,000
		<input type="checkbox"/> Claims Made <input checked="" type="checkbox"/> Occur.				PERSONAL & ADV. INJURY \$ 1,000,000
		<input type="checkbox"/> Owner's & Contractor's Prot.				EACH OCCURRENCE \$ 1,000,000
						FIRE DAMAGE (Any one fire) \$ 50,000
						MED. EXPENSE (Any one person) \$ 1,000
						COMBINED SINGLE LIMIT \$ 1,000,000
B		AUTOMOBILE LIABILITY	BAW 50 39 90 15	06/01/91	06/01/92	BODILY INJURY \$
		<input type="checkbox"/> Any Auto				(Per person)
		<input type="checkbox"/> All Owned Autos				BODILY INJURY \$
		<input checked="" type="checkbox"/> Scheduled Autos				(Per accident)
		<input checked="" type="checkbox"/> Hired Autos				PROPERTY DAMAGE \$
	<input checked="" type="checkbox"/> Non-Owned Autos					
	<input type="checkbox"/> Garage Liability					
		EXCESS LIABILITY				EACH OCCURRENCE \$
		<input type="checkbox"/> UMBRELLA FORM				AGGREGATE \$
		<input type="checkbox"/> Other Than Umbrella Form				
B		WORKER'S COMPENSATION AND EMPLOYERS' LIABILITY	XWW 50 43 90 08	08/01/91	08/01/92	<input checked="" type="checkbox"/> STATUTORY LIMITS
						EACH ACCIDENT \$ 1,000,000
						DISEASE-POLICY LIMIT \$ 1,000,000
						DISEASE-EACH EMPLOYEE \$ 1,000,000
		OTHER				

RECEIVED

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

SEP 24 1991

AQUA SCIENCE INC

CERTIFICATE HOLDER

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

*David Carson*

ALAMEDA COUNTY HAZARDOUS MATERIALS DIVISION

Acknowledgement of Refund Recipient for Site Account

DEPOSITOR FILLS OUT PER SITE

REQUIRED

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

SITE NUMBER/ADDRESS:

REFUND RECIPIENT-PROPERTY OWNER

Site Number

Oliver Rubber Co

Company Name

Anua Science Engineers

Owner's Name

1200 65th St.

Street Address

1041 Shary Circle

Owner's Address

Oakland, Ca 94662

City

Zip Code

Concord Ca 94518

Owner's City

State

Zip

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

Craig Hertz

Signature of Depositor

4/17/92

Date

Craig Hertz

Depositor Name

ASE Oliver Rubber Co.

Company Name

1200 65th St.

Street Address

Oakland, Ca 94662

City / Zip

**ALAMEDA COUNTY HAZARDOUS MATERIALS DIVISION  
Declaration of Site Account Refund Recipient**

**SITE OWNER FILLS OUT PER SITE  
-- OPTIONAL --**

The property owner will use this form to designate someone other than him- or her- self to receive any refund due at the completion of all deposit/refund projects at the site listed below. In the absence of this form, the property owner will receive any refund. Only one person at any one time may be designated to receive any refund.

**SITE NUMBER/ADDRESS:**

**PROPERTY OWNER**

Site Number

Company Name

Owner's Name

Street Address

Owner's Address

City

Zip Code

Owner's City

State

Zip

I designate the following person to receive any refund due at the completion of all deposit/refund projects:

Name

Street Address

City / Zip

Property Owner Signature

Date

Property Owner Name

RETURN FORM TO: Alameda County, Hazardous Materials Div.  
80 Swan Way, Rm 200  
Oakland, CA 94621-1439  
Phone: (510) 271-4320



QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL  
PACKAGE  
TRACKING NUMBER

6118901622

23077 6118901622

### RECIPIENT'S COPY

<b>From (Your Name) Please Print</b> Mr. Dave Kuhre Company Street Address City State ZIP Required		<b>To (Recipient's Name) Please Print</b> Ms. Susan Hugo Company Alameda County Health Care Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes) 80 Swan Way, Room 350 City Oakland, CA State ZIP Required 94621	
<b>YOUR INTERNAL BILLING REFERENCE INFORMATION (optional)</b> (First 24 characters will appear on invoice.)		<b>IF HOLD FOR PICK-UP, Print FEDEX Address Here</b> Street Address City State ZIP Required	
<b>PAYMENT</b> 1 <input checked="" type="checkbox"/> Bill Sender 2 <input type="checkbox"/> Bill Recipient's FedEx Acct. No. 3 <input type="checkbox"/> Bill 3rd Party FedEx Acct. No. 4 <input type="checkbox"/> Bill Credit Card 5 <input type="checkbox"/> Cash/Check		<b>DELIVERY AND SPECIAL HANDLING</b> (Check services required)	
<b>SERVICES</b> (Check only one box)		<b>PACKAGES</b> WEIGHT in Pounds Only YOUR DECLARED VALUE (See right)	
<b>Priority Overnight</b> (Delivery by next business morning) 11 <input type="checkbox"/> OTHER PACKAGING 16 <input checked="" type="checkbox"/> FEDEX LETTER* 12 <input type="checkbox"/> FEDEX PAK* 13 <input type="checkbox"/> FEDEX BOX 14 <input type="checkbox"/> FEDEX TUBE		<b>Standard Overnight</b> (Delivery by next business afternoon. No Saturday delivery) 51 <input type="checkbox"/> OTHER PACKAGING 56 <input type="checkbox"/> FEDEX LETTER* 52 <input type="checkbox"/> FEDEX PAK* 53 <input type="checkbox"/> FEDEX BOX 54 <input type="checkbox"/> FEDEX TUBE	
<b>Economy Two-Day</b> (Delivery by second business day) 30 <input type="checkbox"/> ECONOMY		<b>Government Overnight</b> (Restricted for authorized users only) 46 <input type="checkbox"/> GOVT LETTER 41 <input type="checkbox"/> GOVT PACKAGE	
<b>Freight Service</b> (for packages over 150 lbs.) 70 <input type="checkbox"/> OVERNIGHT FREIGHT** 80 <input type="checkbox"/> TWO-DAY FREIGHT**		<b>HOLD FOR PICK-UP</b> (Fill in Box 1) 1 <input type="checkbox"/> WEEKDAY 31 <input type="checkbox"/> SATURDAY <b>DELIVER</b> (Not available to all locations) 2 <input checked="" type="checkbox"/> WEEKDAY 3 <input type="checkbox"/> SATURDAY (Extra charge) 4 <input type="checkbox"/> DANGEROUS GOODS (Extra charge) 5 <input type="checkbox"/> 6 <input type="checkbox"/> DRY ICE (Dangerous Goods Shipper's Declaration not required) Dry Ice, S, UN 1945, X kg, III 7 <input type="checkbox"/> OTHER SPECIAL SERVICE 9 <input type="checkbox"/> SATURDAY PICK-UP (Extra charge) 12 <input type="checkbox"/> HOLIDAY DELIVERY (if offered) (Extra charge)	
*Declared Value Limit \$500. **Call for delivery schedule.		<b>DIM SHIPMENT</b> (Chargeable Weight) <input type="checkbox"/> lbs. L x W x H Received At: 1 <input type="checkbox"/> Regular Stop 3 <input type="checkbox"/> Drop Box 2 <input type="checkbox"/> On-Call Stop 4 <input type="checkbox"/> B.S.C. 5 <input type="checkbox"/> Station	
<b>Emp. No.</b> <input type="checkbox"/> Cash Received <input type="checkbox"/> Return Shipment <input type="checkbox"/> Third Party <input type="checkbox"/> Chg. To Del. <input type="checkbox"/> Chg. To Hold Street Address City State Zip Received By: X Date/Time Received FedEx Employee Number		<b>Federal Express Use</b> Base Charges Declared Value Charge Other 1 Other 2 Total Charges REVISION DATE 6/92 PART #137204 FXEM 10/92 FORMAT #136 <b>136</b> © 1991-92 FEDEX PRINTED IN U.S.A.	



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 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

11:45 AM

Site ID# \_\_\_\_\_ Site Name Oliver Rubber Plant Today's Date 11/14/91

Site Address 1200 65th Street EPA ID# \_\_\_\_\_

City Emeryville Zip 94608 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)

- I.A GENERATOR (Title 22)**
- \_\_\_ 1. Waste ID \* 66471
  - \_\_\_ 2. EPA ID 66472
  - \_\_\_ 3. > 90 days 66508
  - \_\_\_ 4. Label dates 66508
  - \_\_\_ 5. Biennial 66493
- 
- Manifest**
- \_\_\_ 6. Records 66492
  - \_\_\_ 7. Correct 66484
  - \_\_\_ 8. Copy sent 66492
  - \_\_\_ 9. Exception 66484
  - \_\_\_ 10. Copies Rec'd 66492
- 
- Misc.**
- \_\_\_ 11. Treatment 66371
  - \_\_\_ 12. On-site Disp. (H.S.&C.) 26189.5
  - \_\_\_ 13. Ex Haz. Waste 66570
- 
- Prevention**
- \_\_\_ 14. Communications 67121
  - \_\_\_ 15. Aisle Space 67124
  - \_\_\_ 16. Local Authority 67126
  - \_\_\_ 17. Maintenance 67120
  - \_\_\_ 18. Training 67105
- 
- Contingency**
- \_\_\_ 19. Prepared 67140
  - \_\_\_ 20. Name List 67141
  - \_\_\_ 21. Copies 67141
  - \_\_\_ 22. Emg. Coord. Tmg. 67144
- 
- Containers, Tanks**
- \_\_\_ 23. Condition 67241
  - \_\_\_ 24. Compatibility 67242
  - \_\_\_ 25. Maintenance 67243
  - \_\_\_ 26. Inspection 67244
  - \_\_\_ 27. Buffer Zone 67246
  - \_\_\_ 28. Tank inspection 67259
  - \_\_\_ 29. Containment 67245
  - \_\_\_ 30. Safe Storage 67261
  - \_\_\_ 31. Freeboard 67257

**Comments:**

*2 Vaults - scraped & cleaned before backfilling.*

- I.B TRANSPORTER (Title 22)**
- \_\_\_ 32. Applic./Insurance 66428
  - \_\_\_ 33. Comp. Cert./CHP Insp. 66448
  - \_\_\_ 34. Containers 66465
- 
- Manifest**
- \_\_\_ 35. Vehicles 66465
  - \_\_\_ 36. EPA ID #s 66531
  - \_\_\_ 37. Correct 66541
  - \_\_\_ 38. HW Delivery 66543
  - \_\_\_ 39. Records 66544
- 
- Cont'n's**
- \_\_\_ 40. Name/ Covers 66545
  - \_\_\_ 41. Recyclables 66800

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Contact: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Inspector: \_\_\_\_\_

Signature: \_\_\_\_\_

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 pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

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

Hazardous Materials Inspection Form

11:30AM - R:30

II, III

Site ID # \_\_\_\_\_ Site Name OLIVER RUBBER Today's Date 11/5/91

Site Address 1200 65th Street  
 City Emeryville Zip 94608 Phone \_\_\_\_\_

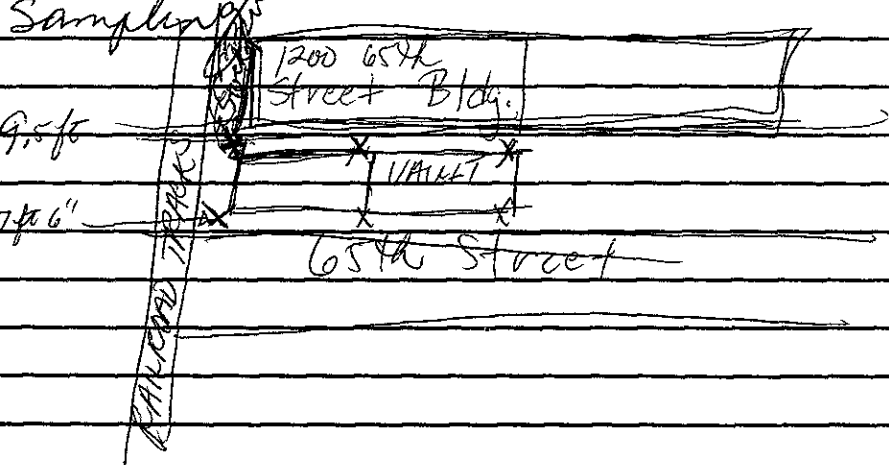
MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

Inspection Categories:

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

\* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

Comments:



Groundwater sample taken

II.A BUSINESS PLANS (Title 19)

- 1. Immediate Reporting 2703
- 2. Bus Plan Stds. 25503(b)
- 3. RR Cars > 30 days 25503.7
- 4. Inventory Information 25504(a)
- 5. Inventory Complete 2730
- 6. Emergency Response 25504(b)
- 7. Training 25504(c)
- 8. Deficiency 25505(a)
- 9. Modification 25505(b)

II.B ACUTELY HAZ. MATLS

- 10. Registration Form Filed 25533(a)
- 11. Form Complete 25533(b)
- 12. RMPP Contents 25534(c)
- 13. Implement Sch. Req'd? (Y/N) \_\_\_\_\_
- 14. OffSite Conseq. Assess. 25524(c)
- 15. Probable Risk Assessment 25534(d)
- 16. Persons Responsible 25534(g)
- 17. Certification 25534(f)
- 18. Exemption Request? (Y/N) 25536(b)
- 19. Trade Secret Requested? 25538

III. UNDERGROUND TANKS (Title 23)

- General
- 1. Permit Application 25284 (H&S)
  - 2. Pipeline Leak Detection 25292 (H&S)
  - 3. Records Maintenance 2712
  - 4. Release Report 2651
  - 5. Closure Plans 2670

- Monitoring for Existing Tanks
- 6. Method
    - 1) Monthly Test
    - 2) Daily Vadose Semi-annual groundwater One time soils
    - 3) Daily Vadose One time soils Annual tank test
    - 4) Monthly Gndwater One time soils
    - 5) Daily Inventory Annual tank testing Cont pipe leak det Vadose/gndwater mon.
    - 6) Daily Inventory Annual tank testing Cont pipe leak det
    - 7) Weekly Tank Gauge Annual tank testing
    - 8) Annual Tank Testing Daily Inventory
    - 9) Other \_\_\_\_\_

- 7. Precs Tank Test Date: \_\_\_\_\_ 2643
- 8. Inventory Rec. 2644
- 9. Soil Testing . 2646
- 10. Ground Water. 2647

- New Tanks
- 11. Monitor Plan 2632
  - 12. Access. Secure 2634
  - 13. Plans Submit Date: \_\_\_\_\_ 2711
  - 14. As Built Date: \_\_\_\_\_ 2635

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Contact: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Inspector: \_\_\_\_\_

Signature: \_\_\_\_\_

II, III

10:00 AM Nov. 4, 1991  
 Sampling  
 80 Swan Way, #200  
 Oakland, CA 94621  
 (415) 271-4320

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 yellow -facility  
 pink -files

# ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

## Hazardous Materials Inspection Form

II, III

Site ID # \_\_\_\_\_ Site Name Oliver Rubber Co Today's Date 11/1/91

Site Address 1200 65th Street

City Emeryville Zip 94608 Phone \_\_\_\_\_

MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

1-4:00

**Inspection Categories:**

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

\* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

**Comments:**

2 - 8000 gal tank <sup>specimens</sup> solvent on sidewalk  
 LEL - 2 1/2 O2 - 2 1/2

Manifest # 90796546 - #7459  
 left side facing blcrg. appears to be in good shape, no obvious holes

Manifest # 90796567 (7460)  
 upright side tank appears to be in good shape, no obvious holes.

Building # \_\_\_\_\_  
 Street # \_\_\_\_\_

**II.A BUSINESS PLANS (Title 19)**

- \_\_\_ 1. Immediate Reporting 2703
- \_\_\_ 2. Bus. Plan Stds 25503(b)
- \_\_\_ 3. RR Cars > 30 days 25503.7
- \_\_\_ 4. Inventory Information 25504(a)
- \_\_\_ 5. Inventory Complete 2730
- \_\_\_ 6. Emergency Response 25504(b)
- \_\_\_ 7. Training 25504(c)
- \_\_\_ 8. Deficiency 25505(a)
- \_\_\_ 9. Modification 25505(b)

**II.B ACUTELY HAZ. MATLS**

- \_\_\_ 10. Registration Form Filed 25533(a)
- \_\_\_ 11. Form Complete 25533(b)
- \_\_\_ 12. RMPP Contents 25534(c)
- \_\_\_ 13. Implement Sch. Req'd? (Y/N)
- \_\_\_ 14. OffSite Conseq. Assess. 25524(c)
- \_\_\_ 15. Probable Risk Assessment 25534(d)
- \_\_\_ 16. Persons Responsible 25534(g)
- \_\_\_ 17. Certification 25534(f)
- \_\_\_ 18. Exemption Request? (Y/N) 25536(b)
- \_\_\_ 19. Trade Secret Requested? 25538

**III. UNDERGROUND TANKS (Title 23)**

- General**
- \_\_\_ 1. Permit Application 25284 (H&S)
- \_\_\_ 2. Pipeline Leak Detection 25292 (H&S)
- \_\_\_ 3. Records Maintenance 2712
- \_\_\_ 4. Release Report 2651
- \_\_\_ 5. Closure Plans 2670
- \_\_\_ 6. Method
- 1) Monthly Test
- 2) Daily Vadose
- Semi-annual groundwater
- One time soils
- 3) Daily Vadose
- One time soils
- Annual tank test
- 4) Monthly Gndwater
- One time soils
- 5) Daily inventory
- Annual tank testing
- Cont pipe leak def
- Vadose/gndwater mon.
- 6) Daily inventory
- Annual tank testing
- Cont pipe leak def
- 7) Weekly Tank Gauge
- Annual tank tsg
- 8) Annual Tank Testing
- Daily Inventory
- 9) Other \_\_\_\_\_
- \_\_\_ 7. Precs Tank Test 2643
- Date: \_\_\_\_\_
- \_\_\_ 8. Inventory Rec. 2644
- \_\_\_ 9. Soil Testing . 2646
- \_\_\_ 10. Ground Water. 2647
- New Tanks**
- \_\_\_ 11. Monitor Plan 2632
- \_\_\_ 12. Access. Secure 2634
- \_\_\_ 13. Plans Submit 2711
- Date: \_\_\_\_\_
- \_\_\_ 14. As Built 2635
- Date: \_\_\_\_\_

COR 107

Rev 6/88

Contact: \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Signature: \_\_\_\_\_

Inspector: \_\_\_\_\_  
 Signature: \_\_\_\_\_

II, III

ACORD CERTIFICATE OF INSURANCE

ISSUE DATE 09/23/91

AGENCY  
 CAL-BAY INSURANCE SERVICES  
 103 Town & Country Drive  
 Suite M  
 Danville, Calif. 94526

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

COMPANIES AFFORDING COVERAGE

COMPANY LETTER A	TransAtlantic Insurance Co.
COMPANY LETTER B	Ohio Casualty Group
COMPANY LETTER C	
COMPANY LETTER D	
COMPANY LETTER E	

INSURED  
 Aqua Science Engineers, Inc  
 P.O. Box 535  
 San Ramon, CA  
 94583

COVERAGE

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFF. DATE	POLICY EXP. DATE	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> Commercial General Liability <input type="checkbox"/> Claims Made <input checked="" type="checkbox"/> Occur. <input type="checkbox"/> Owner's & Contractor's Prot.	TCGL 5691 6211	06/01/91	06/01/92	GENERAL AGGREGATE \$ 1,000,000 PRODUCTS-CMP/OP AGGREGATE \$ 1,000,000 PERSONAL & ADV. INJURY \$ 1,000,000 EACH OCCURRENCE \$ 1,000,000 FIRE DAMAGE Any one fire \$ 50,000 MED. EXPENSE Any one person \$ 1,000
B	AUTOMOBILE LIABILITY <input type="checkbox"/> Any Auto <input type="checkbox"/> All Owned Autos <input checked="" type="checkbox"/> Scheduled Autos <input checked="" type="checkbox"/> Hired Autos <input checked="" type="checkbox"/> Non-Owned Autos <input type="checkbox"/> Garage Liability	BAW 50 39 90 15	06/01/91	06/01/92	COMBINED SINGLE LIMIT \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE \$
	EXCESS LIABILITY <input type="checkbox"/> UMBRELLA FORM <input type="checkbox"/> Other Than Umbrella Form				EACH OCCURRENCE \$ AGGREGATE \$
B	WORKER'S COMPENSATION AND EMPLOYERS' LIABILITY	XWW 50 43 90 08	08/01/91	08/01/92	<input checked="" type="checkbox"/> STATUTORY LIMITS EACH ACCIDENT \$ 1,000,000 DISEASE-POLICY LIMIT \$ 1,000,000 DISEASE-EACH EMPLOYEE \$ 1,000,000
	OTHER				

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

AQUA SCIENCE INC

CERTIFICATE HOLDER

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

*David Carson*

Project Specialist (print) SUSAN L. HUGO

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

ACCEPTED

DEPARTMENT OF ENVIRONMENTAL HEALTH  
470 - 2/4th Street, Third Floor  
Oakland, CA 94612  
Telephone: (415) 874-7237

These plans have been reviewed and found to be acceptable and essentially meet the requirements of State and local health laws. Changes to your plans indicated by this Department are to assure compliance with State and local laws. The project proposed herein is now released for issuance of any required building permits for construction. One copy of these accepted plans must be on the job and available to all contractors and craftsmen involved with the removal.

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

- Removal of Tank and Piping
- 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.

*Please note change made on page 5.*

*Susan L. Hugo  
10/30/91*

**UNDERGROUND TANK CLOSURE PLAN**

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

1. Business Name OLIVER RUBBER CO.  
Business Owner STANDARD PRODUCTS CO.
2. Site Address 1200 65<sup>TH</sup> ST.  
City EMMERVILLE, CA. zip 94608 Phone (510) 654-7711
3. Mailing Address P.O. BOX 8447  
City OAKLAND, CA zip 94662 Phone (510) 654-7711
4. Land Owner OLIVER RUBBER  
Address 1200 65<sup>TH</sup> ST. City, State EMMERVILLE, CA zip 94608
5. Generator name under which tank will be manifested OLIVER RUBBER CO.

EPA I.D. No. under which tank will be manifested CAC000644416  
*10/8/91 GOOD FOR 90 DAYS*

6. Contractor AQUA SCIENCE ENGINEERS  
Address 1041 SHARY CIRCLE  
City CONCORD, CA Phone (510) 685-6700  
License Type ENG. A ID# 608062

7. Consultant AQUA SCIENCE ENGINEERS  
Address 1041 SHARY CIRCLE  
City CONCORD, CA Phone (510) 685-6700

8. Contact Person for Investigation  
Name DAVID C. PRULL Title PROJECT MANAGER  
Phone (510) 685-6700

9. Number of tanks being closed under this plan 2  
Length of piping being removed under this plan 7.5'  
Total number of tanks at facility 3

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

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

a) Product/Residual Sludge/Rinsate Transporter

Name WASTE OIL RECOVERY EPA I.D. No. CAD000626515  
Hauler License No. <sup>DCHS - 843</sup> CAL.PUC. - 106399 License Exp. Date 4/92  
Address 6401 LEONA STREET  
City OAKLAND State CA Zip 94605

b) Product/Residual Sludge/Rinsate Disposal Site

Name DEMENNO KERDOON EPA I.D. No. CAT080013352  
Address 2000 N. ALAMEDA  
City COMPTON State CA Zip 90221

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 BOULEVARD  
City RICHMOND State CA Zip 94801

d) Tank and Piping Disposal Site

Name ERICKSON, INC. EPA I.D. No. CAD009466392  
Address 255 PARR BOULEVARD  
City RICHMOND State CA Zip 94801

11. Experienced Sample Collector

Name DAVID C. PRULL  
Company AQUA SCIENCE ENGINEERS  
Address 1041 SHARY CIRCLE  
City CONCORD State CA Zip 94518 Phone (510)685-6700

12. Laboratory

Name CHROMALAB, INC.  
Address 2239 OMEGA RD. #1  
City SAN RAMON State CA. Zip 94583  
State Certification No. E-694

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

If yes, describe. SOIL BORINGS CONDUCTED BY ENVIRONMENTAL ENGINEERS 'SAN JOSE, CA (3/88) INDICATE HYDROCARBONS CONSISTENT W/TANK PRODUCTS FOUND IN SOIL AND WATER.

14. Describe methods to be used for rendering tank inert

DRY ICE AT A RATE OF 1.5 POUNDS PER  
100 GAL. OF TANK VOLUME. (min)

\*9

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)		
8,000 gal.	INSTALLATION CIRCA 1965 LAST USED CIRCA 1985 MATERIALS STORED: GASOLINE AND VOLATILE SOLVENTS (MIXTURES OF PARAFINS, NAPHTHENES, TOLUENE, CYCLOHEXANE)	<u>SOIL @ SOIL</u> GROUNDWATER INTERFACE <u>GROUNDWATER</u>	SOIL/GW INTERFACE IN SIDEWALL APPROX. 11.0 FT. BELOW GRADE.
8,000 gal.	"	"	"

\*9 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) 250 cu yd.	Sampling Plan 1 SAMPLE FROM EACH 50 YARDS OF MATERIAL EXCAVATED. EACH SAMPLE WILL BE MADE UP OF FOUR SUBSAMPLES. EACH SAMPLE WILL BE ANALYZED FOR; TPH G (5030/8015) AND VOLATILE ORGANICS (8240)

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
Total Lead	AA		
GASOLINE TPH G	GC/FID 5030	8015	1 ppm (soil)
BENZENE	8020 or 8240	8240	5 ppb (soil) <del>1 = 100 ppb</del> (soil)
TOLUENE			
ETHYL BENZENE			
XYLENES			
NAPTHENES			
CYCLOHEXANES			
n-HEPTANE			
n-HEXANE			
METHYLCYCLOHEXANE			
TPH-D	GC/FID (3550)	3550	1.0 ppm (soil)

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

18. Submit Worker's Compensation Certificate copy

Name of Insurer OHIO CASUALTY GROUP

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) DAVID C. PRULL

Signature *David C. Prull*

Date 10/7/91

Signature of Site Owner or Operator

Name (please type) R.E. FARR

Signature *R.E. Farr*

Date 10/14/91

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

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

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

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

## EXPLANATION FOR TABLE #2: MINIMUM VERIFICATION ANALYSIS

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

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

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

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

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

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

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

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

#### EPILOGUE

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

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

