

# PARADISO MECHANICAL, INC.

GENERAL & PETROLEUM CONTRACTORS  
and ENVIRONMENTAL SERVICES

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**S I T E   H E A L T H**  
**&**  
**S A F E T Y   P L A N**

**SHELL**  
**350 Grand Avenue**  
**Oakland**

**PARADISO PROJECT #95-000**

**SEPTEMBER, 1995**

ENVIRONMENTAL  
PROTECTION  
95 OCT -3 PM 4:05

EMERGENCY INFORMATION

IN CASE OF AN EMERGENCY, USE THIS SHEET

EMERGENCY PHONE NO:

911

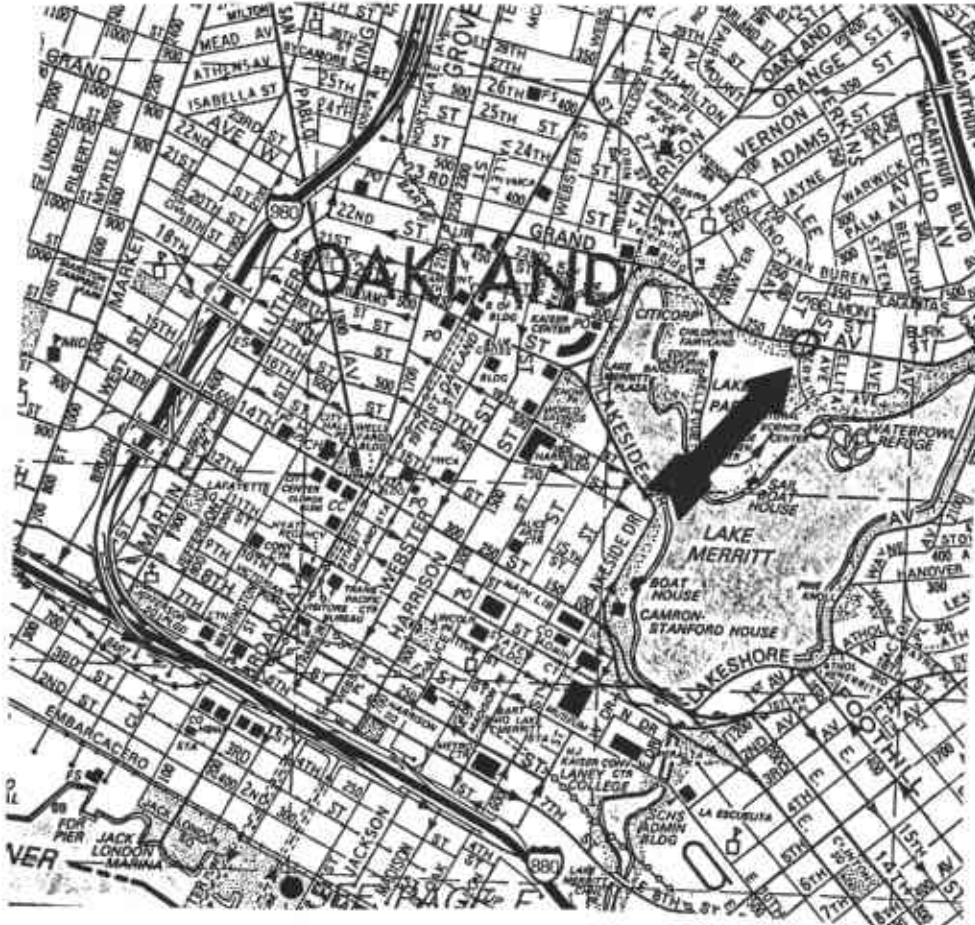
SITE ADDRESS:

350 Grand Avenue  
Oakland, Ca.

NEAREST INTERSECTION:

Perkins

SITE LOCATION



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## 1.0 INTRODUCTION

Paradiso Mechanical will furnish labor and equipment to remove (3) 12,000 Gal gas tanks & (1) 10,000 gas tank; install (2) 15,000 gas tanks.

This Health & Safety Plan is based on the work plan activities and the requirements of Title 29 of the Code of Federal Regulations, Section 1910.120 (29 CFR 1910.120).

## 2.0 WORK ACTIVITIES

The following subsections provide a description of the various work performed at the site, as well as health and safety hazards associated with each task.

### 2.1 SITE SECURITY

Access during all on-site activities will be restricted to authorized personnel. All personnel and authorized visitors must contact the Site Foreman/Safety Coordinator prior to entering and exiting the site.

## 3.0 ON-SITE ORGANIZATION

Each person shall be responsible for following the Health and Safety Plan's guidelines at the site. The Safety Officer is the appointed Foreman and his duties are as follows:

- Ensure that the Health and Safety Plan is implemented;
- Conduct "tailgate" meetings on a weekly basis and document items discussed;
- Conditions may change on site. Determine extent and conduct "tailgate" meetings on a basis that relates to conditions on site. Document items discussed.
- Stop work if the health and safety of workers is in question;
- Observe workers for signs and symptoms of exposure or heat stress;
- Evaluate the effectiveness of the personal protective equipment program on an ongoing basis and upgrade the program as needed;



### 3.2 HEALTH AND SAFETY HAZARDS

Health and safety concerns on site may consist of:

- Chemical hazards:
  - Diesel, Gasoline, Benzene, Toluene, Ethyl Benzene and Xylenes.
- Physical hazards:
  - Operation of heavy equipment;
  - Semi-Trucks/Automobiles and other vehicle traffic;
  - Excavation pits/trenches;
  - Underground electrical, water and sewer lines.

### 3.3 HAZARD ANALYSIS

To the best of our knowledge, the property previously operated gasoline, diesel, and waste oil tanks. Historic data and evaluation of subsurface data indicates the presence of elevated levels of petroleum hydrocarbons.

### 3.4 EXPOSURE PREVENTION AND SAFETY REQUIREMENTS

This section describes the hazard and danger of exposure to chemicals and physical hazards present at the site. Possible contingency plans and safety requirements are also presented on this section.

#### 3.4.1 HAZARD EXPOSURE GUIDELINES

Substances	CAL OSHA PEL	1990-91 ZSVHOJ/ TLV
Benzene	1 ppm (TWA) 25 ppm (Ceiling)	1 ppm (TWA)
Toluene	100 ppm (TWA) 150 ppm (STEL)	100 ppm (TWA) 150 ppm (STEL)
Ethylbenzene	100 ppm (TWA) 125 ppm (STEL)	100 ppm (TWA) 125 ppm (STEL)
Xylene	100 ppm (TWA) 150 ppm (STEL)	100 ppm (TWA) 150 ppm (STEL)
Gasoline	300 ppm (TWA) 500 ppm (STEL)	300 ppm (TWA) 500 ppm (STEL)

Oil Mist	5 mg/m3 (TWA) 10 mg/m3 (STEL)	5 mg/m3 (TWA) 10 mg/m3 (STEL)
Petroleum Distillates	400 ppm (TWA)	400 ppm (TWA)

### 3.4.2 DIESEL & GASOLINE FUEL HAZARDS

A. Eye and skin exposure hazards: irritant

In case of exposure:

- Remove contaminated clothing and shoes;
- Flush affected areas with plenty of water for a minimum of 15 minutes;
- IF IN EYE, hold eyelids open and flush with plenty of water for a minimum of 15 minutes;
- If irritation or discomfort continues, seek medical aid immediately.

B. Internal exposure hazards: Harmful if swallowed.

In case of exposure:

- Seek medical attention;
- If victim is CONSCIOUS have victim drink water or milk;
- DO NOT INDUCE VOMITING.

C. Fire hazards: Combustible

Since flammable or combustible vapors are likely to be present, all potential sources of ignition must be eliminated. Caution must be taken to prevent the discharge of static electricity and to prevent accumulations of vapor at ground level. A combustible gas indicator should be used continuously to check hazardous vapor concentrations, lower explosive limit (LEL). Alarm of the combustible gas indicator should be set at 20% of LEL. Under alarm conditions, all work activities will cease and the area will be evacuated until the combustible vapor concentration can be controlled below 20% of the LEL. All open flame or spark-producing equipment in the area should be shut down and any electrical equipment used must be explosion proof.

In case of fire:

- Extinguish with dry chemical, foam or carbon dioxide.
- If fire cannot be extinguished within 30 seconds, call Fire Department immediately.
- Water may be ineffective on fire.

### 3.4.3 TRAFFIC HAZARDS

Stay at least 10 feet away from moving equipment. If closer than 10 feet:

- 1) Keep equipment in sight at all times;
- 2) Inform the operator of your location at all times.

The working area will be closed to traffic with barricades, caution tape, cones and other traffic control equipment. If the area cannot be barricaded, a flagperson will be assigned to direct traffic.

No unauthorized or unessential vehicles will be allowed to enter the barricaded area.

### 3.4.4 OPEN EXCAVATION PIT HAZARDS

Open excavation pits shall be clearly marked and barricaded. No confined space entry will be allowed. If a person falls into an open pit:

- DO NOT ENTER THE EXCAVATION PIT.
- If the person is conscious and can move, lower a ladder into the pit so that the person can climb out.
- If the person is unconscious, call the Fire Department.

### 3.4.5 UNDERGROUND POWER LINE HAZARDS

Call U.S. Alert at least 3 days before commencing excavation work. The owner will identify aboveground structures and utilities and will provide as-built blueprints for contractor use prior to start of project. If the location of underground utilities such as water, sewer or electrical lines is still unclear, the contractor will obtain the service of a utility location company before beginning any excavation. An area for excavated soil stockpile will be provided adjacent to the excavation.



If a power line is discovered or damaged during the work:

- Stop all activities.
- Stop all engines, mechanical and electrical equipment.
- Call Utility Company/U.S. Alert immediately.  
(U.S. Alert - 1-800-642-2444)

In case of electrical injury:

- Shut off the source of electrical power before attempting rescue or treatment.
- Seek professional electrical personnel (Fire Department) to assist in rescue.
- Beware of, and expect, live electrical currents.

#### 3.4.6 PERSONNEL SAFETY EQUIPMENT

The following personal protective equipment will be required AT ALL TIMES:

- Hard Hat
- Steel-toed shoes
- Safety glasses
- Nitrile gloves (required for personnel who will come in contact with soil or groundwater).

The following personal protective equipment will be optional or required as the need arises:

- Hearing protection equipment
- Coveralls - disposable (Tyvek), or fabric (any chemical protective needs).
- Gloves

Additional protection requirements are described in Section 6.0.

### 3.4.7 GENERAL SAFETY EQUIPMENT

The following equipment must be available and easily accessible for use:

- First Aid Kit
- Fire extinguishers (Foam, dry chemical or carbon dioxide)

Each company vehicle is equipped with the following items:

- First Aid Kit
- Fire Extinguisher
- "Stop/Slow" traffic signs
- Warning Triangle/Flair Kit

### 4.0 TRAINING

All personnel who may be exposed to onsite contaminants must provide documentation of the following:

- Current certification of 40 hours of (OSHA) classroom instruction/hands-on training to include:
  - Three days of field experience under the supervision of an experienced supervisor.
  - Eight hours of annual classroom refresher training.
- Eight hours of supervisory training if a team member is a designated supervisor.
- Hazard communications training.

### 5.0 PROJECT-SPECIFIC TRAINING

Project-specific training and information will be provided either before traveling to the site or at the site before entry into the exclusion zone. The information and training will be documented and will include the following:

- The contents of this Health and Safety Plan
- A discussion of the health and safety hazards; protective measures and work practices for handling contaminated soil, water or equipment.

## 6.0 LEVELS OF PROTECTION FOR EACH WORK ZONE

Protective equipment has been selected for use in each work zone based on anticipated hazards. Specific protective equipment requirements are as follows:

- Exclusion zone - Level D protection will be required within the exclusion zone for any workers engaged in sample collection or other activities on site. Level D protection will include a hard hat, steel-toed boots, safety glasses, hearing protection, and Nitrile gloves. Coveralls are optional but recommended.
- Level C protection will be required if PID readings exceeding 100 ppm total volatile organics over background concentration are recorded in the workers breathing zone. Level C protection will consist of disposable Tyvek coveralls, steel-toed boots, chemical resistant boot covers, splash goggles, chemical resistant disposable gloves (inner) and chemical resistant outer gloves. MSHA/NIOSH approved half-face or full face air-purifying respirator with dual organic vapor cartridges.
- Support Zone - No specific requirements.

### 6.0.1 ASBESTOS

Protective Clothing: Whenever there is a need for removing material containing asbestos, Contractor shall provide the following protective clothing or equipment and respirators.

- Full body disposable coveralls;
- Disposable shoe covers & hood;
- Impermeable gloves;
- Approved half mask or full face respirator with HEPA filter cartridge as a minimum;
- All protective clothing shall be handled and disposed in accordance with the applicable laws.

Asbestos Caution signs shall be displayed at all entrances to the work area in accordance with applicable laws.

## 7.0 WASTE HANDLING AND DISPOSAL

The waste handling procedures discussed in the work plan will be followed. Waste generated by implementation of this Health and Safety program may include spent protective clothing such as Tyvek suits, gloves and wash and rinse solutions. Protective clothing will be collected in a lined container. Liquid wastes will be collected and pumped or poured into holding tanks with equipment decontamination rinsate.

## 8.0 PERSONAL INJURY

In case of a minor personal injury, general first aid procedures should be implemented. A first aid kit will be available at the site at all times. More serious injuries may require assistance from paramedics. The Field Foreman or another designated person will contact the appropriate emergency personnel by dialing 911. Field Foreman or another designated person will contact the Safety Coordinator immediately following contact of medical personnel.

9.0            EMERGENCY PHONE NUMBERS

HOSPITAL LOCATIONS ON NEXT PAGE

Kaiser  
280 W. MacArthur Blvd.  
Oakland, Ca.    94611  
510 596-1000

ReadiCare  
7817 Oakport St.  
Oakland, CA. 94621  
510 638-0701

AMBULANCE

CALL 911

FIRE DEPARTMENT

CALL 911

POLICE DEPARTMENT

CALL 911

AGENCY TELEPHONE NUMBERS:

National Response Center  
800-424-8802

California Department of Health Services  
510 271-4320

Regional Water Quality Control Board  
510 286-1255

Bay Area Air Quality Management District  
415-771-6000

Environmental Protection Agency  
415-974-8076

Chemtrec  
800-424-9300

Department of Transportation  
510 286-4444

U.S. Alert Services  
800-642-2444

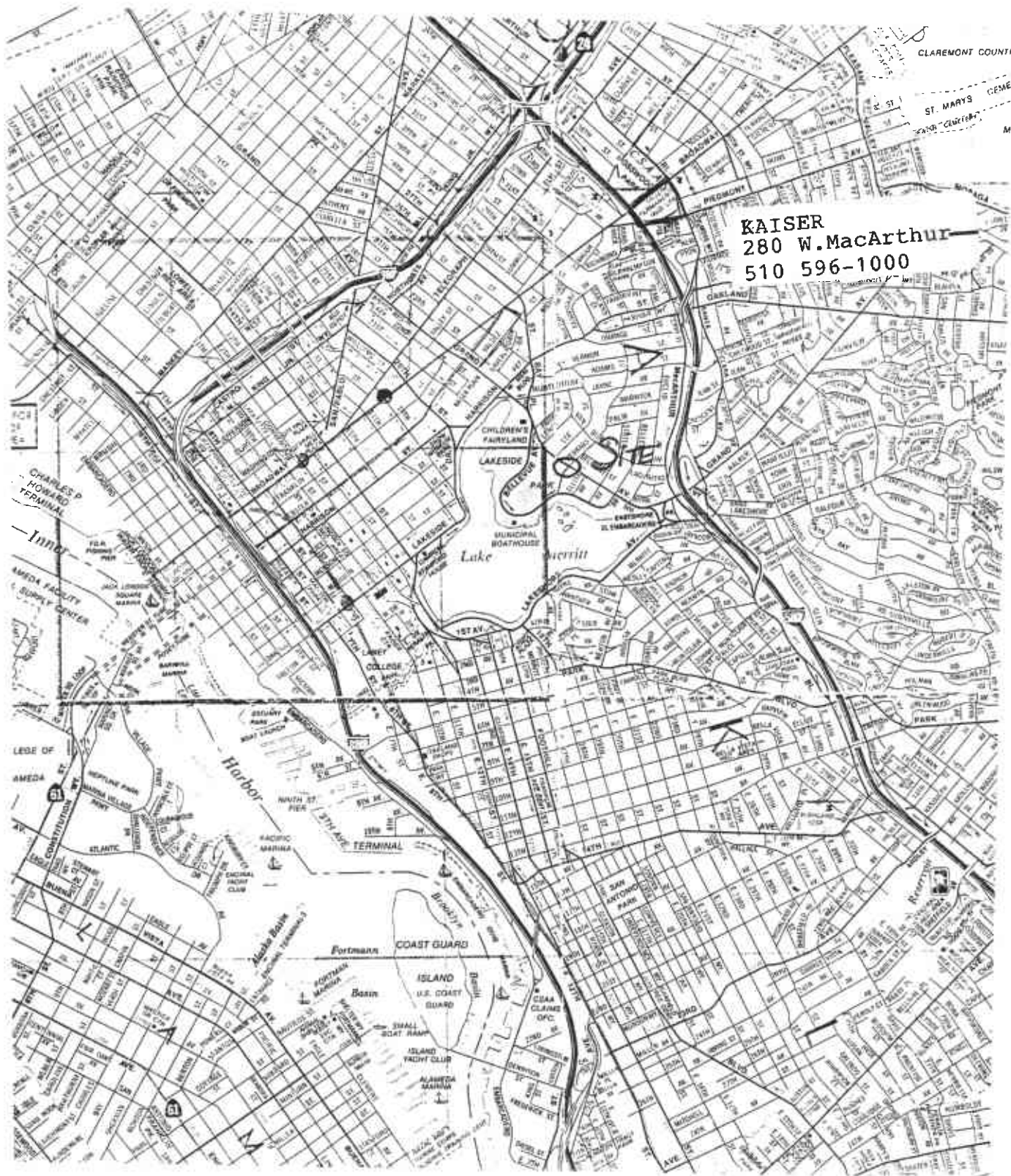
TO WHOM IT MAY CONCERN:

PARADISO MECHANICAL, INC. FIELD EMPLOYEES HAVE RECEIVED THE 40 HOUR TRAINING REQUIREMENT UNDER OSHA STANDARD 29CFR1910.120 HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE TRAINING. ALL FIELD EMPLOYEES COMPLETED SUCH TRAINING FROM THE OCCUPATIONAL HEALTH AND SAFETY GROUP, INC., SANTA CLARA, CALIFORNIA, AND RECEIVED CERTIFICATES FOR COMPLETION OF SUCH TRAINING. CERTIFICATES ARE LOCATED AT THE HEAD OFFICE. FIELD EMPLOYEES HAVE IN THEIR POSSESSION AT ALL TIMES THE 40 HOUR OSHA TRAINING WALLET CARD.

MAY 1991



INSERT HOSPITAL/SITE MAP





INSERT TRUCK ROUTE MAP

