

LEVINE-FRICKE, INC.

HSP APPROVAL REQUEST FORM

PROJECT AND SECTION NUMBER Oro Loma Sanitary District, San Lorenzo, CA LF 2968  
OFFICE NAME Emeryville, California

PACKAGE PREPARER NAME AND TITLE Michael Stoll, Project Geotechnical Engineer

CLIENT NAME Oro Loma Sanitary District

CLIENT ADDRESS 2600 Grant Avenue, San Lorenzo, California 94580

CLIENT CONTACT Mr. Doug Humphrey

START DATE OF PROJECT 8/9/93 DURATION OF PROJECT 6 to 8 weeks

NAME AND TITLE OF PROJECT MANAGER Michael Stoll, Project Geotechnical Engineer

COMMENTS This HSP is designed to address the following tasks scheduled at the site: soil boring drilling, soil sampling, ground-water sampling, UST removal, and excavation/backfilling observation.

APPROVED BY (PRINT NAME AND TITLE) SHARI A. SAMUELS  
HEALTH & SAFETY REPRESENTATIVE

APPROVAL SIGNATURE [Signature] DATE 8/2/93

OTHER APPROVALS IF NEEDED

\_\_\_\_\_  
SIGNATURE TITLE DATE

\_\_\_\_\_  
SIGNATURE TITLE DATE

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**FIGURE 1: HOSPITAL ROUTE MAP TO THE KAISER PERMANENTE  
HOSPITAL, HAYWARD**

**APPENDIX A: CHEMICAL DESCRIPTIONS**

July 30, 1993

LF 2968

**ORO LOMA SANITARY DISTRICT, SAN LORENZO, CALIFORNIA  
HEALTH AND SAFETY PLAN**

**1.0 PURPOSE**

This document defines the Health and Safety considerations for the possible management of hazardous substances by Levine-Fricke personnel and subcontractors. This document is required by Levine-Fricke policies and procedures and may be required by OSHA 29 CFR 1910.120. The basic requirements for the health and safety of the project workers are delineated in the Levine-Fricke Health and Safety Procedures. All personnel on site will be informed about the pertinent sections of the HSP.

**2.0 PROJECT STAFFING**

|                       |                                   |
|-----------------------|-----------------------------------|
| PROJECT MANAGER       | Michael Stoll                     |
| SITE SAFETY OFFICER   | Michael Stoll or Shellie Fletcher |
| EMERGENCY COORDINATOR | Michael Stoll                     |

### 3.0 SCOPE OF WORK

CHECK OFF APPROPRIATE CATEGORIES (MORE THAN ONE MAY APPLY)

|   |                                      |   |                 |
|---|--------------------------------------|---|-----------------|
| X | TANK EXCAVATION                      | X | SOIL SAMPLING   |
| X | SOIL EXCAVATION                      | o | ASBESTOS        |
| o | POND CLEANUP                         | o | ON-SITE STORAGE |
| o | BUILDING DECONTAMINATION             | o | CONSTRUCTION    |
| o | MONITORING WELL INSTALLATION         | o | DEMOLITION      |
| o | ON-SITE TREATMENT SOIL               | o | VAPOR SAMPLING  |
| X | GROUND-WATER SAMPLING                | o | OTHER _____     |
| o | ON-SITE TREATMENT OF<br>GROUND WATER |   |                 |

Field activities at the Site relate to the planned removal of one gasoline fuel underground storage tank. Prior to the removal of the tank, a drilling subcontractor to Levine-Fricke will drill soil borings near the tank. Soil and ground-water (if encountered) samples will be collected. Levine-Fricke will observe the excavation of the tank. The tank will be removed by a subcontractor to Levine-Fricke using a backhoe. Levine-Fricke personnel will collect soil samples from the excavation limits. In addition, if ground-water is present in the excavation, a grab sample will be collected. Upon completion of sample collection activities, the excavation will be backfilled to grade.

### 3.1 Site Layout

The Site currently operates as a municipal sewage treatment plant. The work area will be in the parking lot in the front of the maintenance garage. The Site is located at 2600 Grant Avenue, San Lorenzo, California.

#### 4.0 HAZARD EVALUATION

A. PHYSICAL HAZARDS (TRENCHES, UTILITIES, TERRAIN, ETC.)

The use of heavy equipment at the Site poses potential physical hazards. Excavations pose a hazard for personnel around and entering the excavation.

B. CHEMICAL CONTAMINANTS AND HIGHEST CONCENTRATIONS DETECTED IN SOIL OR GROUND-WATER AT THE SITE

Chemical contaminants have not been encountered near the UST, however the suspected chemicals of concern have been listed below.

| NAME OF MATERIAL | CONC. in ppm | TLV/PEL | ACTION LEVEL | MSDS AVAILABLE | HAZARD TO PERSONNEL |
|------------------|--------------|---------|--------------|----------------|---------------------|
| TPH as Gasoline  |              | 300     |              |                | See Appendix        |
| Benzene          |              | 1       |              |                | See Appendix        |
| Toluene          |              | 100     |              |                | See Appendix        |
| Ethylbenzene     |              | 100     |              |                | See Appendix        |
| Xylenes          |              | 100     |              |                | See Appendix        |

CARCINOGENS?                      x YES o NO

IF YES, LIST -- Benzene, although not detected at the site, is classified as a Group B-2 probable human carcinogen. The B-2 classification is based on sufficient evidence from animal studies but lacks adequate evidence from human epidemiological studies. The State of California has listed benzene as a chemical known to cause cancer under the Safe Drinking Water and Toxic Enforcement Act of 1986. If benzene is detected at the site, then in compliance with the Proposition 65 warning Requirements in CCR Title 22, Sections 12000 and 12601, the following warning must be made:

"This area contains chemicals known to the State of California to cause cancer."

**This warning will be disclosed to workers during a tailgate meeting before initiation of work.**

#### **4.1 Task Specific Hazards**

**TASK Soil Sampling, UST and Soil Excavation Observation**

1. Noise and other hazards associated with the operation of heavy equipment.
2. Workers will not enter unsupported/non-sloped excavations deeper than 4 feet. All requirements pursuant to 29 CFR 1926.651 and 652, Excavations, Trenching and Shoring, shall be observed.

**TASK Ground-Water Sampling**

1. Workers will not enter unsupported/non-sloped excavations deeper than 4 feet. All requirements pursuant to 29 CFR 1926.651 and 652, Excavations, Trenching and Shoring, shall be observed.

#### **5.0 PROJECT MANAGEMENT**

##### **CREW SIZE**

|                            |  |
|----------------------------|--|
| <b>PROJECT MANAGER</b>     | Michael Stoll                            |
| <b>CHEMIST</b>             | Doug Lipton                              |
| <b>SITE SAFETY OFFICER</b> | Michael Stoll and/or<br>Shellie Fletcher |

#### **5.1 Subcontractors**

Drilling contractors (West Hazmat Drilling) and excavation contractors (Trumpp Bros. Inc.) with 40 hour OSHA training will complete the scheduled tasks.



**6.0 MATERIAL HANDLING EQUIPMENT**

(PROVIDE DETAILS, E.G., QUANTITIES AND TYPES)

- DRUM DOLLY \_\_\_\_\_
- PUMPS \_\_\_\_\_
- FORK TRUCK \_\_\_\_\_
- MAN LIFT \_\_\_\_\_
- HEAVY EQUIP.   drill rig for preliminary soil  
                                sampling, backhoe to remove soil,  
                                compactor to compact the backfill soils
- CRANE \_\_\_\_\_
- VACUUM TANKER
- AIR COMPRESSOR \_\_\_\_\_

**7.0 REPORTING AND RECORDKEEPING**

**7.1 General**

Recordkeeping shall be consistent with OSHA regulations in all respects. The following records will be maintained in the Corporate Health and Safety Director's Office, the local Levine-Fricke Office and/or at the site:

- The Health and Safety Log--The log documents the Site Safety officer's daily activities pertaining to site health and safety compliance.
- OSHA 200 Log and Summary of Occupational Injuries and Illnesses--Current within 72 hours. Will be maintained in the appropriate local office and Health and Safety Director's office.
- Respirator Fit Test Records
- Training and Medical Certificates
- Tailgate Safety Meeting Records

**8.0 ENVIRONMENTAL SAMPLING**

SAMPLING REQUIRED       YES       NO

SOIL SAMPLING  
EQUIPMENT USED

Soil samples will be collected during drilling by driving a split spoon sampler containing brass tubes. For excavation samples, a mallet will be used to drive brass tubes into the soil.

WATER/LIQUID  
EQUIPMENT USED

Disposable sampling bailers will be used to collect the ground-water samples.

**9.0 TRAINING**

LEVINE•FRICKE CREW RECEIVED INITIAL 40-HOUR TRAINING

YES    NO

IF NO, WHY? \_\_\_\_\_

SUBCONTRACTOR RECEIVED REQUIRED TRAINING

YES    NO      West Hazmat drillers and Trumpp Bros. contractors have received the required training

IF NO, WHY? \_\_\_\_\_

SAFETY BRIEFINGS ARE HELD EACH SHIFT

WHO CONDUCTS MEETING?    The Levine•Fricke SSO

WHERE ARE RECORDS STORED?   Levine•Fricke project files

**10.0 MEDICAL REQUIREMENTS**

**ENTIRE CREW RECEIVED BASELINE PHYSICAL EXAMINATIONS**

**X YES o NO**

**IF NO, WHY?** \_\_\_\_\_

---

**SPECIAL TESTS REQUIRED None**

**11.0 CONTAMINATION CONTROL**

- The job site is partitioned into three distinct zones: clean zone, contamination reduction zone, and exclusion zone.
- Workers may only enter and exit from the exclusion zone via the contamination reduction zone.
- Only authorized personnel are allowed to enter the exclusion or the contamination reduction zone.
- Section 16 includes a site map defining the zones.
- Section 17 describes the personnel and equipment decontamination procedures.

**12.0 WORKER PROTECTION**

**12.1 Personal Protective Equipment**

1. WORK TASK DESCRIPTION soil and ground-water sampling, UST and soil excavation observation
2. LEVEL  A  B  C  D
3. RESPIRATORY PROTECTION No
4. PROTECTIVE CLOTHING

X HARD HAT

EYE PROTECTION

- X SAFETY GLASSES WITH SIDE SHIELDS  
 CHEMICAL RESISTANT GOGGLES  
 FACE SHIELD  
 OTHER \_\_\_\_\_

BODY PROTECTION Not Applicable

GLOVES -when sampling

- |   |                               |
|---|-------------------------------|
| <input type="radio"/> LATEX             | <input type="radio"/> LEATHER |
| <input type="radio"/> SURGICAL RUBBER   | <input type="radio"/> COTTON  |
| <input type="radio"/> VITON             | <input type="radio"/> OTHER   |
| X PVC                                   | _____                         |
| <input type="radio"/> NEOPRENE          |                               |
| <input type="radio"/> NEOPRENE (MILLED) |                               |
| <input type="radio"/> SILVERSHIELD      |                               |

BOOTS

- X LEATHER - STEEL TOED  
 PVC - STEEL TOED  
 NEOPRENE - STEEL TOED  
 PVC BOOTIES  
 TYVEK BOOTIES  
 OTHER \_\_\_\_\_

HEARING PROTECTION

- EAR MUFFS  
X EAR PLUGS  
 OTHER \_\_\_\_\_

## 12.2 General Safety Equipment

- SAFETY SHOWER
  - EYEWASH
  - X BARRIERS
  - WARNING SIGNS
  - X BARRIER TAPE
  - WATER/GATORADE
  - DECON BARRELS
  - LIGHTING
  - LIFELINE/HARNESS
  - EXTRACTION DEVICE
  - AIR HORNS
- 

X FIRE EXTINGUISHERS --to be supplied by the contractor and Levine-Fricke.

COMMUNICATION SYSTEMS-- Mobile cellular telephone on site for emergency use and pagers for Levine-Fricke personnel

SANITARY FACILITIES --Potable water will be brought to the site by Levine-Fricke personnel and is available in on-site buildings. Toilets are available in on-site buildings.

**13.0 PERSONNEL MONITORING PLAN**

AIR MONITORING REQUIRED     Yes     NO

EXPLAIN STRATEGY    Air monitoring is not required, however a Photoionization detector will be used to monitor volatile organic chemical concentrations in the breathing zone. If ambient air concentrations of VOCs in the breathing zone reach 25 parts per million (ppm) or greater, personnel shall upgrade to Level C using half-face air-purifying respirators equipped with NIOSH-approved high efficiency particulate/organic vapor combination cartridges.

**SAMPLING EQUIPMENT**

- COMBUSTIBLE GAS/OXYGEN METER
- DRAEGER TUBES
- PHOTOIONIZATION DETECTOR
- FLAME IONIZATION DETECTOR
- INFRARED DETECTOR
- AEROSOL MONITOR
- SAMPLING PUMPS
- AND MEDIA \_\_\_\_\_

OTHER \_\_\_\_\_

HEAT STRESS MONITORING     YES     NO

**NAMES OF MONITORING TECHNICIANS**

Michael Stoll and/or Shellie Fletcher

LOCATION OF MONITORING RECORDS    Levine-Fricke project files

#### **14.0 SITE SAFETY OFFICER RESPONSIBILITIES**

The Site Safety Officer (SSO) or Designee will enter before any work begins and will verify that the established zones are identified and escape routes are clear.

The daily site entry procedure will include the following:

- Determine the wind direction and stay appraised of it throughout the stay. Identify the direction during the tailgate safety meeting or informally with each affected employee.
- Confirm the proper placement of emergency information and operational status of equipment and the decontamination facility.
- Monitor the air as necessary for conditions that may cause injury or exposure and record all data.
- Visually observe for signs of actual or potential life- or health-threatening hazards.
- Note physical conditions of the site. Determine potential exposure pathways.
- Use survey tape or markers to identify new boundaries of the zones.
- Document site activities in a daily log. Record observations related to field conditions and the site.

## 15.0 GENERAL SAFE WORK PRACTICES

- All accidents and incidents must be reported to the supervisor immediately.
- All defects/malfunctions which appear during the course of the work shift must be reported to the supervisor.
- No eating, drinking, smoking, chewing tobacco or gum is allowed in the exclusion or contamination reduction zones.
- Employees shall inform their supervisors of any prescription medications they are using while at work that can affect their abilities.
- Employees shall not show up for work under the influence or in possession of alcohol or illicit drugs.
- Only Levine-Fricke-approved personal protective equipment shall be used by Levine-Fricke employees.
- Employees shall not remove or disturb any covering, guards, or safety devices placed on vehicles, gears, or other moving equipment or machinery, except to perform maintenance or repairs. Work on the equipment shall not commence until the equipment has been deactivated, sources of energy are removed, and controls are locked and tagged out.
- Before starting any vehicle or machinery, or turning on electricity, gas, steam, or air, employees will check the entire area to ensure that it is safe to proceed with the work. Out of service or locked out equipment is not to be started by anyone unless authorized by a supervisor.
- Employees shall maintain good housekeeping of the facilities and remove or dispose of all unnecessary materials.
- Special operations, including confined space entry, hot work, and decommissioning of equipment for repairs, require permits to be signed by authorized personnel. A description of the procedures will be included as an appendix.



- Trenching or excavations must be shored or sloped or appropriately prepared as required by OSHA standards. A description of the techniques to be used is included as an appendix, if appropriate.

**16.0 WORK ZONE MAP**

(Can be completed on site during the first working day.)

## 17.0 DECONTAMINATION PROCEDURES

PERSONNEL DECONTAMINATION PROCEDURES-- Disposable gloves, sampling equipment and other disposable clothing or equipment worn by Levine-Fricke personnel will be placed in a suitable disposal container on site at the end of each work day. protective clothing will be replaced if its protective function is compromised through holes or tears.

EQUIPMENT DECONTAMINATION PROCEDURES-- Equipment that comes in contact with on-site soils or ground-water that apparently contain chemicals identified at the site will be brushed off before removal from the site area.

LAUNDERING PROCEDURE FOR WORK CLOTHES-- Wash separately.

## 18.0 LEVINE-FRICKE INTERNAL CALL LIST

IN THE EVENT OF INJURY, FIRE, EXPLOSION, SPILL, RELEASE, OR OTHER NONROUTINE EVENTS, IMMEDIATELY CONTACT ONE OF THE FOLLOWING PEOPLE, IN THIS ORDER:

1. Shari Samuels (510) 652-4500 or (510) 943-2303
2. JoAnn Weber (510) 652-4500
3. Michael Stoll (510) 652-4500
4. John Sturman (510) 652-4500

## **19.0 HAZARDOUS WASTE OPERATIONS CONTINGENCY PLAN**

GENERATOR'S/OWNER'S NAME: Oro Loma Sanitary District

WORK LOCATION: 2600 Grant Avenue, San Lorenzo, California

CONTACT: Mr. Doug Humphrey      PHONE # (510) 276-4700

LEVINE-FRICKE PROJECT MANAGER: Michael Stoll

### **19.1 General Injury**

- Step 1: Use first-aid kit on site, if appropriate.
- Step 2: Use off-site medical help and/or assistance if appropriate.
- Step 3: Notify SSO, On-Site Project Manager, and Health and Safety Director.

### **19.2 Specific Treatments**

- Eye Exposure: Flush eye with eye wash, contact ambulance.
- Skin Exposure: Wash immediately with soap and water; contact ambulance, if appropriate.
- Fire (localized): Use fire extinguisher and activate alarm system, if appropriate.
- Fire (uncontrolled): Call Fire Department.
- Chemical Spill: Contact Fire Department and National Response Center for Toxic Chemical and Oil Spills.
- Explosion: Contact Fire Department if potential for additional explosions or fire danger exists.
- Inhalation: Move person to clean air and cover source of chemicals, if possible.
- Swallowing: Contact ambulance service.

**EMERGENCY PHONE NUMBERS:**

- POLICE 911
- FIRE 911

**Hazardous Materials Release Response/Reporting**

- National Response Center 1-800-424-8802
- California Office of Emergency Services 1-800-852-7550

**Toxics Information**

- CHEMTREK 1-800-424-6699
- Poison Control Center 1-415-476-6600
- AMBULANCE 911
- HOSPITAL

Emergency Room 1-510-784-4251  
Kaiser Permanente Hospital  
27400 Hesperian Boulevard  
Hayward, California

See attached map for route to hospital.

**20.0 CONTRACTOR AND SUBCONTRACTOR AGREEMENTS**

**Contractor and Subcontractor Agreements:**

1. Contractor certifies that the following personnel to be employed on the Oro Loma Sanitary District Site have met the Hazards and Protection requirements of the OSHA Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120) and other applicable standards.
  
2. Contractor certifies that, in addition to meeting the OSHA requirements, she/he has received a copy of this HSP and will insure that the employees and subcontractors of the Contractor are informed, and will comply with both OSHA requirements and the guidelines in this HSP.
  
3. Contractor further certifies that she/he has read, understands, and will comply with all provisions of this HSP and will not hold Levine-Fricke responsible or liable for any injury or health problems that may occur.

| Contractor Personnel | Training/<br>Certification/<br>Medical<br>Examination | Signature | Date  |
|----------------------|---|-----------|-------|
| _____                | _____   | _____     | _____ |
| _____                | _____   | _____     | _____ |
| _____                | _____   | _____     | _____ |
| _____                | _____   | _____     | _____ |
| _____                | _____   | _____     | _____ |
| _____                | _____   | _____     | _____ |

## APPENDIX A

### CHEMICAL DESCRIPTIONS

#### Benzene

Benzene is a clear colorless liquid.

Exposure to high concentrations (3,000 ppm) may result in acute poisoning, characterized by the narcotic action of benzene on the central nervous system. Chronic poisoning occurs most commonly through inhalation and dermal absorption. Benzene is also a recognized carcinogen.

The Permissible Exposure Limit (PAL) for benzene is 1 ppm in air.

#### Toluene

Toluene is a colorless liquid with a benzol-like odor.

Inhalation of high vapor concentrations may cause impairment of coordination and reaction time, headaches, nausea, eye irritation, loss of appetite, a bad taste, and lassitude.

The PEL for toluene is 100 ppm in air.

#### Ethylbenzene

Ethylbenzene is a clear colorless liquid.

Exposure to high concentrations of ethylbenzene vapor may result in irritation of the skin and mucous membranes, dizziness, irritation of the nose and throat and a sense of constriction of the chest.

The PEL for ethylbenzene is 100 ppm in air.

### Xylenes

Xylenes are clear colorless liquids.

Exposure to high concentrations of xylene vapor may result in eye and skin irritation. Eye irritation may occur at concentrations of about 200 ppm.

The PEL for total xylene is 100 ppm in air.

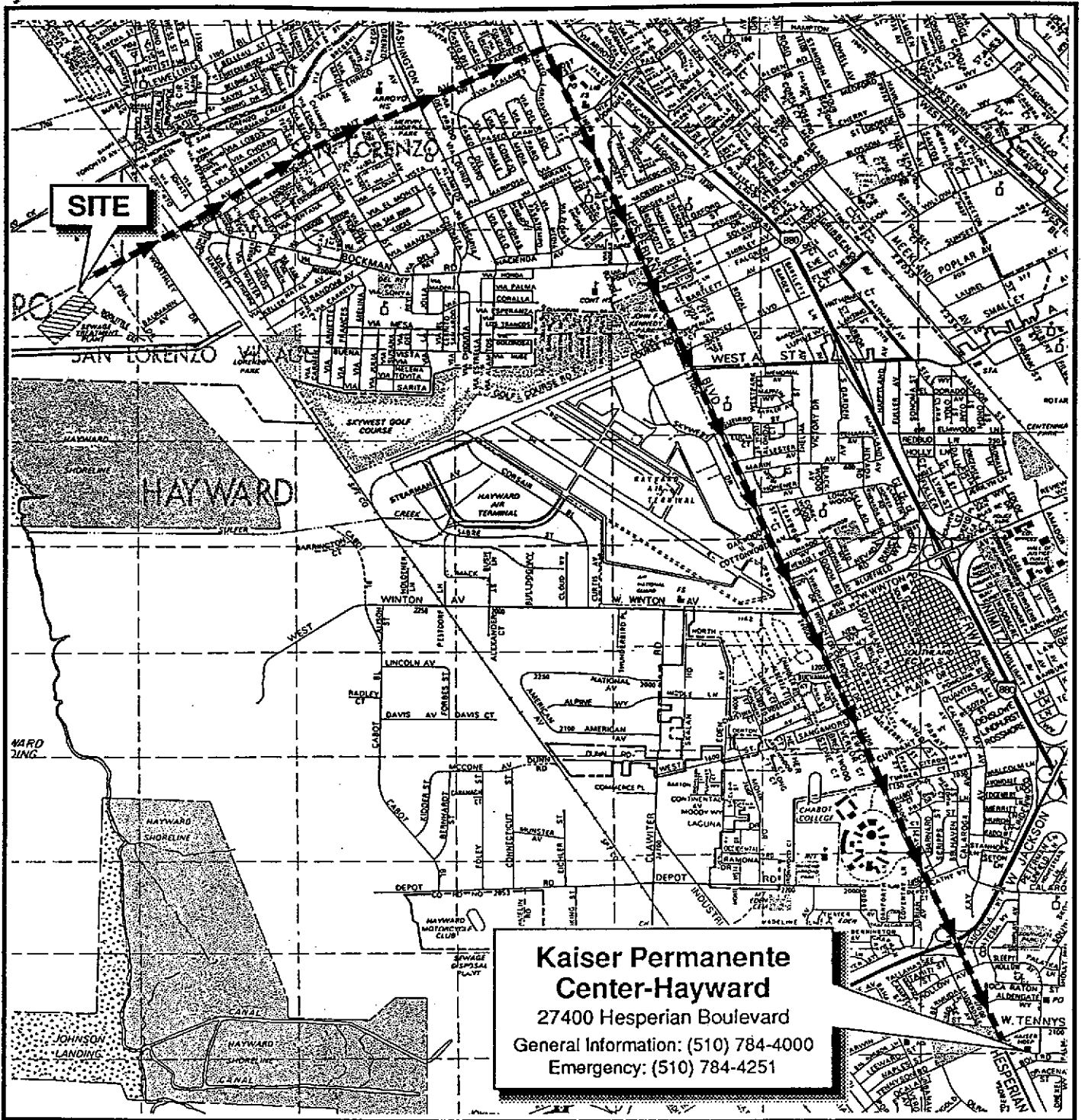
### TPH as Gasoline

Gasoline is produced from the light distillates during petroleum fractionation, with its major components including paraffins, olefins, naphthenes, aromatics, and recently ethanol. Gasoline also contains various functional additives as required for different uses, such as antiknock fluids, antioxidants, metal deactivators, corrosion inhibitors, anti-icing lubricants, dyes, and decolorizers. Lead additives in particular were widely used in gasoline until the introduction of vehicle catalytic converters.

Mild cases of gasoline ingestion can cause inebriation, vomiting, vertigo, drowsiness, confusion, and fever. Aspiration into the lungs and secondary pneumonia may occur unless prevented. Gasoline can cause hyperemia of the conjunctiva and other eye disturbances. Inhalation of gasoline during bulk handling operations produced no physiological effects. Gasoline is a skin irritant and a possible allergen. Repeated or chronic dermal contact can result in drying of the skin, lesions, and other dermatologic conditions.

The time-weighted-average of the PEL for gasoline is 300 ppm and the short term exposure limit is 500 ppm.





MAP SOURCE:  
 Thomas Bros. Map  
 Alameda and Contra Costa Counties, 1992

Figure 1 : SITE LOCATION AND ROUTE TO HOSPITAL