SITE WORK HEALTH AND SAFETY PLAN

CHEVRON TANK AND EQUIPMENT REMOVAL

PREPARED FOR

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY

DEPARTMENT OF ENVIRONMENTAL HEALTH

HAZARDOUS MATERIALS DIVISION

80 SWAN WAY, ROOM 200

OAKLAND, CALIFORNIA 94621

PREPARED BY

GOLDEN WEST BUILDERS

2363 BOULEVARD CIRCLE, SUITE 103

WALNUT CREEK, CALIFORNIA 94595

(415) 930-6666

AUGUST 1990

SITE WORK HEALTH AND SAFETY PLAN

CHEVRON TANK

EMERGENCY TELEPHONE NUMBERS

Fire 911

First Aid 911

Ambulance 911

Police 911

Poison Control Center ..... (408) 299-5111

Hospital

Eden Hospital
20103 Lake ChalBot Road
Castro Valley, CA 94546
Trauma Center ..... (415) 537-1234

Alameda County EHD
Scott Seery..... (415) 271-4320

Castro Valley Fire Protection District
Bob Bowman..... (415) 670-5877

Golden West Builders
D. Bailey Neff..... (415) 930-6666
Rick Henderson ..... (415) 930-6666

Nearest Available Telephone at Site

PREFACE

This Site Work Health and Safety Plan has been prepared for Chevron Tank and Equipment Removal.

SITE WORK HEALTH AND SAFETY PLAN

CHEVRON TANK AND EQUIPMENT REMOVAL

1. GENERAL

This Health and Safety Plan has been designed to conform to and/or exceed guidance standards promulgated by EPA and the California Department of Health Services, Federal OSHA regulations (29CFR1910.120) and Cal/OSHA regulations. Because considerable experienced judgement must be applied to decisions that will be made while actually working on site, it is the goal of this plan to provide maximum work efficiency while maintaining an uncompromisingly safe working environment. This plan is not a substitute for experienced judgement and direction, or for common sense during the implementation of the tank and equipment removal effort or the safety procedures outlined herein.

Golden West Builders will provide services and equipment for the tank and equipment removal work. Golden West Builders (as well as all subcontractors and independent contractors) will adhere to the Site Work Health and Safety Plan.

2. SITE/WORK DESCRIPTION

The subject property is located at the corner of Castro Valley Blvd. and Anita Ave, Castro Valley, California, and is a portion of lot 35 as shown on map of Anita L. Stanton tract book 23, page 41 Alameda County Records. A site location map is provided in Figure 1 - 1.

Two buried tanks and contaminated soil, (if any), will be excavated from the site.

3. WORK OBJECTIVE

The overall work objective is to provide for proper and safe removal of any residual product stock, removal of underground storage tank(s) and contaminated soil (if any) to achieve proper site closure in accordance with existing local and state regulations. To achieve these objectives, the following subordinate objectives must be accomplished:

- Monitor tank interiors for flammable or explosive concentrations.
- Provide for safe removal of flammable or combustible vapors from tanks.

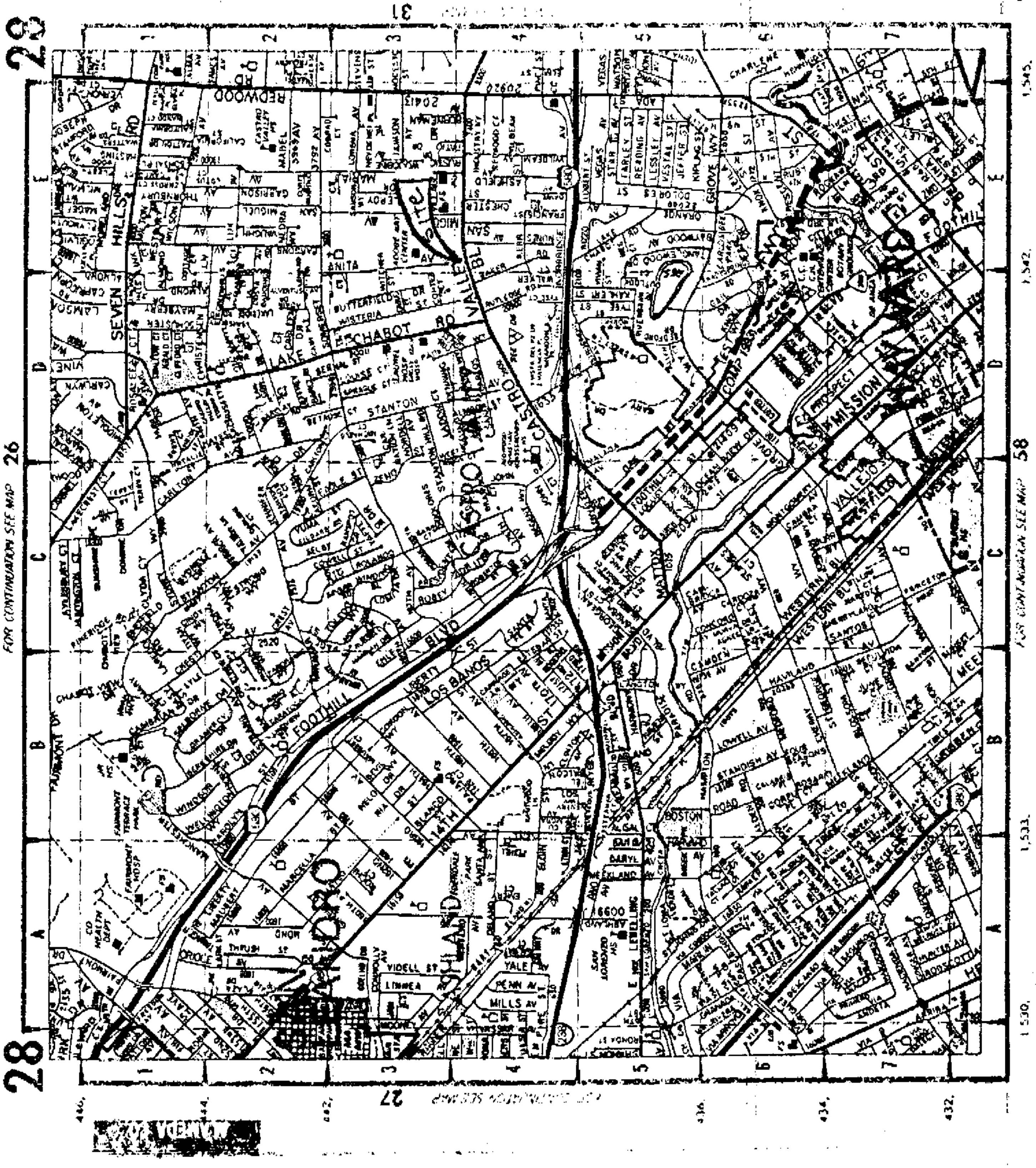

FIGURE 1-1

- o Provide for safe tank removal.

- o Provide for safe and proper tank disposal.

4. SAFETY MANAGEMENT

The field supervisor will ensure that all personnel comply with all applicable regulations and requirements of this plan. Due to the various aspects of the work specific personnel are not assigned to this project at present. Basic requirements are:

1. Personnel shall be physically able (and mentally willing) to comply with safety requirements.

2. A copy of this safety plan shall be posted at the job site, and a copy made available to each individual who will work at the site.

3. These plans should also include and/or address as a separate plan, the following:

   a. A Worker Hazard Communication Program.

4. Periodically scheduled "tailgate safety" meetings shall be held to review the safety program. Attendees will sign the Safety Meeting notice.

5. Unsafe acts shall be stopped when discovered.

6. Required safety equipment shall be present on site and shall be checked to verify completeness and function prior to being put into service.

7. Sources of ignition will be eliminated where possible. Smoking will be strictly forbidden on site.

8. The field supervisor is Dale Size. Personnel may change depending on field conditions. Changes will be noted in the field log book.

5. HAZARDS

Identified Hazards

- Hazards associated with general construction may occur during the course of construction. Personnel should be alert and prevent as well as avoid these hazards.

- During tank removal, there is a significant potential for hazards from falling loads when lifting and removing tanks. Workers must be especially alert to this hazard.

- During general construction activities, there is also a potential for general (construction type) safety hazards. This plan does not address general safety in detail. If personnel are frequently reminded and will cooperate in being courteous, careful, alert, and thoughtful of outlined safety procedures, and, if they use common sense in actions and in considering probable consequences, much will already have been accomplished to insure a safe working environment.

- Fires may occur from sources of ignition

- Contamination exposure is negligible on this project. Activities will cease and proper notification made if contamination is found.

- No noise or electrical hazards are known to exist at the present time.

6. EXCLUDED WORK ZONE

The boundary of the site shall be an excluded work zone. Personnel not actively involved in site work activities (other than inspectors from concerned regulatory agencies) shall not be allowed within the excluded work zone.

7. HAZARD COMMUNICATION

All personnel are to be familiar with this Site Work Health and Safety Plan.

Field supervisor will telephone for emergency service and notify office when needed.

8. ON-SITE WORK PLAN

Removal of Flammable Vapors and Removal of Tanks

Removal of flammable vapors and removal of tanks will be performed in accordance with the requirements of the Castro Valley Fire Protection District and Alameda County EHD. The following are general guide lines.

A review of available codes, standards, and recommended procedures produces the following consensus:

1. All possible sources of ignition must be kept from impacting the tank or the area in which flammable vapors may reside during excavation or after removal.

2. Drain and flush all piping into the tank. Flammable or combustible free standing liquid production stock will be removed from the tank prior to removal. Avoid spilling product on the ground during disconnection of the tank from its associated lines.

3. Vent lines should not be sealed and should be cut last. Keep all sources of ignition away from vent lines as well as tanks.

4. Once all liquid has been removed from the tank, any tank with flammable vapors in excess of 10 percent of the LEL will be purged with dry ice (CO). Fifteen pounds of dry ice per 1,000 gallons of tank capacity is added to render the tank inert. All piping except the vent pipe should be disconnected.

Emergency Services

The address and telephone number of the local hospital, ambulance and medical emergency room should be prominently posted. In addition, the telephone number of a fire department/rescue unit should be posted.

General information regarding emergency services may be found on page 2.

Emergency Equipment

The following emergency equipment will be available:

- o A 20-unit first aid kit.
- o ABC fire extinguishers.

9. DECONTAMINATION

The requirement for decontamination is anticipated to be negligible.

Pre moistened tissues will be available.

10. SAFETY TRAINING REQUIREMENTS

The minimum training requirements specified in Federal OSHA 1910.120 Hazardous Waste Operations and Emergency Response will be met for all remediation personnel. (If required)

11. EQUIPMENT

Personal Safety Equipment

Workers engaged in tank removal shall wear/have available personal protective safety equipment as follows:

- Hard hats.
- Safety glasses and/or goggles.
- Respirators.

Facility Safety Equipment

The following safety equipment shall be continuously available at the job site:

- o First aid kit (20-unit).

- o Fire extinguisher (1) ABC

- o "No Smoking" signs

- o Barricade tape.

- o Explosimeter (LEL)/Organic Vapor Analyzer

12. PERSONAL HEALTH AND HYGIENE

- o Personal safety and the safety of fellow workers require mental alertness on the part of all employees. No alcohol or drugs shall be permitted at any job site. Intake of alcohol and prescription drugs should be limited when an employee is assigned to hazardous material remediation projects, due to the potential for synergistic effects. Prescription drugs should not be taken without the express approval of a physician with knowledge of project/site activities.

- o Eating and smoking will only take place in an approved break area.

CASTRO VALLEY FIRE PROTECTION DISTRICT

Procedure Guide for Temporary Closure,
Placing Out of Service or Removal of
Flammable and Combustible Liquid Tanks

I. Permits

A. A fire permit is required to remove, abandon, place temporarily out of service or otherwise dispose of any flammable or combustible liquid tank.

B. Application for a fire permit shall consist of submittal of:

1. Approved copy of Alameda County's tank closure/modification plan.

Note: Alameda County Hazardous Material Division must have a closure plan submitted for placing underground tanks out of service. They can be contacted at (415) 271-4320.

2. A description of the procedure that will be used to remove and inert the tank along with a "safety plan" describing the safety procedures to be taken.

3. A site plan to scale indicating size and location of tank and associated piping, nearby buildings, property lines, method and location of site security (fences, etc.).

II. Placing Temporarily Out of Service (less than 90 days)

A. Fill line, gauge openings, vapor return and pump connection shall be secured against tampering.

B. Vent lines shall remain open and maintained in accordance with the Fire Code.

C. Monitoring and leak detection shall be maintained as if the tanks are in service.

III. Tank Out of Service 90 Days

A. Such tanks shall be properly safeguarded or removed.

B. The following shall be followed for safe guarding tanks.

1. Remove all product from tank and purge tank.

2. Cap or plug all piping, including fill line, gauge opening, vapor return and pump connection and secure against tampering.

3. Vent line shall remain open and be maintained in accordance with the Fire Code.

4. Monitoring and leak detection shall be maintained as if the tank is in service.

5. Tank shall not be placed back in service until tested and a permit is issued by the fire department.

IV. Tank Abandoned or Out of Service for One Year

A. Such tank shall be removed. Upon showing cause, tank may be abandoned in place upon approval by the fire department.

V. Removal of Underground Tank

A. Fire Department Inspection Requirements

1. The fire department is to be notified 48 hours prior to tank removal to set up inspection.

2. Notify the fire department the morning of tank removal to confirm time when purging of the tanks will begin, and estimated time when tanks will be adequately purged and ready for removal.

3. Prior to removal of the tank, inspection by the fire department is required.

B. General Procedures for Underground Tank Removal

1. Secure site from unauthorized entry and eliminate any potential ignition sources from the area. Post applicable warning signs as necessary, i.e. no smoking or open flame.

2. Maintain two 2A 20BC minimum fire extinguishers on site.

3. Drain and flush all piping into tank or appropriate container for disposal.

4. Prior to excavation, remove all flammable liquid and sludge from the tank. It may be necessary to utilize a hand pump to remove the bottom few inches.

5. Dig down to the top of the tank and remove fill tube and all piping to tank.

6. Prior to complete excavation of tank and its removal, the tanks must be purged of flammable and combustible vapor.

If dry ice is used, a minimum of 30 pounds dry ice to every 1,000 gallons of tank capacity shall be used. Purging is considered adequate when vapor contents are below 15 percent of the lower

explosive limits of the product and the O_2 percent is below 4 percent. This requires that the tank be tested using a meter that indicates the percentage reading of the lower explosive limits, and oxygen percentage. The contractor is required to supply the meter.

It is the intent to purge the tanks prior to a large excavation hole being created, and to purge vapors at a height which will prevent accumulation of vapors in low spots. This will require a vent pipe be connected to the tank to permit purging of vapors at least five feet above grade. Care must be taken to assure vapors are being vented into a safe location free of possible ignition sources.

7. Once the tank has been purged, plug and cap all holes. Use screwed (boiler) plugs to plug any corrosion leak holes. One cap should have a 1/8 inch vent hole to prevent the tank from being subjected to excessive pressure changes (locate at uppermost point of tank).

8. Complete excavation and removal of tank. Once removed, check tank for any damage or holes and plug such. Recheck tank for adequate purging and re-purge if necessary.

9. The tank is required to be removed from the site upon removal from the ground, and tanks shall not be left unattended at any time.

10. If the hole is going to be left unfilled, fencing (minimum six feet high) shall be placed around the site to prevent unauthorized entry.

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