

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY

DAVID J. KEARS, Agency Director

March 2, 1998

Ms. Josefina Miller
Express Electric Co.
1071 San Pablo Avenue
Albany, California 94706

ENVIRONMENTAL HEALTH SERVICES

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

**RE: Project # 1873A - Type R (STID # 6363)
at Express Electric - 1071 San Pablo Avenue, Albany, CA 94706**

Dear Ms. Miller:

Our records indicate the deposit / refund account for the above project has fallen below the minimum deposit amount. To replenish the account, please submit an additional deposit of \$188.00 payable to Alameda County, Environmental Health Services.

We must receive this deposit so that future regulatory oversight on the subject site can proceed in a timely fashion. At the completion of this project, any unused monies will be refunded to you or your designee.

The deposit refund mechanism is authorized in Section 6.92.040L of the Alameda County Ordinance Code. Work on this project will be debited at the Ordinance specified rate, currently at \$ 94 per hour.

Please be sure to write the following on the check to identify your account:

- project #,
- type of project and
- site address (see RE: line above).

If you have any questions, please contact me at (510) 567-6780.

Sincerely,

Susan L. Hugo
Hazardous Materials Specialist

c: Dick Pantages, Chief, Environmental Protection Division
Ariu Levi, Program Manager
Tom Peacock, LOP Manager
SH / files

white -env.health
 yellow -facility
 pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH
 Hazardous Materials Inspection Form

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

II, III

Site ID # _____ Site Name Express Electric Today's Date 5/6/92 ✓

Site Address 1071 SAN PABLO AVE

City Albany Zip 94706 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:

Albany fire was present.
1-2000 G UGT removal - gas turbine tank
Tank appears to be in good shape
no obvious holes. Tank inspected for
Manifest # 10648300
Richson - Hwy Waste Handler
no obvious hydrocarbon smell.
one sample collected from back end
of the tank.
Stockpiled soil must be characterized
by covered with VSgulls.
Need to collect samples from underneath
dispenser for pipelines.

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(e)
- ___ 17. Certification 25534(f)
- ___ 18. Exemption Request? (Y/N) _____
- ___ 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 Groundwater
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 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 2711 |
| | ___ 14. As Built 2635 |

Rev 6/88

Contact: _____

Title: _____

Signature: _____

Inspector: _____

Signature: Debra L. Hays

II, III

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

* Project Specialist (print) SUSAN L. HUGO

ACCEPTED
 DEPARTMENT OF ENVIRONMENTAL HEALTH
 470 - 27th Street, Third Floor
 Oakland, CA 94612
 Telephone: (415) 674-7237

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 made 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 NOTIFICATIONS.

*Please note change made on page 4&5.
 Susan L. Hugo
 4/28/92*

UNDERGROUND TANK CLOSURE PLAN

* * * Complete according to attached instructions * * *

1. Business Name EXPRESS ELECTRIC
 Business Owner CLARENCE MILLER
2. Site Address 1071 SAN PABLO AVE.
 City ALBANY Zip 94706 Phone _____
3. Mailing Address ABOVE
 City _____ Zip _____ Phone _____
4. Land Owner CLARENCE MILLER
 Address 1071 SAN PABLO City, State ALBANY, CA Zip 94506
5. Generator name under which tank will be manifested EXPRESS ELECTRIC
 EPA I.D. No. under which tank will be manifested CAC000690296

6. Contractor H + H TOXIC REMOVAL
Address 2747 PEARTREE LN.
City SAN JOSE, CA 95121 Phone 408-238-7355
License Type A-ENGINEER/HAZMAT ID# 489745

7. Consultant CONSOLIDATED TECHNOLOGIES
Address 1777 SARATOGA #100
City SAN JOSE, CA 95129 Phone 408-973-9532

8. Contact Person for Investigation
Name DAVE HOBBS Title SITE COORDINATOR
Phone (408) 973-9532

9. Number of tanks being closed under this plan 2
Length of piping being removed under this plan 55'
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 ERICKSON, INC. EPA I.D. No. CAD009466392
Hauler License No. 019 License Exp. Date July 93
Address 255 PARR BLVD.
City RICHMOND State CA Zip 94801

b) Product/Residual Sludge/Rinsate Disposal Site

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

c) Tank and Piping Transporter

Name ERICKSON, INC EPA I.D. No. CAD009466392
Hauler License No. 019 License Exp. Date JULY '93
Address 255 PARR BLVD.
City RICHMOND State CA Zip 94801

d) Tank and Piping Disposal Site

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

11. Experienced Sample Collector

Name BRIAN REDDIG
Company CONSOLIDATED TECHNOLOGIES
Address 1777 SARATOGA #100
City SAN JOSE State CA Zip 95129 Phone (408) 973-9532

12. Laboratory

Name CITROM LAB
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. _____

14. Describe methods to be used for rendering tank inert

3 lbs. Dry Ice FOR EVERY 100 GALLONS OF VAPOR
SPACE IN TANKS.

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)		
2000 GAL.	INSTALLED 1974 LAST USED 1990	SOIL	2 SAMPLES MAX. 2 FT. BELOW EACH TANK EACH END.
1,000 GAL.	SAME ABOVE	SAME ABOVE	SAME ABOVE
		Groundwater Sample must be collected if present.	

* Samples must also be collected from underneath the dispenser.

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)	Sampling Plan
APPROX. 35 YDS.	1 COMPOSIT SAMPLE FROM STOCKPILE

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

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

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

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Method Number	Method Detection Limit
GASOLINE	PURGE + TRAP EPA 5030	TPH6 GC/FID (5030)	1 PPM
TPH gasoline	5030	BTX & E GC/FID	1 ppm (soil)
BTX & E		8020 or 8240	0.005 ppm (soil)
Total Lead	AA		

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

18. Submit Worker's Compensation Certificate copy

Name of Insurer _____

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.

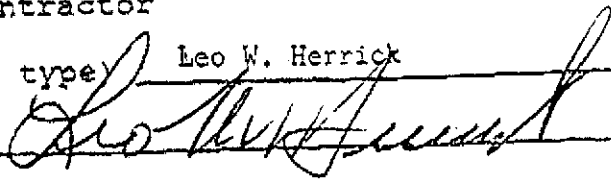
I understand that any changes in design, materials or equipment will void this plan if prior approval is not obtained.

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

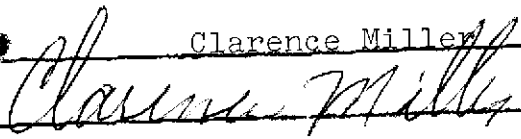
Name (please type) Leo W. Herrick

Signature 

Date 4-1-92

Signature of Site Owner or Operator

Name (please type) Clarence Miller

Signature 

Date 4-7-92

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

Express Electric

Company Name

Owner's Name

Street Address

1071 SAN PABLO AVE

Owner's Address

ALBANY CA - 94506

~~SAN JOSE CA - 95129~~

City

Zip Code

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.

Dave Hobbs

Signature of Depositor

4/6/82

Date

DAVID HOBBS

Depositor Name

Consolidated Technologies

Company Name

1777 SAMATOSA AVE Suite 100

Street Address

SAN JOSE, CA 95129

City / Zip

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

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

Express Electric

Company Name

CLARENCE MILLER

Owner's Name

1071 SAN PABLO AVE

Street Address

1071 SAN PABLO AVE.

Owner's Address

ALBANY. CA. 94506

City

Zip Code

ALBANY. CA. 94506

Owner's City

State

Zip

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

Consolidated Technologies

Name

1777 SARATOGA AVE. Suite 100

Street Address

SAN JOSE CA. 95129

City / Zip

Clarence Miller

Property Owner Signature

4-7-92

Date

Clarence Miller

Property Owner Name

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

ACORD CERTIFICATE OF INSURANCE

ISSUE DATE (MM/DD/YY)

3-24-92 kjh

PRODUCER

H.E. (ED) MATHIAS & CO.
 P.O. BOX 2489
 SARATOGA, CA 95070
 (408) 866-9422

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** AMERICAN STAR INSURANCE
- COMPANY LETTER **B**
- COMPANY LETTER **C**
- COMPANY LETTER **D**
- COMPANY LETTER **E**

INSURED

LEO W. HERRICK
 DBA: H & H HOE SERVICE
 2747 PEARTREE LANE
 SAN JOSE, CA 95121

COVERAGES

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

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY CLAIMS MADE <input checked="" type="checkbox"/> OCCUR. OWNER'S & CONTRACTOR'S PROT. <input checked="" type="checkbox"/> UNDERGROUND & COLLAPSE <input checked="" type="checkbox"/> \$500 DEDUCTIBLE EACH PROPERTY DAMAGE LIABILITY CLAIM	AMS 1506083	8-01-91	8-01-92	GENERAL AGGREGATE \$500,000 PRODUCTS-COMP/OP AGG. \$500,000 PERSONAL & ADV. INJURY \$500,000 EACH OCCURRENCE \$500,000 FIRE DAMAGE (Any one fire) \$ 50,000 MED. EXPENSE (Any one person) \$ 5,000
A	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	AMS 1506083	8-01-91	8-01-92	COMBINED SINGLE LIMIT \$600,000 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 \$
	WORKER'S COMPENSATION AND EMPLOYERS' LIABILITY				STATUTORY LIMITS EACH ACCIDENT \$ DISEASE-POLICY LIMIT \$ DISEASE-EACH EMPLOYEE \$
	OTHER				

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

ALL CALIFORNIA OPERATIONS OF THE NAMED INSURED

CERTIFICATE HOLDER

CONSOLIDATED ENVIRONMENTAL
 1777 SARATOGA AVE., SUITE 100
 SARATOGA CA 95129

CANCELLATION

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

AUTHORIZED REPRESENTATIVE H. E. (ED) MATHIAS & CO.

By: *Constance J. Brennan*

Certificate of Training

This Certifies That

ROD HERRICK

Has Completed The Required Course Of Training For

FORTY HOUR HEALTH AND SAFETY TRAINING (OSHA 1910.120)

And Is Awarded This Certificate By

Stamco, Inc.

San Martin, California

This 13th Day Of March 1992



DAN SULLIVAN



HEALTH AND SAFETY PLAN

FOR

EXPRESS ELECTRIC

1071 San Pablo Avenue

Albany, CA 94506

PREPARED BY:

CONSOLIDATED TECHNOLOGIES

1777 Saratoga Avenue, Ste. 100

San Jose, CA 95129

April 1992

REVIEWED AND APPROVED BY:

	NAME	DATE
Project Manager	<u>James Holby</u>	<u>4/6/92</u>
Site Safety Officer	<u>Leo Hill</u>	<u>4-6-92</u>

CONSOLIDATED TECHNOLOGIES

SITE SPECIFIC SAFETY PLAN

INTRODUCTION

This document describes the personnel protection standards and mandatory safety practices and procedures for the activities planned in removing an underground storage tank(s) at 1071 San Pablo Avenue, Albany, California. All personnel and subcontractors will follow this plan. The prime responsibility for employee safety lies with each company that is involved in the work for its own employees. It is expressly intended that all project work will comply with applicable sections of the California Occupational Health and Safety Code. All parties working on this project will maintain a general responsibility to identify and correct any health and safety hazards and are responsible for working in a safe manner.

Key Personnel:

Project personnel who will have overall responsibility for the safe operation of this project are:

Site Safety Officer:

Mr. Leo Herrick
(408) 274-7595

Contractor Responsibilities:

- * To conduct initial site safety training for all project field team members as described in this document.
- * To assure all field team personnel have read and understand the Health and Safety Plan.
- * To assure that all work performed on this project is conducted in a safe manner.
- * To coordinate with field personnel fire watch, traffic control and site security.
- * To monitor activities to assure the proper use of protective equipment such as hard hats, protective eyewear, gloves, coveralls, respirators, etc.
- * To monitor ambient hydrocarbon vapors.
- * To shut down or modify field work activities based on criteria in the site safety plan.
- * To read, understand and accept this Health and Safety Plan.

- * To assure all members of its crew attend the safety training program.
- * To make certain all equipment and other machines are properly inspected and maintained and are in compliance with applicable sections of the California Health and Safety Code.
- * To supply and maintain safety related protective equipment such as hard hats, safety boots, protective coveralls gloves, safety eye wear, respirators, etc., as specified in this plan.
- * To assure each employee working at this site will read and comply with this Health and Safety Plan.
- * To enforce corrective action under the direction of the Site Safety Officer.

Field Team Member Responsibilities:

- * To read, understand and follow this plan.
- * To perform work safely.
- * To cooperate with key personnel.
- * To report any unsafe conditions to the Site Safety Officer.
- * To be aware and alert for signs and symptoms of potential exposure to site contaminants and heat stress.

HAZARD CRITERIA

Hazard Evaluation

As air, water, soil and chemical substance monitoring data become available for all site work, the information will be evaluated by the site safety officer. Appropriate action in the of Health and Safety Modifications will be initiated by the Safety officer if necessary. The anticipated activities of this project include:

- * Earth moving using heavy machinery.
- * Collection of soil samples,
- * Monitoring of ambient hydrocarbon concentrations during project activities.

The general types of hazards associated with this project are:

- * Mechanical hazards: swinging objects, machinery, etc.
- * Electrical hazards: buried cables, overhead power lines.
- * Chemical hazards: gasoline, diesel, waste oil.
- * Fire hazards: natural gas and product lines, flammable petroleum hydrocarbons, and motor driven equipment.
- * Thermal hazards: heat stress.
- * Acoustical hazards: excessive noise created by machinery.

Job hazard analyses associated with each major work activity are presented in the following sections.

Chemical hazards:

A number of products containing hazardous chemicals may be encountered at UST sites. The chemicals of primary concern will be those associated with petroleum hydrocarbons. These compounds include gasoline, diesel, oil and grease, chlorinated hydrocarbons, benzene, ethylbenzene, toluene, and xylenes. These compounds may be present as both liquids and vapors.

Hydrocarbon Vapors

Hydrocarbon vapors expected to be encountered consist of gasoline and BTEX. Exposure to elevated levels of hydrocarbon vapors presents potential health risks that need to be properly controlled. Work practices and methods will be instituted to limit exposures. Where elevated exposures persist, respiratory protection will be the primary control method to protect personnel from inhalation of hydrocarbon vapors. The hydrocarbon vapors expected to be encountered during project activities are composed of a variety of volatile refined petroleum compounds. The majority of these have limited toxicity requiring minimal controls at the concentrations expected.

Petroleum fuel consists of hundreds of chemical compounds. There are certain compounds such as Benzene that present significant hazards and must be properly controlled. To do so, a working limit of 100 ppm total hydrocarbon is proposed as the maximum acceptable level of exposure without respiratory protection. In a typical situation with 1% of the hydrocarbon vapors being benzene, a 100 ppmv concentration of total hydrocarbon will result in a breathing zone of less than 1 ppmv benzene. This level is one tenth of the current occupational Permissible Exposure Limit (PEL) for an 8 hour exposure to benzene.

Action Levels Of Hydrocarbon Components in Petroleum Fuel:

Gasoline	>300ppm	PEL	LEL > 10%
Benzene	> 1ppm	"	Oxygen <19.5%
Toluene	>100ppm	"	
Xylene	>100ppm	"	
Ethyl Benzene	>100ppm	"	

A hydrocarbon vapor analyzer will be used to measure real time breathing zone concentration for comparison with the 100 ppmv working limit. When a persistent level of 100 ppmv is observed, appropriate respirators will be donned and other vapor measurements will be made. If hydrocarbon vapors exceed 1000 ppmv or 10 ppm benzene, work will be stopped. The field crew will be instructed to stay up wind and methods will be applied to subdue fugitive vapor emissions such as sprinkling soil with water, or the use of copus blower.

The site Safety Officer will make such determinations.

If LEL is >10% in or around the tank, work must stop and not commence until determined safe and/or LEL% <10%.

If oxygen levels in the immediate work area are < 19.5%, work must stop until determined safe and/or levels are >19.5%.

If one of the following conditions develop:

Symptoms Of Acute Overexposure:

Although proper monitoring for the presence of chemicals will be routinely conducted and appropriate protective equipment used, the possibility of exposure to hazardous chemicals may exist. The symptoms of exposure to hazardous chemicals include; behavioral changes, breathing difficulties, changes in skin color, coughing, dizziness, fatigue, respiratory irritation, headache, nausea, or light-headedness. If these symptoms are present in any on-site personnel, they will be removed from the site; if the problem persists or is severe, they will be taken to the nearest medical facility.

Symptoms of Oxygen Deficiency:

May cause dizziness.

Physical Hazards:

Physical hazards may arise due to the following elements:

- * operating machinery
- * falling objects
- * exposure to outside temperature extremes.

Explosion

Gasoline vapors can be highly explosive, having a flash point of about -40 F, and are considered to be a fire hazard.

Heat Stress

A hazard exists when individuals are required to work in warm temperatures, particularly while wearing impervious protective clothing. When the ambient air temperature exceeds 65 degrees, heat stress may become a problem. Monitoring of personnel wearing personal protective clothing should commence when the ambient temperature exceeds 65 degrees. Monitoring frequency should increase as the ambient temperature increases or as slow recovery rates are observed. If these conditions are encountered, the following precautions on the next will be taken:

- * During day-to-day field work, the on-site supervisor will be alert for the signs and symptoms of heat stress.

Field workers will be observed for the following signs and symptoms of heat stress.

- * profuse sweating, or complete lack of sweating
- * skin color change
- * increased heart rate
- * body temperatures in excess of 100 degrees as measured by thermometers
- * vision problems
- * confusion, dizziness, or nausea

These symptoms may lead to impaired functional ability, putting a worker and his co-workers at risk. Continued heat stress may lead to heat stroke and possibly death. Avoiding overprotection, careful training and frequent monitoring of personnel who wear protective clothing, judicious scheduling of work and rest periods, and frequent replacement of fluids can protect against the threat of suffering heat stress.

Any team member who exhibits any of these signs or symptoms will be removed immediately from field work and be requested to consume electrolyte fluid or cool water while resting in a shaded area. The individual will be instructed to rest until the symptoms are not recognizable. If the symptoms appear critical, persist or get worse, immediate medical attention will be sought.

Fire, Electrical and Noise Hazards:

- * underground gas and product lines
- * excessive machinery noise.

Due to the nature of excavation, there is a risk for electrical shock from over head and underground electrical lines. There is also a risk of physical injury from moving machinery and heavy drilling equipment. Explosive hazards exist w h e n f u e l concentrations in the bore hole reach explosive levels; > 10% LEL.

When working around mechanical equipment the potential exists for exposure to excessive noise. To deal with the health hazards of excessive noise, ear plugs will be provided.

PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

This section specifies personal protective equipment required for the various tasks of this project.

Sampling

Respiratory Protection: All field personnel will be required to have available an air purifying respirator with organic vapor cartridges. The respirators will be required based o n criteria presented in this safety plan. All respirators must be NIOSH approved, canister-equipped for all organic vapors up to 1000 ppm.

Protective Clothing: All field personnel who handle contaminated soil or liquid will wear impervious coveralls (Tyvex) and butyl rubber gloves. Impervious coveralls will not be required if soil or water is not visibly contaminated, or if vapor measurements are below 500 ppmv. Level "D" protective clothing and equipment will be worn at all times on the job site. All employees will have level "C" protective equipment available at all times. The site safety officer will monitor air borne contaminate levels for determination of when to don level "C" equipment.

Head Protection: Field personnel will wear non-metallic safety helmets.

Foot Protection: Field Personnel will wear neoprene rubber boots with steel toes. Under non-liquid exposure conditions, leather boots with steel toes and shanks are permissible.

Ear Protection: Field Personnel, based on noise levels, may be required to wear earplugs during soil excavation.

Eye Protection: Field Personnel will wear chemical-resistant safety glasses with attached side shield where splashes of potentially hazardous liquid or particles are likely.

Work Zones

During soil excavation operations, a work zone around the immediate vicinity of the project will be established and taped off. Only authorized personnel will be permitted to enter the work zone. Authorized personnel will include those who have duties requiring their presence in the work zone and have read this site safety plan. The establishment of the work zones will help ensure that: personnel are properly protected against the hazards present where they are working; work activities and contamination are confined to the appropriate areas; and, personnel can be located and evacuated in an emergency. The following describes the zones to be established:

Exclusion Zone: A 75 foot around the work area will be defined before work starts. The area inside the circle will constitute the "Exclusion Zone". The Exclusion Zone constitutes the area where the potentially hazardous air borne contaminants and physical hazards to the workers exist. Full personal protection must be available to all personnel in this area. The size of the Exclusion Zone may be changed to accommodate site conditions and to assure contaminate containment. All personnel within the exclusion zone will be required to use the specified level of protection. No food, drink, or smoking will be allowed in the exclusion or decontamination zones.

Contamination Reduction Zone: A formal decontamination zone should not be required during the underground storage tank removal. However, an area will be designated in the event extreme gasoline contamination is encountered. The decontamination zone will be an area where personnel can clean protective equipment. A waste container will be placed outside of the exclusion zone so contaminated equipment can be placed inside and covered. Personnel and equipment in the exclusion zone must pass through this zone before entering the support zone.

Support Zone: A Support Zone, the outermost zone, must be defined for each field activity. Support equipment is located in this uncontaminated or clean area. Normal work clothes are appropriate within this zone. The location of this zone depends on factors such as accessibility, wind direction (it should be up wind of excavation), and resources (e.g. roads, utilities, shelter). No equipment or personnel will be permitted to enter the clean zone from the exclusion zone without passing through the personnel or equipment decontamination station. Eating, smoking, and drinking will be allowed only in this area.

Decontamination Procedures

Petroleum hydrocarbon liquids and vapors are anticipated. Due to the volatile nature of hydrocarbons that may be encountered during the initial excavation and sampling operations, decontamination of equipment and vehicles will be of minimal importance since the volatile hydrocarbons will rapidly vaporize. Therefore, no formal decontamination procedure will be followed with the exception of general cleaning. No eating, drinking or smoking will be permitted in the exclusion zone. All personnel involved in work activities will be instructed to wash their hands, face, neck and forearms at the end of the work day. Soap, water and towels will be provided at the site for this purpose. The field personnel will also be instructed to shower at home at the end of each work day.

As work progresses, the nature of materials handled and the extent of contamination may possibly require formal decontamination procedures and delineated work/clean zones. However, we do not expect that such formal procedures will be necessary at this site and will only proceed at the Safety Officer discretion. In the event extreme contamination is encountered, decontamination of personnel, equipment and vehicles will be important to insure that contamination dose not spread to unsuspecting people and property. Personal decontamination mainly involves personal hygiene. Contamination should not be present on the skin if the proper protective methods specified in this plan are used. However all field personnel will be instructed to follow these guidelines to insure that contamination dose not remain on equipment, sample containers or in contact with their bodies.

The field team should remove their personal protective clothing in the following sequence:

- Step 1: Move out of the exclusion zone and into the decontamination zone. Do not remove personal protective equipment.

Step 2: Decontaminate the spades, shovels and other equipment by brushing them off.

Step 3: Remove outer gloves and coveralls and place them inside a garbage bag. Keep the air purifying respirator on.

Step 4: Move to the support zone and remove the respirator.

In the event that Level C protection is required at the site, more rigorous decontamination will be necessary. The following OSHA-specified procedures included steps necessary for complete decontamination prior to entry into the support zone, and steps necessary if a worker only needs to change a respirator or respirator canister.

Modification can be made to the twelve station decontamination process depending on the extent of contamination.

Station 1: Segregated Equipment Drop

Deposit equipment used on site (tools, sampling devices and containers, monitoring instruments, clipboards, etc.) on plastic drop cloths or in different containers with plastic liners. Each will be contaminated to a different degree. Segregation at the drop reduces the probability of cross-contamination.

Station 2: Suit/Safety Boot and Outer Glove Wash

Thoroughly wash safety boots and outer gloves. Scrub with a long-handled, soft bristle scrub brush and copious amounts ofalconox/water solution.

Necessary equipment includes:

- * Wash tub (30 gallon or large enough for person to stand in)
- * Alconox/water solution
- * Long-handled soft bristle scrub brushes

Station 3: Suit/Safety Boot and Outer Glove Rinse

Rinse offalconox/water solution using copious amounts of water. Repeat as many times as necessary.

Necessary equipment includes:

- * Wash tub (30 gallon or large enough for person to stand in)
- * Spray unit
- * Water
- * Long-handled, soft bristle scrub brushes

MONITORING PROGRAM

Personal exposure to ambient airborne hazards will be monitored to assure that personnel exposures do not exceed acceptable limits and that appropriate selection of protective equipment items is made. Airborne hydrocarbon vapor concentrations will be measured primarily by the use of a hydrocarbon vapor meter. If concentrations approach criteria levels, all personnel will be notified of possible site safety changes. Audits will be conducted by the Safety Officer to insure compliance with the Safety Plan and to provide additional support as required.

Ambient Vapor Reading

A hydrocarbon vapor detector will be used during excavation activities. This instrument will be used to measure both excavation and breathing zone concentration of hydrocarbon vapors. The instrument will be calibrated on a regular schedule using known calibrated gases.

Readings will be taken in the area where the field team members are working and surrounding down-wind areas. Measurements will be taken every 30 minutes where hydrocarbon vapors indicate levels above 30 ppmv. All readings will be recorded in a field notebook.

Emergency Procedures listed in this plan are designed to give the field team instruction on how to handle medical emergencies and fires and explosions. The emergency procedures will be carefully reviewed with the field team during the health and safety training session.

EMERGENCY RESPONSE PLAN

In the event of any situation or unplanned occurrence requiring assistance, the appropriate contact(s) should be made from the list below. For emergency situations, contact should first be made with the field team leader (or designee), who will notify emergency personnel, who will then contact the appropriate response teams. The emergency contacts list must be kept in an easily assessable location at the site.

Contingency Contacts	Phone Number
Nearest phone located on-site	(510) 524-2438
Fire Department	911
Police	911
County Sheriff	911
Poison Control	911

Medical Emergency

Hospital Name	Alta Bates
Hospital Phone No.	(510) 540-4444
Hospital Address	2001 Dwight Way Berkeley
Travel Time from Site	10 minutes
Map to Hospital (see next page)	
Ambulance Service	911

Route to Hospital: Go south on San Pablo Ave. approximately two miles. Turn left on Dwight Way and proceed approximately 1-1/4 miles to hospital.

Poison Control Center	(415) 428-3248
Chem Trec	(800) 424-9300
EPA Emergency Response	(415) 974-7500
State Office of Emergency Services	(800) 852-7550
Emergency Response/ (H & H)	(510) 543-4835
Clean-up (H & H)	(415) 543-4835

* Note: Prior to starting work, note the nearest location of functional telephone - See Main office.

Emergency First Aid Procedures:

Injuries

Medical problems occurring on site will be handled quickly. Emergency telephone numbers will be written down and posted in the passenger compartments of the field vehicles.

Eye Contact: Flush with clear water for 15 minutes or until irritation subsides. See a physician.

Skin Contact: Wash thoroughly with soap and water.

Inhalation: Remove from area away from vapor/exposure. Call physician and start resuscitation IMMEDIATELY if breathing has stopped.

Ingestion: DO NOT INDUCE VOMITING; call a physician immediately.

Oxygen Deficiency: Move out of oxygen deficient area into fresh air. Call physician IMMEDIATELY and induce resuscitation if breathing has stopped.

The field team will be instructed to seek immediate professional medical attention for all serious injuries. A first aid kit will be present at the work site in case of minor injuries. If anyone receives a splash or particle in the eye the field team will be instructed to irrigate the eye for 15 minutes. Instruction will also be provided to wash any skin areas with soap and water if direct contact with contaminants has occurred.

Fire and Explosion Hazards

Fires on site are of particular concern during soil excavation and sampling activities, it is a possibility of encountering flammable petroleum hydrocarbon liquids or vapors. During these activities the site safety officer will be present and equipped with an explosive vapor monitor for area monitoring and a multipurpose (A, B, C) fire extinguisher.

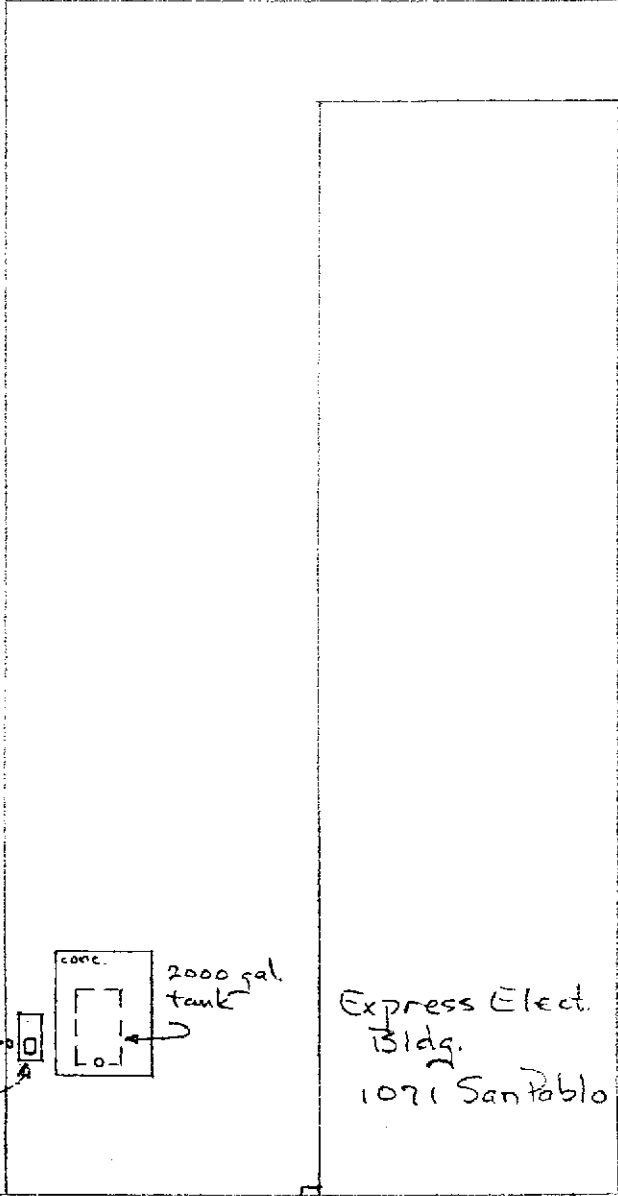
Flammable materials will be cleared away from the site prior to the start of work. If a fire does occur, the local fire dept. will be contacted immediately.

Operation Shutdown

Under extreme circumstances the on-site supervisor, safety officer, or project manager may request that operations be temporarily suspended while the underlying hazard is corrected or controlled. If vapor measurements with the explosive vapor monitor show levels approaching explosive limits, operations will be stopped while the area is controlled. During this activity, all personnel will be required to stand up wind to prevent exposure to fugitive vapor emissions. The safety officer will have ultimate authority for operation shutdown.

Community Protection

To assure the community is protected from health and fire hazards, up wind and down wind vapor monitoring will be performed if the general work area has hydrocarbon levels exceeding 100 ppmv. If down wind monitoring indicates persistent levels of 30 ppmv at the perimeter of the work area, work will be shutdown and vapor control efforts will be instituted until measurements indicate levels have dropped below 30 ppmv. An alternative approach of expanding the taped off area zone may be used to provide additional community protection.



Express Elect.
Bldg.
1071 San Pablo

200ft to
Monroe St

200 ft to
Dartmouth St.

San Pablo Ave.

1/16" = 1'



ALBANY

BERKELEY

EMERYVILLE

PIEDMONT

University

California

Mountain View Cemetery

St. Marys Cemetery

Oblations MORAGA City

Piedmont City

CHAPARRAL PEAK 3400'

Strawberry

Clark

Berkeley Tennis Club

Claremont

Country Club

St. Marys Cemetery

Mountain View Cemetery

Oblations MORAGA City

Piedmont City

St. Marys Cemetery

Mountain View Cemetery

Oblations MORAGA City

Piedmont City

St. Marys Cemetery

Mountain View Cemetery

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